2019

UNIVERSAL REGISTRATION DOCUMENT

including the annual financial report

PERFORMANCE PARTNER
to unleash your future

get it right®

Contents

This Universal Registration Document was filed on April 23, 2020 with the *Autorité des Marchés Financiers* (AMF), as competent authority under Regulation (EU) 2017/1129, without prior approval pursuant to Article 9 of said regulation.

The Universal Registration Document may be used for the purposes of an offer to the public of securities or admission of securities to trading on a regulated market if completed by a securities note and, if applicable, a summary and any amendments to the Universal Registration Document. The whole is approved by the AMF in accordance with Regulation (EU) 2017/1129.

This document is a non-binding "free" translation from French into English and has no legal value other than an informative one. Should there be any difference between the French and the English version, only the text in French language shall be deemed authentic and considered as expressing the exact information published by ESI Group.

French and English copies of the Universal Registration Document are available free of charge from ESI Group (the "Company" or the "Group") – 100/102, avenue de Suffren, 75015 Paris, France – as well as on ESI Group's website (www.esi-group.com) and on the AMF's website (www.amf-france.org).

get it right®

2019

UNIVERSAL REGISTRATION **DOCUMENT**

INVERSTOR'S BOOK

// CRISTEL DE ROUVRAY'S MESSAGE, CEO

ESI GROUP, EMPOWERING INDUSTRY PLAYERS TO COMMIT TO OUTCOMES

All industries are facing increased complexity, as manufacturers are challenged to meet the evolving needs of consumers in terms of quality, reliability, safety, and on-time delivery. Furthermore, industrial actors are increasingly held to an "outcome": the service that their product offers, such as mobility, hours of flight or number of landing events. This entails being able to understand the way their product operates in numerous and uncertain use-conditions, a difficult challenge! Overall success is now measured by performance rather than the product itself.

These secular changes, combined with the exponential rate of technological progress, have led the industry leaders to embrace innovation and engage on a multi-decade steady methodological "digital transformation" of their practices, gradually replacing the real tests required for design evaluation by "realistic" numerical simulations.

Several years ago, ESI embarked on its own transformation to anticipate and be ready for these deep changes among our customers. The Group offers solutions, built from 45 years of experience, bringing technological empowerment to innovate efficiently and with confidence. Leveraging the physics of materials, we support industries to validate the design, manufacturing, and behavior of the product in different environments, early and throughout the whole product life, while minimizing their costs and time to market, without sacrificing safety and quality. To reach these objectives, ESI accompanies its customers in a journey towards *Zero Tests, Zero Prototypes and Zero Downtime.*

"The Group offers solutions, built from **45 years of experience**, bringing technological empowerment to innovate efficiently and with confidence."

In 2019, we implemented our plan for sales focus and operational excellence, resulting in growth, in both Services and Licenses. Throughout the year, global industry leaders solicited us to equip them with outcome solutions to anticipate and manage virtually the performance of products or assets as used in-service, much beyond the traditional PLM, opening the new era of the Product Performance Lifecycle™.

ESI has the credibility to act at this transformational level, as evidenced by the growing scientific and industrial accolades and customer testimonials welcoming our new Hybrid Twin™ approach. We are actively leveraging their influence to grow and attract the next wave of top accounts, and we expect our performance to keep increasing steadily.

We thank you for your confidence and support, as we are all committed to *make it right*.

Cristel de Rouvray,
Chief Executive Officer

MINI-INTERVIEW WITH...

Olfa Zorgati,
Chief Financial Officer

Thanks to the expertise and energy of the teams, we are setting up "Best-in-class" tools and methodologies that are essential for mastering the key elements of our business model.

ESI Group announced solid results in 2019. Any thoughts about this?

The year 2019 was marked by a dynamic business environment illustrating the continuous trust of the world's industrial leaders as well as our strategic partners. These are the first concrete results of our operational excellence and commercial focus plan, representing a global approach focused on industrial productivity and product performance. Confident in the robustness of its business model, the Group remains positive about its ambition for sustainable growth over the medium-to-long term.

Being at the heart of the Group's strategic change, how are the Finance & Administration (F&A) teams navigating through this transformation journey?

Our transformation is above all an evolution in the way we collaborate, as a Group and not as a local entity. The new implemented practices, systems and tools, particularly financial ones, enabled our teams to carry out their mission as "business partners" and to facilitate performance management.

Cristel's impetus has positioned F&A as a genuine agent of change. Thanks to this and to the expertise and energy of the teams, we are setting up "Best-in-class" tools and methodologies that are essential for mastering the key elements of our business model.

€146.2 M
Revenues*

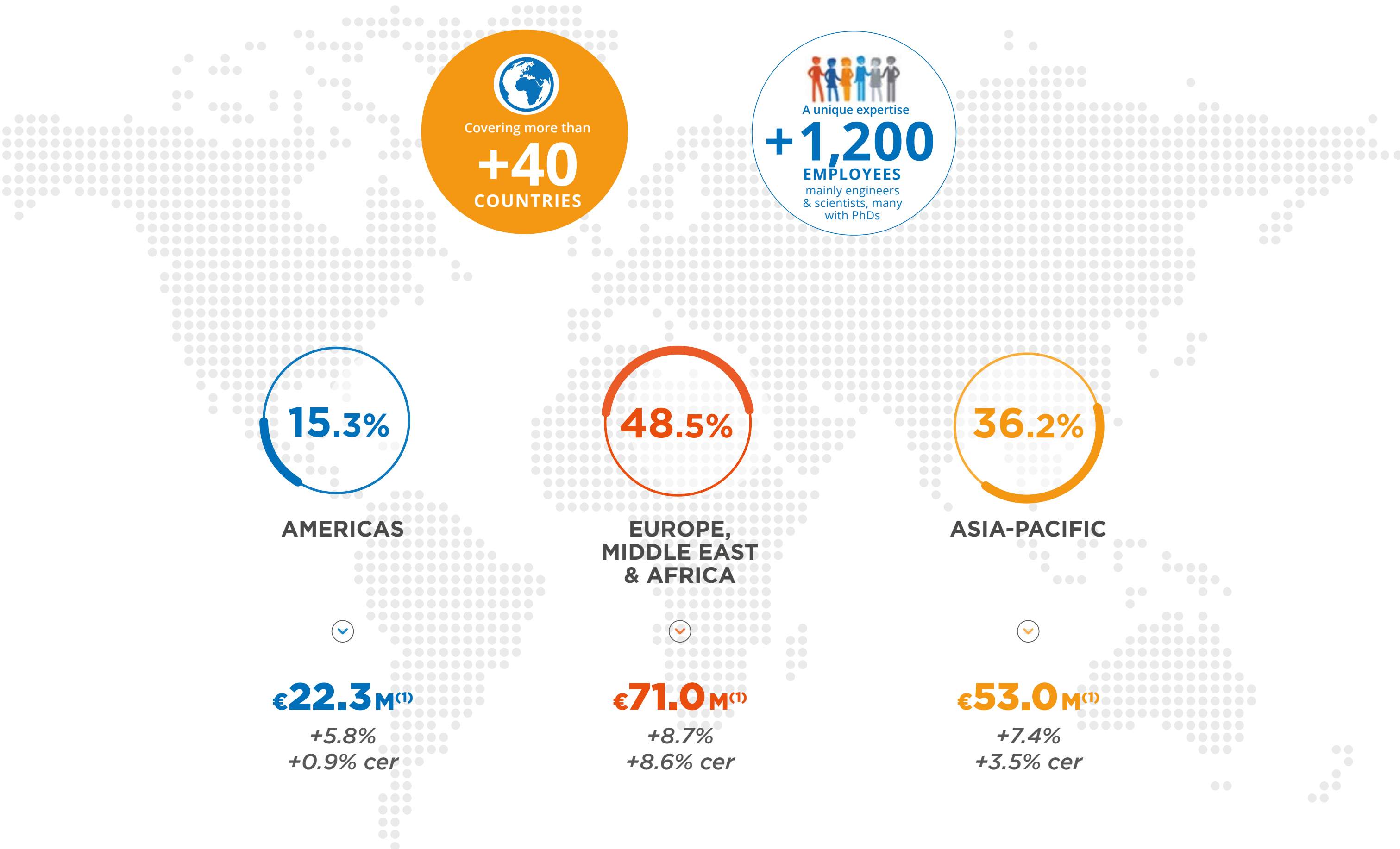
€12.3 M
EBITDA* (before IFRS 16)

* *12-month proforma (January 1, 2019 – December 31, 2019).*

// KEY FIGURES

ESI GROUP IN FIGURES

A GLOBAL COMPANY



€146.2 M REVENUE (1)

+7.8% REVENUES GROWTH

€12.3 M EBITDA (1)(2)

€8.3 M EBIT (1)(2)

(1) 12-month proforma (January 1, 2019 – December 31, 2019).
(2) Before IFRS 16.

AN INNOVATIVE AND **MULTISECTORAL OFFER**

Industrial diversification (% of booking orders)

INNOVATION **IN THE THICK OF THE ESI GROUP STRATEGY**

31.4%
R&D Investments/ Licenses revenues

8%
Group's headcount dedicated to R&D

90
Scientific publications

19
R&D centers

R&D INVESTMENTS
€31.7 M (1)

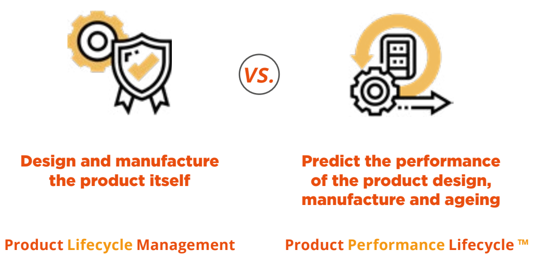
Scientific innovation is at the heart of ESI's DNA. With the emergence of new technologies, we rely on the hybrid model-data paradigm, materialized in the Hybrid Twin™ concept.

Pr. Francisco Chinesta
Director of ESI Group's Scientific department & President of its Scientific Committee

(1) 12-month proforma (January 1, 2019 – December 31, 2019).

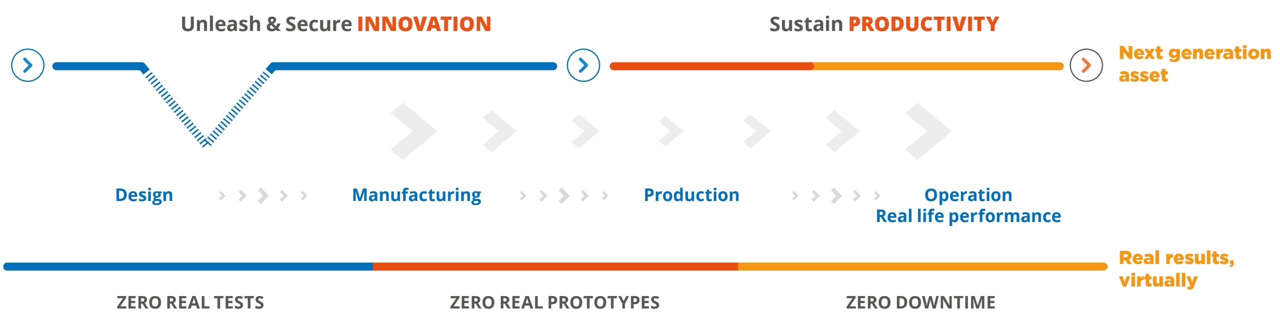
// VALUE CREATION

A PERFORMANCE-ORIENTED VISION



Coupled with the latest generation technologies, **ESI Group's solutions**, addressing a complete industrial product development and manufacturing process, are radically transforming the traditional Product Lifecycle Management (PLM) market by anchoring in the wider concept of the **Product Performance Lifecycle™**, which addresses **the operational performance of a product during its entire lifecycle**, from launch to disposal.

A GUARANTEED PERFORMANCE **THROUGHOUT THE ENTIRE PRODUCT LIFECYCLE**



EMPOWERING MANUFACTURERS, **WITH POWERFUL & RESULT-ORIENTED SOLUTIONS**

In order to adapt to the various industrial challenges and to better respond to the increased demands of its customers, ESI Group has organized its value proposition around **4 specific outcomes for customers, reflecting the value brought to its main markets:**

- **Ground Transportation & Automotive**
- **Aeronautics & Aerospace**
- **Energy**
- **Heavy Industry**

PRE-CERTIFICATION
Improving performance and productivity through predictive models and process automation

SMART MANUFACTURING
Establishing the right manufacturing processes to meet performance indicators for industrial products and processes

HUMAN CENTRIC
Implementing an operator-centric approach to ensure efficient assembly and maintenance operations

PRE-EXPERIENCE
Enabling customers to "experience" a product, component, subsystem or system under numerous use conditions

RISKS
AND RISK MANAGEMENT

RISK FACTORS

The Group has reviewed the major risks and opportunities that could have a significant effect on its business, financial position or results. The data presented below represent the main strategic and operational risks for the Group. These risks are presented in descending order of importance:

	Risks	Impact
HIGH IMPACT	Competition (competitive edge)	A strong consolidation of the sector (Virtual Prototyping) or a reduction in the Group's scientific leadership could lead to a loss of market share.
HIGH IMPACT	Management of key personnel	The non-access or disappearance of certain internal knowledge on specific areas may represent a challenge to maintain the necessary pace of innovation demanded by the market.
HIGH IMPACT	Intellectual property	The loss of intellectual property of software and solutions would result in an automatic loss of turnover and the impossibility to guarantee and meet financial obligations towards stakeholders.
IMPORTANT IMPACT	International economic and political environment	The global economic, commercial, and social as well as geo-political context may impact the Group's growth and even slow down the deployment of the Company's solutions. However, the Group has historically demonstrated great resilience when it comes to the various global crises it had faced.
IMPORTANT IMPACT	Dependence on a single client or sector	Most of the group's subsidiaries are confronted with the reality of managing a "major customer" with a significant weight in terms of sales and growth.
IMPORTANT IMPACT	Information security	Failure to comply with client requirements concerning the confidentiality, integrity and availability of information entrusted to the Group, may have negative consequences on long-term relationships with customers and on ESI's reputation.

In addition to these strategic and operational risks, the Group has identified some **financial and market-related risks** with a high level of exposure, including: country risk, foreign exchange risk, interest rate risk, liquidity risk and equity risk.

RISK CONTROL

Several approaches have been put in place by the Group to control all its strategic, operational and financial risks. For more information, please refer to the 2019 Universal Registration Document, available on ESI Group's website: www.esi-group.com.

RISK CONTROL

- Technological developments and ability to respond rapidly to customer needs
- Acquisitions of businesses and/or companies and the creation of new joint ventures or partnerships
- Strategic investments in research and development of new technologies

RISK MANAGEMENT

- Continuous reinforcement of ISO 9001 certification (since 2000), representing an additional asset to strengthen process-based management and facilitate the implementation of risk management
- Insurance and risk coverage: existence of an insurance policy covering specific risks (e.g. property damage, civil liability of managers, etc.).

A WELL-BALANCED CORPORATE GOVERNANCE

A BOARD OF DIRECTION MADE UP OF

8 MEMBERS

Independent
Non-independent

including: **3 WOMEN**

and **5 INDEPENDENT MEMBERS**

5 SPECIALIZED COMMITTEES

1. Scientific Committee
2. Audit Committee
3. Nomination and Governance Committee
4. Compensation Committee
5. Technology and Marketing Committee

GROUP EXECUTIVE COMMITTEE (GEC)

From left to right: Christopher ST JOHN, Corinne ROMEFORT-RÉGNIER, Mike SALARI, Cristel de ROUVRAY, Vincent CHAILLOU, Olfa ZORGATI, Dominique LEFEBVRE.

2019 IN REVIEW – A DYNAMIC YEAR FULL OF ACHIEVEMENTS

› JANUARY 8-11, 2019

Las Vegas – ESI Group Participation at the CES 2019

At the CES, ESI presented how Virtual Prototyping helps industrialists to design and industrialize breakthrough innovations and to accelerate developments in mobility, reducing or eliminating physical prototypes.

› FEBRUARY 1, 2019

Cristel de Rouvray appointed Group CEO

The Group has announced the nomination of Cristel de Rouvray as Chief Executive Officer, as of February 1, 2019, by succeeding Alain de Rouvray, founder of the company, who remains Chairman.

› FEBRUARY 6-8, 2019

Tokyo – ESI Group at the Manufacturing World Japan 2019

ESI presented its Virtual Reality solution, used to validate assembly and maintenance processes upstream of production, thus minimizing design errors, reduce risk and increase productivity.

› JUNE 11, 2019

École Polytechnique, Palaiseau – ESI wins two "*L'Usine Digitale*" Awards for the Hybrid Twin™

At the 2019 edition of the "*L'Usine Digitale*" Simulation and Digital Technologies Trophies, ESI won the Innovation Award and the "*Grand Prix du Public*" for its Hybrid Twin™ concept.

SALON INTERNATIONAL DE L'AÉRONAUTIQUE ET DE L'ESPACE

› JUNE 17-23, 2019

Paris – ESI at the 53rd International Paris Air Show

ESI presented, through demonstrators, to its customers and partners, the essential role of simulation in helping to aeronautics and aerospace players in their quest for performance, productivity and sustainability.

› NOVEMBER 6-7, 2019

Berlin – ESI Forum – The Group Celebrated its 40th Anniversary in Germany with Customers

This edition of the Group's German Forum marked ESI's 40th year of presence in Germany, the Group's second market and the cradle of many industries that benefit from Virtual Prototyping.

› NOVEMBER 21, 2019

Paris – Pr. Francisco Chinesta Receives CNRS Silver Medal

Pr. Francisco Chinesta, professor-researcher at *Arts et Métiers* (ENSAM) and Director of the Scientific Department and Chairman of the Scientific Committee of ESI Group, was awarded the silver medal of the National Center for Scientific Research (CNRS).

GROUPE RENAULT

› NOVEMBER 2019

Renault Relies on ESI's Virtual Prototyping Technologies for the design of its Clio 5

Thanks to close collaboration with ESI and a pool of partners, the Renault group obtained 5-star certification (maximum score) in Euro NCAP safety tests for its new Clio 5, without any intermediate physical test and prototype.

› DECEMBER 2-13, 2019

Madrid – ESI Group, a Strategic Partner of French start-ups

Gazelle Tech, a manufacturer of sustainable vehicles made entirely of composite materials, wins the Sustainable Innovation Prize awarded by "Climate Action" at COP 25, validating, thanks to virtual prototyping, its business model.

// **CSR**

ESI, A COMMITTED GROUP

Aware of its responsibility in each of the pillars of sustainable development, ESI Group has gradually devised a **CSR policy** that contributes to shared economic and social development and the preservation of human equilibrium.

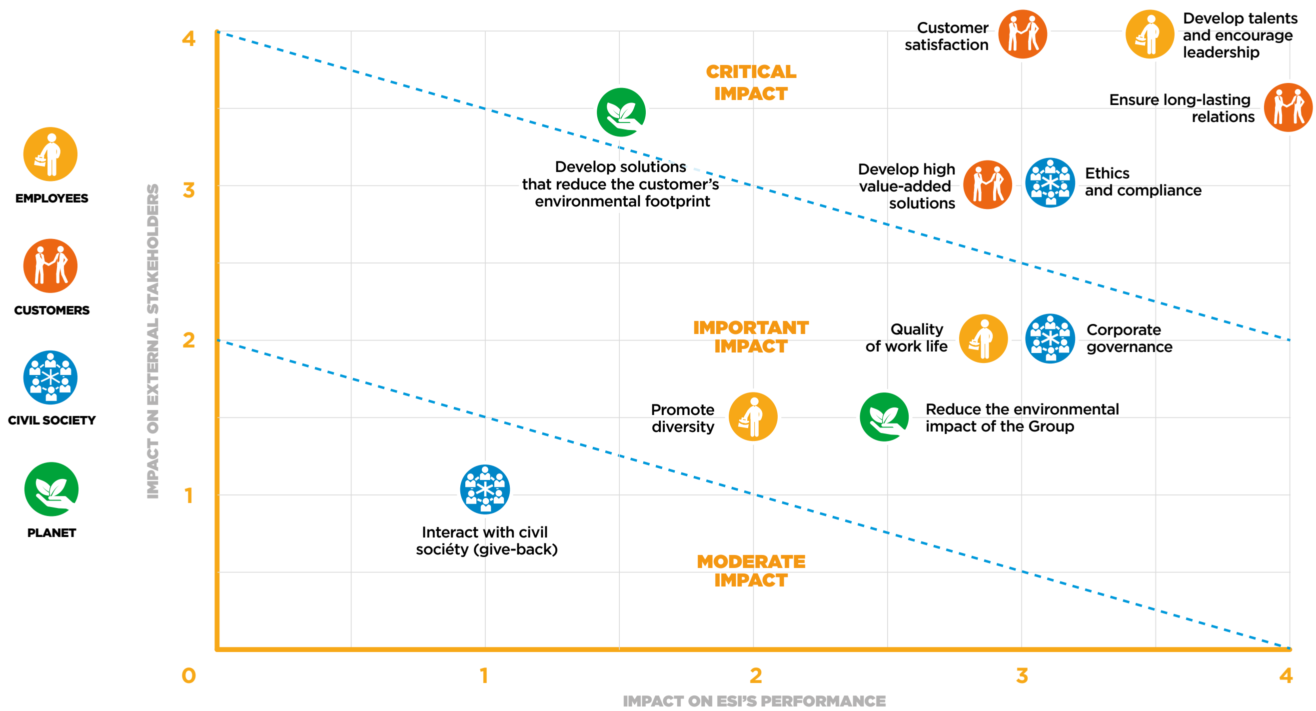
Divided into **4 axes** and cascaded in **11 commitments**, ESI's CSR strategy aims at providing sustainable solutions for **CUSTOMERS**, while being committed to its **EMPLOYEES**, acting ethically and responsibly with **CIVIL SOCIETY** and limiting its environmental footprint and the one of its customers on the **PLANET**.

SUSTAINABLE DEVELOPMENT GOALS

The Group's CSR challenges and commitments are linked to **10 Sustainable Development Goals** of the UN Global Compact.

ESI GROUP'S MATERIALITY MATRIX

ESI Group has developed its first materiality matrix in 2019: a key tool in the execution of the company's CSR strategy, making it possible to define its priorities according to their importance for the Group's stakeholders, as well as their impact on ESI's performance.



// PERFORMANCE 2019

EMPLOYEES

BEING A COMMITTED EMPLOYER

> Develop talents and encourage leadership and collaborative management

> Promote diversity and multicultural exchanges

> Contribute to the well-being of employees

+1,200 EMPLOYEES, SERVING OUR CUSTOMERS WORLDWIDE

3 "WELCOME DAYS" ORGANIZED AROUND THE WORLD TO INTEGRATE NEW EMPLOYEES

WE DEVOTED **8,125** HOURS TO PROFESSIONAL TRAININGS

WE HAVE SUCCESSFULLY MANAGED **1** ALERT LINKED TO DISCRIMINATORY PRACTICES

CUSTOMERS

BEING AN OUTSTANDING PARTNER

> Provide innovative solutions that meet customers' requirements

> Ensure customer satisfaction and meet quality and safety requirements

> Maintain long term, trust-based relationships with stakeholders and ecosystem

WE ARE CURRENTLY WORKING ON **20** R&D PROJECTS

WE HAVE DEDICATED **31.4%** OF OUR LICENSES REVENUE TO OUR RESEARCH EFFORTS

WE RELY ON **2** LOCAL SCIENTIFIC COMMITTEES AND **1** SCIENTIFIC COMMITTEE AT GROUP LEVEL

CIVIL SOCIETY

BEING AN ETHICAL AND COMMITTED COMPANY

> Guarantee solid and diversified governance

> Act ethically and responsibly

> Set up initiatives to interact with civil society (give-back)

WE HAVE ORGANIZED **+250** EVENTS FOR OUR CUSTOMERS

WE HAVE CONDUCTED **5** ANALYSES FOLLOWING CUSTOMERS' COMPLAINTS

WE MANAGED **1** INCIDENT RELATED TO OUR DATA SECURITY

1 ALERT HAS BEEN HANDED TO OUR ETHICS COMMITTEE

PLANET

BEING AN ENVIRONMENTALLY FRIENDLY PLAYER

> Develop sustainable solutions

> Reduce the environmental impact of the Group

WE'RE INSTALLING ECO-RESPONSIBLE EQUIPMENT TO LIMIT OUR ENERGY CONSUMPTION

LOCAL AND ON-DEMAND DOCUMENTS PRINTING ENABLED US TO AVOID DELIVERY DISTANCES OF **1,954,376 KM** (1)

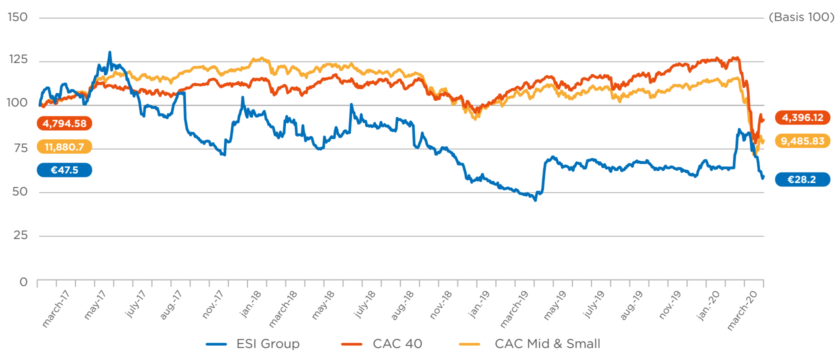
PAPER CONSUMPTION PER EMPLOYEE DECREASED BY **15%** (2)

(1) Since the adoption of the Gelato printing solution in May 2018.
(2) 2019 internal data, including all the countries of the environmental study's scope, representing 99% of the Group's total workforce.

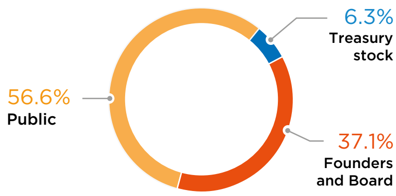
// STOCK MARKET INFORMATION

SELECTED FINANCIAL INFORMATION

EVOLUTION OF THE SHARE PRICE
From February 2017 to March 2020 (basis 100)



SHARE CAPITAL BREAKDOWN
(in %)



DATA AS OF MARCH 31, 2019

€28.20
Stock price

€167.93 M
Market capitalization

OUR ANALYSTS

- Berenberg
- CIC Market Solutions
- IDMidCaps
- Invest Securities
- Louis Capital Market
- LPE Research

NEXT EVENTS

Q1 REVENUES FY20
May 12, 2020

GENERAL MEETING
June 25, 2020

H1 RESULTS FY20
September 10, 2020

Q3 REVENUES FY20
October 27, 2020

IDENTITY INFORMATION

Listed on Euronext Paris
Compartment B
Sector: Software
ISIN: FR0004110310
Bloomberg: ESI FP

ESI LISTED EURONEXT

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INVESTOR RELATIONS

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www.esi-group.com
"Investors" section

1 THE GROUP

In accordance with the resolution of the General Meeting of July 18, 2019, the Group now closes its financial statements at 31 December of each fiscal year.

In this Universal Registration Document, ESI Group is hereinafter referred to as "ESI Group", the "Company" or the "Parent Company". The Company and all its affiliated companies are hereinafter referred to as the "Group", "ESI Group" or "ESI".

ESI Group is one of the world's leading innovator companies in Virtual Prototyping software and services.

Specialist in physics of materials, ESI has developed a unique proficiency in helping industrial manufacturers replace physical tests and prototypes by virtual replicas. Coupled with the latest technologies, Virtual Prototyping is now anchored in the wider concept of the Product Performance Lifecycle™, which addresses the operational performance of a product during its entire lifecycle, from creation to its market withdrawal. The creation of Hybrid Twin™, leveraging simulation, physics and data analysis, enables manufacturers and operators to deliver and pre-certify smarter and connected products, to predict product performance and to anticipate maintenance needs.

In 2019, the Group changed its annual closing date from the end of January to the end of December. In the following pages, when a figure is mentioned in reference to 2019, it implies the new closing period of January to December.

1.1. ACTIVITIES, STRATEGY AND MARKETS

1.1.1. MAIN ACTIVITIES

ESI Group has developed a suite of coherent industry-oriented applications to realistically simulate a product's behavior, fine-tune fabrication and assembly processes in view of desired product performance, and evaluate the impact of the environment on the use of these products.

These applications enable the gradual elimination of tests and physical components and subassembly prototypes during the product conception and manufacturing phases. The virtual prototype of the industrial product thus designed accelerates its certification and allows the monitoring and control of its operational performance, helping industry players to achieve their performance and productivity objectives.

Innovative visualization technologies such as ESI IC.IDO and the availability of the Virtual Prototyping chain in Cloud/SaaS mode considerably enhance the collaborative potential of ESI Group solutions while drastically reducing acquisition and ownership costs for companies.

Most importantly, the use of technologies such as Big Data, System Modeling, Machine Learning, and the Internet of Things (IoT) adds to ESI Group's solutions an interactive space and enables real-time decision-making in an immersive virtual environment.

This enhanced offer provides complete control over the lifecycle of an industrial product, from product commissioning to its operational withdrawal including modeling of potential evolutions during its useful life: accounting for flaws, wear and tear, maintenance procedures, and running in of assisted operation. The Hybrid Twin™ concept is the representation of this enhanced offer. It is about being able to follow the evolution of your product from the conception to the end-of-life in a digital interface that facilitates informed decision making for both maintenance and improvement of future versions of the product.

The virtual prototype can now become agile and intelligent to support industrial manufacturers in the age of smart factories and smart digital products.

The Group has two main activities: the edition and distribution of software, and the delivery of consulting services related to its software solutions.

1.1.1.1. Software Editor/Distributor (Licensing activity)

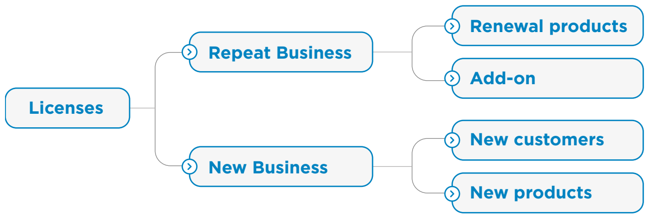
Licenses Edition/Distribution is the Group's main activity, accounting for 79% of revenue in 2019. Software is marketed in the form of proprietary user licenses based for the most part on an annual leasing system that, by nature, generates highly recurring revenue.

The significant added value provided by ESI Group's solutions requires major research and development work by highly qualified research engineers.

Software solutions are distributed worldwide. In 2019, distribution subsidiaries directly managed 91.8% of license sales, the rest being entrusted to a network of third-party distributors and agents. The two distribution networks – direct and indirect – are complementary.

The Licensing activity may be broken down in two ways:

- By contract type:
  - Rental license – user license contract renewable annually and including maintenance services this type of contract is predominant;
  - Paid-up license – long term license contract (paid-up licenses for the duration of legal protection) including maintenance services for renewable one-year periods (also named Perpetual);
  - Maintenance contract – maintenance includes updates and technical support applicable as of the second year of a perpetual license contract. As of the second year, maintenance revenue is recognized as software (maintenance) revenue.
- Or, according to criteria concerning new client purchases:
  - "Repeat Business" includes contracts renewed by customers with no modification from one year to the next, as well as additional features purchased for software already installed in the system of an existing client;
  - "New Business" comprises new customers and new products purchased by existing clients.

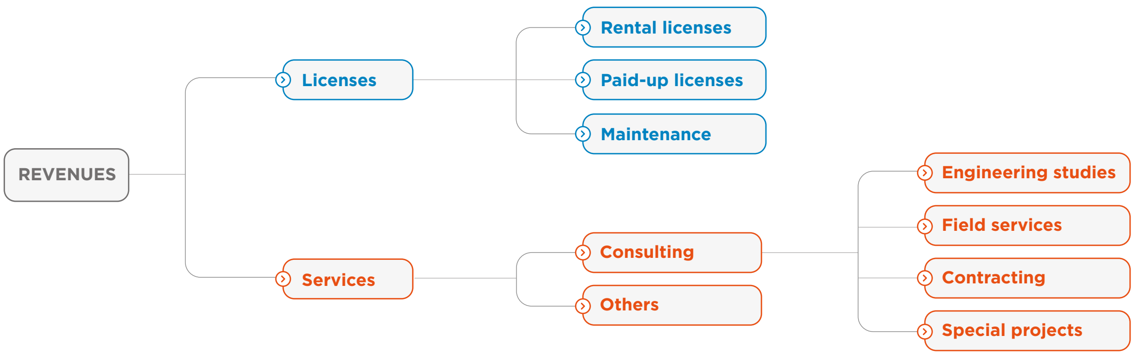


1.1.1.2. Consulting services (Services activity)

In addition to its main business activity of software publishing and distribution, the Group also provides consulting services directly related to Virtual Prototyping. The Services activity, which accounted for 21% of 2019 revenue, includes Consulting and other services.

Consulting covers the following four fields:

- *Engineering studies:* joint industrial projects carried out in partnership with major industrial corporations with the aim of promoting large-scale deployment of new applications with high economic potential that have already been proven technologically viable, such as the specialized products described below. The Group customizes its specialized software and the industry partner performs the prototype trials necessary to validate specialized simulation models. The Group invoices its partners for the cost of its services, but funds its own software development work. As a result, it retains the intellectual property rights to the software products developed or modified;
- *Field Services:* support services in conjunction with Licenses activity (on- and off-site training and technical assistance);
- *Contracting:* specific studies, in particular application tests (design verification and virtual performance testing of industrial products). These services are generally invoiced based on the time worked (lump sum or actual time spent) except for online support services which may be provided as part of the support services included with the annual license for the use of software packages;
- *Special Projects:* R&D initiatives pertaining to the creation of pre-industrial digital simulation models for new applications. These cutting-edge, high-risk R&D projects can last from two to three years and are carried out in collaboration with university labs and/ or corporate R&D departments. The Group treats these projects as research and development or technology intelligence activities. In some cases, they lead to government-type co-financing arrangements in Europe and the United States. They allow the Group to become involved at a very early stage, as a scientific partner in a wide variety of innovative high-tech projects.



1.1.2. STRATEGIC VISION

1.1.2.1. Performance-oriented vision for industrial products

The industrial market is deeply changing while new challenges appear for its players. Draconian regulations, disruptive technologies (Artificial Intelligence, Big Data, Internet of Things...), competition, shorten time to market, constrain industrial players to be more demanding in terms of quality, reliability, safety and production deadlines. This constitutes the very essence of the "Outcome Economy" concept – referring to a results-based economy that focuses on the final benefit for a customer or an operator, the KPIs more difficult to achieve, as success is measured by performance rather than by the product itself.

Well-aware of these challenges, ESI's commitment is to provide and help industrials to implement technological solutions that empower them to innovate efficiently and with confidence. As a specialist in physics of materials, the Group has developed a unique expertise, enabling global industrials to digitally experience and validate the fabrication, assembly and behavior of their products in different environments – early and throughout the whole product lifecycle.

The Group's vision is simple yet powerful: toward real tests, zero real prototypes and zero downtime. The benefits are palpable: faster time to market, increased product performance, and reduced costs, while enabling customers to commit to outcome. The advantages of this approach are concrete: shorter time-to-market, improved product performance including during use and reduced costs.

1.1.2.2. Guaranteed performance – early and throughout the whole product lifecycle

Coupled with latest-generation technologies, ESI Group's end-to-end solution, which currently offers a comprehensive development and manufacturing process for industrial products, is revolutionizing the traditional Product Lifecycle Management (PLM) market. In fact, Virtual Prototyping is part of an overarching and targeted approach known as Product Performance Lifecycle™ (PPL), which addresses products' operating performance throughout their complete lifecycle, from launch to withdrawal.

Nowadays, the ever-growing number of possibilities offered by Big Data and the Internet of Things make it possible to monitor the life of products after launch, creating a new outlook for hybrid virtual representations, *i.e.* representations that allow for updating of Virtual Prototypes using data measured in real-time and enhanced by Artificial Intelligence. The creation of Hybrid Twin™ incorporating simulation, physics, and data analytics makes it possible to create smart products, particularly using connected objects, as well as to predict their performance and anticipate their maintenance requirements. This Hybrid Twin™ provide an essential response to the fundamental economic issues of the Industry of the Future.

This unique value proposition, incorporating numerous disruptive innovations, is the fruit of the Group's longstanding technological differentiation strategy based on multiple international partnerships and highly innovative industrial co-creation projects, implemented with an eye to defining the Group's positioning throughout the product's manufacturing cycle and life in-service.

1.1.2.3. Powerful and outcome solutions for industrials

As part of its strategic transformation plan, and to adapt to the various industrial challenges and to better respond to the increased demands of its customers, ESI has organized its value proposition around 4 specific outcomes for customers, based on the same technological platform, and related to its main industrial markets (Ground Transportation/Automotive, Aeronautics/Aerospace, Heavy Industry and Energy):

- **Pre-Certification:** enables gains in performance and productivity. Thanks to predictive models and process automation industrialists can meet certification requirements and other validation needs without relying on physical tests.
- **Smart Manufacturing:** establishes the right manufacturing processes to meet performance indicators for both industrial products (for instance reducing weight) and for associated processes (for example controlling distortions or reducing waste).
- **Human Centric:** allows customers to implement an operator-centric approach to ensure the efficiency of assembly and maintenance operations, while facilitating the early identification of human safety or related problems and ways to improve production processes.
- **Pre-Experience:** this is the most advanced solution to support industrial leaders who are the most mature in their transformation towards the Outcome Economy. ESI enables them, as well as their future customers and asset operators, to experience a product, component, subsystem or system as it ages as part of an operational in-service solution and under numerous use conditions.

1.1.3. MAIN MARKETS

1.1.3.1. The Virtual Prototyping market

ESI Group's business model seeks to take advantage of major industry trends moving toward 100% digital and comprehensive computerized Product Lifecycle Management (PLM). In this market, ESI Group's solutions bring a considerable and fundamental improvement in the decision-making process by allowing the physical properties and behavior of the materials to be realistically taken into account in the digital model. Going beyond the design and development phases of the classic PLM model, ESI Group's solutions allow for complete control over the lifecycle of products and product performance, by offering a disruptive approach to virtual performance modeling of connected or unconnected products in operation, as well as predictive maintenance right up to the end of the product's life in-service (Product Performance Lifecycle™).

/ Market characteristics

The highly specialized nature of ESI Group's operations and its unique role in the field of Virtual Prototyping make it difficult to delineate ESI's market with any precision. The Group thus has little information that would shed light on the specific characteristics or short-term outlook of this market, especially since the very definition of the market varies greatly among the players in the industry.

Nonetheless, US market research firm CIMData published a study on PLM (estimated at $47.8 billion) in June 2019, which included Virtual Prototyping under the category of "Simulation & Analysis Suppliers" (activity estimated at $6.46 billion in 2019). Most of the companies listed in this category are active in the field of analysis, however, within this panel, few companies reach the physical realism of the Virtual Prototyping solutions offered by ESI Group.

High barriers to entry

The complexity of the problems addressed by the Group, its longstanding experience working closely with major industrial corporations, its significant investment in research and development, and the wide range of solutions it offers make it difficult for any newcomers to enter its market and compete with ESI Group.

In particular, the specialized fields in which ESI Group works require an understanding not only of structured geometric data (digital modeling) provided by CFAO/CIAO, but also of the physical phenomena involved in simulation testing in order to make virtual models "realistic".

ESI Group's technologies draw on:

- longstanding partnerships with major industry players that both use (manufacturing industries) and supply (software platforms) technical computing systems;
- highly skilled teams of researchers, whose specialized expertise and reputation in the field of physical simulation are known;
- licensing agreements signed in a wide range of complex or highly specialized fields.

All these partnerships are the result of the exceptional expertise gained since ESI's founding in 1973. The Group has a solid reputation as a complex problem-solver for major corporations worldwide in a variety of disciplines and industrial sectors (*i.e.* automotive, defense, aerospace, aeronautic, nuclear power, transportation, energy, electronics, consumer goods, biomedical, etc.).

Nowadays, we cannot rule out the possibility that new and larger competitors with greater resources could emerge in ESI Group's field of activity. However, especially regarding key CFAO players, major automakers seem neither to anticipate nor to want such a development, preferring to do business with companies specialized in the area of physics-based simulation, distinct from their other technology vendors.

Nevertheless, it should be mentioned that *Dassault Systèmes'* CATIA V5/V6 software suite did bring a certain degree of standardization to the industry and was well-received by automakers as a way of facilitating the sharing of computational data within the CAD/CAM world and ensuring compatibility with resource management systems. It is also worth noting the presence of Siemens/UGS in the technical data management field with its Team Center solutions, the de facto standard in the automotive market. In 2012, Siemens complemented its Simulation offering by acquiring the Belgian company LMS, followed by CD Adapco, a leader in digital and mechanical fluid simulation, in January 2016. In April 2017, MSC Software, a software publisher specializing in design tools (CAE) was taken over by Hexagon AB. In September 2017, Dassault Systèmes announced the acquisition of EXA, a fluid flow simulation specialized company. In January 2019, Hexagon announced the acquisition of Etalon in order to strengthen its solutions and offers to address the issues of the Industry 4.0 of their customers. In September 2019, Ansys announced the acquisition of Livermore Software Technology Corporation (LSTC), a provider of finite element analysis technology, known by its LS-DYNA software package, for a price equivalent to more than 12 times the company's turnover.

Given the high barriers that protect the Group's business, a new competitor would not be successful except in the event of an industry-wide trend toward consolidation. It would also be difficult for a new industry player to make the acquisitions necessary to quickly build up a physical simulation product line as rich as the one offered by ESI Group, and one that features the same prediction capabilities valued by the Group's major clients.

In this constantly changing competitive context, ESI stands out for its practical know-how, driven by its service activity. This industrial expertise ensures that ESI Group's customers can rapidly implement and reap the expected benefits of digitization, securing the loyalty of a growing number of world leaders to the ESI-led ecosystem.

The need for a methodology disruption

Although the solutions developed by ESI Group are typically used by major clients in highly specialized, mature markets – like the automotive industry – its products can be adapted to a wide range of industries.

However, large-scale adoption of these solutions would require a radical change in how things are done that breaks away from the traditional "trial and error" methods still widely used in many industrial fields.

The use of technologies such as massive data (Big Data), system modeling, machine learning or the interconnection of objects (Internet of Things – IoT), pushes for the acceleration of the implementation of the methodological change that is driving the massive growth of Virtual Prototyping, especially in industries such as aeronautics, energy or heavy industry. This adds to the ESI Group's solutions an interactive decision-making space, in an immersive and real-time virtual environment.

The Product Performance Lifecycle™ approach, which enables manufacturers to develop a Hybrid Twin™ of the physical version of their product on day to day basis, brings ESI to target the wider market of professional users such as maintenance workers and certified technicians who interact with both the products and consumers.

1.1.3.2. Geographic areas

Markets are segmented both by geographic area and industry.

Geographic areas are based on the economic breakdown of the Company:

- Americas = United States and Brazil;
- Asia-Pacific = China, South Korea, India, Japan, Malaysia and Vietnam;
- Europe, Middle East and Africa = Czech Republic, England, France, Germany, Italy, Netherlands, Russia, Spain, Sweden, Switzerland and Tunisia.

Revenues	2019, 12-month proforma (Jan. 1 – Dec. 31) (in € thousands)	(in % of the total)	2018 (Feb. 1 – Jan. 31) (in € thousands)	(in % of the total)	2017 (Feb. 1 – Jan. 31) (in € thousands)	(in % of the total)
Europe, Middle East and Africa	70,957	48.5%	68,837	49%	63,821	47%
Asia-Pacific	52,264	36.2%	49,768	36%	49,941	37%
Americas	22,302	15.3%	20,802	15%	21,511	16%
TOTAL	**146,223**	**100%**	**139,407**	**100%**	**135,274**	**100%**

As in previous years, the Group maintained a strong international presence, with 86% of revenue generated outside France.

1.1.3.3. Industrial sectors

ESI Group's product and service offering is organized by product lines and industrial solutions according to four main industrial sectors:

/ Ground Transportation & Automotive offering

ESI Group offers a wide variety of industry-leading Virtual Prototyping solutions for components and sub-assemblies used in the transportation industry.

Main customers: Alstom Transport, Daimler, FAW Group Corporation, Fiat Chrysler Automobiles, Ford Motor Company, General Motors, Gestamp Group, Honda, Hyundai, Mercedes-Benz, Renault-Nissan, Shanghai Automotive Industry Corporation, Toyota, TRW Automotive, Volkswagen Group.

/ Aeronautics and Aerospace offering

For this sector, ESI Group offers tailor-made solutions that allow: to reduce lead times and costs; to increase productivity and performance in manufacturing processes while increasing the production rate and enabling the implementation of innovative methods and materials needed to comply with new regulations, particularly environmental regulations; to validate the design and assembly of processes and products at the earliest stage through a human-centric approach; to evaluate and predict the behavior and in-service performance of products; and to test and prototype new concepts to accelerate the development of a new aerospace industry.

Main customers: Airbus Group, Alcoa, AVIC, Boeing, Bombardier, Embraer, Honeywell, General Electric, Honda, Lockheed Martin, NASA, PCC Corporate, Rolls-Royce, Safran, Sikorsky, UTC Aerospace Systems.

/ Heavy Industry offering

ESI Group's solutions are also designed for companies working in Heavy Industry and raw materials processing.

Main customers: Alcoa, Arcelor Mittal, AVIC, Caterpillar, General Electric, Hitachi, John Deere, Joyson Safety Systems, Mahindra, Whirlpool.

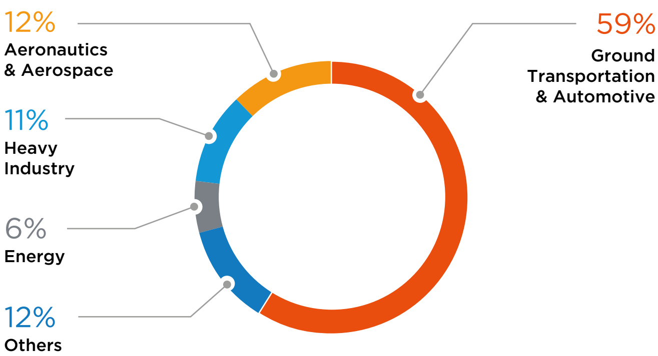
/ Energy offering

ESI offers various solutions to the energy industry, aiming to guarantee the skills and expertise required for a safe and competitive nuclear industry; to structure the supply chain and the innovation process within the sector; and to define the nuclear reactor of tomorrow and the tools of the future. ESI also offers solutions in the field of renewable energy.

Main customers: EDF, Farasis, Framatome, GDF, General Electric, Japan Atomic Energy Agency, Samsung, Siemens.

ESI is also present in **other industrial sectors,** such as the "Government and Defense" sector (main customers: CEA, CEE, U.S. Department of Energy, etc.) and the "Electronics" offering (main customers: CEA, CEE, U.S. Department of Energy, etc.).

In 2019, orders in the main industrial sectors represented **88%** of total revenues, and broke down as follows:



1.1.4. ECOSYSTEM

ESI Group is particularly aware of the richness and development of its ecosystem, which is considered as the cornerstone of its success.

From year to year, the Group strives to strengthen its ecosystem, determining how to best target the very extensive and fast-growing community of professionals involved in product manufacturing and industrial processes. Always expanding, the ESI network, composed of partners, customers, suppliers and all the Group's other stakeholders, makes it possible to accelerate and spread innovation and to support the sale of software and services.

1.1.4.1. Distribution network and local expertise

/ Distribution network

In 2019, some 488 employees actively supported ESI Group's sales cycle: Software sales, Services production and Customer support. The Group's proprietary distribution network accounted for 91.8% of sales. Remaining sales were carried out indirectly *via* a network of third-party distributors and agents, complementing and enhancing our direct network.

/ Expertise

The wide range of software and services ESI Group offers meets the increasingly demanding needs of industry at every step of product and process development. The Group brings this global expertise to each customer, anywhere in the world.

1.1.4.2. Partnerships

The Group values its partnerships with hardware suppliers, software solution providers, leading industrial companies, and technological and academic institutes alike. These alliances are deeply rooted in its corporate strategy to develop and facilitate the adoption of Virtual Prototyping and the emergence of the Hybrid Twin™.

/ Corporate partnerships

ESI Group has always aimed to establish mutually beneficial strategic corporate partnerships with international companies, working together to promote innovation. For instance, since July 2018, ESI Group and Diota, a leading publisher of 4.0 solutions integrating advanced augmented reality and control technologies, have joined forces to develop automated solutions for the embedded systems that bring together product engineering processes and of previously disparate maintenance.

/ Strategic "partner-customers"

The success of ESI Group's solutions is also the fruit of remarkable collaborations and a co-creation approach with world leaders such as Renault-Nissan, Volkswagen, or Honda in the Automotive, or Boeing or Safran for the Aeronautics. The Group's approach is based on building close and long-lasting relationships which meet the specific needs of customers looking to successfully incorporate Virtual Prototyping into various industrial sectors.

/ Strategic and academic partnerships

To ensure constant innovation, ESI Group enters into partnerships with many first-rate universities, technological institutes and leading colleges, in the many countries where the Group does business. The purpose of these collaborations is to share experiences and explore new technologies, encouraging young people to work in the industrial sector, training the finest employees of tomorrow, and foster innovation in education.

In 2019, Professor Francisco Chinesta, Professor and Researcher at les Arts et Métiers (ENSAM) and Director of the Scientific Department and Chairman of the Scientific Committee of ESI Group, received the Silver Medal of the French National Centre for Scientific Research (CNRS) for his contribution to the Centre's outreach and the advancement of research.

1.2. HISTORY OF THE GROUP

1973 to 1990

In 1973, Alain de Rouvray, along with three other engineering colleagues and partners, Jacques Dubois, Iraj Farhoomand and Eberhard Haug, created ESI (Engineering System International). The Company initially operated as a consulting company for European defense, aerospace, and nuclear industries. In 1979, the Company opened a subsidiary in Germany.

In 1985, ESI carried out the first successful digital crash test simulation for a German consortium led by Volkswagen. This marked the start of development of its flagship software package, PAM-CRASH.

1991 to 1999

In 1991, ESI became ESI Group and raised venture capital to enter the field of software edition. The Company set up subsidiaries in the United States, Japan, and South Korea. In 1997, it took over Framasoft (digital and mechanical simulation for the nuclear industry), followed by Dynamic Software (stamping simulation) in 1999.

2000 to 2010

In July 2000, ESI Group launched an IPO, raising some €30 million.

From 2000 to 2008, ESI Group pursued a concerted external growth strategy, successively acquiring Mecas, strengthening its distribution network in Eastern Europe, STRACO (Vibro-Acoustic market), VASci (Vibro-Acoustic Sciences for noise and acoustic comfort simulation), ProCAST and Calcom (foundry and metallurgy simulation), the Product Division of CFD Research Corporation (fluid dynamics), the Service business of IPS International (virtual human models), ATE Technology International Ltd. (sector diversification in China), the Vdot software platform (product development process management), and finally Mindware Engineering Inc. (fluid dynamics sector).

Meanwhile, ESI Group strengthened its international presence by opening subsidiaries in Argentina, India, China, Italy, Brazil, and Tunisia.

2011 to 2018

In 2011, ESI Group acquired the company IC.IDO, or “I see, I do” (immersive virtual reality solutions), followed by Efield AB (virtual simulation of electromagnetic phenomena). The following year, ESI Group took over OpenCFD Ltd (leader in open-source fluid dynamics software) from SGI, thereby taking ownership of the OpenFOAM® brand.

In 2013, ESI Group signed a joint venture agreement with AVIC-BIAM to collectively operate the new company “AVIC-ESI (Beijing) Technology Co. Ltd” (effective as of February 1, 2014), and subsequently acquired CyDesign Labs Inc. (system modeling).

In 2015, ESI Group carried out the following acquisitions: CIVITEC (virtual simulation of automated driver assistance – ADAS), the business assets of PicViz Labs (Big Data-based predictive analysis), the technology assets of Ciespace (Cloud/SaaS offering), and the Presto software platform (electronics cooling market).

In 2016, ESI Group continued to extend its strategic positioning by acquiring ITI GmbH (realistic simulation of mechatronic and multi-domain systems) and Mineset Inc. (Big Data visual analytics and machine learning). In late 2016, ESI Group signed a strategic, long term partnership agreement with PARC, a Xerox Group company, with the goal of expanding and industrializing the advanced research project on Fault-Augmented Model Extension (FAME).

In early 2017, ESI Group took over Scilab Enterprises, publisher of the Scilab open source analytical calculation software, with the goal of making immersive virtual engineering more accessible for a worldwide community of engineers and scientists.

These numerous acquisitions have allowed ESI Group both to extend its sales positioning with an eye to ensuring optimal service to its customers, and to develop its solution portfolio, putting forth a comprehensive offering suited to the needs of industrial companies working in the Industry 4.0.

In the course of the year 2017, ESI Group strengthened its presence with the opening of new offices in Toulouse (France) and San Jose, California (United-States).

2019

The Group has been through a major change in its governance on February 1, 2019 with the nomination of Cristel de Rouvray as Chief Executive Officer of the Group. Alain de Rouvray, founder, remains Chairman of the Board of Directors.

ESI Group continues its transformation journey with, in particular, its commercial focus and resource allocation plan, announced in April 2019, aiming to develop specific industrial strategies by close cooperation with customers.

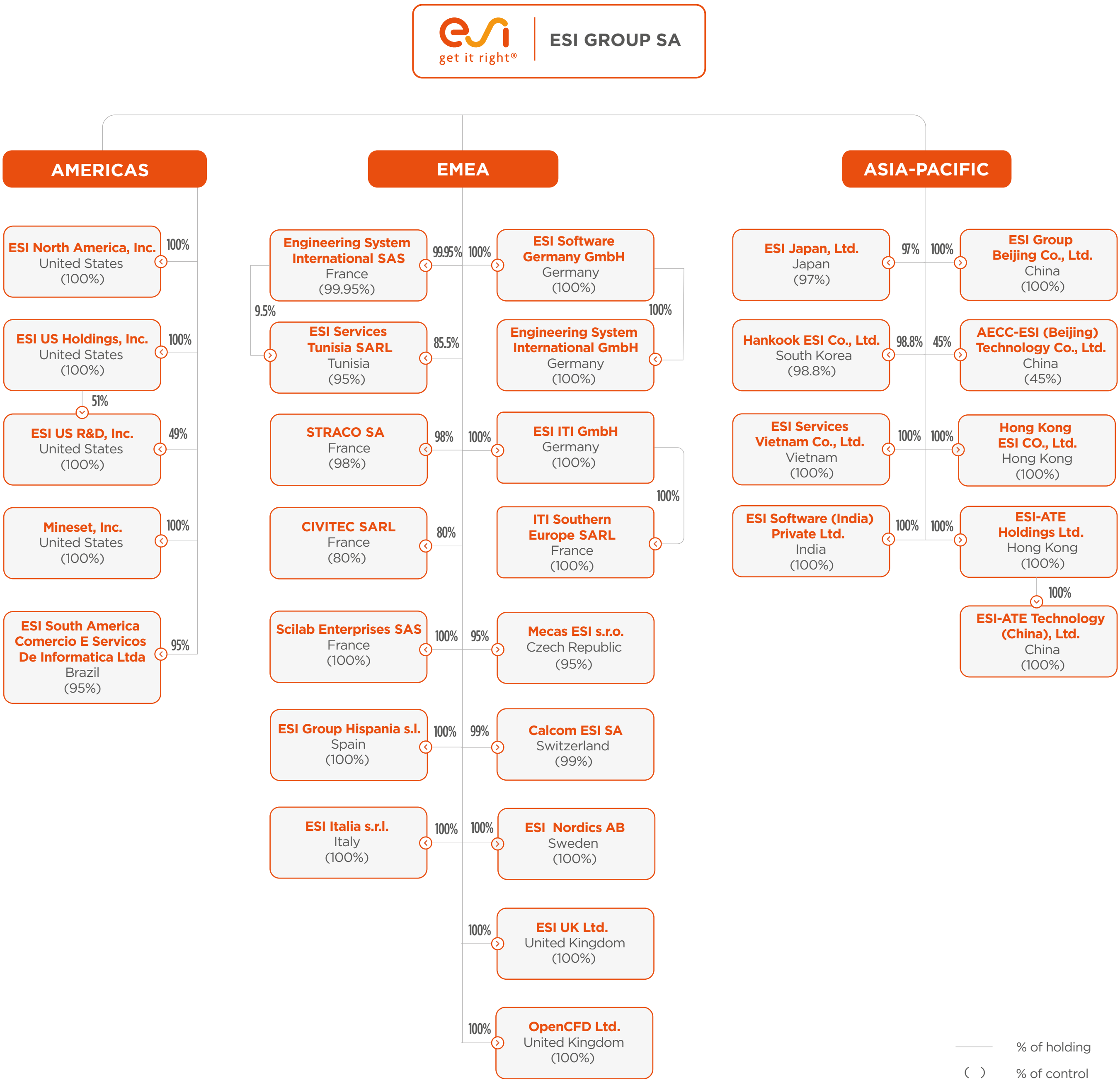
1.3. GROUP ORGANIZATION

1.3.1. OPERATIONAL FLOWCHART

By December 31, 2019, the Group's operational flowchart was as follows:

1.3.2. LEGAL FLOWCHART

By December 31, 2019, the Group's legal flowchart was as follows:



Note: the percentages of equity and voting rights are identical.
For more information, see note F.8 "Table of controlled entities and affiliates" (at December 31, 2019) in the notes to the consolidated financial statements.

1.4. SELECTED FINANCIAL INFORMATION

This information are extracted from the consolidated financial statements.

ESI Group releases its results for the financial year starting on February 1, 2019 and ending on December 31, 2019 (11 months), approved by the Board of Directors on March 19, 2020. In compliance with the decision of the General Meeting of July 18, 2019, the Group now closes the fiscal year on December 31 of each year, and therefore also presents its new twelve months proforma results.

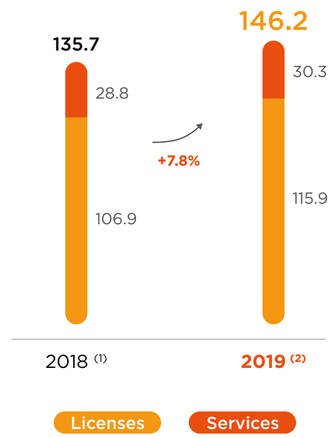
1.4.1. REVENUE

ESI Group demonstrated a solid growth in 2019, in a context of continuing operational and commercial transformation. Over a 12-month proforma period, ESI generated sales of €146.2 million, up +7.8% *vs.* €135.7 million (January-December 2018). Excluding an exchange rate impact of €3 million, resulting mainly from fluctuations in the Dollar and the Japanese Yen, sales increased by +5.6%. Proforma full-year growth was driven by the Licenses business (€115.9 million, +8.4%, +6.0% cer), which is the main pillar of the Group's business model (79% of sales, compared with 79% in the previous year). total). This progress illustrates the continued confidence of global industrial leaders.

In fact, the world's top 10 largest clients account for 35% of total order intake (+14% *vs.* 2018). Among them, we find strategic partners and key industry leaders who are advanced in the digital transformation of their business model.

Revenue evolution

(in € millions)



(1) 12-month proforma (January 1, 2018 - December 31, 2018).
(2) 12-month proforma (January 1, 2019 – December 31, 2019).

1.4.2. STRATEGIC BUSINESS ALIGNMENT

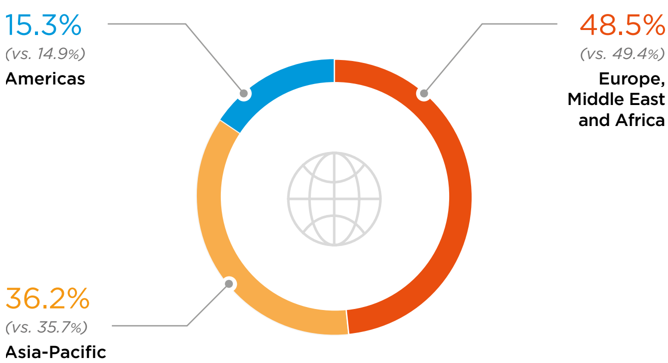
Proforma full-year (12 months) growth was driven by the Licenses business:

- 84% of sales were driven by Repeat business (renewal and additional volume), +7.9% (€97.8 million), which, by nature, generates strong commercial recurrence (91.4%);
- 16% of sales were from New business (new customers or new solutions for existing customers), up 10.6% (€18.1 million).

Services grew year on year (€30.3 million, +5.4%, +3.8% cer) to represent 21% of total revenues.

1.4.3. BREAKDOWN OF REVENUE BY GEOGRAPHIC AREA

Geographical breakdown



1.4.4. PROFITABILITY

The Group's profitability is presented through the evolution of gross margin and EBITDA, before and after taking into account the impact of IFRS 16. These aggregates used for financial communication, which are common to the Group's business sector, provide specific information to facilitate understanding of the real value created by the Group for its customers and partners.

EBITDA is an Alternative Performance Indicator (API) corresponding to Operating Income before net depreciation, amortization and provisions and including the net impact of the capitalization of development costs (see note 6.1.2 to the consolidated financial statements in Chapter 6.1) and net depreciation of account receivables.

As IFRS 16 standard is applicable starting 2019 with significant impact on EBITDA, we present this aggregate before IFRS 16 impact to ensure comparability with 2018 EBITDA.

In addition, following the change of closing date, 2019 financial year ran for 11 months. In order to ensure comparability, proforma financial statements for January-December 2019 and 2018 have been prepared, in accordance with the methodology described in note 2 to the consolidated financial statements (Chapter 6.1). The aggregates presented below are thus proforma data.

Improved profitability

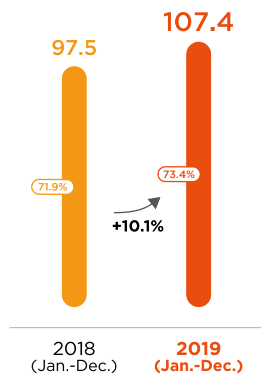
EBITDA (before IFRS 16) increased to €12.3 million (*vs.* €8.1 million), now 8.4% of total sales (*vs.* 6.0%). EBIT (before IFRS 16) rose to €8.3 million (*vs.* €3.6 million), now 5.7% of total sales.

Lower growth in other operational costs (excluding gross margin)

The Group maintained its efforts to control other operational expenses (+5.6%, +€5.2 million) to support overall revenue increase and long-term development. Note that €1.5 million of the €5.2 million cost increase is linked to exchange rate (4.0% cer).

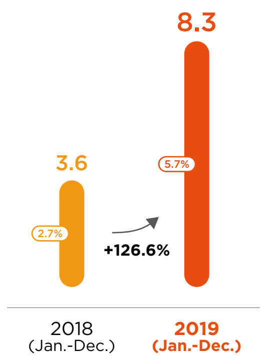
Gross margin

(in € millions and % of revenue)



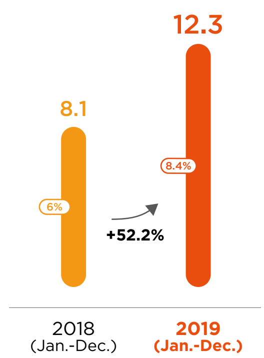
EBIT (before IFRS 16)

(in € millions and % of revenue)



EBITDA (before IFRS 16)

(in € millions and % of revenue)



1.5. MAJOR INVESTMENTS DURING THE PAST THREE FINANCIAL YEARS

1.5.1. THE GROUP'S CURRENT INVESTMENTS

The Group's current capital expenditures represent approximately 2% of its revenue. Over the past three financial years, these investments amounted to €3.6 million in 2017, and €4.2 million in 2018 and €2.6 million in 2019 (proforma 12-month). These investments pertain mainly to the computer equipment required to grow the Group's business as well as the work required to outfit and equip various facilities of the Group. Investments are primarily financed using the Group's equity.

Development costs

ESI Group capitalizes the development costs that meet the six criteria set forth under IAS 38. Information on research and development costs is presented in note 6.1.2. to the consolidated financial statements.

The net carrying amount of capitalized development costs stood at €45.4 million at December 31, 2019 and corresponds to approximately 14.9 months of research and development.

1.5.2. THE GROUP'S NON-CURRENT INVESTMENTS

a) Acquisition of intangibles

Since 1994, the Group has been acquiring both companies and specific branches of companies in order to supplement its offering and expand its market opportunities.

Intangible assets, which are not amortized but reviewed through an impairment test, include goodwill and intangible assets with an indefinite useful life. These intangible assets are subject to an impairment test such as described in note 3.1 to the consolidated financial statements.

The change in the net carrying amount of these intangible assets between January 31, 2019 and December 31, 2019 is presented in the table below. See notes 3.2.1 and 6.1.1 to the consolidated financial statements for further information.

(in € millions)	January 31, 2019	Decrease	Foreign exchange gain/(loss)	December 31, 2019
Goodwill	41.0	(0.1)	0.1	41.4
Intangible assets with an indefinite useful life	12.0			12.0
TOTAL	**53.4**		**0.1**	**53.4**

b) Financial investments

The Group does not engage in any type of financial investments and uses strictly conventional investments to earn interest on its available liquid assets.

1.5.3. FUTURE INVESTMENTS

The Group is willing to continue investing in order to update and improve its production capacities and efficiency. The Group seeks out new opportunities that would allow it to increase its market share or to improve the services provided to its customers.

In order to evaluate any investment opportunities that could potentially improve its solutions, the Group has set up a special committee (Venture Board) that helps the Group Executive Committee (GEC) to make investment decisions based on market priorities and expected outcomes.

2 REPORT ON CORPORATE GOVERNANCE

In accordance with the resolution of the General Meeting of July 18, 2019, the Group now closes its financial statements at 31 December of each fiscal year.

This section constitutes the report of the Board of Directors on corporate governance pursuant to Article L. 225-37 of the French Commercial Code. This report notably sets out the conditions of preparation and organization of the work of the Board of Directors and its Committees, the powers of the corporate officers, the principles and rules adopted to define their remuneration and benefits of any kind granted to them, as well as other information to be included under Articles L. 225-37 *et seq.* of the French Commercial Code.

This report has been prepared on the basis of work carried out by various departments of the Company, in particular, the Legal Department and Finance and Administration Department.

This report was approved by the Board of Directors on March 19, 2020, after review by the Board Committees of the sections under their respective responsibilities and sent to the Statutory Auditors. It will be presented to the Combined General Meeting of June 25, 2020.

2.1. GOVERNANCE CODE

The Company is a limited company (*société anonyme*) with a Board of Directors. The Directors, the Chairman of the Board, the Chief Executive Officer ("CEO") and the Chief Operating Officers are referred to collectively in this Universal Registration Document by the term "corporate officers".

On the date of publication of this Universal Registration Document and to the Company's knowledge, there are:

- no family ties among the Company's corporate officers, with the exception of parentage between Alain de Rouvray, Chairman of the Board of Directors and Cristel de Rouvray, Director and CEO since February 1, 2019;
- no conflicts of interest between the private interests of each corporate officers and their duties with regard to the Company;
- no arrangement or agreement concluded with the principal shareholders or with clients, suppliers or others, as a result of which any of the corporate officers would have been appointed in such position;
- no restriction on the sale by corporate officers of their shareholdings in the Company's capital except the shareholders' agreement as described under section 8.2.4 of this Universal Registration Document;
- no service agreement binding the corporate officers to the Company or any of its subsidiaries that provides benefits to be granted to them, apart from the regulated agreements as set out under section 2.6 of this Universal Registration Document.

In addition, to the Company's knowledge on the date of this Universal Registration Document, no corporate officers has been in the last five years:

- convicted of fraudulent offences;
- associated with any bankruptcies, receiverships or liquidations;
- subject to any official public incrimination and/or sanctions by statutory or regulatory authorities;
- disqualified by a court from acting as a member of the administrative, management or supervisory bodies of an issuer or from acting in the management or conduct of the affairs of any issuer.

During its meeting of February 12, 2020, the Company confirmed it voluntarily referred to the Middlenext Code, which is available on the website www.middlenext.com as revised in September 2016. As every year, the Board of Directors reviewed its compliance with the recommendations, in particular the points of vigilance of the Code. As part of the "Comply or Explain" rule provided for in Article L. 225-37-4 of the French Commercial Code, the Company considers that its practices comply with recommendations of the Code with the exception of the following recommendations for the reasons given below:

Exceptions to the Middlenext Code	Explanations
R.10: Presence condition for directors' remuneration	This criterion is applied to independent directors but is not relevant for non-independent directors, who are almost always present because of their executive role within the Company (Chief Executive Officer and Chief Operating Officer) or because of the reinforced role performed by the Chairman of the Board of Directors.
R.18: Stock-options: absence of performance condition	The Company has generally always conditioned its stock option grants on performance conditions. This was particularly the case for the allocation dated February 1, 2019 for the benefit of the CEO, Cristel de Rouvray. However, in the midst of the Company's transformation, relevant performance criteria could not be defined during the allocation of stock options made on December 18, 2019. Consequently, the Company only proceeded to the allocation of the portion of shares usually subject to the exclusive presence condition, and did not proceed to the allocation of the usually larger portion of shares, linked to performance conditions.

2.2. FUNCTIONING OF THE GENERAL MANAGEMENT

In accordance with the legal provisions and articles of association, the Board of Directors entrusts the general management either to the Chairman of the Board of Directors or to another individual, whether Director or not, bearing the title of Chief Executive Officer ("CEO").

The choice between these two methods of exercise of the general management is made by the Board of Directors by decision of the majority of the Directors present or represented. The choice of the Board is brought to the attention of Shareholders and third parties in accordance with the regulations in force.

No one can be appointed CEO if he is over 80 years old. If the current CEO exceeds this age, he is deemed to have resigned from office.

The CEO is vested with the broadest powers to act in all circumstances on behalf of the Company. The powers of the CEO are however limited by the Board of Directors (see section 2.2.3.1 below).

2.2.1. DISSOCIATION OF THE FUNCTIONS OF CHAIRMAN OF THE BOARD OF DIRECTORS AND CHIEF EXECUTIVE OFFICER AS FROM FEBRUARY 1, 2019

At its meeting of September 18, 2018, the Board of Directors decided to modify the monist corporate governance structure of the Company and to adopt a dissociated structure, in order to fully integrate into the Company's transformation context. Thus, as of February 1, 2019, the Board of Directors decided to separate the functions of Chairman of the Board of Directors and CEO, while maintaining Alain de Rouvray as Chairman of the Board of Directors and secondly to appoint Cristel de Rouvray as Chief Executive Officer for the remaining term of their respective directorships.

In accordance with Article L. 225-54-1 of the French Commercial Code, Cristel de Rouvray does not hold any other position as Chief Executive Officer in a public limited company with its registered office in France.

With due regard for the separation of the functions of the Chairman of the Board of Directors and CEO, the Chairman is given extended powers so that he remains involved full-time in the Company's business life, without assuming executive responsibility. The objective is to ensure a peaceful and gradual transition phase estimated at two years. For more details, please refer to the internal regulations of the Board of Directors (https://www.esi-group.com/company/investors/corporate-governance/governance-documents).

2.2.2. CHIEF OPERATING OFFICERS

At the CEO's proposal, the Board of Directors may appoint one or more individuals as Chief Operating Officer to assist the CEO. In accordance with Article 14 of the articles of association, the number of Chief Operating Officers may not exceed five.

The Board of Directors determines the scope and duration of the powers granted to the Chief Operating Officer, with the CEO's agreement and sets their compensation. With respect to third parties, the Chief Operating Officer has the same powers as the CEO.

If the CEO resigns or is no longer able to carry out his duties, the Chief Operating Officers will retain their responsibilities and duties until the appointment of a new CEO unless the Board of Directors decides otherwise.

Chief Operating Officers may be dismissed at any time upon proposal of the CEO and by decision of the Board of Directors. If Chief Operating Officers are dismissed without just cause, such dismissal may be grounds for compensation.

At its December 19, 2018 meeting, the Board of Directors decided to reappoint Vincent Chaillou and Christopher St John as Chief Operating Officers for a term of four years, expiring in 2021, in alignment with Cristel de Rouvray's mandate.

2.2.3. LIMITS ON THE POWERS OF THE CHIEF EXECUTIVE OFFICER AND CHIEF OPERATING OFFICERS

2.2.3.1. Limits to the CEO's powers

The CEO represents the Company in its dealings with third parties. He is vested with the broadest powers to act in all circumstances on behalf of the Company, provided that the act he performs is part of the corporate object and is not expressly reserved to Shareholders' Meetings or to the Board of Directors.

Without prejudice to the legal provisions relating to authorizations to be granted by the Board of Directors (regulated agreements, sureties, endorsements and guarantees, transfers of participations or real estate, etc.), the Chief Executive Officer must obtain the prior authorization of the Board of Directors for the following operations that are outside the scope of day-to-day management, in accordance with its internal rules:

- Purchase or acquire, sell or dispose of, or mortgage any real estate, pledge any movable property and claim, where the transaction exceeds the amount of €100,000;
- Operations intended to consent to or contract any loans, credits or advances, where these exceed an amount of €2,000,000;

- Direct operations or equity investments that may affect the Group's strategy and substantially modify its financial structure or scope of business;
- Settle any dispute and take legal action, with the exception of debt recovery actions or any day to day operations and urgent actions such as provisional or conservatory measures;
- The issue of pledges, guarantees, endorsements or sureties where these exceed an annual amount of €100,000;
- The issue of securities, whatever their nature, which may lead to a change in the share capital, regardless of the amount.

2.2.3.2. Limits to the Chief Operating Officers' powers

The powers of the Chief Operating Officers to act as legal representatives of the Company have been delegated by the Board of Directors.

The following powers have thus been delegated to the Chief Operating Officers:

1. To represent the Company, in general, in all ongoing business affairs of ESI Group with respect to third parties and in compliance with the Group procedures;
2. To enter into commercial contracts or agreements on behalf of the Company within its commercial territory and authority;
3. To hire or terminate any employee, executive, consultant, sales representative, distributor or agent and to determine the scope of their powers and their title (with the exception of managers and directors) and to establish or increase any compensation, commission or pension for all such individuals or legal entities. Annual compensation shall not exceed €100,000.

In all cases, the Chief Operating Officers require the Company's prior written consent to carry out solely the following transactions on behalf of the Company:

- To hire managers and directors and determine or modify their annual compensation;
- To purchase or acquire, sell or dispose of, lease or rent, or mortgage any real estate property;
- To pledge any movable property or receivable;
- To enter into credit arrangements;
- To take out loans on behalf of the Company (with the exception of the use of bank overdrafts granted to the Company);
- To create or acquire stakes in other companies, to perform any other type of similar undertaking, to accept management positions in other companies, to establish or dissolve subsidiaries and to divest ownership interest;
- To propose mergers;
- To grant loans;
- To bind the Company as a guarantor or in any other debt-related situation with respect to third parties;
- To settle any disputes and to take legal action, with the exception of debt recovery actions that form part of the Company's ongoing operations and urgent actions such as provisional or conservatory measures that cannot be postponed in the interests of the Company;
- To set up retirement plans for the employees of the Company;
- To sell or dispose of, purchase or acquire, or transfer or mortgage any assets belonging to the Company worth more than €50,000;
- To enter into commercial contracts or transactions exceeding €250,000, with the exception of intra-Group contracts issued by the Company, which the Chief Operating Officers may sign without any limitation as to amount;
- In general, to take any action related to the Company involving an amount greater than €50,000;
- In general, to enter into any agreement or transaction involving other Group companies, clients or partners falling outside the Company's commercial territory or authority.

2.2.4. GROUP EXECUTIVE COMMITTEE ("GEC")

The CEO is assisted by the GEC for the Company's daily management pertaining to growth strategy in the following areas:

- Research;
- Innovation;
- Service activity;
- Production of products and solutions;
- Sales and marketing;
- Regional directions;
- Human resources;
- Quality;
- IT;
- Finance et administration;
- Legal and Governance;
- Communication.

The GEC meets at least once a month and as often as the interest of the Company requires, to report on the activities of the Company to the CEO. The GEC prepares, with the support of the specialized committees, all matters submitted to the prior authorization of the Board of Directors for the execution and/or implementation of strategic operations.

As at the date of this Universal Registration Document, the GEC comprises the following members:

From the left to the right:

Christopher St John
Chief Operating Officer – Asia-Pacific Regional Director

Corinne Romefort-Régnier
Corporate governance director

Mike Salari
Executive Vice President Innovation, Value Discovery and Services – Regional Director, The Americas

Cristel de Rouvray
Chief Executive Officer and Board Member

Vincent Chaillou
Chief Operating Officer and Board Member– Group Strategy and EMEA Regional Director

Olfa Zorgati
Chief Financial Officer

Dominique Lefebvre
Executive Vice President Products Operations

2.3. BOARD OF DIRECTORS

2.3.1. COMPOSITION OF THE BOARD OF DIRECTORS

In accordance with Article 10 of the articles of association, the Company is administered by a Board of Directors composed of at least three members and at most the maximum number of members permitted by law, unless a decision is made to increase this maximum in the event of a merger.

Directors are appointed by the annual Ordinary General Meeting, on proposal of the Board of Directors, for a term of four years, in accordance with the recommendations of the Middlenext Code (R.9). Directors may be re-elected. They may be dismissed at any time by the Ordinary General Meeting.

The age limit to serve on the Board of Directors is 80. If a member of the Board of Directors exceeds this limit, he will automatically be deemed to have resigned. He will nonetheless retain his seat until the first Board meeting following the date at which the Director in question exceeded the age limit.

In accordance with the Group's policy to promote diversity (see section 4.3.2 of this Universal Registration Document for more details), the Board of Directors, based on the recommendations of the Nomination and Governance Committee, seeks to promote diversity in its composition with regard to criteria such as age, gender or qualifications and professional experience.

The renewal in 2018 of the terms of office of Véronique Jacq and Rajani Ramanathan, bringing their respective skills in terms of financing or technologies, are an illustration of this. In the event of a change in the composition of the Board, these diversity criteria will be decisive in the choice of candidates for appointment.

Overview of the Board of Directors as at the date of this Universal Registration Document

Members of the Board of Directors	Age	Gender	Nationality	Strategic Committee	Audit Committee	Compensation Committee	Nomination and Governance Committee	Technology and Marketing Commitee	Start of first term	Start of current term	End of current Term	Expertise, experiences
Members considered non-independent by the Board of Directors (see section 2.3.1.2)												
Alain de Rouvray	76	M	French	•*			•*	•	1991	2015	SM 2023	Industries, Technologies, Commerce, Leadership, M&A
Vincent Chaillou	70	M	French	•				•	2004	2016	SM 2020[1]	Industries, Technologies, Commerce, Leadership, M&A
Cristel de Rouvray	43	F	French, American	•				•	1999	2017	SM 2021	Technologies, Leadership, CSR
Members considered independent by the Board of Directors (see section 2.3.1.2)												
Charles-Helen des Isnards	74	M	French	•	•*	•	•		2008	2017	SM 2021	Finance, M&A, Listed company
Éric d'Hotelans	69	M	French	•	•	•*	•		2008	2015	SM 2023	Technologies, Finance, Leadership, Listed company
Véronique Jacq	52	F	French	•	•			•	2014	2018	SM 2022	Finance, M&A, Listed company
Rajani Ramanathan	53	F	American, Indian	•		•	•	•*	2014	2018	SM 2022	Technologies, Commerce, Leadership, CSR
Yves de Balmann	73	M	French, American	•					2016	2016	SM 2020[1]	Finance, Leadership, M&A, Listed company

SM: Shareholders' Meeting
* *Chairman*
• *Member*
(1) Mandates proposed to be renewed at the Shareholders' Meeting of June 25, 2020.

2.3.1.1. Changes in the composition

Changes in the composition of the Board of Directors in 2019 and until the date of this Universal Registration Document

Date of effect	Departure	Appointment	Renewal
July 18, 2019	-	-	Alain de Rouvray
July 18, 2019	-	-	Éric d'Hotelans

Changes in the composition of the Committees in 2019 and until the date of this Universal Registration Document

	Date of effect	Departure	Appointment	Renewal
Strategic Committee	-	-	-	-
Audit Committee	-	-	-	-
Compensation Committee (1)	January 31, 2019	Cristel de Rouvray	-	-
	February 1, 2019	-	Éric d'Hotelans (2)	-
Nomination and Governance Committee (1)	January 31, 2019	Cristel de Rouvray	-	-
	February 1, 2019	-	Alain de Rouvray (2)	-
Technology and Marketing Committee	-	-	-	-

(1) The Compensation Committee and the Nomination and Governance Committee were dissociated by decision of the Board of Directors on December 19, 2018 with effect from February 1, 2019.
(2) Appointment as Chairman.

2.3.1.2. Independence

In accordance with the recommendations of the Middlenext Code (R.3), following the opinion of the Nomination and Governance Committee, the Board of Directors analyzed and determined at a meeting of February 12, 2020, the proportion of independent directors within the Board. In particular, it examined each of the directors' situations in light of the five criteria presuming independence defined by the Code, namely:

Criterion 1	Not to be and not to have been during the course of the previous five years, an employee or corporate officer of the Company or an entity of the Group
Criterion 2	Not to have been during the course of the previous two years and not to be in a significant business relationship with the Company or its Group (customer, supplier, competitor, service provider, creditor, banker)
Criterion 3	Not to be majority shareholder or not holding a significant percentage of the Company's voting right
Criterion 4	Not being related by close family ties to a corporate officer or a majority shareholder
Criterion 5	Not having been an Auditor of the Company during the course of the previous six years

The table below shows each director's situation in light of the independence criteria as stated above, and the classification chosen by the Board of Directors. The Board identified five independent director out of eight, representing 62.5% of independence, largely above the one-third of independence recommended by the Middlenext Code for a controlled company.

Director	Criterion 1	Criterion 2	Criterion 3	Criterion 4	Criterion 5	Classification chosen by the Board of Directors
Alain de Rouvray	X	✓	✓	X	✓	Non-independent
Vincent Chaillou	X	✓	✓	X	✓	Non-independent
Cristel de Rouvray	X	X	X	X	✓	Non-independent
Charles-Helen des Isnards	✓	✓	✓	✓	✓	Independent
Éric d'Hotelans	✓	✓	✓	✓	✓	Independent
Véronique Jacq	✓	✓	✓	✓	✓	Independent
Rajani Ramanathan	✓	✓	✓	✓	✓	Independent
Yves de Balmann	✓	✓	✓	✓	✓	Independent

X : Not compliant.
✓ : Compliant.

2.3.1.3. Balanced gender representation on the Board

At the date of this Universal Registration Document, the Board of Directors is composed of three women and five men. In accordance with Article L. 225-18-1 of the French Commercial Code, the difference between the two genders is not greater than two and consequently the Board of Directors has a balanced representation.

2.3.2. OFFICES OF DIRECTORS

The number of directorships held by directors is in accordance with the limits set forth in Article L. 225-21 of the French Commercial Code. This is an important guarantee of their commitment and availability to the Group.

Alain de Rouvray

Chairman of the Board of Directors

Date of birth: 10/08/1943
French

Founder of ESI Group, Alain de Rouvray is the Chairman of the Board of Directors since February 1, 2019, as from the date of dissociation of governance functions. He had been Chairman and Chief Executive officer since the Company's creation in 1991 and until January 31, 2019. He holds an engineering degree from *École centrale de Paris* (1967), a degree from the Sorbonne in Economic sciences (1967), and a Ph.D. in civil engineering from the University of Berkeley (1971). Alain started his career as Research Engineer at *École polytechnique* (Solid Mechanics Laboratory) in 1972. He then became Director of the Advanced Mechanics Department for the international software subsidiary of CISI Group from 1972 to 1976. In 1973, he founded ESI SA and was the CEO and Commercial Director from 1973 to 1990.

Current offices held outside the Group:

None

Expired offices held over the past five years:

None

Business address:

ESI Group – 100-102, avenue de Suffren, 75015 Paris

Vincent Chaillou

Board member and Chief Operating Officer

Date of birth: 03/24/1950
French

Vincent Chaillou is Chief Operating Officer–Group Strategy and EMEA Regional Director. Vincent Chaillou holds an engineering degree from *École polytechnique* (1971) and a PhD in civil engineering from the *École des Ponts et Chaussées* (1973). Before joining ESI Group in 1994, he served as General Manager of the AEC Business Unit, a department of ComputerVision (which has now merged with PTC). During his 16 years at ComputerVision, he held several management positions in sales, marketing and general management, specifically in the Asia-Pacific region. From 1994 to 1998, he was Regional Vice President for the American territory within ESI Group and CEO of ESI Software.

Current offices held outside the Group:

- Member of the Board of Directors of the association *"Alliance Industrie du Futur"*
- Member of the Board of the association ASTech and Vice-President International Relations
- Chairman of the association ID4CAR
- Member of the Board of the Railenium Technological Research Institute
- Member of the Board of Nuclear Valley
- Member of the Board of the French Mechanics association
- Member of the Excelcar collaborative innovation platform

Expired offices held over the past five years:

- Member of the Board of the association TECH'IN France
- Member of the Board of the company CADEMCE SAS

Business address:

ESI Group – 100-102, avenue de Suffren, 75015 Paris, France

Cristel de Rouvray

Board member and Chief Executive Officer

Date of birth: 10/15/1976
French, American

Cristel de Rouvray is Chief Executive Officer since February 1, 2019. Cristel de Rouvray was Chairman of the Compensation, Nomination and Governance Committee from 2007 to 2019 and Board Leader from 2015 she is graduated from Stanford University and the London School of Economics, where she obtained a Ph.D. in economics. She has 14 years of experience as a Director at College Track, a US non-profit organization.

Current offices held outside the Group:

- Director of Open Foam Foundation

Expired offices held over the past five years:

None

Business address:

ESI Group – 100-102, avenue de Suffren, 75015 Paris, France

Charles-Helen des Isnards

Independent Board member

Date of birth: 01/01/1945
French

Charles-Helen des Isnards is a graduate of the Paris Institute of Political Studies and holds a degree in law. After an international career within BUE, UBAF and CIC Group in France and in Italy, Charles-Helen des Isnards contributed to the creation of CIC Finance as member of the Board. He served as Deputy Chief Executive Officer of CM-CIC Corporate Advisory until September 2012.

Current offices held outside the Group:

- Member of the Board of the Day-Solvay Foundation

Expired offices held over the past five years:

- Member of the Board of the association Les Arts Florissants
- Member of the Supervisory Board of the company Nature & Découvertes

Autres fonctions en cours :

- Senior Advisor of CAP M – New York, independent consulting firm on strategy and M&A

Business address:

ESI Group – 100-102, avenue de Suffren, 75015 Paris, France

Éric d'Hotelans

Independent Board member

Date of birth: 07/03/1950
French

Éric d'Hotelans held positions in the information technology sector, first at Tandem (US computer manufacturer, taken over by HP), where he headed the Europe/Finance Business Unit. In 1997, he joined CMG, one of the oldest European IT services companies, as a member of the Executive Committee. In this capacity, he created CMG France (1,200 employees), the Group's French subsidiary, of which he became Chairman and CEO. He left CMG group in 2003, following its acquisition by UK group Logica. He then participated in the development of an investment fund based in Riyadh, Saudi Arabia, specializing in research and analysis of IT-related activities. In 2003, he joined the Board of Directors of M6 Group as Deputy Chairman in charge of management activities. President of the Group's online sales since 2009, he retired in July 2017.

Current offices held outside the Group:

- Chair of the M6 Group Corporate Foundation

Expired offices held over the past five years:

- President of the company Home Shopping Services SA
- President of the company T-Commerce SAS
- Member of the Board of the company Société Nouvelle de Distribution SA
- Member of the Board of the company Métropole Production SA
- Managing Director of the company Home Shopping Services SA
- Member of the Board of the M6 Group Corporate Foundation
- Member of the Board of the company M6 Films
- Member of the Board of the company M6 Diffusion SA

Business address:

M6 – 89, avenue Charles-de-Gaulle –
92575 Neuilly-sur-Seine Cedex, France

Véronique Jacq

Independent Board member

Date of birth: 01/02/1968
French

A Civil Engineer and graduate of the *École des Mines de Paris* (French engineering school), Véronique Jacq began her career in the Nuclear Safety Authority (1994-2000). In 1997, she was appointed Deputy Director in charge of monitoring the safety of EDF nuclear power plants. In 2000, she joined Anvar (now BPI France) as Director of Business Development. In 2003, she joined the 2nd Chamber of the French Court of Auditors, where she was responsible for auditing financial statements and management reports of companies and government agencies as well as international organizations. In 2007, she joined CDC Entreprises, a CDC subsidiary company specializing in private equity, and in 2010 became Deputy General Manager in charge of Business Development. In 2012, she took responsibility for the investment activity in digital startups first at CDC Entreprises and then at Bpifrance as of 2013. The Digital Venture activity she is piloting in Bpifrance covers seed and venture capital operations (€650 million under management).

Current offices held outside the Group:

- Member of the Board of the company Evaneos
- Member of the Board of the company OpenClassrooms
- Member of the Board of the company Scality
- Member of Board of the company Klaxoon
- Member of Board of the company Famoco

Expired offices held over the past five years:

- Member of the Board of the company Netatmo
- Censor of the company DelfMEMS
- Censor of the company Bonitasoft
- Censor of the company Teads

Business address:

Bpifrance – 6-8, boulevard Haussmann, 75009 Paris, France

Rajani Ramanathan
Independent Board member

Date of birth: 03/25/1967
American, Indian

Rajani Ramanathan has held a variety of positions, from running her own companies to scaling a multi-billion company from a startup to a fully operational business. Currently she serves as an independent Board member at CloudCherry and serves as either a Board member/advisor/investor in several technology startups including Vayu Technology corp., Invicara, Fitbliss, Boon VR, Feathercap and has previously advised companies such as Medium, Pipefy, Growbot, Lifograph, Traction Labs, Relatas, Realine TechnologyWizcal, SaferMobility and Trendbrew to name a few. She joined Salesforce.com in 2000, when it was a very small startup, and she helped built it into a high growth Fortune 500 company during her tenure of 14 years. In her most recent role as COO (EVP) of Technology & Products, her responsibilities spanned from delivering highly innovative products, while ensuring every employee can do the best work in their careers. In 2014, she was awarded the YWCA TWIN (Tribute to Women and Industry) Award, which has long been considered one of Silicon Valley's most prestigious awards honoring women who exemplify leadership excellence in executive-level positions.

Current offices held outside the Group:

- Member of the Board of the company CloudCherry
- Member of the Board of the company Vavu

Expired offices held over the past five years:

None

Business address:

ESI Group – 100-102, avenue de Suffren, 75015 Paris, France

Yves de Balmann
Independent Board member

Date of birth: 05/28/1946
French, American

A graduate of Stanford University in the United States and *École Polytechnique* in France, Yves de Balmann began his career at Citibank where he served as North American Executive Director for the Rates and Currency Derivatives Division, as well as his own Trading Department. He joined Bankers Trust in 1988. After the 1999 merger of this company with Deutsche Bank, de Balmann became Co-Head of the Global Investment Bank (GIB) Department of Deutsche Bank and Vice Chairman and CEO of Deutsche Bank Alex. Brown, the US division of the German bank, which brings together investment banking and intermediation activities. He held these positions until 2001. He also served on the Board of the Global Corporates and Institutions Division (GCI). In 2002, he created the company Bregal Investments, a first-rate international player in the field of private equity, which he co-managed until 2012.

Current offices held outside the Group:

- Member of the Board of the company Exelon Corporation
- Member of the Board of the company Finalsite
- Member of the Board of the non-profit organization Sweetwater Spectrum

Expired offices held over the past five years:

- Member of the Board and non-executive Chairman of the company IP Management
- Member of the Board of the company Laureate Education

Business address:

ESI Group – 100-102, avenue de Suffren, 75015 Paris, France

2.3.3. OPERATION OF THE BOARD OF DIRECTORS

2.3.3.1. Internal rules of the Board of Directors

The Board of Directors adopted internal rules which set out the operational procedures of the Board and its Committees, as well as the rules of professional ethics applicable to all Directors. These internal rules were reviewed by the Board of Directors on March 19, 2020 and were not subject to any amendment. They can be consulted on the Company's website (www.esi-group.com). Each member receives a copy of these internal rules upon being appointed.

In accordance with recommendations of the Middlenext Code (R.7), these internal rules specify in particular the following points:

- the role of the Board and, as the case may be, operations subject to the prior authorization of the Board;
- composition of the Board / independence criteria of the members;
- definition of the missions of any specialized committees set up;
- duties of the members (deontology: loyalty, non-competition, disclosure of conflicts of interest and duty of abstention, ethics, confidentiality, etc.);
- operation of the Board (frequency, convening, information of the members, self-assessment, use of videoconferencing and telecommunication facilities…);
- protection of corporate officers: liability insurance for corporate officers;
- rules for determining the remuneration of directors;
- the question of succession plan of the management and key people.

2.3.3.2. Professional ethics of Board members and prevention of conflicts of interest

Regarding professional ethics, the Board members refer to the Director Charter set forth by the French Institute of Corporate Directors (IFA) and appended to the internal rules of the Board of Directors.

Concerning prevention and management of conflicts of interest, the internal rules recommend that each Director strive to avoid any potential conflict between his moral and material interests and those of the Company. Each Director is bound to inform the Board of any potential conflict of interest. Should the Director be unable to avoid a conflict of interest, he must abstain from taking part in the debates as well as any decision on the subjects concerned.

In addition to comply with the procedure of regulated agreements which are subject to prior authorization by the Board of Directors in accordance with Article L 225-38 of the French Commercial Code, the Board examines each year in accordance with Article L 225-40-1 of the French Commercial Code, the regulated agreements concluded and authorized during previous financial years. During this annual review, the management informs the Board, if necessary, of any significant new agreements between the Company and a subsidiary relating to current operations concluded under normal conditions, thus allowing the Board to assess if these conditions are actually met. It is specified that the persons directly or indirectly interested in one of these agreements do not participate in this assessment.

To the Company's knowledge and as at the date of this Universal Registration Document, there is no conflict of interest between the duties of the individual Board members with respect to the Company and their private interest and other duties.

2.3.3.3. Duties and powers of the Board of Directors

The Board of Directors is and must remain a collegial body that collectively represents all shareholders. It must act in the Company's corporate interests under any and all circumstances. The Board of Directors determines the guidelines for the Company's operations and oversees their implementation. Subject to the powers expressly given, under the law, to General Meetings, the Chairman and Chief Executive Officer and the Chief Operating Officers and within the limit of the corporate object, the Board of Directors may handle any matter relevant to the Company's operations and decides on all matters within its responsibility.

The Board of Directors is entrusted with the following responsibilities in accordance with the law:

- preparing for and convening Annual General Meetings;
- preparing the resolutions to be voted on by the shareholders;
- deciding on the executive management structure of the Company by opting to appoint as Chief Executive Officer either the Chairman of the Board of Directors or another individual;
- determining the powers that may be delegated to a subsidiary's General Manager and setting monetary limits on these powers;
- preparing parent company and consolidated annual financial statements and interim financial statements, the annual management report and the interim financial report, as well as approval of these documents;
- approving the report of the Board of Directors on corporate governance;
- approving the agreements referred to in Article L. 225-38 of the French Commercial Code;
- authorizing guarantees and similar undertakings;
- appointing or dismissing the Chairman, the Chief Executive Officer and the Chief Operating Officers, and supervising their management of the Company;
- allocating Directors' compensation;
- creating committees within the Board of Directors, defining their responsibilities and operational procedures, appointing and determining the compensation of the members of these committees;
- establishing and updating the internal rules of the Board of Directors.

Certain transactions considered to be outside the scope of day-to-day management of business are subject to the prior authorization of the Board of Directors, as defined by the internal rules (section 2.2.3.1 of this Universal Registration Document).

2.3.3.4. Organization of the Board of Directors' work

In accordance with the internal rules, the Directors shall each receive, within a reasonable time before each meeting of the Board, a file containing the agenda of the meeting, the draft minutes of the previous meeting and any relevant documentation relating to each of the items on the agenda. The Chairman answers to requests from Directors for additional information. The Directors consider as at this date, that they receive a complete and sufficient information to fulfill their mission.

In addition, each issue raised during the session is thoroughly discussed and debated among members before being put to the vote at the end of the discussion. Lastly, the Directors are regularly informed between meetings whenever the Company's situation requires, in accordance with Recommendation R.4 of the Middlenext Code.

The Board meets as often as required for the interests of the Company. The frequency and length of the Board of Directors' meetings must be such as to allow members to conduct an in-depth review and discussion of the topics falling under its responsibility. The same principle applies to meetings of Board Committees.

In accordance with Middlenext Code Recommendation R.5, the internal rules state that the Board of Directors meets at least four times per year.

The Board systematically meets to:

- draw up the annual financial statements and prepare for the Annual General Meeting called to approve said financial statements;
- report on half-year results;
- discuss the financial position, the cash position, the Company's obligations and the share buyback program.

The Board of Directors must also meet, when convened by the Chairman, in the event of major operations such as the following:

- business acquisitions or sale;
- significant operations outside the Group's established strategy;
- organic growth or restructuring operations.

The draft minutes of each Board of Directors meeting are formally approved and signed by the Board members during the subsequent meeting. The minutes set out the discussions, specify the decisions made and mention the questions and reservations raised.

Furthermore, during each meeting any major facts or events pertaining to the Company's operations or its general situation arising since the previous meeting are brought to the Board members' attention.

Board of Directors' meetings are not valid unless at least half of its members are in attendance. The Board's decisions are made by majority vote among the members present or represented. In the event of a tie, the Chairman of the meeting has a casting vote. In accordance with the provisions of the articles of association, Board members who attend the Board meeting *via* videoconference or teleconference are considered present as for the quorum. This provision does not apply to decisions for which the French Commercial Code expressly excludes the use of this process.

An attendance sheet is drawn up and signed by the Board members attending the Board of Directors' meeting.

2.3.3.5. Works of the Board of Directors in 2019

In 2019, the Board of Directors held eight meetings including the Board retreat. The attendance rate was 91%.

Attendance of Directors at Board meetings in 2019

Dates of Board of Directors' meetings	02/01/2019	03/06/2019	Board retreat 07/25 & 26/2019	04/12/2019	07/18/2019	09/18/2019	12/06/2019	12/18/2019	% of attendance (Board retreat excluded)	% of overall attendance
Alain de Rouvray	✗	✓	✓	✓	✓	✓	✓	✓	86	88
Vincent Chaillou	✓	✓	✓	✓	✓	✓	✓	✓	100	100
Cristel de Rouvray	✓	✓	✓	✓	✓	✓	✓	✓	100	100
Charles-Helen des Isnards	✓	✓	✓	✓	✓	✓	✓	✓	100	100
Éric d'Hotelans	✓	✓	✓	✓	✓	✓	✓	✓	100	100
Véronique Jacq	✗	✗	✓	✓	✓	✓	✓	✗	57	63
Rajani Ramanathan	✗	✓	✓	✓	✓	✓	✓	✓	86	88
Yves de Balmann	✓	✓	✓	✓	✓	✗	✓	✓	86	88
OVERALL ATTENDANCE									**89**	**91**

	Strategic Committee		Audit Committee		Nomination and Governance Committee		Compensation Committee		Technology and Marketing Committee	
Director	Attendance rate	Number of meetings	Attendance rate	Number of meetings	Attendance rate	Number of meetings	Attendance rate	Number of meetings	Attendance rate	Number of meetings
Alain de Rouvray	100%	2/2	-	-	100%	3/3	-	-	100%	4/4
Vincent Chaillou	100%	2/2	-	-	-	-	-	-	100%	4/4
Cristel de Rouvray	100%	2/2	-	-	-	-	-	-	100%	4/4
Charles-Helen des Isnards	100%	2/2	100%	5/5	100%	3/3	100%	3/3	-	-
Éric d'Hotelans	50%	1/2	100%	5/5	100%	3/3	100%	3/3	-	-
Véronique Jacq	100%	2/2	60%	3/5	-	-			50%	2/4
Rajani Ramanathan	100%	2/2	-	-	100%	3/3	100%	3/3	100%	4/4
Yves de Balmann	50%	1/2	-	-	-	-	-	-	-	-
OVERALL ATTENDANCE RATE	**88%**	**-**	**87%**	**-**	**100%**	**-**	**100%**	**-**	**90%**	**-**

In 2019, the Board of Directors deliberated on the following items:

Meeting date	Agenda
02/01/2019	◆ Compensation of corporate officers ◆ Capital increase following exercise of options during financial year ended on January 31, 2019
03/06/2019	◆ Transition Update ◆ Budget approval for financial year 2018
04/12/2019	◆ Closing of accounts for financial year ended on January 31, 2019 ◆ Review of regulated agreements ◆ Situation of the Directors (reports of the Nomination and Governance Committee and the Compensation Committee) ◆ Update of the Board of Directors' internal rules ◆ Update on delegations ◆ Convening of the Combined Shareholders' Meeting ◆ Strategic orientations
07/18/2019	◆ Implementation of the share buyback program authorized by the Combined Shareholders' Meeting of July 18, 2019 ◆ Allocation of free shares ◆ Composition of committees following the renewal of directors voted by the combined general meeting of July 18, 2019 ◆ Compensation of corporate officers
Board Retreat 07/25 & 26/2019	◆ Review of committees' objectives ◆ Review of governance, succession plan and financing
09/18/2019	◆ Review and approval of 2019 first-half year results ◆ Update on activity and the budget process ◆ Report on Board Retreat and 2019/2020 planning for the Committees ◆ Stock Option Plan
12/06/2019	◆ Evolution of the Joint Venture in China
12/18/2019	◆ Approval of 2020 budget ◆ Stock option and free share plan ◆ Corporate Policy on Equal Employment Opportunity and Equal Salary

2.3.3.6. Board assessment

In accordance with Middlenext Code Recommendation R.11 the Board of Directors carried out during 2019 financial year, a yearly internal self-assessment of its composition, organization and mode of operation. This assessment was performed using a questionnaire addressed to each Director. The results of the self-assessment were shared during the Board Retreat. During the ensuing debate, reflections were raised on the development of governance and the implementation of performance indicators linked to the new monitoring tools.

2.3.4. SPECIALIZED COMMITTEES

The Board of Directors may decide on the creation within its Board of committees of which it determines the composition (see section 2.3.1 above) and defines the missions in the internal rules. The Committees carry out their activities under the Board's sole responsibility. The Board of Directors remains the decision-making body. The purpose of the committees is to optimize the discussions of the Board of Directors and to ensure it is prepared to make its decisions. The Committees thus draw up proposals, recommendations and opinions relative to their respective areas at each of their meetings. In accordance with current legislation and Middlenext Code Recommendation R.6, the following Committees have been established within the Company:

- the Strategic Committee;
- the Audit Committee;
- the Compensation Committee;
- the Nomination and Governance Committee;
- the Technology and Marketing Committee.

The attendance of the Directors at the committees' meetings during financial year ended on December 31, 2019 is presented under section 2.3.3.5 above.

2.3.4.1. Strategic Committee

The Strategic Committee is in charge of preparing the deliberations of the Board of Directors on the major strategic challenges of the Group, especially development orientations and financing as well as examining the evolution of the Group's business portfolio.

2.3.4.2. Audit Committee

In accordance with regulations in force, Board members having executive roles within the Company are not allowed to serve as members of the Audit Committee, and all members are independent. In addition, the majority of its members have expertise in the area of finance or accounting. The CEO, the Chief Operating Officers and the Chief Financial Officer of the Company attend the meetings of the Audit Committee as guests.

According to the regulation in force, the Audit Committee monitors issues relating to the preparation and control of accounting and financial information.

Without prejudice to the powers of the bodies responsible for administration, management and supervision, the Audit Committee is responsible, in particular, for the following tasks:

- monitoring the process of drawing up financial documents and, if necessary, making recommendations to ensure their integrity;
- monitoring the effectiveness of internal control and risk management systems as well as internal audit systems, if necessary, in terms of the preparation and processing of financial and accounting information, when such initiatives are compatible with the Committee's independence;
- issuing a recommendation regarding appointment of Auditors by the General Meeting, as well as regarding the potential reappointment of Auditors;
- monitoring Auditors as they fulfill their duties;
- ensuring Auditors' independence;
- regularly reporting to the Board of Directors regarding on its activities and the results of certification of financial statements, how said certification has contributed to the integrity of financial information, and the role that the Committee played in the process. The Committee immediately reports any problems that may arise.

2.3.4.3. Compensation Committee

The mission of the Compensation Committee is to prepare the decisions of the Board of Directors concerning:

- the compensation policy of the Group, in particular for key directors and corporate officers, based on information provided by the Finance and Human Resources Departments;
- the general policy to grant options to subscribe or purchase shares or free shares, reported in the annual report and the special report dedicated to the shareholders at the General Meeting, and the frequency of allocations;
- the allocation of stock options or purchase of shares in favor of employees and/or corporate officers, as well as any pattern of ownership of Employees (profit sharing…), to issue an opinion on the legal and financial conditions of these plans, and the list of beneficiaries related to strategic goals;
- the Company's policy on equal pay and equal wages for all employees and between women and men (Article L. 225-37-1 of the French Commercial Code).

2.3.4.4. Nomination and Governance Committee

The mission of the Nomination and Governance Committee is to prepare the decisions of the Board of Directors concerning:

- the composition of the Board in view of the composition and evolution of the shareholding of the Company, research and evaluation of potential candidates, the opportunity of reappointments;
- the procedure for selecting future independent Directors;
- the succession plan for corporate officers in case of unexpected vacancy, hiring, nomination or dismissal of officers;
- the criteria of independence of Directors and assessment of independence;
- the assessment procedures of the functioning of the Board and its Committees;
- the recruitment of executives for key activities and functions of the Company including members of the GEC;
- the implementation of a new organization of the Group's activities that may have an impact on the responsibilities of the members of the GEC.

2.3.4.5. Technology and Marketing Committee

The Technology and Marketing Committee is in charge of advising the Board on aspects of product strategy, organizing the publishing company (in particular, the methodologies of product management and R&D), and evaluating potential partnerships or acquisitions related to technology and marketing. The Committee also advises the Board of Directors on all aspects of commercializing solutions.

2.3.5. RELATIONSHIPS WITH SHAREHOLDERS

The Board of Directors ensures that dialogue with the Company's shareholders can always take place under the best possible conditions. In particular, Directors are invited to attend the General Meeting and analyze the results of the vote on each resolution. They pay special attention to negative votes so as to draw the appropriate conclusions before the following General Meeting.

Moreover, in addition to the General Meeting, the Chief Executive Officer, Chief Operating Officers and Chief Financial Officer regularly meet with shareholders and investors at individual meetings and during roadshows and conferences, provided that such events do not take place during blackout periods.

2.4. COMPENSATION PAID TO THE DIRECTORS AND THE MANAGEMENT

2.4.1. COMPENSATION OF THE BOARD OF DIRECTORS

2.4.1.1. Compensation due to Directors for financial year ended on December 31, 2019

/ Summary table of compensation and other components of compensation due to Directors (Table 3 of AMF nomenclature)

Compensation	2019 financial year (11 months)	2018 financial year
Executive corporate officers		
Cristel de Rouvray[(1)]		
◆ Compensation as director	10,000	28,000
◆ Other compensation	349,410[(2)]	114 ,894[(3)]
Vincent Chaillou		
◆ Compensation as director	6,000	6,000
◆ Other compensation	266,496[(4)]	269,391[(4)]
Non-executive corporate officers		
Alain de Rouvray[(5)]		
◆ Compensation as director	100,000	10,000
◆ Other compensation	433,600[(6)]	529,544[(6)]
Charles-Helen des Isnards		
◆ Compensation as director	42,000	42,000
◆ Other compensation	N/A	N/A
Éric d'Hotelans		
◆ Compensation as director	30,000	26,471
◆ Other compensation	N/A	N/A
Véronique Jacq		
◆ Compensation as director	12,325	16,471
◆ Other compensation	N/A	N/A
Rajani Ramanathan		
◆ Compensation as director	31,650	30,200
◆ Other compensation	N/A	N/A
Yves de Balmann		
◆ Compensation as director	16,650	19,000
◆ Other compensation	N/A	N/A
TOTAL		
◆ Compensation as director	248,625	178,142
◆ Other compensation	1,049,506	913,829

(1) Cristel de Rouvray was appointed CEO from February 1, 2019 and she also holds an office as Director.
(2) The other compensation due to Cristel de Rouvray for 2019 financial year for the other mandates exercised within the Group are presented in detail under section 2.4.2 of this Universal Registration Document.
(3) Other compensation of Cristel de Rouvray was paid under the related party agreements as presented under sections 2.5.1 and 2.6 of the 2018 Registration Document. It is specified as necessary that at the General Meeting of July 18, 2018, Cristel de Rouvray did not take part in the vote in the fourth resolution on the approval of the regulated agreement of which she is a party.
(4) Other compensation due to Vincent Chaillou for 2018 and 2019 financial year for the other mandates exercised within the Group are presented in detail under section 2.4.2 of this Universal Registration Document.
(5) Following the dissociation of the functions of Chairman of the Board of Directors and CEO, Alain de Rouvray acts exclusively as Chairman of the Board of Directors as from February 1, 2019 (see section 2.2.1 of the Universal Registration Document).
(6) Other compensation due to Alain de Rouvray for 2018 and 2019 financial year for the other mandates exercised within the Group are presented in detail under section 2.4.2 of this Universal Registration Document.

2.4.1.2. Compensation policy applicable to Directors for 2020 financial year

As part of their mandate, the independent Directors receive compensation, the total amount of which is set by the General Meeting. Their distribution is made, on proposal of the Compensation Committee to the Board of Directors, according to the following criteria:

- frequency of meetings and participation;
- chairmanship of specialized Committees;
- special missions or strategic meetings (Board Retreat).

Non-independent Directors, including the Chairman of the Board of Directors, receive fixed compensation without being subject to presence condition.

The debates on the commercial strategy take place in particular during the annual meeting of the Board called Board Retreat, which gives rise to a specific compensation. On this occasion, some directors are entrusted with specific missions which are part of the commercial strategy of the Company or contribute to the sustainability of the Company (for example on governance or financing of the company). For these specific assignments, the Directors receive additional compensation.

Concerning in particular the remuneration policy for the Chairman of the Board of Directors, it is made up of a fixed remuneration reflecting the reinforced role he plays in the context of the transformation of the Company and the Group and changes in governance (see section 2.2.1 of this Universal Registration Document). His fixed remuneration includes the compensation received for the mandate as Chairman of the Board of Directors of the Company as well as for other mandates exercised within the Group.

The draft resolutions (No. 7 and 8) approving the remuneration policy attributable to the members and to the Chairman of the Board of Directors and submitted to the General Meeting of June 25, 2020, are presented under section 2.4.2.3 below.

Below is a summary of the compensation policy attributable to the Directors and the Chairman of the Board of Directors for the 2020 financial year.

Allocation of compensation for directors *(per year, in €)*[1]

	Board of Directors	Board Retreat	Strategic Committee, Audit Committee, Technology and Marketing Committee[3]	Compensation Committee, Nomination and Governance Committee[3]	Committee chairmanship[3]	Specific mission[4]
Independent director[2]	2,500	2,500	4,000	2,000	5,000	On a case by case basis, depending on the nature and importance of the mission
Director – Chief Operating Officer[5]	6,000	N/A	N/A	N/A	N/A	N/A
Director – CEO[5]	10,000	N/A	N/A	N/A	N/A	N/A
Chairman of the Board of Directors[5]	100,000	N/A	N/A	N/A	N/A	N/A
TOTAL COMPENSATION APPROVED BY THE SHAREHOLDERS' MEETING OF JULY 19, 2019: €280,000[6]						

(1) It should be noted that the table above presents exclusively the compensation attributable to the mandates as directors. It does not include any compensation that may be awarded for other mandates exercised within the Group.
(2) Payment subject to an annual presence at 100%, failing which the amount is calculated in proportion to the annual presence.
(3) For each committee.
(4) For each mission.
(5) Fixed payment not subject to presence condition.
(6) It will be proposed to the General Meeting of June 25, 2020 in its 15th resolution to increase the total amount of attendance fees attributable to the Directors for the 2020 financial year from €280,000 to €350,000.

2.4.2. COMPENSATION TO THE EXECUTIVE CORPORATE OFFICERS

2.4.2.1. Compensations paid to the Chairman of the Board, the Chief Executive Officer and Chief Operating Officers for financial year ended on December 31, 2019

The following tables are prepared in accordance with the recommendation No. 2009-16 of the French Stock Market Authority (*Autorité des Marchés Financiers* – AMF). They detail the amounts of remuneration and benefits paid, as well as the amounts due for the financial year ended December 31, 2019.

2.4.2.1.1. Summary table of compensation and stock options granted to each executive corporate officer (Table 1 of AMF nomenclature)

(in €)	FY 2019(1) (Feb.-Dec.)	FY 2018(2) (Feb.-Jan.)
Alain de Rouvray **Chairman of the Board of Directors since February 1, 2019(3)**		
Compensation due for the year (detailed in 2.4.2.1.2 below)	533,600	539,544
Value of multi-year variable compensation granted during the year	None	None
Value of stock options granted during the year	None	None
Value of free shares granted during the year	None	None
Value of provisions for post-employment benefits	None	None
Cristel de Rouvray **CEO since February 1, 2019**		
Compensation due for the year (detailed in 2.4.2.1.2 below)	359,410	None
Value of multi-year variable compensation granted during the year	None	None
Value of stock options granted during the year	41,975	None
Value of free shares granted during the year	None	None
Value of provisions for post-employment benefits	None	None
Vincent Chaillou **Chief Operating Officer**		
Compensation due for the year (detailed in 2.4.2.1.2 below)	272,496	269,391
Value of multi-year variable compensation granted during the year	None	None
Value of stock options granted during the year	None	None
Value of free shares granted during the year	15,606	81,260
Value of provisions for post-employment benefits	74,456	74,456
Christopher St John **Chief Operating Officer**		
Compensation due for the year (detailed in 2.4.2.1.2 below)	234,292	243,064
Value of multi-year variable compensation granted during the year	None	None
Value of stock options granted during the year	None	None
Value of free shares granted during the year	15,606	81,260
Value of provisions for post-employment benefits	22,206	22,206

(1) February 1, 2019 - December 31, 2019.
(2) February 1, 2018 - Janvier 31, 2019.
(3) Following the dissociation of the functions of Chairman of the Board of Directors and CEO, Alain de Rouvray acts exclusively as Chairman of the Board of Directors as from February 1, 2019 (see section 2.2.1 of the Universal Registration Document).

/ 2.4.2.1.2. Summary table of compensation to each executive corporate officer (Table 2 of AMF nomenclature)

Alain de Rouvray Chairman of the Board of Directors since February 1, 2019* *(in €)*	2019[(1)] (Feb.-Dec.)		2018[(2)] (Feb.-Jan.)	
	Amount due	Amount paid	Amount due	Amount paid
Fixed compensation	433,600	433,600	340,444	340,444
Annual variable compensation	None	None	49,996	49,996
Multi-annual variable compensation	None	None	None	None
Exceptional compensation	None	None	None	None
Compensation as Director	100,000	91,663	10,000	10,000
Benefits in kind	None	None	148,093	148,093
TOTAL	**533,600**	**525,263**	**548,533**	**539,544**

(1) Following the dissociation of the functions of Chairman of the Board of Directors and CEO, Alain de Rouvray acts exclusively as Chairman of the Board of Directors as from February 1, 2019 (see section 2.2.1 of the Universal Registration Document).

Cristel de Rouvray CEO since February 1, 2019 *(in €)*	2019[(1)] (Feb.-Dec.)		2018[(2)] (Feb.-Jan.)	
	Amount due	Amount paid	Amount due	Amount paid
Fixed compensation	290,210	290,210	None	None
Annual variable compensation	49,357	0	None	None
Multi-annual variable compensation	-	-	None	None
Exceptional compensation	-	-	None	None
Compensation as Director	10,000	0	28,000	28,000
Benefits in kind	9,843	9,843	None	None
TOTAL	**359,410**	**300,053**	**28,000**	**28,000**

Vincent Chaillou Chief Operating Officer *(in €)*	2019[(1)] (Feb.-Dec.)		2018[(2)] (Feb.-Jan.)	
	Amount due	Amount paid	Amount due	Amount paid
Fixed compensation	182,004	182,004	198,550	198,550
Annual variable compensation	37,800	0	16,983	16,983
Multi-annual variable compensation	None	None	None	None
Exceptional compensation	40,000	0	40,000	None
Compensation as Director	6,000	0	6,000	6,000
Benefits in kind	6,692	6,692	7,858	7,858
TOTAL	**272,496**	**188,696**	**269,391**	**229,391**

Christopher St John Chief Operating Officer *(in €)*	2019[(1)] (Feb.-Dec.)		2018[(2)] (Feb.-Jan.)	
	Amount due	Amount paid	Amount due	Amount paid
Fixed compensation	162,846	162,846	177,650	177,650
Annual variable compensation	34,650	0	27,460	27,460
Multi-annual variable compensation	None	None	None	None
Exceptional compensation	33,616	0	33,616	33,616
Compensation as Director	None	None	None	None
Benefits in kind	3,180	3,180	4,338	4,338
TOTAL	**234,292**	**166,026**	**243,064**	**243,064**

(1) February 1, 2019 - Decembre 31, 2019.
(2) February 1, 2018 - January 31, 2019.

2.4.2.1.3. Summary table of compensation and other components of compensation due to Directors (Table 3 of AMF nomenclature)

Please refer to section 2.4.1.1 above of the Universal Registration Document.

2.4.2.1.4. Share subscription or purchase options granted to each executive corporate officer by the Company and any Group company during financial year ended on January 31, 2019 (Table 4 of AMF nomenclature)

Share subscription or purchase options granted during the year to each executive corporate officer by the Company and any Group company

Name of the executive corporate officer	Plan No. and date	Type of options (purchase or subscription)	Value of options on the method used for the consolidated financial statements	Number of options granted during the year	Exercise price *(in €)*	Exercise period
Alain de Rouvray Chairman of the Board of Directors since February 1, 2019[1]	None					
Cristel de Rouvray CEO since February 1, 2019	19 *bis*	Subscription	41,975	20,000	27.04	February 1, 2022 – February 1, 2027
Vincent Chaillou Chief Operating Officer	None					
Christopher St John Chief Operating Officer	None					
TOTAL						

(1) Following the dissociation of the functions of Chairman of the Board of Directors and CEO, Alain de Rouvray acts exclusively as Chairman of the Board of Directors as from February 1, 2019 (see section 2.2.1 of the Universal Registration Document).

2.4.2.1.5. Share subscription or purchase options exercised to each executive corporate officer by the Company and any Group company during financial year ended on December 31, 2019 (Table 5 of AMF nomenclature)

Share subscription or purchase options exercised during the year to each executive corporate officer by the Company and any Group company

Name of the executive corporate officer	Plan No. and date	Number of options exercised during the year	Exercise price
Alain de Rouvray Chairman of the Board of Directors since February 1, 2019[1]			
Cristel de Rouvray CEO since February 1, 2019			
Vincent Chaillou Chief Operating Officer		None	
Christopher St John Chief Operating Officer			
TOTAL			

(1) Following the dissociation of the functions of Chairman of the Board of Directors and CEO, Alain de Rouvray acts exclusively as Chairman of the Board of Directors as from February 1, 2019 (see section 2.2.1 of the Universal Registration Document).

/ 2.4.2.1.6. Free shares allocated to each executive corporate officer during financial year ended on December 31, 2019 (Table 6 of AMF nomenclature)

Free shares allocated to each executive corporate officer						
Free shares allocated by the Shareholders' Meeting during the year to each executive corporate officer by the Company and any Group company	**Plan No. and date**	**Number of shares allocated during the year**	**Value of shares on the method used for the consolidated financial statements**	**Acquisition date**	**Availability date**	**Performance conditions**
Alain de Rouvray Chairman of the Board of Directors since February 1, 2019(1)	None	None	None	None	None	None
Cristel de Rouvray CEO since February 1, 2019	None	None	None	None	None	None
Vincent Chaillou Chief Operating Officer	No. 9 *quinquies* & 9 *sexies* 12/18/2019	500 10	31 31	12/18/2022 12/18/2021	2022 2023	No No
Christopher St John Chief Operating Officer	No. 9 *quinquies* & 9 *sexies* 12/18/2019	500 10	31 31	12/18/2022 12/18/2021	2022 2023	No No
TOTAL		**1,020**				

(1) Following the dissociation of the functions of Chairman of the Board of Directors and CEO, Alain de Rouvray acts exclusively as Chairman of the Board of Directors as from February 1, 2019 (see section 2.2.1 of the Universal Registration Document).

At the meeting of December 18, 2019, the Board of Directors proceeded, on the proposal of the Compensation Committee, to the free allocation of a maximum total number of 8,858 common shares of the Company at a nominal value of €3 each, for the benefit of beneficiaries, managers of the Company and its related companies, of which 6,712 free shares under Plan 9 *quinquies*, 2,521 free shares under Plan 9 *sexies*.

In accordance with the terms of Plan 9 *quinquies*, the allocation of bonus shares to the beneficiaries will become final at the end of a 36-month vesting period. The definitive allocation of free shares to the beneficiaries is subject to compliance with conditions of presence by them, throughout the vesting period.

The Board will have the option to opt for the delivery of existing shares or to be issued.

In accordance with the terms of Plan 9 *sexies*, the allocation of free shares to the beneficiaries will become final after a vesting period of 24 months. The definitive allocation of the free shares to the beneficiaries is subject to compliance with conditions of presence by them, throughout the vesting period. The Board will have the option to opt for the delivery of existing shares or to be issued. As of the definitive allocation, the beneficiaries will have to keep these shares, without being able to sell them, during a retention period of 24 months.

/ 2.4.2.1.7. Free shares vested to each executive corporate officer during financial year ended on December 31, 2019 (Table 7 of AMF nomenclature)

Free shares allocated vested to each executive corporate officers	Plan No. and date	Number of shares vested available during the year	Acquisition conditions
Alain de Rouvray Chairman of the Board of Directors since February 1, 2019(1)			
Cristel de Rouvray CEO since February 1, 2019			
Vincent Chaillou Chief Operating Officer		None	
Christopher St John Chief Operating Officer			
TOTAL			

(1) Following the dissociation of the functions of Chairman of the Board of Directors and CEO, Alain de Rouvray acts exclusively as Chairman of the Board of Directors as from February 1, 2019 (see section 2.2.1 of the Universal Registration Document).

2.4.2.1.8. History of share subscription or purchase option allocations (Table 8 of AMF nomenclature)

Date of Shareholders' Meeting	Plan No. 10: 06/26/2012	Plan No. 17: 07/24/2014	Plan No. 19: 06/29/2017 (2)
Date of the Board of Directors' meeting(s)	12/19/2012 02/07/2014 03/26/2015 07/22/2015	07/22/2015 03/11/2016 05/05/2017	07/18/2018 02/01/2019 12/18/2019
Number of options allocated	180,000	37,400	88,610
Of which:			
◆ Alain de Rouvray, Chairman of the Board of Directors(1)	N/A	N/A	N/A
◆ Cristel de Rouvray, CEO	N/A	N/A	20,000
◆ Vincent Chaillou, Chief Operating Officer	3,500	0	0
◆ Christopher St John, Chief Operating Officer	2,975	0	0
Start date of exercise period	2016 to 2019	2017 to 2021	2021 to 2022
Expiration date	2020 to 2025	2023 to 2026	2026 to 2027
Exercise price *(in €)*	27.82; 24.42; 21.66; 27.17	27.17; 23.35; 50.92	42.97; 27.04; 29.12
Type of option	Subscription	Subscription	Subscription
Option exercised	29,500	2,000	0
Subscription or purchase options cancelled or exercised	109,325	14,200	5,850
Subscription or purchase options as at end of financial year	41,175	21,200	82,760

(1) Following the dissociation of the functions of Chairman of the Board of Directors and CEO, Alain de Rouvray acts exclusively as Chairman of the Board of Directors as from February 1, 2019 (see section 2.2.1 of the Universal Registration Document).

(2) All plans, with the exception of Plan 19 ter, are subject to performance conditions (see also the table under section 2.1 of this Universal Registration Document for further explanations on this exception).

Allocation of share subscription options

At the meeting of February 1, 2019, the Board of Directors proceeded, pursuant to the authorization granted by the Combined General Meeting of June 29, 2017, and on the proposal of the Compensation Committee, to the allocation of a maximum of 20,000 share subscription options to the benefit of Cristel de Rouvray, CEO, under Plan 19 *bis*.

The vesting of options granted under Plan 19 *bis* is subject to two conditions:

- 25% of the options granted will vest subject to the condition of continuous and effective presence of the beneficiaries as employees of the Group since the grant date;
- 75% of the options granted will vest subject to the achievement of Group performance conditions.

The options may be exercised from February 1, 2022 and for a period of five years until February 1, 2027.

The maximum potential capital increase will be an overall nominal amount of €60,000, corresponding to 20,000 new shares with a par value of €3 each.

At the meeting of December 18, 2019, the Board of Directors proceeded, pursuant to the authorization granted by the Combined General Meeting of June 29, 2017, and on the proposal of the Compensation Committee, to the allocation of 24,660 share subscription options in total, under Plan 19 *ter* to be confirmed depending on the choice given to beneficiaries to transform this allowance into free shares.

The vesting of options granted under Plan 19 *ter* is subject to one condition:

- 100% based on continuous and effective presence of the beneficiaries as employees of the Group since the grant date.

The options may be exercised from December 18, 2022 and for a period of five years December 18, 2027.

The maximum potential capital increase will be an overall nominal amount of €73,980, corresponding to 24,660 new shares with a par value of €3 each.

Exercise of share subscription options

The Board of Directors has noted that the number of new shares issued as a result of the exercise of options during 2019 financial year amounted to 600 shares with a nominal value of €3 representing an increase in the share capital of the Company of an amount of €1,800, which increased from €18,053,676 to €18,055,476.

Allocation of share purchase options

No grant of share purchase options was made during 2019 financial year.

Summary table of share subscription and purchase option plans to employees and corporate officers

Subscription and purchase option plans	Options to be granted(1) as at December 31, 2019	In share capital *(%)*	Options granted(2) as at December 31, 2019	Exercise price *(in €)*	In share capital *(%)*	Options exercised as at December 31, 2019	In share capital *(%)*
No. 9 (SM 06/29/2006)	0	0	0	N/A	0	0	0
No. 10 (SM 06/26/2012)	0	0	38,700	27.82	0.64	18,750	0.31
			375	24.42	0.01	750	0.01
			2,100	27.17	0.03	10,000	0.17
			Total: 41,175				
No. 15 (SM 07/23/2013)	0	0	0	N/A	0	0	0
No. 17 (SM 07/24/2014)	142,600	2.37	4,900	27.17	0.08		
			0	23.35		2,000	0.03
			16,300	50.92	0.27		
			Total: 21,200				
No. 18 (SM 07/21/2017)	297,753	4.95	0	N/A	0	0	
No. 19 (SM 07/18/2018)	91,390	1.52	82,760	42.97	1.37	0	0
TOTAL	**531,743**	**8.84**	**145,135**	**-**	**2.4**	**31,500**	**0.52**

SM: Shareholders' Meeting.
(1) Options to be granted represent the difference between the number of stock-options authorized by the Shareholders' Meeting and the number of stock-options granted by the Board of Directors as at December 31, 2019.
(2) Options expired or cancelled resulting from an employee's departure are deducted from the options granted as at December 31, 2019.

/ 2.4.2.1.9. Share subscription or purchase options granted to the top 10 non-corporate officers beneficiary employees and options exercised by them during financial year ended on December 31, 2019 (Table 9 of AMF nomenclature)

Share subscription or purchase options granted to the top 10 non-corporate officers beneficiary employees and options exercised by them	Total number of options granted: shares subscribed or purchased	Weighted average price *(in €)*	Plan No.
Options granted during the year to the ten employees of the Company and its Group which represent the largest number of options allocated	9,260	29.12	19 *Ter*
Options held and exercised during the year by the ten employees of the Company and its Group which represent the largest number of options purchased or subscribed	600	27.82	10

2.4.2.1.10. History of free shares allocations (Table 10 of AMF nomenclature)

Date of Shareholders' Meeting	Plan No. 6: 07/21/2016	Plan No. 7: 07/21/2016	Plan No. 8: 07/21/2016	Plans No. 9, 9 *bis*, 9 *ter*, 9 *qua*, 9 *quin*, 9 *sexies*: 07/18/2018
Date of the Board of Directors' meeting	07/21/2016	12/23/2016	08/01/2017	07/18/2018 07/18/2019 12/18/2019
Number of shares allocated	25,000	2,275	9,000	54,043
Of which				
◆ Alain de Rouvray, Chairman of the Board of Directors since February 1, 2019[(1)]	N/A	N/A	N/A	N/A
◆ Cristel de Rouvray, CEO	N/A	N/A	N/A	N/A
◆ Vincent Chaillou, Chief Operating Officer	5,000	0	0	2,520
◆ Christopher St John, Chief Operating Officer	5,000	0	0	2,520
Date of delivery	From 07/21/2018	12/23/2018	From 08/01/2019	From 07/18/2020
Term of vesting period	From 07/21/2020	12/23/2020	From 08/01/2021	From 07/19/2022
Number of shares delivered	20,836	1,962	6,499	0
Number of shares cancelled or expired	0	313	0	507
Remaining shares as at January 31, 2019	4,164	0	2,501	53,534

(1) Following the dissociation of the functions of Chairman of the Board of Directors and CEO, Alain de Rouvray acts exclusively as Chairman of the Board of Directors as from February 1, 2019 (see section 2.2.1 of the Universal Registration Document).

2.4.2.1.11. Summary table of benefits or advantages to executive corporate officers (Table 11 of AMF nomenclature)

Executive corporate officers	Employment contract		Supplemental pension plan		Compensation or benefits due or likely to be due following termination or position change	
	Yes	No	Yes	No	Yes	No
Alain de Rouvray Chairman of the Board of Directors		X		X		X
Cristel de Rouvray CEO		X		X		X
Vincent Chaillou Chief Operating Officer	Suspended			X		X
Christopher St John Chief Operating Officer	Suspended			X		X

/ 2.4.2.1.12. Equity Ratio between the level of compensation of corporate officers and the average and median compensation of employees of the Company (Article L. 225-37-3 (6) and (7) of the French Commercial Code)

	2019(1)	2018(2)	2017(2)	2016(2)	2015(3)
Alain de Rouvray, Chairman and CEO until January 31, 2019					
Compensation ratio compared to average compensation of employees	9.59	9.06	9.04	9.92	6.48
Compensation ratio compared to the median compensation of employees	11.1	10.66	10.33	11.72	7.89
Cristel de Rouvray, CEO since February 1, 2019					
Compensation ratio compared to average compensation of employees	6.47	N/A	N/A	N/A	N/A
Compensation ratio compared to the median compensation of employees	7.49	N/A	N/A	N/A	N/A
Vincent Chaillou, Chief Operating Officer					
Compensation ratio compared to average compensation of employees	4.85	3.79	3.97	4.31	3.56
Compensation ratio compared to the median compensation of employees	5.61	4.46	4.53	5.1	4.33
Christopher St John, Chief Operating Officer					
Compensation ratio compared to average compensation of employees	4.18	4.02	3.99	4.37	3.09
Compensation ratio compared to the median compensation of employees	4.83	4.72	4.56	5.16	3.76
Evolution of sales *(€M)*	146.2*	139.4	135.3	140.6	124.7

(1) For 2019, calculation based on total fixed compensation and benefits in kind – due to the 11-month fiscal year, reconstitution of a prorata temporis over 12 months to maintain the comparability of the ratios presented.
(2) For 2016 to 2018, calculation based on total fixed compensation and benefits in kind.
(3) For 2015, calculation based on fixed compensation.
The average and median compensation of employees was determined on the basis of the workforce of French entities.
* *2019 sales proforma 12 months (January to December) to ensure data comparability.*

/ 2.4.2.1.13. Summary table of compensation to executive corporate officers

The General Meeting to be held on June 25, 20120 will be called upon to approve the fixed, variable and exceptional components constituting the total compensation and benefits of all kinds paid or granted with respect to the financial year ended on December 31, 2019 to the corporate officers of ESI Group pursuant to Article L. 225-100 of the French Commercial Code.

Compensation payable or granted for 2019 financial year to Alain de Rouvray, Chairman of the Board of Directors

Components of the compensation	Amount or accounting valuation submitted for approval *(in €)*	Description
Fixed compensation as for the mandate as director and Chairman of the Board of Directors	100,000	Alain de Rouvray was paid €100,000 for his mandate as director and Chairman of the Board of Directors (*vs.* €10,000 in 2018). This increase was presented in the compensation policy approved by the general meeting of July 18, 2019 in accordance with the description under section 2.4.1.2 of the Company's 2018 registration document. This increase is explained by the reinforced role which contributes to the transformation of the Company and the evolution of governance.
Other fixed compensation	433,600	Alain de Rouvray's fixed compensation due for his other mandates within the Group for 2019 financial year was 433,600 euros.
Variable annual compensation	N/A	No variable annual compensation payable to Alain de Rouvray for his mandate as Chairman of the Board of Directors and his other mandates exercised within the Group.
Long term or deferred compensation	N/A	No long term of deferred compensation was granted by the Board of Directors.
Exceptional compensation	N/A	No exceptional compensation was granted by the Board of Directors.
Stock-options and performance shares	N/A	No stock-options nor performance shares were granted by the Board of Directors.
Benefits in kind	0	Alain de Rouvray does not receive an allowance for a company vehicle or accommodation.
Severance pay	N/A	Alain de Rouvray is not a beneficiary of any severance pay.
Retirement compensation	N/A	Alain de Rouvray is not a beneficiary of any retirement compensation.
Non-compete compensation	N/A	Alain de Rouvray is not a beneficiary any non-compete compensation.
Supplementary retirement plan	N/A	Alain de Rouvray is not a beneficiary of any supplementary retirement plan.

Compensation payable or granted for 2019 financial year to Cristel de Rouvray, Chief Executive Officer

Components of the compensation	Amount or accounting valuation submitted for approval *(in €)*	Description
Fixed compensation	290,210	The fixed compensation payable to Cristel de Rouvray as Chief Executive Officer and for her other mandates exercised within the Group in respect of 2019 financial year amounts to €290,210.
Variable annual compensation	49,357	The amount of the variable annual compensation payable to Cristel de Rouvray is limited to 50% of his fixed compensation. It is subject to an assessment based exclusively on quantitative criteria related to the profitability of the Group. These objectives are set at the beginning of the year by the Board of Directors on the recommendation of the Compensation Committee. The variable compensation is assessed by the Board of Directors following the recommendation of the Compensation Committee at the end of the year. The variable compensation payable to Cristel de Rouvray as Chief Executive Officer with respect to 2019 financial year amounts to €49,367 which equals 31.5% of the maximum compensation.
Long term or deferred compensation	N/A	No long term of differed compensation was granted by the Board of Directors.
Exceptional compensation	N/A	No exceptional compensation was granted by the Board of Directors.
Compensation for director's mandate	10,000	The compensation for her director's mandate amounts to €10,000 for 2019 financial year. It amounted to €28,000 for 2018 financial year.
Stock-options and performance shares	20,000	At the meeting of February 1, 2019, the Board of Directors decided to allocate a maximum of 20,000 share subscription options subject to presence and performance conditions.
Benefits in kind	9,843	The benefits in kind include an allowance for vehicle of €9,843.
Severance pay	N/A	Cristel de Rouvray is not a beneficiary of any severance pay.
Retirement compensation	N/A	Cristel de Rouvray is not a beneficiary of any retirement compensation.
Non-compete compensation	N/A	Cristel de Rouvray is not a beneficiary any non-compete compensation.
Supplementary retirement plan	N/A	Cristel de Rouvray is not a beneficiary of any supplementary retirement plan.

Compensation payable or granted for 2019 financial year to Vincent Chaillou, Chief Operating Officer

Components of the compensation	Amount or accounting valuation submitted for approval *(in €)*	Description
Fixed compensation	182,004	The fixed compensation payable to Vincent Chaillou as Chief Operating Officer in respect of 2019 financial year amounts to €182,004 (unchanged compared to 2018).
Variable annual compensation	37,800	The amount of the variable annual compensation payable to Vincent Chaillou is limited to 60% of his fixed compensation. It is subject to an assessment based exclusively on quantitative criteria related to the profitability of the Group. These objectives are set at the beginning of the year by the Board of Directors on the recommendation of the Compensation Committee. The variable compensation is assessed by the Board of Directors following the recommendation of the Compensation Committee at the end of the year. The variable compensation payable to Vincent Chaillou as Chief Operating Officer with respect to 2019 financial year amounts to €37,800 which equals 31.5% of the maximum compensation.
Long term or deferred compensation	N/A	No long term of differed compensation was granted by the Board of Directors.
Exceptional compensation	40,000	At the meeting of March 19, 2020, the Board of Directors decided to allocate an exceptional compensation of €40,000 for 2019 financial year. At the meeting of July 18, 2019, the Board of Directors decided to allocate an exceptional compensation of €40,000 for 2018 financial year.
Compensation for director's mandate	6,000	The compensation for his director's mandate amounts to €6,000, this amount is unchanged compared to the 2018 financial year.
Stock-options and performance shares	510	At the meeting of December 18, 2019, the Board of Directors decided to allocate 510 free shares, subject exceptionally to a presence condition only.
Benefits in kind	6,692	The benefits in kind include an allowance for vehicle of €6,692.
Severance pay	N/A	Vincent Chaillou is not a beneficiary of any severance pay.
Retirement compensation	N/A	Vincent Chaillou is not a beneficiary of any retirement compensation.
Non-compete compensation	N/A	Vincent Chaillou is not a beneficiary any non-compete compensation.
Supplementary retirement plan	N/A	Vincent Chaillou is not a beneficiary of any supplementary retirement plan

Compensation payable or granted for 2019 financial year to Christopher St John, Chief Operating Officer

Components of the compensation	Amount or accounting valuation submitted for approval *(in €)*	Description
Fixed compensation	162,846	The fixed compensation payable to Christopher St John as Chief Operating Officer in respect of 2019 financial year amounts to €162,846 (unchanged compared to 2018).
Variable annual compensation	34,650	The amount of the variable annual compensation payable to Christopher St John is limited to 60% of his fixed compensation. It is subject to an assessment based exclusively on quantitative criteria related to the profitability of the Group. These objectives are set at the beginning of the year by the Board of Directors on the recommendation of the Compensation Committee. The variable compensation is assessed by the Board of Directors following the recommendation of the Compensation Committee at the end of the year. The variable compensation payable to Christopher St John as Chief Operating Officer with respect to 2019 financial year amounts to €34,650 which equals 31.5% of the maximum compensation.
Long term or deferred compensation	N/A	No long term of differed compensation was granted by the Board of Directors.
Exceptional compensation	33,616	An exceptional compensation was granted by the Board of Directors on March 19, 2020.
Compensation for director's mandate	N/A	Christopher St John is not a member of the Board of Directors.
Stock-options and performance shares	510	At the meeting of December 18, 2019, the Board of Directors decided to allocate 510 free shares, subject exceptionally to a presence condition only.
Benefits in kind	3,180	The benefits in kind include a housing allowance of €3,180.
Severance pay	N/A	Christopher St John is not a beneficiary of any severance pay.
Retirement plan	N/A	Christopher St John is not a beneficiary of any retirement compensation.
Non-compete compensation	N/A	Christopher St John is not a beneficiary any non-compete compensation.
Supplementary retirement plan	N/A	Christopher St John is not a beneficiary of any supplementary retirement plan.

2.4.2.2. Chief Executive Officer and Chief Operating Officers' remuneration policy applicable in 2020 financial year

In accordance with Article L. 225-37-2 of the French Commercial Code, the principles and criteria of definition and allocation of the fixed, variable, exceptional components of the total remuneration as well as benefits in kind payable to the Chief Executive Officer and the Chief Operating Officers (the "executive corporate officer(s)") for 2020 financial year are presented below and will be subject to the approval of the Shareholders' Meeting to be held on June 25, 2020 (see section 2.4.2.3 below for the draft resolutions). The remuneration policy applicable to the Chairman of the Board of Directors is presented under section 2.4.1.2 above.

/ Principles of remuneration policy

The principles and criteria governing the remuneration policy of the executive corporate officers and amounts were determined by the Board of Directors upon the recommendation of the Compensation Committee during its meeting dated March 18, 2020.

This remuneration policy has been established in accordance with the principles of completeness, balance between the elements of remuneration, benchmark, consistency, readability of the rules, measurement and transparency (R.13) such as defined in the Middlenext Code.

Lastly, this remuneration policy must remain consistent with the Company's performance, while ensuring that the objectives of the executives are aligned with the Company's medium-term strategy and take into account the interests of Shareholders.

Remuneration structure

The Chief Executive Officer's remuneration is structured as follows:

- a fixed annual part determined based on the level and complexity of responsibilities, experience in the position and length of service in the Group, as well as practices observed in groups or companies of similar size;
- a variable annual part representing a target ratio of 50% of the fixed remuneration: it is subject to an assessment based exclusively on quantitative criteria related to the profitability of the Group. These objectives are set at the beginning of the year by the Board of Directors on the recommendation of the Compensation Committee. The variable compensation is assessed by the Board of Directors following the recommendation of the Compensation Committee at the end of the year. In accordance with Article L. 225-100 of the French Commercial Code, the payment of variable or exceptional remuneration is subject to the prior approval of this remuneration by the Shareholders' Meeting.

The compensation structure for the Chief Operating Officers consists of:

- a fixed annual part determined by taking into account the level and difficulty of responsibilities, experience in the function, seniority in the Group, and practices in groups or companies of comparable size;
- a variable annual part representing a target ratio of 60% of the fixed remuneration: it is subject to an evaluation based exclusively on quantitative criteria related to the profitability of the Group. These objectives are set at the beginning of the year by the Board of Directors on the recommendation of the Compensation Committee. The variable compensation is assessed by the Board of Directors following the recommendation of the Compensation Committee at the end of the year. In accordance with Article L. 225-100 of the French Commercial Code, the payment of variable or exceptional remuneration is subject to the prior approval of this remuneration by the Shareholders' Meeting.

Long term share-based compensation

The Group has defined its long-term compensation policy in a global competitive strategy of loyalty and motivation of its managers and employees with regard to market practices. Each long-term compensation plan is subject to the decision of the Board of Directors acting in accordance with the authorization of the Shareholders' Meeting.

Executive corporate officers can benefit from stock option plans and free share plans offered as part of the Group's loyalty and motivation policy. The conditions for acquiring and holding these plans apply in the same way to all beneficiaries, whether corporate officers or not.

For stock option plans and free shares for the benefit of the Chief Operating Officers, please refer to the tables in section 2.4.2.1.4 onwards.

Benefits in kind

Benefits in kind include a Company car or equivalent allowance.

Exceptional compensation

Very specific circumstances (for example because of their importance for the Company, the involvement they require and the difficulties they represent) could give rise to exceptional remuneration granted to executive corporate officers. The award of such remuneration would be exceptional, motivated and justified by the Board. Its payment would be subject to the approval of the Shareholders' Meeting.

Other components of the executive corporate officers' compensation

Severance pay

No executive corporate officer of the Company receives severance pay.

Non-compete clause

No executive corporate officer has a non-compete clause in his corporate office.

Supplementary pension plan

No executive corporate officer has a supplementary pension plan other than mandatory pension plans.

Health benefits and reimbursement scheme

The executive corporate officers of the Company benefit from the pension plan and reimbursement of health expenses applicable to all employees.

Non-combination of employment contract and corporate office

At the time of appointment to the position of executive corporate officer, it is decided to suspend any existing employment contract with the Company for the duration of the office.

As of the date of this Universal Registration Document, there is no employment contract between the Chief Executive Officer and the Company and the employment contracts of the Chief Operating Officers with the Company have been suspended for the duration of their terms of office.

2.4.2.3. Draft resolutions of the Board of Directors pursuant to Article L. 225-37-2 of the French Commercial Code submitted to the approval of the Combined Shareholders' Meeting of June 25, 2020

Pursuant to Article L. 225-37-2 of the French Commercial Code, the Board of Directors submits for the approval of the Combined General Meeting of June 25, 2020, the principles and criteria for the determination, distribution and allocation of the fixed, variable and exceptional components of total compensation and benefits of any kind attributable to executive corporate officers, see below draft resolutions No. 7, 8, 9 and 10:

Resolution No. 7

The General Meeting, pursuant to Article L. 225-37-2 of the French Commercial Code (paragraph 1), approves the remuneration policy, attributable to members of the Board of Directors for 2020 financial year, as presented in the corporate governance report of the Board of Directors referred to in Article L. 225-37 of the French Commercial Code and set out in section 2.4.1.2 of the 2019 Universal Registration Document.

/ Resolution No. 8

The General Meeting, pursuant to Article L. 225-37-2 of the French Commercial Code (paragraph 1), approves the remuneration policy, attributable to the Chairman of the Board of Directors for 2020 financial year, as presented in the corporate governance report of the Board of Directors referred to in Article L. 225-37 of the French Commercial Code and set out in section 2.4.1.2 of the 2019 Universal Registration Document.

/ Resolution No. 9

The General Meeting, pursuant to Article L. 225-37-2 of the French Commercial Code (paragraph 1), approves the remuneration policy, attributable to the Chief Executive Officer for 2020 financial year, as presented in the corporate governance report of the Board of Directors referred to in Article L. 225-37 of the French Commercial Code and set out in section 2.4.2.2 of the 2019 Universal Registration Document.

/ Resolution No. 10

The General Meeting, pursuant to Article L. 225-37-2 of the French Commercial Code (paragraph 1), approves the remuneration policy, attributable to the Chief Operating Officers for 2020 financial year, as presented in the corporate governance report of the Board of Directors referred to in Article L. 225-37 of the French Commercial Code and set out in section 2.4.2.2 of the 2019 Universal Registration Document.

2.5. ADDITIONAL INFORMATION IN RESPECT OF CORPORATE GOVERNANCE

2.5.1. REGULATED AGREEMENTS AND COMMITMENTS AND RELATED PARTY TRANSACTIONS

2.5.1.1. Regulated agreements and commitments

The Statutory Auditors' special report on the regulated agreements and commitments referred to in Articles L. 225-38 *et seq.* of the French Commercial Code for 2019 financial year is set out under section 2.6 below. To the best of the Company's knowledge, there are no other agreements and regulated commitments.

2.5.1.2. Transactions with related parties

Details of transactions with related parties can be found in note 11 to the consolidated financial statements in Chapter 6 of this Universal Registration Document.

2.5.2. DELEGATIONS OF AUTHORITY

At the date of this Universal Registration Document, the Company's share capital amounted to €18,055,476. It was divided into 6,018,492 shares with a nominal value of €3 each, all of the same class, fully paid up.

Apart from the share subscription or purchase option plans and the allocation of bonus shares described in section 2.4.2.1.8, there is no financial instrument to access the Company's share capital.

Table summarizing currently valid delegations granted to the Board of Directors and use of such delegations during 2019 financial year

Resolution number	Purpose	Term	Expiration date	Maximum	Used in 2019 and available as at December 31, 2019
Combined General Meeting of June 29, 2017					
Resolution 10	Grant of stock subscription options(1)	38 months	August 2020	Not to exceed 3% of the Company's share capital at the date of the Combined General Meeting, i.e. 180,000 shares	Options granted at the date of this Universal Registration Document: **88,610** Options remaining: **91,390**
Resolution 11	Grant of stock purchase options(1)	38 months	August 2020	Not to exceed 5% of the Company's share capital at the date of the Combined General Meeting, i.e. 299,600 shares	Options granted at the date of this Universal Registration Document: **0** Options remaining: **299,600**
Combined General Meeting of July 18, 2018					
Resolution 13	Share capital reduction by canceling shares purchased by the Company under Article L. 225-209 of the French Commercial Code(1)	26 months	September 2020	Not to exceed 10% of the Company's share capital per 24-month period	None
Resolution 14	Grant of free shares to eligible employees and executive corporate officers of the Company and affiliated companies(1)	38 months	September 2021	Not to exceed 60,000 shares representing 1% of the share capital as of the date of the Combined General Meeting	Free shares granted during the year 2019: **54,043** Free shares to be allocated: **5,957**
Combined General Meeting of July 18, 2019					
Resolution 14	Company's purchase of its own shares(1)	18 months	January 2021	Not to exceed 10% of the Company's share capital	None
Resolution 15	Increase of the share capital via the issue of shares of common stock or any securities convertible into equity with maintenance of the shareholders' preferential subscription rights	26 months	September 2021	Global amount of capital increases: less than €20,000,000 Nominal amount of the debt securities: less than €300,000,000	None
Resolution 16	Increase of the share capital via the issue of shares of common stock or of any securities convertible into equity through public offerings with cancellation of the shareholders' preferential subscription rights	26 months	September 2021	Global amount of capital increases: less than €20,000,000 Nominal amount of the debt securities: less than €300,000,000	None
Resolution 17	Increase of the issue amount in the event of over-demand	26 months	September 2021	Not to exceed 15% of the value of the original issue (referred to in resolutions 15 and 16), and the total ceiling of €20,000,000	None

Resolution number	Purpose	Term	Expiration date	Maximum	Used in 2019 and available as at December 31, 2019
Resolution 18	Increase of the share capital by the capitalization of premiums, reserves, profits and other amounts	26 months	September 2021	Not to exceed the total amount of reserves, premiums and profits existing at the time of the capital increase or a ceiling of €100,000 (that might be reduced to the amount of capital increases undertaken pursuant to resolutions 15 to 20)	None
Resolution 19	Issue of shares without preferential subscription rights as compensation for contributions of shares equivalents granted to the Company as part of a contribution in kind	26 months	September 2021	Not to exceed 10% of the Company's share capital, and the total ceiling of €20,000,000	None
Resolution 20	Increase of the share capital without preferential subscription rights through private placement	26 months	September 2021	Not to exceed 20% of the Company's share capital, and the total ceiling of €20,000,000	None
Resolution 21	Increase of the share capital by issuing shares reserved for employees enrolled in the employee savings plan	26 months	September 2021	Not to exceed 2% of the Company's share capital	None

(1) Renewal of the delegation submitted to the vote of the Shareholders' Meeting on June 25, 2020.

2.5.3. PROVISIONS OF THE ARTICLES OF ASSOCIATION CONCERNING THE PARTICIPATION OF SHAREHOLDERS IN GENERAL MEETINGS

General Meetings (Article 18 of the articles of association)

In accordance with Article 18 of the articles of association and legislation in force, decisions are made collectively by shareholders in

General Meetings classified as either Ordinary or Extraordinary General Meetings.

The procedures for convening and holding General Meetings are governed by French law. Meetings are held at the head office or at any other location indicated in the Meeting notice.

Ordinary General Meetings are convened to make all decisions that do not require amendments to the articles of association.

They occur at least once a year, within six months from the end of the previous financial year.

Only Extraordinary General Meetings have the power to amend any provision set forth in the articles of association. However, such Meetings may not increase the obligations of shareholders, except in the event of transactions stemming from any valid consolidation of shares.

If there are multiple categories of shares, the rights attached to the shares of a certain category may not be changed without the approval of an Extraordinary General Meeting open to all shareholders and, in addition, without further approval from a Special Meeting open only to those shareholders holding shares belonging to the category in question.

All shareholders are entitled, upon presentation of proof of their identify, to take part in Meetings by attending them in person, by video conference or by other means of electronic telecommunication or transmission, or by returning the mail-in ballot or designating a proxy.

The right to attend or be represented at the General Meeting is subject to shares being recorded for accounting purposes in the name of the shareholder or the intermediary registered on behalf of the latter, by 12:00 am Paris time, two working days prior to the General Meeting:

- either in the registered share account kept by the Company;
- or in bearer share accounts kept by the authorized intermediary.

A participation certificate must be established by the authorized intermediary on the basis of this registration and attached to the mail-in ballot/proxy form or the access card application submitted in the name of the shareholder.

In accordance with the conditions set forth above, the legal representatives of shareholders deemed legally incompetent and individuals representing legal persons that hold shares in the Company may take part in General Meetings, regardless of whether or not they are shareholders themselves.

Proxy forms and mail-in ballots must be prepared and sent out in accordance with legislation in force.

An attendance sheet is filled out for each Meeting. This attendance sheet must be duly signed by the shareholders present and by the proxies and must be certified as accurate by the officers of the Meeting.

General Meetings are chaired by the Chairman of the Board of Directors and, in the absence thereof, by the Board member appointed to replace him or her.

The two shareholders present at the Meeting who represent the largest number of shares, either on their own behalf or as proxies, are appointed to serve as scrutineers, provided that they accept the

responsibility.

The officers of the Meeting, thus designated, are responsible for appointing a secretary who need not be a shareholder.

Quorum and majority (Article 19 of the articles of association)

The Ordinary General Meeting cannot validly conduct business when first convened unless the shareholders present or represented account for at least one-fifth of shares with voting rights.

When convened a second time, no quorum is required.

The Meeting issues decisions by a majority vote of the shareholders present or represented.

The Extraordinary General Meeting cannot validly conduct business unless the shareholders present or represented account for at least one-fourth of shares with voting rights when first convened, and one-fifth when convened a second time. If this quorum is not attained, the second General Meeting may be postponed for a maximum of two months from the date at which it was initially convened.

The Extraordinary General Meeting issues decisions by a two-thirds majority vote of the shareholders present or represented.

Special General Meetings cannot validly conduct business unless the shareholders present or represented account for at least half of shares with voting rights when first convened, and one-fourth when convened a second time. If this quorum is not attained, the second General Meeting may be postponed for a maximum of two months from the date at which it was initially convened, the one-fourth quorum remaining necessary.

Special General Meetings issue decisions by a two-thirds majority vote of the shareholders present or represented.

2.5.4. FACTORS THAT MAY HAVE AN IMPACT IN THE EVENT OF A PUBLIC OFFERING

Pursuant to Article L. 225-37-5 of the French Commercial Code, the following points are likely to have an impact on the public offering:

- the structure of the share capital as well as direct or indirect investments of which the Company is aware and all such information is included in section 8.2.4 of this Universal Registration Document under the heading "Change in the breakdown of the Company's share capital over the past three financial years";
- there are no statutory restrictions on the exercise of voting rights and share transfers;
- to the Company's knowledge, there are no agreements or other commitments signed by the shareholders other than those mentioned in section 8.2.4 of this Universal Registration Document under the heading "Shareholders' agreements";
- there are no securities giving special control rights other than double voting rights stipulated in Article 9 of the articles of association and mentioned in section 8.1.2 of this Universal Registration Document under the heading "Double voting rights (Article 9 of the articles of association)";
- there are no restrictions in the bylaws on the exercise of voting rights and the transfer of shares;
- voting rights attached to ESI shares with regard to the employee savings plan are exercised by the ESI FCPE;
- the rules for appointing and removing members of the Board of Directors are those of common law;
- concerning the powers of the Board of Directors, current authorizations are described in the table summarizing powers delegated with regard to share redemption and capital increases in section 2.5.2 of this Universal Registration Document;
- any amendments to ESI Group's articles of association are made in accordance with legal requirements and regulations;
- there are no agreements entered into by the Company that are modified or terminated in the event of a change of control of the Company other than the syndicated loan agreement presented in Chapter 6, notes 7.1.2 and 7.4 of this Universal Registration Document;
- there are no agreements providing for compensation in the event of the departure of members of the Board of Directors.

2.6. STATUTORY AUDITORS' REPORT ON REGULATED AGREEMENTS AND COMMITMENTS

This is a free translation into English of the Statutory Auditors' report on regulated agreements issued in the French language and is provided solely for the convenience of English speaking readers. This report should be read in conjunction with, and construed in accordance with, French law and professional auditing standards applicable in France.

(Annual General Meeting for the approval of the financial statements for the year ended December 31, 2019)

To the shareholders,

In our capacity as Statutory Auditors of your Company, we hereby present our report on regulated agreements and commitments.

It is our responsibility to communicate to you, based on information provided to us, the characteristics, the principal terms and conditions, and the grounds of the interest to the Company of those agreements and commitments brought to our attention or which we may have discovered during the course of our audit, without expressing an opinion on their usefulness and appropriateness or identifying any other such agreements and commitments. It is your responsibility, pursuant to Article R. 225-31 of the French Commercial Code, to assess the interest involved in the conclusion of these agreements and commitments for the purpose of approving them.

Our role is also to provide you with the information stipulated in Article R. 225-31 of the French Commercial Code relating to the implementation during the past fiscal year of any agreements and commitments previously approved by the Shareholders' General Meeting.

We conducted the procedures we deemed necessary in accordance with the professional guidelines of the French National Institute of Statutory Auditors (*Compagnie nationale des commissaires aux comptes*) relating to this engagement. These procedures consisted in verifying the concordance of the information provided to us with the relevant source documents.

AGREEMENTS AND COMMITMENTS SUBMITTED FOR THE APPROVAL OF THE SHAREHOLDERS' MEETING

Agreements and commitments authorized and agreed during the fiscal year

Pursuant to Article L. 225-28 of the French Commercial Code, we have not been advised of any agreement authorized and concluded during the fiscal year to submit for approval to the Shareholders' Meeting.

AGREEMENTS AND COMMITMENTS ALREADY APPROVED BY THE SHAREHOLDERS' MEETING

Agreements and commitments authorized during previous fiscal year

We have been informed of the execution during the fiscal year of the following agreement and commitment, already approved by the Shareholders' Meeting of July 18, 2019 pursuant to the special report of the statutory accounts dated May 22, 2019:

/ Pledge agreements among which in particular a pledge of all the shares that the Company holds or will hold in the share capital of ESI ITI GmbH

Terms and conditions

The Board of Directors in its meeting dated December 19, 2018, authorized the signing by the Company of pledge agreements, among which in particular the pledge of all the shares that the Company holds or will hold in the share capital of ESI ITI GmbH, to guarantee its obligations of reimbursement and payment under the syndicated loan agreed on December 20, 2018 under which the Company obtained (i) a facility of up to a maximum amount of €30,000,000 (ii) a revolving credit facility with a maximum principal amount of €10,000,000, and (iii) to authorize the establishment of an unconfirmed revolving credit facility of a maximum principal amount of €5,000,000.

Persons concerned

- Vincent Chaillou, ESI Group Director and COO and Managing Director of ESI ITI GmbH; and
- Christopher St John, ESI Group Director and COO and Managing Director of ESI ITI GmbH, a Company's subsidiary.

Reason justifying the Company's interest

These security agreements condition the signing of the syndicated loan agreement as described above and thus allow the Company to finance itself.

Neuilly-sur-Seine and Paris-La Défense, April 23, 2020

The Statutory Auditors

PricewaterhouseCoopers Audit	Ernst & Young Audit
Thierry Charron	Frédéric Martineau

3 RISKS AND RISK MANAGEMENT

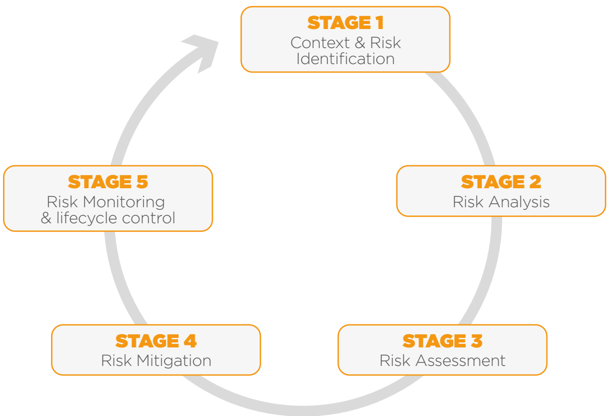
In accordance with the resolution of the General Meeting of July 18, 2019, the Group now closes its financial statements at 31 December of each fiscal year.

3.1. RISK FACTORS AND OPPORTUNITIES

The Group has reviewed the major risks and opportunities that could have a significant effect on its business, financial position or results. The data presented below constitute the main strategic and operational risks for the Group. Non-specific risks are not detailed in this document.

3.1.1. RISK ANALYSIS AND EVALUATION METHOD

ESI's risk management system is organized in 5 stages, according to the methodology described below:



The risks listed on the following pages have been assessed (Stage 2 and 3) in relation to their occurrence and their impact on ESI's activity. The combination of these two criteria makes it possible to identify what is known as the "exposure level", which then implies the implementation of measures to control these risks (Stage 4).

In each category, risk factors are ranked in descending order of importance, considering the probability of their materialization and the estimated magnitude of their impact and after taking into account the mitigation measures already implemented by ESI.

3.1.2. STRATEGIC AND OPERATIONAL RISKS

3.1.2.1. Competition (competitive edge)

Recent movements in the Virtual Prototyping market with acquisitions and concentration of competitors could be perceived as a risk given the economic and/or technological power of large groups.

Impact: a strong consolidation of the sector or a reduction in the Group's scientific leadership could lead to a loss of market share.

Exposure level: high.

Mitigation actions: the specific nature of ESI Group's business and its unique positioning in the Virtual Prototyping field make it very difficult to attempt to precisely define its market. The complexity of the problems on which the Group focuses, the long experience it has acquired by working in close partnership with the largest industrial, its significant investments in research and development, the wide range of solutions it offers and the many acquisitions it has made over the years are all barriers for any newcomer who would like to enter its market.

The capacity for innovation is one of the major pillars of the ESI Group's competitiveness, particularly through the launch of high added-value solutions for customers, based on a special ecosystem allowing the active participation of all R&D players, in coordination with the Scientific Department and its Committee. Also, ESI has implemented steering and governance systems to take advantage of our sources of innovation (ecosystem) in order to ensure a better market launch.

3.1.2.2. Management of key personnel

The expertise and experience of key personnel are currently being shared broadly among qualified teams. No employee is the exclusive owner of a code or piece of knowledge; in other words, all this information is shared among the teams. The Group's success depends in large part on its ability to attract, retain, and motivate quality employees, with a constant focus on aligning skills with the Group's needs and challenges.

The ever-increasing volatility of skills in the technology sector, particularly due to the changing expectations of the new generation of candidates, poses a risk of a lack of key skills for the concerned business areas.

Impact: the non-access or disappearance of certain internal knowledge on specific areas could represent a challenge to maintain the necessary pace of innovation demanded by the market.

Exposure level: high.

Mitigation actions: ESI has implemented a retention and loyalty policy, by setting up employee shareholding plans (stock options and free shares) and talent development plans. No employee is the sole owner of a code or know-how that is not shared with its teams. The ecosystem created by ESI Group enables it to have access to human resources requirements to ensure the continuity of the knowledge required to manage future innovations.

3.1.2.3. Intellectual property

Due to the nature of the high added-value activities resulting from ESI's ecosystem experience, the company is completely dependent on its software, which is its main asset to guarantee a source of income and continuous growth. Despite the implementation of protection systems (patents, trademarks, copyrights, etc.), the company may be exposed to risks such as counterfeiting/piracy of specific products by individuals or companies, claims to intellectual property rights, fraudulent use of our technologies, etc.

Impact: the loss of intellectual property of software and solutions would result in an automatic loss of turnover and the impossibility to guarantee and meet financial obligations towards stakeholders.

Exposure level: high.

Mitigation actions: below are the two main aspects of this risk category:

/ Counterfeiting of products marketed by the Group

The passwords used to access the Group's products are generated by ESI Group regardless of how the software is distributed (distributors and agents) and are linked to the FlexNet Publisher software (formerly known as Flexlm), which represents the world standard for secure computer codes. In the event that a way around the FlexNet Publisher password is found, ESI Group also uses, for several products, a counterfeit detection tool together with a legal assistance service to prosecute counterfeiters.

/ Risk related to claims by third parties as to the ownership of codes published by the Group

With regard to the risk of third-party claims, the Group's software products are, broadly speaking, either developed within the Group or acquired through mergers or acquisitions. In rare cases, they are the result of development contracts signed with third parties.

As for the codes developed in-house, the Group's subsidiaries retain ownership of the intellectual property under the employment contracts and supplementary provisions in accordance with labor law. Where necessary, development agreements are signed between ESI Group and its subsidiaries in charge of development in order to ensure that ESI Group is considered the owner of the intellectual property.

For software code acquired through an external growth operation, an intellectual property audit is conducted beforehand starting with the analysis of local intellectual property laws. Furthermore, acquisition agreements always include warranties of title. This particularly allows the Company to avoid buying an empty shell or software code with too many strings attached. Likewise, the Group relies on a systematic review process for software development contracts made with third parties, such as university partners, in order to ensure effective, risk-free transfer of intellectual property in the event that an ESI Group contract ensuring transfer is not used.

3.1.2.4. International economic and political environment

The global economic, commercial, and social as well as geo-political context may influence the Group's results and revenue growth. In particular, the economic context and limited visibility may have an impact on customer investments and lead to lengthened sales cycles.

Impact: global economic tensions, including those between the USA and China, could impact the Group's growth. This could lead to the implementation of protection policies in certain areas that would slow down the deployment of the Company's solutions.

Exposure level: important.

Mitigation action: the Group's presence in many countries protects it from the adverse effects of unfavorable local economic conditions.

Special point related to the coronavirus (COVID-19) outbreak: In the short-term, the disastrous coronavirus pandemic is expected to somewhat impact our 2020 Fiscal year. However, the resilience of ESI's business model largely anchored on renewable and mission critical software licenses will help the Company to manage risks.

3.1.2.5. Dependence on a single client or sector

Most of ESI subsidiaries are confronted with the reality of managing a "major customer" with a significant weight in terms of turnover and growth. These customers are generally part of the Ground Transportation sector.

Impact: the Ground Transportation sector alone accounts for 59% of order intake.

Exposure level: important.

Mitigation actions: the Group's intention is to be totally independent, both geographically and by sector. To this end, the Group has defined 4 main business sectors to reduce the impact of dependence on a single industrial sector, which are the subject of a dedicated strategic plan combined with a business development plan.

3.1.2.6. Information security

ESI Group's value chain, which includes **R&D, Design, Development, Validation, Services and Delivery** of our software and solutions, relies heavily on an IT infrastructure that is of paramount importance in the processing, transmission and storage of data related to internal and external operations. Every day, the company processes a significant amount of sensitive data transmitted by our customers for the realization of projects and the improvement of solutions. Given that "zero risk" does not exist, the company is aware that it is continuously exposed to computer attacks of all kinds (viruses, fraudulent e-mails, phishing, financial fraud, industrial espionage, etc.).

The General Data Protection Regulation (GDPR) adds to the landscape of legal requirements in this area.

Impact: failure to comply with client requirements concerning the confidentiality, integrity and availability of information entrusted to the group could have negative consequences on long-term relationships with customers and on ESI's reputation.

Exposure level: important.

Mitigation action: ESI is committed to implementing the requirements of the international standard ISO 27001 to set up an Information Security Management System (ISMS), based on appropriate risk management of its "assets", to guarantee the **Confidentiality, Integrity** and **Availability** of information.

In the same approach, and in order to take into account the specific requirements of the Automotive sector, ESI Group obtained TISAX (Trusted Information Security Assessment Exchange) certification in 2019 for ESI MECAS (Czech Republic) and ESI GmbH (Germany) and will be extended to ESI Hispania (Spain) in 2020. Based on an Information Security Management System (ISMS) close to ISO 27001, this certification is adapted to the requirements of the Automotive sector in order to secure the creation and exchanges between the different stakeholders.

The Global Quality Management System (ISO 9001), which reached a coverage rate of 95.31% of employees in 2019, takes into account these requirements (TISAX, ISMS, GDPR) in order to integrate them into operational processes.

Finally, to reduce this risk, the Company has set up a comprehensive cyber insurance coverage.

3.1.3. OPPORTUNITIES

Technological changes and the ability to respond rapidly to clients' needs

ESI Group's business is based on a wide knowledge and customer proximity that aims to meet clients' innovation needs in the different industrial sectors suitable for implementing Virtual Prototyping.

Nevertheless, to protect against the risk of disruptive technological changes in all the layers of the Group's products and services, the following networks have been developed:

- the Scientific Committee;
- strategic partnerships with customers working in co-creation with the Group;
- academic partnerships providing access to the latest technological information;
- distribution partnerships with key hardware and Cloud companies that offer advance access to the latest technologies.

In addition, the Group takes part in innovation projects co-financed by European Union bodies, competitiveness clusters in France, and American research projects. Brought together, these projects enable ESI to produce increasingly innovative solutions in a timely manner.

Acquisitions and strategic investments

/ Acquisitions of assets and/or companies, and creations of joint-ventures or partnerships

Since its creation, the Group has acquired companies or assets to complete its offer and to create business synergies. These acquisitions and strategic collaborations (joint venture with BIAM, Beijing Institute of Aeronautical Materials) enable the Group to have a unique positioning and to be at the cutting edge of technology. Established partnerships with industrial leaders and the best universities and technological institutes reinforce this positioning.

/ Strategic investments

Research and development investments are the Group's technological pillar. These investments are maintained at a high level since several years (approximately 31.4% of the Licenses revenues in 2019) to innovate, in particular with the development of new technologies such as Big Data or Artificial Intelligence.

Also, these investments support the "PPL" (Product Performance Lifecycle™ approach. Founded on the shift from the Virtual Prototype to the connected Hybrid Twin™, the new solutions of the Group enable, for example, the predictive maintenance as well as the manufacturing and the assisted or autonomous driving. These solutions meet the challenges of the Industry 4.0 with a complete control of the product lifecycle, from its launch to its withdrawal, passing through the manufacturing of the new product and the operational monitoring of the used product which integrates the in-service damages and potential repairs.

3.2. INTERNAL CONTROL AND RISK MANAGEMENT PROCEDURES

3.2.1. CONTROL ENVIRONMENT

General organization

ESI Group is a multinational corporation that includes 31 subsidiaries (the "subsidiaries"), 26 of which are based outside of France (December 2019).

To ensure that business operations and management activities run efficiently, that objectives are met and that the Group's control system is effective, executives are determined to harmonize the operational rules of the subsidiaries. This also applies to internal control activities and is reflected in the gradual standardization of information systems and processes throughout the organization. This is facilitated by the fact that the subsidiaries' business activities are similar to those of the parent company, ESI Group, as regards the distribution of products.

Given current constraints, particularly regarding the size of the subsidiaries, available human resources and regulations that differ from country to country, the Group's structure is based on the following key factors:

- a matrix-based structure organized around business activities and markets that ensures Group-wide sharing of information;
- a centralized organization to manage the Group's business activities;
- limited hierarchical levels to streamline decision-making processes;
- a relatively small size for efficient communication among the various departments.

The Company considers that internal control processes are intended to provide reasonable assurance that the following objectives are met (the principles implemented cannot provide absolute control of risks):

- ensuring that management activities and operations, as well as employee conduct, are in keeping with the guidelines set out by the Company's management and the operational departments overseeing the various business activities and countries, as well as any applicable laws and regulations and the Company's core values and internal rules;
- anticipating and managing risks that stem from the Group's business activities and risks of error or fraud, especially in the areas of accounting and finance;
- verifying that the accounting, financial and management information reported to corporate bodies, shareholders and third parties accurately reflects the Company's position and the business situation.

Internal control bodies

/ Within the Company

The Board of Directors

The Board of Directors is responsible for the Company's risk assessment policies, implementation of an internal control system suitable for managing these risks and initiatives to monitor the effectiveness of this system. This policy features a system of checks and procedures regarding financial management, as well as operational and compliance monitoring.

Group Executive Committee

The Group Executive Committee oversees the internal control policy. The Committee generally meets once a month.

Board Retreat

The Board Retreat takes place once a year to bring together the members of the Board of Directors, the Group Executive Committee and employees of the Company or its subsidiaries, depending on the topics to be discussed. It serves to assess the activities of the Board of Directors and the specialized committees, review ongoing strategic matters and define specific objectives to be achieved during the following year, which are then submitted to the Board of Directors for approval. The Board Retreat also analyzes the results of the self-assessment carried out by the Board of Directors and the specialized committees and reviews the issue of balance of powers within corporate governance bodies.

The 2019 Board Retreat took place in July, and the 2020 meeting is also planned in July.

Operational departments

These departments primarily supervise business processes and manage projects.

Their role is to oversee the implementation of procedures to guarantee:

- effective business processes: identification of business opportunities, distribution network, partnerships, responsiveness, assessment of potential economic benefits, negotiation and signing of contracts, profitability monitoring;
- effective project management: evaluation of technical feasibility, team management and leadership, compliance with specifications, customer satisfaction tracking and customer service.

Functional departments

The functional departments are responsible for formalizing internal control procedures in their respective areas and coordinating and applying these procedures.

a) Administration and Finance Department

The Administration and Finance Department handles the implementation of the internal control policy on its financial level by:

- establishing the operating procedures for the internal financial control system;
- organizing financial control operations on different group activities, and their accurate transcription in group accounts, ensuring regulatory compliance.

The Administration and Finance Department comprises the following units:

- Accounting and Consolidation, in charge of:
  - daily recording of transactions,
  - establishing periodic financial statements of each entity,
  - drawing up the Group's consolidated financial statements,
  - ensuring compliance with legal, tax and labor obligations;
- Financial Control, in charge of:
  - preparing and monitoring the budget,
  - issuing periodic reports,
  - internal control on both operational and financial level;
- Cash management, in charge of:
  - managing cash flows,
  - project financing,
  - hedging currency and interest rate risks;
- Information Systems Department (ISD).

b) Legal Affairs Department

The Legal Affairs Department is divided into two branches:

- the Corporate Legal Affairs branch which is responsible for monitoring and streamlining procedures, as well as corporate legal intelligence and coordinating the legal aspects of the operations of Group subsidiaries;
- the Intellectual Property branch, which reviews, drafts and negotiates various contracts with clients and partners in the industry, government bodies and academic institutions to ensure that the Group's intellectual property rights are protected.

Management of confirmed disputes is handled by third-party experts under the supervision of the Legal Affairs Department. The department plays an active role in mergers and acquisitions (*e.g.* corporate audits, intellectual property audits, participation in acquisition agreement negotiations).

c) Quality Control Department

Under the supervision of Executive Management, the Quality Control Department is responsible for implementing the quality control policy and the corresponding system, in keeping with Group strategy and the following four pillars:

- Organization and learning: with the global amplification of competencies of employees to develop talents, encourage leadership and collaborative management and with the promotion of ESI core values to leverage the "OneESI" culture;
- Internal processes: with a global Quality management to facilitate harmonization, develop a global risk management framework and ensure simplification of processes, that improve performance and effectiveness;
- Clients: meeting the business challenges of customer as they address the expectations of the Outcome Economy and the Industry 4.0, focusing on the Product Performance Lifecycle™ through an account management policy and a value selling approach of our solutions;
- Profitability: an internal organization that reinforces the alignment between departments for continuous improvement in growth, profitability and sustainability (ROI).

d) Human Resources Department

Working closely with Senior Management, the ESI Group Human Resources Department assists the Company's strategy by factoring in employer-employee considerations.

ESI Group's Human Resources policy has four main components:

- personnel management;
- performance management;
- compensation management;
- an advisory function for operational staff.

Personnel management includes the following activities and initiatives:

- ensure compliance with all legal and regulatory requirements;
- administer payroll and personnel files;
- oversee and manage labor relations;
- ensure that employment reporting is carried out and produce performance indicators;
- ensure that employees are kept properly informed;
- ensure that information is relayed to senior management;
- develop Group HR procedures.

Performance management entails attracting, integrating, retaining and developing the highest level of performance for each employee and ensuring adherence to the Company's strategy:

- recruitment: employment management, anticipating skill needs both qualitatively and quantitatively;
- performance evaluation: employee reviews, personal development plans, identifying potential, career planning and promotions;
- training: identifying needs, preparing a training plan and implementing in-house and external training courses;
- development: possibility of promoting employees internally, in management positions or in recognition of other skills, and possible mobility to positions in different departments or countries.

Compensation management entails coordinating and overseeing the Group's compensation policy and:

- ensuring the wage revision process in accordance with time frames, budgets and reporting;
- leading the annual process of setting and paying variable compensation;
- overseeing stock option, free share awards and company savings programs in the Group;
- preparing all the items needed by the Company's governance bodies (Compensation Committee);
- ensuring that employee and employment data are reported by subsidiaries using HR-IS.

Advising operational staff: fostering independence among Managers on employment issues by offering them assistance in the field on a day-to-day basis, and by providing them with services tailored to their specific needs.

The Group Human Resources Department sets the guidelines for the Group's human resources policy, broken down into operational objectives for regional Directors of Human Resources. Regional HR Directors coordinate implementation of these objectives in collaboration with a team of HR operating managers located in each country, and with support from the central HR Department.

/ Third-parties to the Company

Statutory Auditors

The Statutory Auditors, who certify the regularity, truthfulness and the fair presentation of the financial statements provided to the shareholders at the balance sheet date, may include in their audit opinions recommendations regarding the internal control system used to prepare financial information.

Legal counsel

The Company calls on renowned law firms for dispute management, as well as a tax advisory firm. The Company also calls on specialists from time to time to review the legal aspects of complex mergers and acquisitions.

3.2.2. INTERNAL CONTROL ORGANIZATION

The increasingly international nature of the Group's business and the cross-organizational character of its projects, involving international interactions of ever-greater complexity and speed, have highlighted the need for more rapid and efficient methods and operational management tools, both centrally and in the subsidiaries.

In order to achieve this objective, the organization of the Administration and Finance Department has been structured to ensure a high-level of quality control and operations monitoring, meeting the level of requirements to support operational staff in the development of the activity, and to allow a reactivity adequate to the changes in the market in which the Group operates. The organization of the Administration and Finance Department is based on the following three pillars:

- a network of financial controllers located both centrally in group headquarters and locally in most of the Group's subsidiaries;
- centralized tools and databases;
- processes to organize reporting and control of financial information.

A network of financial controllers

This network covers the monitoring and control of all financial operations within the Group, according to a dual organization: central financial controllers are dedicated to the functional monitoring of activities on a worldwide basis (*e.g.* monitoring of research and development activities, monitoring of commercial activities, etc.), while local financial controllers are dedicated to monitoring the scope of their subsidiaries and geographic coverage, by providing statutory financial information and reporting to central teams.

All financial controllers report hierarchically and functionally to the Group Administration and Financial Department and to the Group Chief Financial Officer. Each local financial controller also reports operationally to his/her local manager (local entity manager), giving him/her access to information as close as possible to the operations. Interactions between the teams of local and central controllers enable information to be disseminated to ensure a good understanding of operations, and analyses to be carried out at several levels for better anticipation and more efficient piloting.

The size of local financial teams depends on the size of the concerned entities. In large countries, controlling and accounting functions are performed by separate teams in charge of monitoring all subsidiaries in the country. In the case of smaller entities, local external accounting firms ensure the bookkeeping of transactions under the supervision of a financial controller dedicated to the geographic area.

The management information system

Financial control is based on a management IT system consisting of the following centralized tools and databases:

- a single sales database (SalesForce) serves as the backbone of the organization and internal control system for sales. This data flows into a single financial database (NCA) to determine monthly revenues and the backlog;
- an HR data management tool called HR-Information System (HR-IS base) allows for Group-level consolidation of data relating to salaries and headcount. This tool makes it possible to monitor the different steps in the hiring process and provide managers with any information necessary to optimize management of their teams. HR-IS data is included in the source information used for financial reporting regarding employees;
- a financial planning and analysis tool, Anaplan, that centralizes data for the entire group from sales ad HR single databases, as well as from management systems for research, development and consulting activities, in order to ensure complete reporting of all activities, and which also is a basis for the budget process;
- a financial consolidation tool, Talentia CPM, which enables the Company to centralize financial flows from the various accounting systems used in subsidiaries. It should be noted that subsidiaries account for their operations using their own accounting systems and ensure proper reporting of data to the parent company using consolidation packages which are all centralized and processed using Talentia.

Main accounting and financial information monitoring processes

The Group prepares consolidated financial statements on a quarterly basis. Its revenue is published on a quarterly basis, whereas full financial statements are published twice a year. A Group-wide budget is established at the beginning of each financial year and monitored monthly.

/ Consolidation process

The process of preparing the consolidated financial statements follows procedures to centralize the accounting and financial data provided by each entity within the Group. These procedures include:

- a reporting schedule and calendar of tasks to be carried out by the persons involved;
- use of a specialized consolidation software;
- a distinction between preparation of consolidated financial information, performed by the consolidation team, and control activities performed by the central financial controllers and the Chief Financial Officer;
- assistance from accounting experts for some technical issues;
- a review of the half-year and yearly financial statements by Statutory Auditors, the Audit Committee and the Board of Directors.

/ Budget monitoring and reporting process

The yearly budgets are prepared at the start of the financial year in accordance with the assumptions laid out the preceding year for the three-year business plan, and the five-year strategic objectives reviewed annually by senior management. Throughout the year, a monthly reporting serves to:

- monitor the budget to track the amount, nature and allocation of expenses compared to the current year's budget;
- set out monthly forecasts used to predict results, initially for the first half year, and subsequently for the second half of the year.

1 2 3 4 5 6 7 8 9

Financial Control thus provides key management indicators used to monitor the Company's performance. These indicators, reported to executives, provide the information necessary for the piloting of the Company. They include, among other indicators:

- backlog in the Licensing and Service activities;
- production of the Services activity;
- evolution of headcount and average personnel costs;
- the cash position and cash forecast until the end of the current year and for next year at year-end.

In conjunction with the budgeting and reporting process, the Company has implemented a structure based on Performance Units, each with a manager in charge of overseeing the unit based on key performance indicators (KPI) in a balanced scorecard format. These indicators cover four areas: financial, sales, internal processes, organization and learning.

/ Revenue recognition process

The Finance Department is responsible for recognizing revenues and ensuring:

- the consistency between actual revenues and contractual data about the Licensing revenue;
- the accuracy of billing information;
- the completeness of the services invoiced, primarily for the Services revenue.

/ Client risk management process

Client risk is managed at two different levels:

- upstream, by assessing client risk before processing orders;
- downstream, through a periodic follow-up procedure suited to each client in order to reduce outstanding debt.

Regular monitoring of average payment periods makes it possible to assess how effectively accounts receivable are managed across the various subsidiaries.

/ Cash management process

The Chief Financial Officer, with the support of cash management teams, is responsible for managing cash flows and monitoring:

- cash levels necessary to cover the Company's ongoing business needs while tracking inflows and outflows;
- profitability and the risk level of various cash surplus investments;
- foreign exchange risks, to take any necessary preventive action;
- implementation of loans necessary for growth of the Company.

The cash position of each entity is centralized, when it is possible according to local regulations, and a consolidated monthly forecast is drawn up each month.

/ Payroll management process

The payroll process falls under the responsibility of the Human Resources Direction and involves:

- processing the various items involved in calculating salaries;
- entering payroll information in the accounting system;
- provisioning for paid vacation to distribute the expense over the full year;
- ensuring compliance with labor-related reporting obligations.

3.2.3. RISK MANAGEMENT

Process management and ISO 9001:2015 certification

ESI Group has been ISO 9001-certified since the 2000's and has always oriented its Quality approach to develop a worldwide certification for the entire Group, thereby aiming to align its business activities under the same operational criteria for all its subsidiaries. This approach has recently been supplemented by the transition to the 2015 version, which is an additional asset to strengthen process management and facilitate the implementation of risk management, thereby ensuring long term and effective prevention.

Insurance and risk coverage – general information

The Company has taken out an insurance policy that covers the cost of information recovery, additional operating costs and operating losses (loss of profit resulting from the decrease in revenues caused by the interruption or decline in the Company's business activities) in the event of direct damage to its equipment.

For its foreign subsidiaries, damages that would fall under operational civil liability coverage, including "employer liability" and/or "workers' compensation" policies and automobile-related risks, are excluded from this policy. The French policy (head office and subsidiaries) is not a replacement for those taken out outside of France in accordance with local laws from local insurance companies licensed to operate in the country in question.

ESI Group has also taken out an insurance policy covering civil liability of the managers and corporate officers of the Company and its subsidiaries (D&O), as well as insurance policies covering the Company's key protagonists and also a Group-wide international insurance policy to cover all employees who travel abroad.

4 STATEMENT ON EXTRA-FINANCIAL PERFORMANCE

In accordance with the resolution of the General Meeting of July 18, 2019, the Group now closes its financial statements at 31 December of each fiscal year.

4.1. ESI – THE PRODUCT PERFORMANCE LIFECYCLE™ COMPANY

4.1.1. VALUE CREATION

The development of certain products requires significant testing phases to ensure their safety and integrity. Traditionally, companies have used physical prototypes to test these products and assess their ability to meet technical requirements. The production of these prototypes can be time-consuming and can require significant amounts of materials and energy. Furthermore, it is difficult to assess the effects of time on a physical prototype, since we cannot abstract from the physical constraints.

The added value of ESI's solutions make it possible to meet these challenges: by dematerializing the innovation process, these solutions allow customers to accurately assess and evaluate the performance of their prototypes, virtually. In addition, ESI's solutions make it possible to simulate the consequences of time on their products, while making it possible to estimate the evolution of their performance during development and throughout their lifecycle. Hence, by means of ESI's offer, customers have the information they need to develop products that meet exacting standards more quickly, in a more efficient way and with a lower environmental impact.

This enriched software offer enables complete control of the lifecycle of an industrial product from its commissioning to its operational withdrawal. It also offers the possibility of anticipating possible developments during the lifecycle of the products while considering various contingencies such as defects, wear and tear maintenance operations, running-in of assisted piloting, etc. Henceforth, agile, smart and autonomous, virtual prototyping accompanies manufacturers in the era of the factory of the future and smart digital products.

ESI designs, develops and distributes Virtual Prototyping software on the one hand, and, on the other hand, offers its customers access to consulting services associated with this software. The Group primarily targets customers operating in four sectors: Ground Transportation & Automotive, Aeronautics & Aerospace, Heavy Industry and Energy **(for more details, see section 1.1.3 "Principal markets" of this document).** Thus, the sustainability of the Group's business model depends on its ability to understand the industrial and technical challenges of its customers, to simulate them thanks to the new possibilities offered by technology and, to do so, to rely on the talent of its employees and the confidence of its stakeholders.

4.1.2. ESI GROUP VALUES

ESI's values infuse this recognized organization with a culture and an ambition that have produced innovation for the benefit of the Group's customers and employees for more than 45 years.

These values – Passion, Global, Change, Trust, Social Responsibility and Energy – anchor the Group's identity and fit logically together, as can be seen in the Corporate Social Responsibility actions defined as follows:

4.2. ESI – A COMMITTED GROUP

4.2.1. SETTING PRIORITIES: CSR FRAMEWORK

Aware of its responsibility in each of the three pillars of sustainable development, ESI Group has gradually developed a Corporate Social Responsibility (CSR) policy that contributes to shared economic and social development and the preservation of human balance.

ESI Group's ambition is to become the leader in Virtual Prototyping, through a responsible innovation approach towards zero real tests, zero real prototypes and zero downtime. The Group thus intends to be its customers' preferred development partner, capable of understanding and supporting them in their efforts to bring innovative, quality, sustainable, ethical and highly resource-efficient products to market. The Group has carried out a review of major risks and opportunities, including the main CSR and sustainability challenges that could have a significant impact on its business, financial position or results.

In addition, ESI has developed its first materiality matrix to visualize its various priority challenges and their impact on the Company and its main stakeholders. **For more details, please refer to Chapter 3 "Risks and Risk Management" and the following section of this chapter.** ESI's CSR strategy, which is divided into four axes and cascaded into eleven (11) commitments, aims to continue ensuring harmonious working conditions for its employees, to provide its customers with innovative solutions enabling them to become long-term partners, and to limit the environmental footprint of the Group and its customers while acting ethically and responsibly within civil society. Through its activities, ESI Group has a very limited impact on the fight against food waste, food insecurity, respect for animal welfare, and the promotion of responsible, fair and sustainable food.

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ESI GROUP'S CSR APPROACH

Our CSR approach is aligned with our business strategy and contributes to the achievement of our strategic objectives. It enables us to create social and economic value for our key stakeholders: employees, customers, society and planet.

	// SUSTAINABILITY CHALLENGES	// COMMITMENTS
EMPLOYEES	The Group's success is highly related to its commitment, talents and the ingenuity of its employees who design, develop and market solutions that aim to constantly meet customers' needs.	**BEING A COMMITTED EMPLOYER** • Develop talents and encourage leadership and collaborative management • Promote diversity and multicultural exchanges • Contribute to the well-being of employees
CUSTOMERS	Our customers need to manage many parameters, efficiently and more quickly, in order to optimize the performance of their operations and products. Facing this growing complexity, we provide them with solutions enhancing their competitive advantage.	**BEING AN OUTSTANDING PARTNER** • Provide innovative solutions that meet customers' requirements • Ensure customer satisfaction and meet quality and safety requirements • Maintain long term, trust-based relationships with stakeholders and ecosystem
CIVIL SOCIETY	The social acceptability of our operations is essential. Therefore, the Group ensures the integrity of its ethics and the robustness of its corporate governance. This enables us to ensure the sustainability of our business model.	**BEING AN ETHICAL AND COMMITTED COMPANY** • Guarantee solid and diversified governance • Act ethically and responsibly • Set up initiatives to interact with civil society (give-back)
PLANET	While our business sector has an impact on the environment, our services help to reduce the environmental footprint of our customers' business. Therefore, to increase the positive impact of our business, we're committed to limiting the impact of our operations as much as possible.	**BEING AN ENVIRONMENTALLY FRIENDLY PLAYER** • Develop sustainable solutions • Reduce the environmental impact of the Group

2019 PERFORMANCE

+1,200 EMPLOYEES, SERVING OUR CUSTOMERS WORLDWIDE

3 "WELCOME DAYS" ORGANIZED AROUND THE WORLD TO INTEGRATE NEW EMPLOYEES

WE DEVOTED **8,125** HOURS TO PROFESSIONAL TRAININGS

WE HAVE SUCCESSFULLY MANAGED **1** ALERT LINKED TO DISCRIMINATORY PRACTICES

WE ARE CURRENTLY WORKING ON **20** R&D PROJECTS

WE HAVE DEDICATED **31.4%** OF OUR LICENSES REVENUE TO OUR RESEARCH EFFORTS

WE RELY ON **2** LOCAL SCIENTIFIC COMMITTEES AND **1** SCIENTIFIC COMMITTEE AT GROUP LEVEL

WE HAVE ORGANIZED **+250** EVENTS FOR OUR CUSTOMERS

WE HAVE CONDUCTED **5** ANALYSES FOLLOWING CUSTOMERS' COMPLAINTS

WE MANAGED **1** INCIDENT RELATED TO OUR DATA SECURITY

1 ALERT HAS BEEN HANDED TO OUR ETHICS COMMITTEE

WE'RE INSTALLING ECO-RESPONSIBLE EQUIPMENT TO LIMIT OUR ENERGY CONSUMPTION

LOCAL AND ON-DEMAND DOCUMENTS PRINTING ENABLED US TO AVOID DELIVERY DISTANCES OF **1,954,376 KM** (1)

PAPER CONSUMPTION PER EMPLOYEE DECREASED BY **15%** (2)

(1) Since the adoption of the Gelato printing solution in May 2018.
(2) 2019 internal data, including all the countries of the environmental study's scope, representing 99% of the Group's total workforce.

4.2.2. EVALUATING SUSTAINABILITY CHALLENGES: MATERIALITY ASSESSMENT

In line with ESI's commitment to ensuring responsible and sustainable business, while giving priority to issues that have the greatest impact on the economy, society, planet and governance, and that most influence stakeholders' decision-making, a first version of ESI's materiality matrix has been developed in 2019.

This matrix represents a key tool in the execution of the corporate strategy. It enables priorities to be defined according to their importance for internal and external stakeholders and their impact on ESI's performance.

Materiality methodology

/ 1. Identification

The preparation of this matrix first involves the identification and preliminary assessment of various risk and opportunity factors for ESI in terms of sustainable development.

In addition to a consultation of existing documentation and a benchmark of other companies operating in the same sector, the assessment is essentially based on key parameters of reporting frameworks (SASB standards, GRI standards, the European directive on extra-financial reporting), in perspective with the Sustainable Development Goals (SDGs) defined by the United Nations Global Compact, to which ESI contributes through its activities and its CSR approach.

/ 2. Evaluation and prioritization

The objective of this step is to rank and assess the various challenges identified in the first step according to their potential impact on the business and their importance to stakeholders.

For the preparation of this first materiality matrix, a workshop was organized with an internal staff representing the following departments: Executive Committee (GEC), Finance & Administration, Human Resources, Corporate Communication, Research & Innovation, Quality, Sales and IT. The latter are directly and/or indirectly concerned by the examinated challenges and are in interaction with all ESI's stakeholders.

Eleven (11) key issues have been identified and confronted with the concerns of ESI's internal and external stakeholders on a scale of 0 to 4, by answering the following questions:

- What is the issue's potential level of impact on ESI Group (economic, social and environmental impact)?
- What is the level of influence of the issue on the decisions of external stakeholders?

These challenges were then positioned in a matrix, the axes of which are represented by the two questions above.

/ 3. Validation

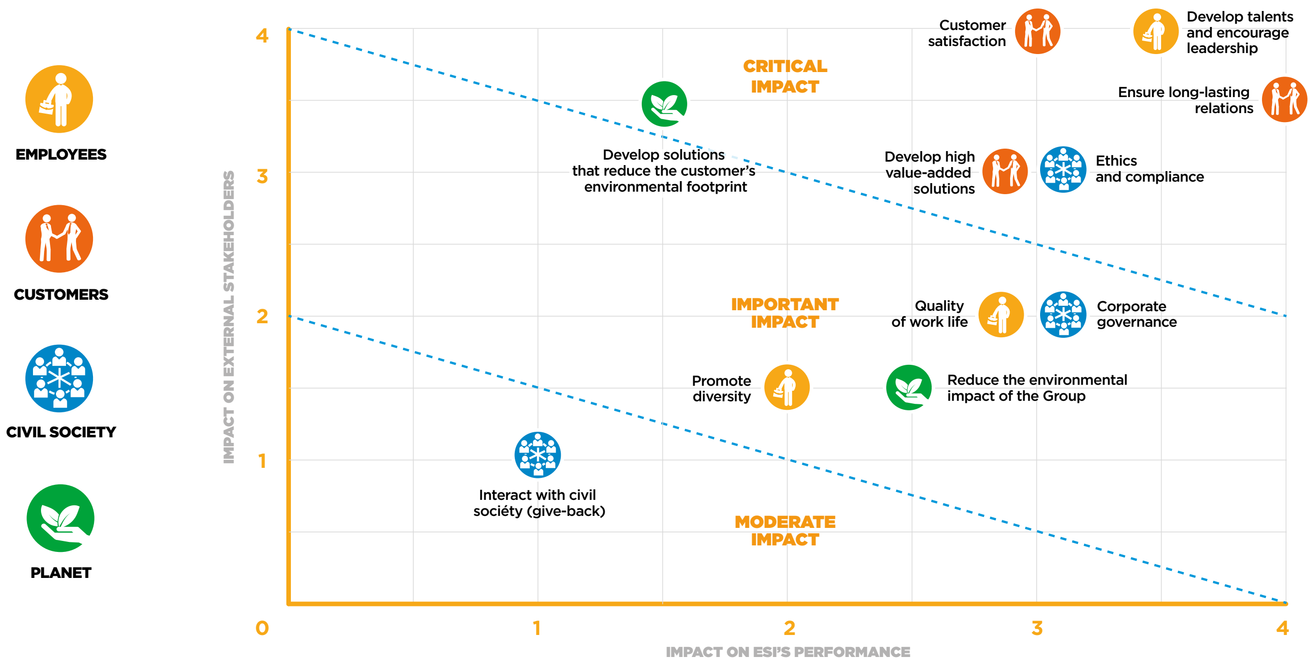
This step aims to verify that the results are well aligned with the Company's strategy and values. The matrix is therefore adjusted and validated by the members of the Company's general management.

Finally, the matrix followed an internal validation process and was reviewed by an external consultant.

The Sustainable Development Goals of the United Nations Global Compact, which are important for ESI and to which the Group contributes

As will be detailed below, the Group's CSR challenges and commitments are strongly linked to the following Sustainable Development Goals.

ESI Group's materiality matrix



Understanding the materiality results

In the materiality matrix above, ESI's sustainable issues are divided into three distinct sections/areas, allowing a better understanding of the impact of each challenge and its importance to ESI's stakeholders, both internally and externally.

- The **"Critical Impact"** section contains ESI's six (6) priority issues, which are closely linked to the evolution of the Company's business model and its positioning regarding its external stakeholders. Thus, these issues reflect the Company's strategic priorities, in particular the development of innovative and responsible solutions to deal with technological change and meet customer requirements, while maintaining long-term and trusted relationships with customers, while relying on the experience-talent of employees and acting ethically and responsibly towards civil society.
- The **"Important Impact"** section includes four (4) major issues, mainly related to the quality of working life, ESI's corporate governance and the Group's environmental impact. In fact, ESI considers that the well-being of its employees has a significant impact on their efficiency and on the Company's performance, both internally and externally. In addition, being a committed company also means ensuring solid and diversified governance, which has a direct impact on the Company's performance and internal management. Finally, one of the Group's main challenges is related to its commitment to limit its environmental footprint, which is mainly linked to the impact of its international implementations.
- The **"Moderate Impact"** section contains one (1) issue related to the Group's commitment to implement and continue to promote initiatives and partnerships within civil society. Compared to other issues, and despite its importance, this commitment has a limited impact on the Group and its stakeholders.

Above and beyond, it's important to note that the identified challenges are interconnected and interdependent. They must be considered in their entirety. For example, ethics and employee well-being can have a direct or indirect impact on the performance of the Company and its relationship with its stakeholders.

Exploiting the materiality results

The materiality matrix is communicated and shared internally as part of ESI's commitment to ensuring a responsible and sustainable activity. These challenges will also be relayed at the level of the various departments and at the level of the sites on an international scale for a better implementation of CSR commitments.

This materiality analysis has made it possible to identify the priority challenges with the greatest impact on the Company and its environment, in particular their impact on internal and external stakeholders. These sustainability challenges will be analyzed and presented in detail in this chapter.

4.2.3. CSR DISTINCTIONS

Gaïa Index

Between 2016 and 2018, and for three consecutive years, ESI Group has been awarded first prize of the Gaïa campaign in the category of mid-cap companies with revenue of less than €150 million and keeps its place in the index which singles out the 70 top-rated companies in the CSR domain.

Ranked 4th in 2019, ESI remains in the Gaïa index, which singles out the 70 top-rated companies in the CSR domain, out of a panel of 230.

The Gaia Index (www.gaia-index.com) was created in 2009 and is now the benchmark sustainability index for medium-sized listed French companies. Developed by EthiFinance (www.ethifinance.com), the Gaia Index selects small and medium-sized companies based on their non-financial performance.

Grands Prix de la Transparence

Since 2008, the *"Grands Prix de la Transparence"* are evaluating and awarding SBF120 companies under French law for the quality of the regulated information provided on their Registration Documents. The aim of these *Grands Prix* is to enable companies to measure their transparency performance each year and to identify best practices in the sector. Among the outstanding innovations for the 2019 edition is a *Grand Prix for Transparency of Registration Document* for companies outside the SBF 120, of which ESI Group is a member. In this first edition, the Group was ranked 4th for the "Transparency" and quality of its 2018 Registration Document, out of a list of 20 non-SBF120 companies.

For more information, visit: www.grandsprixtransparence.com

Global Compact

Since 2018, ESI Group signed the Global Compact (United Nations Global Compact) and thus undertakes to align its CSR strategy on the 10 United Nations principles, relating to human rights, international labor standards, the environment and the fight against corruption. The Group also undertakes to yearly communicate its progress to its stakeholders through the release of a Communication on Progress (COP).

For more information, visit: www.unglobalcompact.org

Gaïa INDEX

EthiFinance

GRANDS PRIX DE LA TRANSPARENCE

WE SUPPORT UN GLOBAL COMPACT

4.3. BEING A COMMITTED EMPLOYER

ESI Group aims to be a leading employer among all software and service providers on the market and plans to stay that way on a long term.

ESI Group's employees consist primarily of highly trained engineers and PhDs from prestigious universities and institutes worldwide. In addition to the close relationship that the Group has always had with these schools, there are a number of other factors that exemplify ESI's commitment to value employees' experience and foster highly qualified recruitment and internal development. These factors include ESI's positioning in the field of virtual simulation that takes into account the physics of materials, the Group's prominence as a publicly listed company on the Paris stock exchange, the Group's continuing education programs, and its focus on internal promotion at an international level.

ESI Group's policy is based on the following axes:

- develop talents and encourage leadership and collaborative management;
- promote diversity and multicultural exchanges;
- contribute to the well-being of employees.

This policy draws on various tools, including the Human Resources Information System (HR-IS) to consolidate the HR reporting process worldwide, and lends greater flexibility to the organization. It also promotes better use of resources by focusing on skills, to encourage a more involved, multi-disciplinary managerial culture. The platform provides an ongoing view of changes in employment indicators and makes it possible to drive our resource needs more easily.

A selection of HR KPI is provided monthly to the Group Executive Committee in order to measure the effectiveness of HR policies.

The data from HR-IS are provided on a worldwide scope.

4.3.1. DEVELOPING TALENTS AND ENCOURAGING LEADERSHIP AND COLLABORATIVE MANAGEMENT

4 QUALITY EDUCATION

8 DECENT WORK AND ECONOMIC GROWTH

Human resources are the greatest value of ESI and are part of the two sustainable development objectives: "Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all" and "Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all". Talents development is thus a key issue for the Group's sustainability. Indeed, in order to respond to the increasingly complex issues facing manufacturers and remain at the forefront of technological innovation, the Group must retain its resources and continually improve their know-how.

Moreover, the Group's size and distribution across many countries require a cross-functional management of numerous projects involving various entities and cultures. Leadership, expertise and collaborative management are therefore essential qualities for the success of our missions.

Also, the Group's transformation and its new solutions oriented towards the Hybrid Twin™, in line with ESI's core business, are an opportunity to develop and enrich the professions and skills of existing teams, and to recruit new talent directly related to these new concepts.

/ Policies:

In this way, ESI Group is committed to:

- ensure the integration of new talents through "Welcome days" sessions (2 to 3 days, organized in each region);
- to make the annual interviews more dynamic by promoting one to one interview in order to collect training needs and to develop competencies and to encourage the construction of plans of relevant and responsive local and/or global training to support business and strategy of ESI;

- deploy training programs enabling employees to develop their expertise in terms of knowledge available in the portfolio of solutions and to strengthen their professional (technical, sales) and managerial skills;
- develop partnership agreements with universities and engineering schools in order to participate actively in the training of junior population;
- to promote the dissemination of information to all employees of the Group.

/ Results:

Recruiting and retaining talents

The Group pays particular attention to the integration of new talents through a locally managed induction program. In order to be more standard and global, an Intranet portal has been set up to guide the arrival of newcomers and guarantee that everyone has access to a single level of information to support them during their first days, weeks and months at ESI Group.

Since 2018, a corporate integration program is organized internally, called "Welcome Days". The aim of this program is to enable all new joiners to have a better understanding of ESI, its business and its strategy. Organized at the regional level, it allows also to meet the top management and to exchange with colleagues from different countries.

The Group has also defined an internal mobility system integrated into the performance assessment tool that allows each employee to make his or her motivations known and thus highlighting its skills and know-how by applying to open opportunities within the Group in connection with the customer needs and projects.

Career development and management

The Group has a process for evaluating the performance and development of each employee, which aims to organize at least once a year with his or her direct supervisor an evaluation of the past year's performance in relation to previously assigned objectives and to define the objectives for the coming year.

Since 2017, online annual interviews have been implemented for the entire Group. During the 2019 feedback campaign, 97% of employees have formalized their annual interviews on the new online tool.

This new step in the performance evaluation process is designed to make annual interviews more dynamic by encouraging the feedbacks, monitoring and archiving of data, particularly for international teams. It also provides easier access to data relating to the performance achieved, the level of employee satisfaction and the professional and training objectives that will contribute to proactive and advanced management of competencies.

These assessment interviews are our first source for collecting the training and development needs of teams and encourage the construction of local and/or global training plans that are relevant and meet the needs of the business' development. They also provide an opportunity to detect the Company's high potentials and thus implement development actions useful for their internal mobility. In addition, this system makes it possible to support some employees more specifically through an individual plan to improve their skills.

Training plan

At the same time, training programs are being rolled out in the Group's various subsidiaries. The training plans are aligned with ESI Group's strategy and market developments. They enable employees to develop their expertise in terms of knowledge of the solutions portfolio and to strengthen their professional (technical, sales) and managerial skills.

Since 2017, a Virtual Campus has been set up *via* the Company's Intranet: "ESI Campus". It allows the Group's employees to access training in various topics. The objective is to give access to training to all employees and to support them in getting new skills and developing the Group's skills through a common language.

In terms of technical skills, the Group has put in place a partnership with the e-learning platform Pluralsight, with 200 licenses that allowed employees to train on several hundred online technical training courses.

- In India, for example, 107 employees have received training on leadership themes or technical training related to C++ and Advanced C++, Python, VPS/VCP, GIT and ISTQB.

Actions to promote trainee apprenticeship

Numerous partnership agreements with universities and engineering schools enable ESI Group to participate actively in the training of students: in Europe, the *École Centrale* of Paris, the Technical University of Dresden (Germany), the University of West Bohemia (Czech Republic), and the ENIT (National Engineering School of Tunis) in Tunisia, with which ESI Group benefits from partnership. The Universities of Alabama, Shanghai, Beijing, as well as the Indian Institute of Science, among others, work closely with ESI in the Americas and Asia-Pacific.

Following the successful partnerships with the EC Nantes and a partner in Japan from 2017, ESI Group is continuing these international student exchanges, which will strengthen the links between the academic ecosystem and the Group's projects. This type of collaboration, supported by ESI Group's Scientific Department, is further illustrated by the establishment of the ESI Chair at ENSAM in September 2018, and a new five-year contract signed with the University of Zaragoza on Augmented Reality and Model Reduction. On these themes, a student post-thesis of Zaragoza is currently on a mission in Seattle, at the University of Washington.

Also, in collaboration with ESI's Scientific Department, the Group announced in February 2018 the launch of a five-year research program with the CE Cardenal Herrera University (CEU-UCH) in Valencia, Spain.

In 2019, the Group has welcomed a total of 29 trainees from different universities and business school (interns and apprentices).

Internal communication

In order to efficiently communicate internally, ESI Group has set up several tools to address its messages to teams in more than 20 countries.

A welcome portal has been set up on the Group's Intranet website. It allows each new employee to discover the Group, its organization and its values and to easily access all the information that will be useful for a smooth integration.

In addition, the Group's internal social network, Chatter, enables everyone to group employees to exchange, share, inform or learn about numerous subjects in different fields. A new focus group was set up during the first quarter 2019, around environmental issues. Each employee of the Group can share his/her eco-responsible actions set up in their professional or personal life.

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Also, multiple communication actions are proposed in order to strengthen information sharing and cohesion within the Group, such as global presentations, monthly newsletters, Flash Corporate News and webinars (corporate or product).

Q&A (Question & Answer) sessions have also been initiated in 2018 to allow a more fluid and transparent exchange between the Management Team and the employees of the Group. Since October 2019, the Group has implemented Microsoft "Teams" tool, which replaces “Skype for Business”, enabling employees to exchange and plan online meetings easily and more efficiently.

Corporate events are also organized to allow different departments to exchange and meet on strategic issues. Two management meetings are organized each year, as well as one Kick Off Meeting more focused on sales and marketing of products. The Product Operations team organizes once a year an Engineering Management Meeting, a one-week seminar where the key managers of the organization as well as certain experts can meet.

In addition, and as mentioned earlier in this chapter, a new approach to change management has been put in place in 2020, at the initiative of the Communication Direction, and in collaboration with some departments concerned, in order to develop and optimize the employee experience. This also applies to the development of ESI's communication and evaluation of their effectiveness.

4.3.2. PROMOTING DIVERSITY AND REDUCING INEQUALITIES

5 GENDER EQUALITY

10 REDUCED INEQUALITIES

Through its “Global” value, diversity is one of the six values promoted by the Group as it enhances the organization of the company.

The Group's highly innovative solutions enable ESI to successfully develop its business throughout the world. As an international company, ESI Group is proud to be able to have a multicultural and diversified workforce. The Group has always valued differences and encouraged its employees to share their ideas across borders in order to create a modern and efficient work environment, able to better support its international customers. ESI Group strives to daily develop its know-how and expertise in recruiting the best talent from around the world. These challenges are in line with the following Sustainable Development Goals: “Ensure availability and sustainable management of water and sanitation for all” and “Reduce inequality within and among countries”.

/ Policies:

In order to promote diversity and reduce inequalities within the Group, ESI is committed to:

- promote diversity and multicultural exchanges;
- increase the proportion of female employees with permanent contracts;
- respect the laws in favor of the accession and retention of employees regardless of age;
- comply with laws and regulations prohibiting any discrimination based on age, race, sex, ethnic origin, nationality, religion, health, disability, marital status, sexual orientation, political or philosophical opinions, union membership or other characteristics protected by locally applicable law;
- not tolerate any form of sexual, physical or moral harassment, coercion or persecution.

/ Results:

The following tables present the distribution of staff by geographical area and country:

Distribution of staff by geographical area

	2018 (1) (Jan.-Dec.)	2019 (2) (Jan.-Dec.)
Europe, Middle East and Africa	57.1%	56.7%
Asia-Pacific	33.0%	33.4%
Americas	10.0%	9.9%

Note: Of the 56.7% of employees located in the Europe, Middle East and Africa zone, 54.9% are located in Europe.

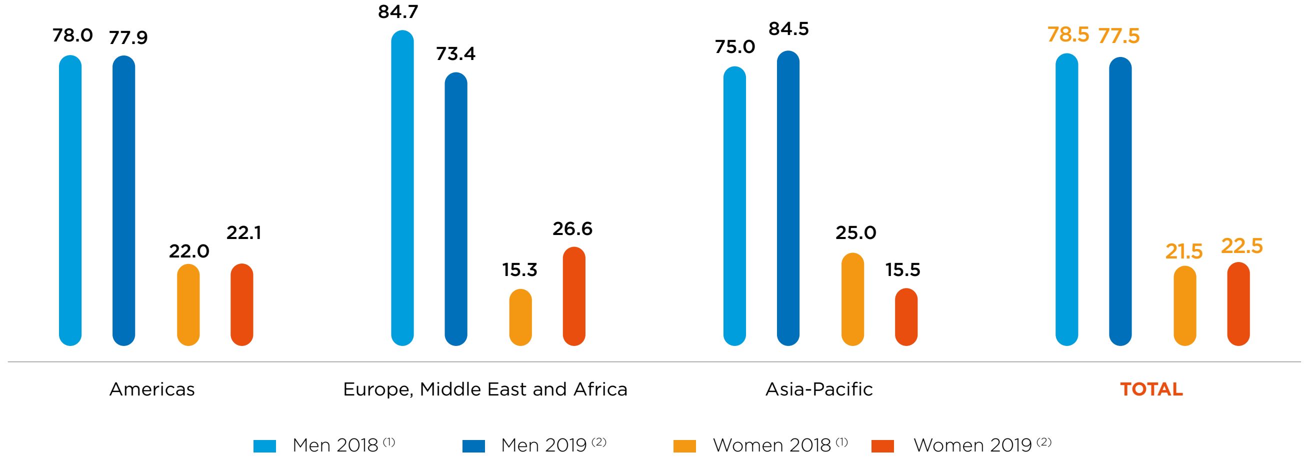
Distribution of staff in the main countries

	2018 (1) (Jan.-Dec.)	2019 (2) (Jan.-Dec.)
France	26.1%	26.3%
India	20.1%	19.9%
Germany	15.7%	15.6%
United-Sates	9.2%	9.1%
Japan	6.2%	6.9%
Others	22.6%	22.2%

(1) January 1, 2018 – December 31, 2018.
(2) January 1, 2019 – December 31, 2019.

Gender distribution and equality

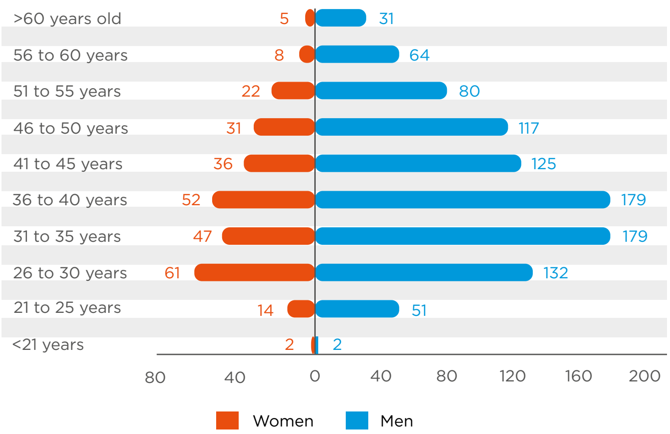
(in %)



The proportion of female employees with open-ended contracts, at 22.5%, is relatively low and stable compared to previous years. This low representativeness can be explained in particular by the low number of women in engineering schools that are the main source of recruitment for the Group, as well as by socio-geographical disparities that sometimes involve a relatively low female workforce participation rate.

Nonetheless, HR professionals are sensitive to the feminization of local teams as well as considering female candidates when recruiting for the Group. Already mentionned in non-discimination policy

Age pyramid (2019)(2)



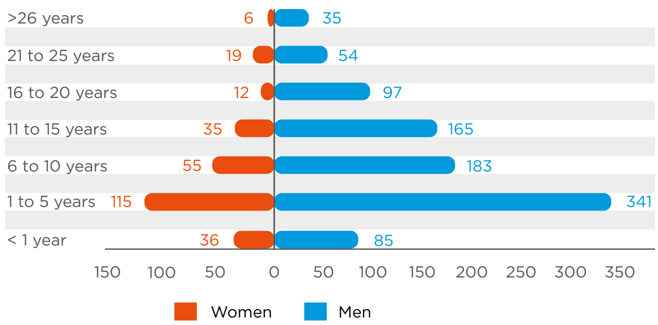
The average age of the Group's employees is 39.7 years (female employees: 38 years and male employees: 40.2 years).

ESI Group respects the laws in favor of the accession and retention of employees, regardless of their age. Thus, 17% of employees are over 50 years, *i.e.* 210 employees worldwide.

64.7% of the population aged over 50 is located in Europe, compared to 19.5% in the Americas and 15.8% in Asia.

In addition, 44% of employees hired on permanent contracts are under 30 years of age, making a significant contribution to the employment of young people at the global level.

Breakdown of workforce by seniority (2019)(2)



The average seniority in the Group is 8.5 years. This seniority is relatively high in the dynamic technology and IT sector (*source: Society for Human Resource Management study, 2015*).

The average length of service is 11.67 years for employees over 35 years.

Non-discrimination policy

In order to have access to more detailed information, in particular on gender equality and the principles of non-discrimination, the Group has supplemented its HR social database by introducing the concept of manager for persons supervising one or more employees. Thus, we can note a 17.7% increase in the number of women managers compared to 2018 (15.5%).

The Ethics Committee (composed of two women and one man) also ensures that none of the above-mentioned discriminations is used within the Group (see 4.5.2).

The Group is also committed to improve the gender balance of the Group.

"Gender equality" is an integral part of the Group's strategy, aiming to increase both the percentage of women managers and the percentage of women engineers. In 2019, 45 women joined the Group, representing 31% of new hires.

Some countries have set regulatory obligations in order to serve the same purpose. France is one of them. "Equal pay for equal work" has been a principle of labor law enshrined in law for several decades. In this sense, the *Avenir* act aims to eliminate the pay gap between women and men. In accordance with these regulations,

(1) January 1, 2018 – December 31, 2018.
(2) January 1, 2019 – December 31, 2019.

ESI Group, in France, has calculated its Gender Equality Index, the results of which are as follows:

- The gender pay gap: 33/40;
- The gap in individual rates of pay increase: 20/20;
- The number of employees of the under-represented sex among the 10 highest paid employees: 5/10;
- The rate of employees having benefited from a salary in the year following their return from maternity leave: 15/15;
- The gap in promotion rates between women and men: 15/15;
- TOTAL: 88/100, *i.e.* a 5-point improvement compared with the previous year and 13 points above the legal minimum.

India launched an Anti-Sexual Harassment Charter in July 2019 and established an Anti-Sexual Harassment Committee composed of a chairperson and eight members. Local information sessions have been organized on the subject.

In addition, in 2018, the Group raised the awareness of 87 people on the subject of interculturality. These awareness-raising sessions took place in small groups in the form of virtual classes. Employees from different countries of the Group were able to discuss cultural differences and intercultural communication.

Integration of disabled workers

Since the beginning of 2016, the Group has been collaborating with *Elise* for the Lyon and Rungis site in France to ensure selective sorting. *Elise* is a company called "adapted" which create open-ended contracts for the persons with disabilities.

4.3.3. CONTRIBUTING TO THE WELL-BEING OF EMPLOYEES AND ENSURING THE QUALITY OF WORKING LIFE

Ensuring decent employment and contributing to the well-being of employees

8 DECENT WORK AND ECONOMIC GROWTH

Every company is responsible for providing decent working conditions for all its employees. Promoting decent work with a decent wage and ensuring the well-being of employees are major global challenges, for which ESI Group is focused on. This challenge contributes to the following Sustainable Development Goal: "Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all".

/ Policies:

As an employer ESI strives to:

- control its workforce in connection with the growth of the activity;
- offer its employees the benefit of flexible management of their schedules;
- improve working conditions, which has a direct impact on the well-being, efficiency and motivation of employees;
- to create a favorable social climate.

/ Results:

Headcount data is calculated on the basis of the number of employees present at December 31, 2019.

Total Group headcount includes employees on permanent and fixed-term contracts, as well as student contracts such as work-study contracts and interns. They do not include temporary employees, consultants and networks of external distributions.

At December 31, 2019, ESI Group's workforce stood at 1,238 employees. 1,232 at January 31, 2019. The average number of employees in 2018 was 1,222 employees, a very slight increase compared with the previous year 2017 (1,201).

92.5% of the Group's workforce is hired on open-ended contracts. Precarious contracts such as internships, apprenticeship contracts, etc., are not covered by the Group's employment contract. and fixed-term contracts represent 7.5% of the workforce. total, compared to 7% in 2018. In 2019, ESI continued to pursue its ambitions to control its workforce in line with business growth.

Employee turnover

Recruitments	2017(1) (Jan.-Dec.)	2018(2) (Jan.-Dec.)	2019(3) (Jan.-Dec.)
Europe, Middle East and Africa	**144**	**107**	**88**
Apprenticeship/internship	28	25	20
Short-term contracts	24	25	22
Open-ended contracts	92	57	46
Americas	**17**	**17**	**24**
Apprenticeship/internship	6	6	15
Open-ended contracts	11	11	9
Asia-Pacific	**48**	**53**	**37**
Apprenticeship/internship	12	13	8
Short-term contracts	3	11	6
Open-ended contracts	33	29	23
TOTAL	**209**	**177**	**149**

(1) January 1, 2017 – December 31, 2017.
(2) January 1, 2018 – December 31, 2018.
(3) January 1, 2019 – December 31, 2019.

Departures	2017[1] (Jan.-Dec.)	2018[2] (Jan.-Dec.)	2019[3] (Jan.-Dec.)
Europe, Middle East and Africa	**112**	**101**	**94**
Apprenticeship/internship	30	28	18
Short-term contracts	10	13	8
Open-ended contracts	72	60	68
Americas	**22**	**23**	**28**
Apprenticeship/internship	10	5	10
Short-term contracts	1	0	0
Open-ended contracts	11	18	18
Asia-pacific	**33**	**48**	**28**
Apprenticeship/internship	2	3	4
Short-term contracts	6	10	4
Open-ended contracts	25	35	20
TOTAL	**167**	**172**	**150**

(1) January 1, 2017 – December 31, 2017.
(2) January 1, 2018 – December 31, 2018.
(3) January 1, 2019 – December 31, 2019.

In 2019, ESI Group recruited 78 employees on open-ended contracts, *i.e.* 52% of total hirings.

The departure rate of employees on open-ended contracts is 9.2% in 2019. (number of departures under open-ended contracts/total headcount under open-ended contracts at the beginning of the period) x 100] compared to 10% in 2018.

The turnover rate on open-ended contracts is 8.1% in 2019 [(Number of open-ended contract departures during year N + number of open-ended contract arrivals in year N*100/2/staff at the beginning of the period] against 9.6% for the year 2018.

Working time

The duration of the working time shall be set in accordance with the local legislation in force.

In the vast majority of its establishments, ESI Group offers its employees the benefit of flexible management of their schedules. In some countries, such as Japan, the timetables are set to meet the expectations of the business but are limited to eight hours a day.

In France, the organization of working time is based on working time measured in fixed days or according to a set schedule. An employee with a fixed daily rate works a defined number of days in the year and an employee with an hourly rate works the number of hours defined in the agreements:

- Full-time managers working on a fixed number of days per year work 217 days per year, plus one day for the solidarity day;
- For other employees, the average working week is set at 37 hours, with 10 days of reduced working hours per year for full-time employees.

In 2019, part-time work accounted for 6% of the total workforce; moreover, most part-time contracts are set up to meet the needs of employees who request them in order to arrange for parental leave, retirement or the resumption of their studies.

Social dialogue

The quality of the social climate is a determining factor for the quality of working life and the Company's productivity. The social dialogue, over and above strict regulatory compliance, constitutes a source of progress in this area. The value of social dialogue is based on the many exchanges between the Group's management and employees and their representatives.

Staff representative institutions shall be designated in accordance with the laws in force in the countries. Thus, we can count six institutions in France, one in Vietnam and one in Brazil.

These institutions involve 26 employees who have actively participated in meetings during 2019.

Review of agreements:

- review of general agreements: the French subsidiary has signed various agreements with its social partners, such as the agreement on the reduction of work, the participation agreement and the agreement on employee savings;
- review of agreements related to health and safety: no company has signed a specific agreement.

Workplace Well-being

In the different countries, various initiatives have been launched to promote the well-being of employees, under the responsibility of the Human Resources Departments and in collaboration with local and representative bodies such as the CSE (Social and Economic Committee) in France.

Since 2017, sophrology relaxation sessions carried out by employees were set up on the Rungis site.

In 2019, two other activities have been made available to employees at Rungis, including pilates classes and seated massage sessions. The benefits of these practices include better stress management, improved productivity and the development of positive thinking.

10% of the staff at the Rungis site have already completed a session in 2019. At the Lyon site, 15 sophrology sessions were organized in 2019, with an average of 15 participants, representing more than 14% of the workforce at the site in question.

South Korea, for example, also offers training courses on happiness and work-life balance.

Most of the projects carried out for our customers are carried out in-house, our engineers have few needs of developing on customer's site, which limits travels and improve work-life balance.

Moreover, in many countries, ESI enables its employees to work remotely from home. France, for example, is currently working on the development of a Charter on home office and the right to disconnect.

Ensuring employee health and safety in the workplace and employee benefits

The Group's approach is also in line with the implementation of social measures and benefits for our employees worldwide, especially, by ensuring the health of employees on their daily professional life.

This contributes to the following two Sustainable Development Goals: "Ensure healthy lives and promote well-being for all at all ages" and "Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all".

/ Policies:

As the health and safety of employees in the workplace and social benefits are necessary for the smooth running of activities, ESI has set itself the objective of:

- providing a quality social security coverage for all its employees worldwide;
- offering an attractive compensation and social benefits package.

Health, Safety and Benefits

ESI Group has set itself the objective of providing coverage for to all of its employees worldwide, both in terms of with regard to health and old age but also the coverage of incapacity, disability and death.

13 out of 19 countries offer their employees the opportunity to finance a local health insurance in compliance with regulations and the well-being of employees. Some countries, such as India, now offer a free medical check-up to employees once a year, and Tunisia now offers five days of holidays since February 2017 and has set up a mutual insurance company that has been offered to its employees from the beginning of 2020.

Wage policy

To attract and retain the best talents on the market, ESI Group has set up an attractive compensation package and various benefits for its employees. This policy is intended to recognize talent by rewarding both individual and collective performance.

Employee compensation is made up of direct and indirect remuneration; the latter includes cash or in-kind supplements deferred from the monthly remuneration (bonuses, commissions, savings plan, fringe benefits, etc.). All the countries included in the scope of social reporting offer indirect compensation to their employees.

In Europe and the Americas, six subsidiaries have set up a system of indirect compensation for their employees.

Within this framework, an employee shareholding mutual funds ("FCPE") was created in France in 2013 in order to collect future flows of participation and payments, housed in the Group Savings Plan. This "FCPE" makes it possible to acquire shares of the Company and to benefit from a 100% matching contribution, up to an annual ceiling of €400. Beyond that, ESI subscribes to up to 20% of the payments within a range of between €401 and €2,000 maximum. At December 31, 2019, the FCPE held 29,500 shares of the Company, *i.e.* 0.49% of the capital.

Special point about Coronavirus (COVID-19)

In order to maintain the well-being of the employees during the period of the COVID-19 epidemic, the Group has put in place several measures to protect its teams and ensure the continuity of its activities. The situation is managed globally and adapted to each local situation. Having a global presence, the Group's adaptability and reactivity are of paramount importance for all its stakeholders.

Among the measures implemented by the Group:

- The launch of the Group's Business Continuity Plan (BCP);
- The creation of a special COVID-19 crisis management team;
- The adoption of home office for all positions;
- The ban on travel at Group level, in a more restrictive way according to the local situations;
- The use of digital tools and the organization of conferences and 100% digital events;
- The development of a communication plan to inform the employees on the preventive measures to be adopted in accordance with official recommendations, by email and *via* the Company's internal social network;
- The organization of internal activities (stress management tips, photo contest, drawing contest for children, etc.) and the creation of an online group for sharing advice, recipes, etc. during the confinement period.

4.4. BEING AN OUTSTANDING PARTNER

The Group solutions help its customers cope with the challenges of their digital transformation. These solutions meet the continuously changing regulations that govern the Group's businesses, in order to:

- provide innovative solutions that meet our customers' requirements;
- ensure customer satisfaction and meet quality and safety requirements;
- maintain long term, trust-based relationships with stakeholders and ecosystem.

4.4.1. PROVIDE INNOVATIVE SOLUTIONS THAT MEET OUR CUSTOMERS' REQUIREMENTS

How can an organization bring innovative products to market while keeping costs and deadlines reasonable? How can an organization integrate new materials and processes safely? How can an organization reduce the impact of these new materials, such as composites on product performance and integrity? What are the best practices for optimizing the product lifecycle and maintenance costs? What processes will ensure that recycling requirements are met?

The products developed by ESI Group are used to bring to market innovative products at a lower cost and with greater reliability and contributes through this section to 2 Sustainable Development Goals:

- Goal 8: "Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all";
- Goal 9: "Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation".

/ Policies:

In its approach, ESI strives to:

- meet its customers' demand for ever more innovative products;
- engage itself in a process toward zero real tests, zero real prototypes and zero downtime;
- guarantee the quality of its products and services and ensure client satisfaction;
- acquire a full global certification by 2021.

/ Outcomes:

Innovative solutions towards the zero real tests, zero real prototypes and zero downtime

To meet its customers' demand for ever more innovative products, the Group offers Virtual Prototyping solutions that save manufacturers and their subcontractors significant amounts of time and money, and therefore support their efforts to innovate. These are all key advantages that help customers keep up with international competition. ESI Group gives its customers the capacity to perform virtual simulations as of the preliminary design phase, during detailed design phases, and throughout the product lifecycle, and also to approve the performance of their complete digital model step by step before producing a physical prototype. This approach makes it easier to make key decisions very early in the process. Innovation is made possible through reliable virtual prototypes and helps customers get their product right the first time. Virtual Prototyping makes it possible to prepare physical tests under the best conditions, going as far as pre-certification or eliminating the need to carry out physical tests until final validation.

Following the acquisitions of innovative companies in the last years, in new technologies such as Artificial Intelligence, Big Data, or Internet of Things, ESI Group is now able to represent the connected product as used in its operational environment, meaning after its launch on the market. This Hybrid Twin™ targets product predictive performance and maintenance, to optimize repairs, facilitate certification update, and minimize recalls. Once the brand-new product is "right the first time" thanks to its pre-certified Virtual Prototype, it must be kept right when in-Service, and perform right in real life, connected and operationally assisted in its digital version.

The Group's success also stems from an approach based on close collaboration with world leaders in each sector where the Group is active, including Renault-Nissan, Fiat Chrysler and Volkswagen in the Automotive industry, Boeing and Airbus in the Aeronautic industry, as well as EDF and Framatome in the Energy industry. By building strong relations with large industrial firms, the Group can perfectly match their Virtual Prototyping needs. These strategic partnerships help the Group's customers assess their innovation requirements and implement them jointly with ESI Group.

For example, using Virtual Prototyping to design airbags or carrying out an in-depth study of advanced driver assistance systems (ADAS) increases the safety of vehicles for consumers. ESI Group solutions give consumers greater safety and comfort.

4.4.2. ENSURE CUSTOMER SATISFACTION AND MEET QUALITY AND SAFETY REQUIREMENTS

In 2000, ESI Group obtained its first ISO 9001 certification, followed by the independent certification of its subsidiaries, so as to guarantee the quality of its products and services and ensure client satisfaction. The benefits of ISO 9001 certification accrue to external as well as in-company stakeholders. Outside the Company, certification guarantees that ESI Group provides products and services that meet the needs of its clients, while it continues to evaluate and improve its processes. Within the Company, certification calls on employees to actively engage in an overall consistent management system.

Since 2010, ESI Group has extended the scope of its certification using a global system common to all its subsidiaries. Since risk management and quality management are closely linked, this worldwide certification is a sign of confidence in the quality of the solutions that the Group offers its customers and guarantees that particular attention is paid to excellence and to the alignment of all the Group's processes. ESI Group's objective is to have full global certification by 2021. The roadmap is updated every year to identify new entities to bring under the Group, taking account of their impact on business, new acquisitions and the as-associated risks and opportunities.

In 2019, the global certification applied to 95.31% of the workforce.

Global certification is now successfully applied in Europe, Asia and the United States, within the ESI Group parent company and most of its subsidiaries: ESI US R&D, ESI France, ESI Japan, Calcom ESI SA in Switzerland, ESI SW India (which now includes the Pune and Bangalore sites), ESI SW Germany, ESI GmbH, ESI ITI (in Germany), ESI NA in the United States, ESI Mecas in the Czech Republic, ESI Service Tunisia, ESI Korea (South Korea), ESI China, ESI Italia and ESI Hispania, ESI UK (in the United Kingdom), ESI Open CFD (in the United Kingdom) and ESI Nordics AB (in Sweden).

In addition, since their creation in 2018, the "Welcome Days" have included a session on Quality in the agenda in order to understand the meaning of evolving under a Quality Management System and the approach to process improvement.

ESI Group is also involved in an ISO 27001 certification project, and is implementing an information security management system that, through appropriate risk management, guarantees the confidentiality, integrity and availability of information. This project considers specific demands of clients, particularly those from the automotive sector as of TISAX. The TISAX (Trusted Information Security Assessment Exchange) certification was created on the initiative of the VDA (Association of the German Automotive Industry). This standard is based on the requirements of ISO 27001 and adapted to the specificities of the automotive sector to secure exchanges between various players. In 2019, ESI Group got the TISAX certification for, ESI MECAS (Czech Republic) and ESI GmbH (Germany) and will be extended to ESI Hispania (Spain) in 2020.

4.4.3. MAINTAIN LONG TERM, TRUST-BASED RELATIONSHIPS WITH STAKEHOLDERS AND ECOSYSTEM

By developing the partnership ecosystem that respects the Group's values its commitments, ESI contributes to the Sustainable Development Goal 12: "Ensure sustainable consumption and production patterns", as well as goal 17: "Strengthen the means of implementation and revitalize the global partnership for sustainable development".

ESI Group has a wide range of internal skills that cover its software Edition activity on the one hand and its services activities on the other one. However, when it is necessary to mobilize resources outside its usual scope of business, or when specific expertise is recommended, ESI Group may occasionally use external contractors.

/ Policies:

Develop a partnership ecosystem that respects the Group's values and commitments.

/ Outcomes:

ESI Group remains fully responsible for all outside subcontractors. In this regard, the subcontractors are subject to the same rules and verifications as any other employee of the Group.

To provide its customers with quality products, ESI Group monitors and regularly evaluates all suppliers influencing quality through a questionnaire completed in-house to assess the supplier based on the service provided. A list of approved suppliers is made available for this purpose on the intranet and updated periodically.

The Company now includes an environmental criterion (energy consumption for operation, local purchasing, possibility of recycling the product, etc.) in the purchasing procedure of its suppliers and subcontractors. Training on responsible purchasing have been planned for the most important buyers. To date, one person has completed this training.

ESI Group also takes care not to create a situation of dependence on suppliers and subcontractors.

4.5. BEING AN ETHICAL AND COMMITTED COMPANY

Partnerships are an integral part of the Group's strategy to facilitate and promote Virtual Prototyping while acting sustainably.

The Group considers its main stakeholders to be its employees, customers, suppliers, and industry and academic partners, but also its investors and shareholders.

Innovation, which is at the core of ESI Group's business, is also a key issue of CSR. Innovation continually improves production processes and shortens the design period and the time it takes to develop more efficient and more reliable new products.

To remain at the leading edge of innovation, the Group invested 31.4% of its revenues in R&D in 2019.

Innovation makes it possible to resolve the multiple constraints and pressures that weigh on all manufacturers – to develop a safer, more efficient and more environmentally friendly product, faster and at a lower cost. The innovative Virtual Prototyping solutions offered by ESI Group allow us to approach these ever-present economic goals.

ESI Group strongly believes that its ability to innovate and research is a key factor in its differentiation and hence its competitiveness, two key drivers for sustainable growth.

4.5.1. GUARANTEE SOLID AND DIVERSIFIED GOVERNANCE

Nowadays, as the world has become more complex and companies must be able to constantly adapt, strong and effective governance has become a real necessity. ESI Group attaches particular importance to governance issues. It ensures the coherence and sustainability of the Company's strategy, ensuring the best framework to serve the interests of investors.

The Group strives to maintain a mixed governance, represented by independent and competent directors who are fully involved in the Company's projects, while ensuring compliance with the laws on remuneration and transparency rules.

4.5.2. ACT ETHICALLY AND RESPONSIBLY – ETHICS CHARTER

The Ethics Charter applied across the Group is in line with the principles of Sustainable Development Goal 16: "Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels".

A three-member Ethics Committee is responsible for creating an environment where employees can adhere to the Ethics Charter and ensure that its principles are upheld by everyone, every day. The Committee listens to and assists employees so that they can discuss any issue involving the implementation of and compliance with the Ethics Charter. It also works to make sure that all Group subsidiaries apply the principles set out in the Charter. This Committee meets regularly, at least once a year, to discuss ethics issues and come up with corrective measures, if necessary.

In 2016, the Group issued its Ethics Charter to promote observance of its values and confirm its commitment to the main rules of conduct that the Group wants to see applied internally. This Ethics Charter reaffirms the legal, regulatory and internal provisions relating to the respect of fundamental rights at work, professional integrity, the elimination of discrimination, and the prohibition of child labor and forced labor. It is based on the observance of the ethical rules promoted by the conventions of the International Labor Organization. The Ethics Charter was disseminated to all employees and is available in six languages on the Group's internal and external websites.

A new version of the Charter has been communicated to all employees in 2018. This version strengthens the Group's position on corruption, facilitation payment and other frauds, in the context of the French law "Sapin II".

The Ethics Charter contains the policies and procedures inherent in the following business conduct:

- Relations with our business partners:
  - establish transparent and loyal business dealings with clients,
  - deal honestly and fairly with all clients no matter the size of their company,
  - provide quality products and services that meet the needs of its customers;
- Actions taken to prevent corruption:
  - prohibition of any form of corruption in its relations with its business and institutional partners and with the administration,
  - no financial or in-kind gratuities may be given with a view to obtaining an advantage, nor may such gratification be received to benefit a company or person,
  - if an employee makes facilitation payments or influence-peddling in the course of their professional activities, he is likely to be subject to criminal penalties and its contract of employment will be terminated,
  - prohibition to receive, give, promise or solicitate facilitation payments or influence-peddling undue benefits with a view to granting, obtaining or maintaining a contract or any other advantage;
- Fraud and money laundering:
  - comply with laws on fraud and money laundering,
  - conduct business only with reputable partners,
  - be vigilant regarding any payments made, in order to detect any irregularities, especially concerning partners whose business conduct may raise suspicion,
  - ensure that the accounting and tax declarations sent to the authorities are complete and reflect the reality of each subsidiary;
- Compliance with antitrust laws:
  - prohibition of any exchange of confidential information and any arrangement – formal or informal – or attempt to enter into arrangements with competitors which seek to fix prices or conditions of sale, to share a market or to boycott a particular market actor,
  - prohibition of abusing a dominant position or a monopoly and also from acquiring or maintaining a dominant power other than by recognized legitimate means such as patents, skills, superior know-how or geographical location.

Whistle-blowing policy

Any person employed within ESI, or any client, supplier, partner or third party who suspects or is informed of a possible breach of this charter or a violation of the law by the Company, or one of its employees, has a duty to report it. While it is natural to be reluctant to report abuse, everyone is strongly encouraged to do so, as silence can have highly detrimental consequences for the Company. The use of the whistleblowing procedure described below is neither mandatory nor exclusive.

The procedure for reporting abuse is as follows:

- the first contact is the local/regional HR correspondent or the direct manager;
- in the event of a conflict of interest involving the HR correspondent or the direct manager, contact the HR Director of the division or group or the N+2 manager;
- otherwise, contact the Ethics Committee directly at the following address: ethics@esi-group.com.

The Company is committed to handling requests, quickly and genuinely, in a confidential and ethical manner.

This procedure is secure and guarantee the strict confidentiality of the whistle-blower, the facts that are the subject of the report and the persons concerned. The use of this procedure in good faith, even if the facts subsequently turn out to be inaccurate, shall not expose the author of an alert to sanctions. On the other hand, any abusive denunciation may lead to disciplinary sanctions and/or legal proceedings.

General Data Protection Regulation (GDPR)

Regarding the European Union data protection regulations, which are supervised in France by the CNIL *(Commission nationale informatique et libertés)*, ESI Group, as a French company, must comply with them.

In 2016, ESI Group launched an GDPR project and since then, several measures have been put in place:

- a regularly updated treatment register;
- a public privacy policy available on the Group's digital platforms (websites, applications, etc.);
- internal procedures to respect the rights of individuals and to manage incidents;
- policies to guarantee data security "Implementation of ISO 27001 certification: ongoing";
- a contract to guarantee and control intergroup transfers;
- an impact analysis relating to data protection;
- employee awareness *via* an E-Learning platform: https://www.iitr.de/;
- "Candidatus" recruitment platform to control compliance in the processing of applications. "Implementation in France".

As part of its continuous improvement approach, at the end of 2019, the Group has been equipped with a "Metacompliance" tool that allows the following:

- E-Learning: to set up training dedicated to cybersecurity;
- Phishing: to simulate phishing attacks and raise awareness among our users;
- Privacy: to improve monitoring of GDPR compliance through a complete, visual and interactive interface.

4.5.3. SET UP INITIATIVES TO INTERACT WITH CIVIL SOCIETY (GIVE-BACK)

By developing partnerships with the various digital players, ESI Group is once again contributing to the following Sustainable Development Goals (4, 5 & 17, respectively): "Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all", "Achieve gender equality and empower all women and girls" as well as "Strengthen the means of implementation and revitalize the global partnership for sustainable development".

ESI Group is convinced that it is by investing with various players in the digital community that the Group will strengthen its position as a leading player in digital transformation and leader in virtual engineering.

/ Policies:

In order to facilitate collaboration and encourage industrial innovation, the Group makes sure to create and maintain quality relationships with various players in the digital community, at the industrial, academic and associative levels.

/ Outcomes:

The Company is an active member of TECH IN France (formerly AFDEL, the French association of software publishers), which helps promote the software publishing industry and develop digital simulation, and which currently represents over 400 members. In so doing, ESI Group is strengthening its position in France as a leading player in digital transformation and is bringing in its vision for virtual engineering as well as its economic and social values.

ESI Group participates in several competitiveness clusters, principally in France. These clusters provide the proximity needed for collaborative work with major industrial players and research and development organizations in order to bring highly innovative products to market. Located all over France, these organizations are as follows: Aerospace Valley (Toulouse), ASTech Paris Région (Île-de-France), Nuclear Valley (Burgundy), Mov'eo (Normandy and Île-de-France), I-Trans (Nord-Pas-de-Calais and Picardy), iD4CAR (Nouvelle Aquitaine, Bretagne et Pays de la Loire), Systematic (Île-de-France), Minalogic (Grenoble and Rhône-Alpes), Pôle SAFE (Provence-Alpes-Côte d'Azur) and Pôle ViaMeca (Auvergne-Rhône-Alpes).

Since 2013, ESI Group is present on the campus and the Board of Directors of Ter@tec, Europe's largest intensive computing center, based 20 km outside Paris at the Saclay platform in Île-de-France, alongside the CEA (the atomic and alternative energy commission), a major player in research, development and innovation. Today, ESI Group is involved in several collaborative projects under the leadership of the System X IRT (Institute for Technological Research).

ESI Group is also a member of the Executive Committee of the Systematic Paris Region Competitiveness Cluster and of AS Tech Paris Region, two local competitiveness clusters with a global influence, which anime the collaborative research in the Île-de-France ecosystem, respectively in the digital sector and the aerospace industry.

As a pioneer in innovation in the automotive sector, the ID4CAR cluster has appointed Vincent Chaillou, Chief Operating Officer of ESI Group, as the new President of ID4CAR in February 2018, after a regular attendance to its Board of Directors since 2012. The aim of this cluster is to increase the competitiveness of the sustainable vehicles and transportation sector in western France through innovation. Through this presidency, ESI Group contributed to the development of the strategic plan for the automotive industry. These plans are developed at the initiative of the CNI so that each CSF (strategic committee of the sector) develops its own transformation plan towards the Industry of the Future in general and particularly digitalization, by involving the entire value chain contributing to the sector.

ESI is also one of the founding members of the Excelcar association. Created in 2014, the aim of this structure is to revitalize and create jobs around a FabLab technical platform of R&D excellence in Bretagne (France) dedicated to the automotive industry under the impetus of PSA. This initiative is supported by *The Union des Industries et des Métiers la Métallurgie* of Ille-et-Vilaine and Morbihan (UIMM 35-56), for the purpose of stimulating the automotive industry in Brittany around PSA Rennes, which has announced its strategic plan for the coming years. ESI participates in the AM2 innovation platform specifically for developing a digital simulation and Virtual Prototyping channel for new multi-material and composite architectures, with priority given to the automotive industry.

Again, in the transportation sector, ESI is an active member of IRT Railenium whose main mission is to lengthen the lifecycle of railways infrastructure and capitalize on the rapid international development of its new products. Involving a broad consortium of manufacturers and research organizations, in 2011, ESI Group was selected by the Investissements d'Avenir (Grand Emprunt) Program.

ESI also assists the mechanical engineering field and promotes its activities. The Company is a member of the Board of Directors of the Association Française de Mécanique (AFM), a body for information, dialogue and discussion for the mechanical engineering community (industry professionals and technology transfer organizations, teachers and researchers) and representing French mechanical engineering to its foreign counterparts.

When it comes to the aeronautics sector, ESI actively participates in initiatives from the Council for Civil Aeronautics Research (CORAC) undertaken as part of the Plan d'Investissement d'Avenir. In 2014, ESI was invited by the seven top French aeronautics companies, which are members of GIFAS, to join the *Usine Aéronautique du Futur* (Aeronautics Factory of the Future) platform as an associate member. This major initiative was launched to transform production facilities in the fast-moving aeronautics industry, which must deal with an unprecedented increase in requirements. As a result, ESI participated in the development of a plan and is already contributing to four major projects that aim to spread the use of Virtual Prototyping and increase development of manufacturing processes for the future, such as additive manufacturing or manufacturing of large composite materials. ESI also participates in other CORAC plans, like those for the DEPACE platforms for the Composite Aircraft of the Future, the SEFA platform to develop the Cockpit of the Future, and the plans for the Helicopter of the Future, in order to strengthen French excellence in these fields. In this way, ESI helps to make commercial aircraft cockpits safer and more comfortable, and thus keep cost margins under control for manufacturing important parts in helicopter transmissions boxes.

ESI Group is also an active member of the Nuclear Valley cluster, which helps to restore the competitiveness of the nuclear industry on the international market by providing its expertise in virtual reality to facilitate the replacement of existing equipment or its maintenance.

Since 2013, several initiatives have emerged to design the *Usine de Demain* (Factory of the Future) and to use it to drive competitiveness and attractiveness for the region. ESI Group participates in the Nouvelle France Industrielle, a national initiative, and contributes, on this basis, to the work of the *"Alliance Industrie du Futur"*.

Thereby, ESI contributes to several working groups that focus, in particular, on developing and promoting key technologies of the Industry 4.0.

ESI Group has coordinated the "Promotion of Existing Technological Supply" group since its creation. In this regard, the Group is working with its peers to structure and circulate the French supply, in particular by jointly creating with the French Chamber of Commerce and Industry the first national directory of Suppliers of Solutions for the Industry of the Future (*Offreurs de Solutions Industrie du Futur* – OIF). This tool will boost the technological supply and its deployment within the industry both in France and internationally. Through its action in this working group, ESI Group has also contributed to launching the *Créative Industrie* trademark in partnership with Business France. ESI's IC.IDO virtual reality solution was selected to illustrate the Value Chain Digitalization Technologies trademark when it was launched by the current President of the Republic of France, Emmanuel Macron, at the *"Salon de Hanovre"* in April 2016.

ESI is also a player of the *"Alliance Industrie du Futur"* for the development of key technologies for the industrial transformation. Thus, ESI is the top-tier partner of the SOFIA program aiming to develop the additive manufacturing sector in France *(Solutions pour la Fabrication Industrielle Additive Métallique)*. The additive manufacturing, a numerical process, gives an essential role to Virtual Prototyping, which positions naturally ESI as a key player of this sector.

Regionally, ESI Group is part of the Aerocampus Aquitaine Cluster which is the first European expert's network that answers the training needs of companies in the aeronautic and aerospace sectors. The Aerocampus training center uses ESI IC.IDO, ESI's virtual reality solution, together with the Institute of Aeronautic Maintenance (IMA).

ESI Group has worked with the Nouvelle-Aquitaine Regional Council to create the "SMART 4D" simulation community within the Digital Aquitaine cluster. This group brings together a number of industrial, academic and institutional players from the region. It has led to the creation of the first interdisciplinary digital community dedicated to simulation, HPC, virtual prototyping and immersive experience to support industries and future applications.

At the international level, ESI Group is involved in promoting French know-how in the technological field of the Industry of the Future.

4.6. BEING AN ENVIRONMENTALLY FRIENDLY PLAYER

Considering the nature of its activity – distribution of software and sales of consulting services – the Group believes its impact on the environment to be very limited. All of its activities are carried out in offices. However, the Group has still pledged to work towards limiting its environmental footprint.

The main environmental challenges identified by the Group are:

- to reduce energy consumption in its buildings and data centers;
- to limit emissions of greenhouse gases associated with travel by Group employees;
- to limit the impact related to waste electrical and electronic equipment (WEEE).

Scope: France, Germany, Czech Republic, Switzerland, Spain, United Kingdom, Italy, Tunisia, United States, Brazil, China, India, Japan and South Korea.

4.6.1. DEVELOP SUSTAINABLE SOLUTIONS

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

From the outset, by developing innovative Virtual Prototyping products, ESI Group has sought to measure the impact of its solutions on society. Indeed, ESI's solutions enable reductions in the number of physical prototypes, which are costly and require large amounts of energy, raw materials and time, and bringing more environmentally friendly production to the market. ESI Group contributes to through this challenge to the Sustainable Development Goal 9 of the United Nations "Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation", as well as goal 12: "Ensure sustainable consumption and production patterns".

/ Policies:

ESI is committed through its solutions to helping its customers to:

- reduce time-to-market;
- reduce total product weight;
- reduce waste associated with prototyping and manufacturing;
- improve useful life of products;
- reduce the environmental footprint of products;
- improve the safety of the products.

/ Outcomes:

Tighter regulations on greenhouse gas emissions and recycling requirements, higher fuel prices and consumers' growing environmental concerns are all boosting demand for more environmentally friendly products. Reducing one's environmental footprint now drives industry innovation. All the sectors where ESI Group operates are working to improve their environmental performance by manufacturing more environmentally friendly products, developing more ecological manufacturing processes, and reducing or eliminating physical prototypes.

By successfully combining advanced manufacturing processes with the most innovative materials, such as composites, ESI's solutions bring customers the following advantages:

- Reduced time-to-market: with ESI ProCAST, Nissin Kogyo, who develops, manufactures, and sells brake equipment for two- and four- wheeled, could successfully cast complex shapes after an analysis using precise finite element technology. All possible defects were predicted with the highest accuracy. By introducing ESI ProCAST on a full-scale basis, Nissin Kogyo reduced their development time and trial production, allowing them to reach the market faster.
- Reduced total product weight: using ESI's Virtual Seat Solution, the company Expliseat has developed the lightest seat ever certified by the European Aviation Safety Agency (EASA). This titanium seat is 50% lighter than the lightest models currently available on the market (8 kg to 10 kg). This significant weight reduction could result in an estimated 3% to 5% reduction in fuel us-age, saving $300,000 to $500,000 per aircraft per year.
- Likewise, the use of Virtual Performance Solution by ESI experts helps to design lighter vehicles to help vehicle manufacturers in their weight reduction challenge. This challenge is even more present today with the acceleration towards the electric vehicle, whose weight, and particularly the weight of the battery, becomes a central issue.
- Reduced waste associated with prototyping and manufacturing: Students from the Czech Technical University in Prague (ČVUT), Czech Republic, were able to avoid physical crash tests of their race car thanks to ESI Virtual Performance Solution (VPS), using only virtual tests of the material to validate the model. This enabled them to move swiftly to the design optimization of the crash absorber structure. The capability of VPS to complete multiple simulations on a single core model allowed the team to thoroughly examine various measurements. The End to End solution supported the project goals, which were met entirely within the allotted time and budget.
- Improved useful life of products: the creation of a Hybrid Twin™ based on the virtual prototype to recreate the behavior of a windmill in operation and in its environment helps to ensure the maintenance and to reduce its cost (-47%). The predictive maintenance and the repairs optimization allow an increased reliability of windmills.
- Reduced gas emissions: Thanks to ESI PAM-STAMP solution, Kirchhoff Automotive was able to integrate ultra-high strength steel, which caused a spring back issue, into the conception and forming process of its components more quickly. This new material offers a lightweight option to traditional steels and can thereby contribute to reduced CO_2 emissions.

As such, ESI Group's digital prototypes can significantly reduce consumption of raw materials and energy and help achieve compliance with environmental standards for new products as shown in these examples. Furthermore, the new Hybrid Twin™ concept of the Group targets product predictive performance and maintenance, to optimize repairs, facilitate certification update, and minimize re-calls.

4.6.2. REDUCE THE ENVIRONMENTAL IMPACT OF THE GROUP

Reduce greenhouse gas emissions

As ESI Group operates both in France and internationally, and as its activity is within the tertiary sector, transport is the main source of its greenhouse gas emissions. ESI Group's actions meet the Sustainable Development Goal 13 "Take urgent action to combat climate change and its impacts".

/ Policies:

In order to reduce its carbon footprint, ESI Group is committed to a process of:

- limit emissions resulting from business travel by train and by plane;
- limit CO_2 emissions from company car travel;
- develop the use of web conferencing tools.

/ Outcomes:

To limit travels, the Group updated its travel policy. This policy is global in scope and adapts to local specificities. Employees are encouraged to travel by train rather than by plane for trips of less than three hours. In France, a car policy also applies to people with a company car (as the French vehicle fleet is mainly comprised of vehicles under three years old). A car policy is also defined in the German site of Neu-Isenberg. In 2015, ESI Group began to redraft its "Good Driver Charter" to incorporate limitations on, among other things, engine power and CO_2 emissions. This policy is initially applicable to French employees but should be extended to all ESI sites. During the first quarter of 2019, a new tool was implemented to centralize travel requests and employee expenses throughout the Group. This tool will facilitate administrative procedures and, above all, will allow a better monitoring of travel across the whole ESI Group.

In 2019, emissions resulting from business travel by French, American and German employees by train and by air totaled 986 kg per employee, an increase of 15% compared 2018. It should be noted that two out of seven members of the Executive Committee are based outside France. Also, data are provided by the travel agencies responsible for booking the trips. Any bookings made directly by employees are not accounted as information are not available.

In 2019, 45 employees in France had a company car, 46 in Germany, 33 in the Czech Republic, five in Spain, five in Italy and two in Switzerland. In Japan, India and China, only one person had a company car. There were no company cars in the United States, in Tunisia or Brazil in 2019. The granting rate of company cars is higher in Germany due in particular to the higher proportion of salespeople and to German culture which encourages this type of compensation.

The estimate of annual CO_2 emissions from company car travel in France was 146,637.7 kg or 3,258.6 kg per company car, with a 5.4% decrease compared to last year.

Overall, business travel by French employees generated 436.8 tons of CO_2 in 2019, **a decrease of 11.5% per employee.**

As for company cars in the Czech Republic, the estimated emissions in 2018 were 98 tons of CO_2, with an average of 2,970 kg per car, a decrease of 7% compared to 2018.

Finally, for Germany, the estimate of emissions related to trains and airplanes amounts to approximately 165 tons of CO_2 (for the three entities), down 13% compared to 2018 (two entities). Vehicle-related consumption amounts to 1,766 kg of CO_2 per vehicle, a slight decrease of 5%.

Among the measures taken over the past several years, the adoption of Gelato, a service allowing subsidiaries to locally order documents they need, has allowed the Group to save paper thanks to this print-on-demand plantroom. From the adoption of this solution in May 2018 and until the beginning of March 2020, Gelato helped the Company to avoid 1,954,376 km of delivery distances, representing a decrease of 70% of the distances previously made to deliver brochures and other documents. This is equivalent to a saving of 2,625 kg of paper and 11,019 kg of CO_2 emissions.

In order to limit the transportation footprint, the Group also provides employees with web conferencing tools to encourage digital collaboration between employees in different sites, without having to travel. Some meeting rooms are also equipped with audio and/or videoconferencing systems to facilitate remote meetings. Also, from October 2019, all workstations have been equipped with the "Teams", a Microsoft software (which replaces "Skype Enterprise" internally), enabling more efficient online meetings (audio + video) for up to 250 people.

On average in 2019, around 300 audioconferences *via* "Teams" and "Skype Enterprise" were organized per day within the Group (which is almost doubled from last year), with an average duration of 115 minutes per call.

Ensure a more sustainable consumption

ESI Group believes that environmental responsibility should be a priority for all companies and strives to reduce its environmental impact and to manage its resources in a more sustainable way and contributes to the same Sustainable Development Goal as the previous section (13): "Take urgent action to combat climate change and its impacts".

/ Policies:

The main environmental issues in which ESI is involved are:

- limiting energy consumption;
- limiting paper consumption and transitioning to the use of recycled paper;
- limiting water consumption;
- develop a waste recycling process all over the sites;
- constantly raise its employees' awareness of measures taken to avoid wasting energy, and thereby to reduce its environmental impact.

/ Outcomes:

Energy consumption

In 2019, electricity consumption at the Rungis site totaled 452,027 kWh, an average of 1,412.6 kWh per employee, **a decrease of 3%** Thus, a better energy consumption management can be possible. On the Ter@tec campus where ESI has been involved since 2012, the installation of the PoD in 2016 (Point of Delivery – a high density mobile data center that can house up to 3,500 server nodes) increased the energy consumption (+24.24% in 2017 and +10.45% in 2018). For the Lyon site, consumption amounted to 50,678.09 kWh in 2019. For the other French sites, electricity consumption is not available, as it is either included in the rental or collective charges.

Average electricity consumption per employee came to 3,247.15 kWh for the sites in France (Rungis site only), the Czech Republic, Tunisia, China, South Korea and the UK, representing a slight decrease of 3% compared to 2018. In Germany, electricity consumption came to 392,234 kWh in 2019 and has doubled compared to last year, in view of the inclusion of a third German site in the analysis scope.

Moreover, energy consumption in the United States is not measurable as the facilities are leased. Energy usage is included in the utility fees, which include factors other than electricity, and is re-evaluated annually.

Within the 2019 reporting scope, ESI Group uses renewable energy production at its Swiss site, where hydropower is used for electricity and thermic energy for heat. The Swiss office is located in a Minergie-certified building. Minergie is a Swiss association whose objective is to reduce energy consumption in buildings by proposing rational energy consumption and the use of renewable energies.

To minimize energy consumption, the Group has installed LED lights at its Rungis, Paris and Ter@tec offices in France and at its offices in India. In addition, during upgrades of certain workspaces in France, the Group has given preference to lighting with low power consumption, removed hot water tanks from restrooms, and refurbished air conditioning systems. Motion sensors have been installed for lighting systems in Tunisia, in San Jose in the USA, and also in ESI Software in Germany. In Japan, the lights automatically turn off after a while.

Furthermore, an energy audit has been realized in 2017 on the three German sites of the Group, in Neu-Isenburg, Stuttgart and Dresden. The result shows that the sites are good energy quality.

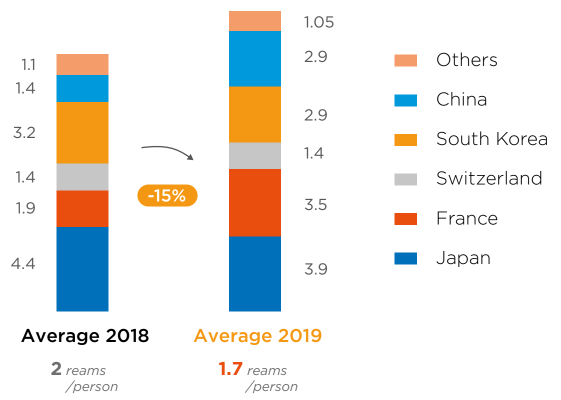
It should be also noted that the Spanish office in Madrid is part of a LEED (Leadership in Energy and Environmental Design) certification project, led by the owner of the main building.

Paper consumption

Everyday use by employees is the main source of paper consumption.

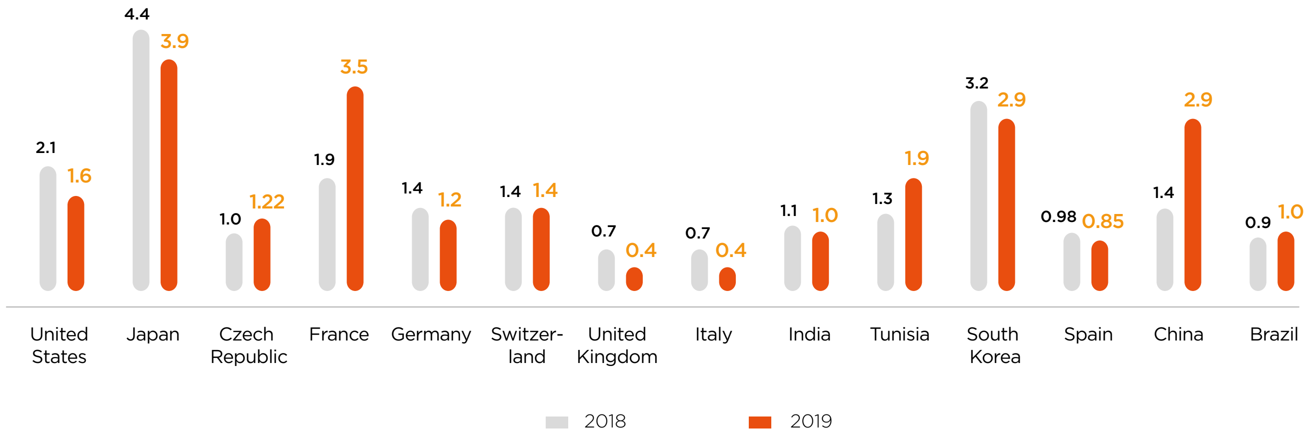
Evolution of annual paper consumption per employee

(in number of reams of 500 sheets)



Paper consumption per employee

(in number of reams of 500 sheets)



All over the study perimeter average paper consumption in 2019 was a relatively low with about **1.7** reams of paper used per employee, with a **decrease of 15%** compared to 2018. This average could have been lower in 2019; it is partially explained by the inclusion of all French sites in the analysis, unlike last year. Thus, paper consumption in France went from 1.9 in 2018 (Rungis only) to 3.5 reams (all French sites).

Paper consumption is higher in Japan, with a decrease of 11% in 2019. In China, paper consumption increased by 11.2% in 2019, in view of the large and exceptional number of tenders and local projects that required paper printing.

However, Japan made 100% of its prints with recycled paper, followed by Spain on 50% of its prints and China on 35%. More than 70% of the countries included in the scope have automatically set up black and white and double-sided printing.

ESI Group also continues its electronic documents program by implementing IT tools and processes to reduce the use of paper and energy consumption related to printing. Dematerialization has been established for many documents, including travel orders, leave requests and offer reviews. The invoices and purchase order processing is done *via* a tool called Yooz. In addition, SharePoint, a Cloud-based service for electronic document archiving and storage, was installed in 2016.

In early 2017, employee representatives were elected in a fully electronic voting process, preventing the need to print ballots for the nine offices in France. Annual evaluations were also performed electronically in 2018 using the Loopline Systems tool.

ESI also offers its employees in France the possibility to create a safe on Digiposte to dematerialize HR documents such as pay slips.

In addition, the use of a new local printing and delivery tool, called Gelato, allows subsidiaries to locally order the necessary quantity of documents they need. Ultimately, this tool saves paper by printing on demand, which allows ordering only what is needed and on a local basis.

Finally, the Group has decided to stop printing its Universal Registration Document in paper format, reflecting ESI's desire to continue reducing paper consumption and avoid unnecessary use and waste of paper. As indicated in Chapter 9 of this document, the Universal Registration Document will be available in electronic version on the Company's website and will be available for consultation at headquarters upon request.

Water consumption

The Company's business is not very water intensive as it does not require water for production. ESI Group's water is therefore solely for sanitary use and is drawn from urban networks.

It is difficult to perform an accurate assessment of water consumption. The Group is the lessee of all of its offices, and the water consumption of each site is included in rental charges and can therefore not be broken down in detail. However, as for the sites for which we have information (Rungis site in France, ESI Mecas in the Czech Republic, the Spanish and Chinese sites), the average water consumption in 2019 was of 7.46 m^3 per employee, a decrease of 7.23% compared to last year. For the Rungis site in France, water consumption rose from 132 m^3 in 2018 to 1,182 m^3 this year – this increase is mainly due to the move to a new building in 2019, with different equipment (more toilets, cafeteria, etc.).

Water consumption is not measurable in other sites, as it is either included in the annual rental or collective charges, where parameters other than water consumption are taken into account.

Waste disposal and recycling

Due to its activity, ESI Group mainly produces non-hazardous waste, as well as paper, cardboard and plastic. To the best of its knowledge, the Group does not generate any hazardous waste, except waste electrical and electronic equipment (WEEE).

In 2014, recycling bins were introduced on the Lyon site, the second biggest site in France, as it was done in 2013 on the Rungis site. Thus almost 100% of the French workforce is aware of this action in the daily life.

In France, at the Rungis and Lyon sites, ESI is working with Elise, a waste collection and recycling company that provides stable employment for people with integration difficulties, particularly due to disability. In 2019, Elise recovered 868.5 kg of waste, including 653.5 kg of paper. Recycling this waste saved **16,375.5 liters of water, 4,932.8 kWh of energy and 13.3 trees**.

All the German, American, Czech, Japanese, Spanish, Italian and Swiss sites are also equipped with bins for sorting waste. It is planned to extend this measure to all European sites in the future.

When it comes to other specific waste, notably waste of electrical and electronic equipment (WEEE), ESI Group attaches great importance to the environmental management of its IT equipment, in terms of both its use and its recycling.

The Group's IT equipment mainly comprises desktop and laptop computers, servers, copiers and printers. The Group cannibalizes computer hardware (uses parts of one machine to repair another) whenever possible to give a second life to some faulty equipment.

In France and the United States, end-of-life or obsolete hardware is collected by an authorized provider that manages the processing of electronic waste. In Germany, the Cleaning and Facilities Management Department, in coordination with the IT Departments, is tasked with collecting used electronic equipment. Waste management is then passed on to the local authority of each city. In Spain, an instruction explains where obsolete electronic equipment must be taken in order to be recycled.

Furthermore, on request to our supplier in France, printer cartridges are collected and recycled *via* a completely ecological chain.

Lastly, in the entire environmental scope, except Tunisia, ink cartridges, batteries, defective light bulbs and fluorescent tubes are recovered by our various suppliers. Containers are available to staff for this purpose in offices.

Raising employee awareness

During summer 2018, ESI produced a short video clip for all employees on simple ecofriendly actions to adopt at work (https://www.youtube.com/watch?v=nUIdRRLDgRk). In 2019, a new online discussion group has been created on our internal communication platform "Chatter", regarding environmental issues. This has enabled employees to share eco-responsible actions carried out in their professional and/or personal environment, all over the world.

4.7. REPORTING

4.7.1. REPORTING METHODOLOGY

Data collection and consolidation

The Company has implemented a differentiated data collection and consolidation process according to the themes. Social reporting is covered by an HR officer who works with local HR representatives. The corporate communication team is responsible for environmental and societal reporting through local professional representatives. The Group plans to gradually broaden the scope until it covers every subsidiary in a reliable manner.

The available data are sorted into three geographic areas corresponding to the Company's business divisions:

- Americas = Brazil and United States;
- Asia-Pacific = China, India, Japan, Malaysia, South Korea, Thailand and Vietnam;
- Europe, Middle East and Africa = Czech Republic, England, France, Germany, Italy, Netherlands, Russia, Spain, Sweden, Switzerland and Tunisia.

Scope

The Group's ambition is to gradually expand the scope of coverage until it achieves full and reliable coverage of its subsidiaries. In line with its commitments, in 2019, ESI Group continued its actions to increase the collection and analysis of indicators internationally.

- Scope of social reporting:

  Since 2012, ESI's Human Resources Information System has been upgraded to Sales Force for all countries, with local management of all payroll systems in order to take into account local specificities. Social data thus represents 100% of the workforce.
- Scope of environmental reporting:

  Since 2018, the Company has integrated Italy and Brazil to broaden the scope of environmental data reporting. As a result, environmental data are now provided by France, Germany, the Czech Republic, Japan, the United States, Tunisia, India, Switzerland, China, Spain, the United Kingdom, South Korea, Italy and Brazil, representing 99% of the workforce.
- Scope of societal reporting:

  Societal information is provided at a global level. Hence, the reporting scope represents 100% of ESI's headcount since 2016.

4.7.2. REPORT OF THE INSPECTING ORGANIZATION

Period from February 1, 2019 to December 31, 2019

To shareholders,

Following the request received from ESI Group (referred to hereinafter as "the entity") and in our capacity as an independent third-party body with an accreditation granted by the COFRAC under registration No. 3-1081 (available on www.cofrac.fr), we hereby present our report on the consolidated statement on non-financial performance for the period from February 1, 2019 to January 31, 2019 (referred to hereinafter as the "Statement"), presented in the Group's management report in accordance with the statutory and regulatory provisions of Articles L. 225-102-1, R. 225-105 and R. 225-105-1 of the [French] Code of Commerce.

Entity's duty

The Board of Directors has a duty to draw up a Statement that complies with statutory and regulatory provisions, including a presentation of the business model, a description of the main non-financial risks, a presentation of the policies applied in view of these risks together with the results of those policies, including key performance indicators.

The Statement has been drawn up according to the authoritative accounting pronouncements used, (referred to hereinafter as the "Pronouncements") by the entity whose significant elements available upon request from the Company's head office.

Independence and quality control

Our independence is defined in the provisions of L. 822-11-3 of the [French] Code of Commerce and the profession's Code of Conduct. Moreover, we have set up a quality control system that includes documented policies and procedures aiming to ensure that rules of conduct, professional ethics and the applicable statutory and regulatory provisions are complied with.

Duty of the independent third-party body

We have a duty, on the basis of our work, to formulate a reasoned opinion expressing a conclusion of a moderate level of assurance as to:

- the Statement's compliance with the provisions set out in Article R. 225-105 of the [French] Code of Commerce;
- the sincerity of the information furnished in application of 3° of I and of II of Article R. 225-105 of the [French] Code of Commerce, namely the results of the policies, including key performance indicators and actions relating to the main risks, referred to hereinafter as the "Information".

However, we have no duty to give an opinion on:

- whether the entity has complied with other applicable statutory and regulatory provisions, including, matters relating to the vigilance plan and the fight against corruption and tax evasion;
- compliance of products and services with applicable regulations.

Nature and scope of the work

We carried out the work in accordance with standards that apply in France and that determine the ways in which the independent third-party body carries out its mission, and with international standard ISAE 3000.

We carried out our work between March 30, 2020 and April 17, 2020 for a period of approximately eight days/person.

We held three interviews with people in charge of the Statement.

We carried out the work enabling us to evaluate the extent to which the Statement complies with the regulatory provisions and the sincerity of the Information:

- we informed ourselves of the activity of all of the companies falling within the scope of the consolidation, of the exposure to the main corporate and environmental risks linked to this activity, and of its effects on human rights and the fight against corruption and tax evasion together with the policies that ensue and their results;
- we looked into the appropriateness of the Pronouncements with a view to their relevance, exhaustiveness, reliability, neutrality and comprehensive nature, taking into account, where necessary, the sector's good practices;
- we checked that the Statement covered each category of information provided under III of Article L. 225-102 1 on corporate and environmental matters and whether human rights were being complied with and the fight against corruption and tax evasion;
- we checked that the Statement presents the business model and the main risks linked to the activity of all of the companies falling within the scope of the consolidation, including, where relevant and proportionate, the risks created by business relations, products or services as well as policies, actions and results along with key performance indicators;
- we checked, where relevant in view of the main risks or policies presented, that the Statement presents information set out in II of Article R. 225-105;

- we looked into the selection and validation process of the main risks;
- we enquired about the existence of internal verification and risk management procedures set up by the entity;
- we looked into the coherence of results and of key performance indicators used in view of the main risks and policies presented;
- we checked that the Statement covers the consolidated scope, namely all of the companies falling within the scope of consolidation in accordance with Article L. 233-16 with the limits set out in the paragraph 3.1 The methodology and 3.4.3 Being an environmentally friendly player;
- we studied the information-gathering process set up by the entity aiming to obtain information that is exhaustive and sincere;
- with regard to key performance indicators and other quantitative results that we consider to be the most important, we implemented:
  - analytical procedures consisting of checks to ensure that the data collected was consolidated correctly and that its evolution was coherent;
  - detailed tests on the basis of surveys, consisting of checks to ensure definition and procedures were applied correctly and of checks linking data to supporting documentation. This work was carried out with a selection of contributing entities(3) and covered between 14% and 100% of the consolidated data of the key performance indicators and results selected for these tests(4);
- we consulted documentary sources and held interviews to corroborate what we considered to be the most important qualitative information (actions and results);
- we looked into the overall coherence of the Statement with reference to our knowledge of the companies as a whole falling within in the scope of the consolidation.

We consider that the work carried out and, exercising our professional judgment, enables us to formulate a conclusion of a moderate level of assurance; a higher level of assurance would have required more extensive verification work.

In view of the fact that sampling techniques were used and that there are other limits inherent to the functioning of any system of information and internal control, we cannot rule out totally the risk that a significative anomaly in the Statement has not been detected.

Conclusion

On the basis of our work, we did not note any significant anomaly of such a nature as to cast any doubt on the fact that the statement of non-financial performance complies with the applicable regulatory provisions and that that Information, as a whole, has been presented with sincerity, in accordance with the Pronouncements.

Lyon, on April 23, 2020

FINEXFI

Isabelle Lhoste

Partner

(3) Social indicators: ESI Group.
Environmental indicators: ESI site in Lyon, Rungis, Tunisia and Czech Republic.

(4) Developing talent and encouraging leadership and collaborative management, Promoting diversity and reducing inequalities, Contributing to the well-being of employees and ensuring the quality of life in the workplace, Limiting the impact of the Group's locations.

5 MANAGEMENT REPORT

Financial year 2019 (ended December 31, 2019)

In accordance with the resolution of the General Meeting of July 18, 2019, the Group now closes its financial statements at 31 December of each fiscal year.

As a reminder, in accordance with the decision of the General Meeting held on July 18, 2019 the Group's fiscal year new closing date is December 31.

In accordance with Article L. 451-1-2 of the French Monetary and Financial Code, this Chapter includes the Management Report to the General Meeting validated by the Board of Directors on March 19, 2020. This report accounts for the Company's activities during the 2019 financial year (ended December 31, 2019), including the result of these activities and the Company's outlook, and presents the Company's accounts and balance sheets for the financial year.

Information on various risk factors is included in Chapter 3 "Risks and risks management."

The Extra-Financial Performance Statement is reproduced in full in Chapter 4 of this document.

Information on the Company's share capital, stock options and free shares grant plans, and the transactions on the Company's shares are included in Chapter 8 of this document.

5.1. BUSINESS ACTIVITIES DURING THE 2019 FINANCIAL YEAR

5.1.1. HIGHLIGHTS OF THE 2019 FINANCIAL YEAR

Financial position

As anticipated, ESI Group has strengthened its growth in 2019, in a context of ongoing business and operational transformation.

Evolution of Group Governance

As announced in September 2018, the Board of Directors nominated Cristel de Rouvray as Chief Executive Officer starting February 1, 2019, Alain de Rouvray remaining Chairman of the Board of Directors.

The Group set up a new Piloting Framework, aiming to reach performance in a more efficient way (refer to section 5.2.1).

Set up of an operational excellence and strategic focus plan

Aware of the potential offered to it but also of the initiatives to be implemented to achieve its objectives, the Company has launched an ambitious short- and medium-term action plan based on two fundamental axes:

1. Operational excellence
   - optimize operational performance by clarifying the Group's organization,
   - measure, energize and control performance,
   - improve internal/external readability by implementing "Best-in-class" management tools;
2. Focus: increase commercial efficiency and maximize the ROI of innovation
   - capitalize on acquired technologies (M&A) and their complete integration into the Group's solutions,
   - align commercial/R&D resources with a channel (Engineering, Manufacturing, In-Service) and industry approach,
   - develop a differentiated strategy for each of our four key industries, representing 88% of sales in 2019, and by customer type (large accounts and others).

5.1.2. RESULTS FROM THE CONSOLIDATED FINANCIAL STATEMENTS

5.1.2.1. Review of financial performance

Further to General Meeting decision on July 18, 2019, the closing date of the fiscal year has been shifted from January 31 (Y+1) to December 31 (Y). As a consequence, 2019 fiscal year ran for 11 months, from February 1, 2019 to December 31, 2019.

To ensure comparability of presented information, proforma figures have been recalculated on main aggregates of financial statements, from January to December, for 2019 and also for 2018. Change in proforma results represents evolution of Group financial performance.

In accordance with AMF Recommendation 2013-08, proforma information has been produced on 12 months at new closing date.

The consolidated financial information presented below is compliant with IFRS standards.

(in € millions)	2019 proforma January to December	2018 proforma January to December	Variation at actual currency rate	Variation at constant currency rate
Total sales	**146.2**	**135.7**	**7.8%**	**5.6%**
Licenses	115.9	106.9	8.4%	6.0%
Services	30.3	28.8	5.4%	3.8%
Gross margin	**107.4**	**97.5**	**10.1%**	**7.6%**
% of sales	*73.4%*	*72.3%*		
EBITDA (before IFRS 16)	**12.3**	**8.1**	**52.2%**	**39.9%**
% of sales	*8.4%*	*6.0%*		
Operating result (before IFRS 16)	**8.3**	**3.6**	**126.6%**	**100%**
% of sales	*5.7%*	*2.7%*		
IFRS 16 standard impacts				
◆ on EBITDA	5.4	N/A		
◆ on operational result	0.2	N/A		

Improved financial results

Full year sales increased +7.8% to €146.2 million (+5.6% at constant exchange rate), driven by an 8.4% growth in software license activity yielding stronger business recurrence. This topline growth has a positive impact on financial performance as the Group maintained control of the costs.

Gross margin improvement

Gross margin rose to €107.4 million (up 10.1% improving by +1.5 points to 73.4% *vs.* 71.9%). This increase was driven by the rise in licensing gross margin to 86.2% (*vs.* 84.5% in 2018 proforma) and the increasing proportion of license sales in the revenue mix.

Lower growth in other operational costs

The Group maintained its efforts to control other operational expenses (+5.6%, +€5.2 million) to support overall revenue increase and long-term development. Note that €1.5 million of the €5.2 million cost increase is linked to exchange rate (+4.0% at constant exchange rate).

Improved profitability

EBITDA (before IFRS 16) increased to reach €12.3 million (*vs.* €8.1 million), now 8.4% of total sales (*vs.* 6.0%). EBIT (before IFRS 16) rose to €8.3 million (*vs.* €3.6 million), now 5.7% of total sales.

Sharpened value proposition on a handful of priority industries and solutions

2019 was a year of dynamic business development worldwide, driven by engagements with global industry leaders, whether long-term customers or accounts that have recently surfaced as strategic partners.

These industrial actors are increasingly held to a result, an "outcome": the service that their machine/car/part etc., offers, such as mobility, hours of maintenance-free flight or number of landing events, making them accountable for environmental and societal impact and for the experience "in service". This entails being able to anticipate the way their industrial product or asset operates in numerous and uncertain use-conditions, thus shifting the standards of success to performance in use rather than standard product development efficacy.

ESI's mission is to enable industrialists to commit to these outcomes, in a handful of major industries – Automotive & Ground Transportation, Aeronautics & Aerospace, Energy and Heavy Industry. The Group has now organized its value proposition around specific outcomes for our customers:

- Pre-certification
- Smart Manufacturing
- Human Centric
- Pre-experience.

5.1.2.2. Financial position – consolidated balance sheet

As at December 31, 2019, the Group's cash position was €20.2 million, compared to €12.4 million at December 31, 2018.

Financial debt amounted to €49.6 million (*vs.* €51.6 million). The Group's net debt stood at €29.4 million (*vs.* €39.2 million at end December 2018). Gearing (net debt to equity) improved to reach 34.4%.

At December 31, 2019, ESI Group held 6.3% of its share capital in treasury shares.

5.1.2.3. Cash flows and financing

Cash position at December 31, 2019 amounted to €20.2 million compared to €12.4 million at December 31, 2018. The €7.8 million increase over financial year 2019 can be explained by:

- an operating cash-flow of +€5.7 million;
- a change in working capital requirements (WCR) of +€4.9 million;
- current capital expenditures paid by the Company of -€2.6 million, which represent a significant decrease compared to the two previous years (offices location moves);
- other financing and investing operations representing a net outflow of -€0.2 million, mainly corresponding to the yearly installment of the syndicated loan for -€2 million, to a new financing facility signed with BPI France for +€2.2 million, and -€1 million spent to purchase minority interests for several Group's subsidiaries.

5.1.3. RESEARCH AND DEVELOPMENT

5.1.3.1. Research and development costs

Research and development investments are recorded as soon as they are incurred. These costs amounted to €36.4 million in 2019 proforma accounts, an increase of 1.1% compared to 2018 proforma accounts.

The capitalization of development costs had a +€2.1 million impact on the 2019 proforma income statement (*vs.* +€2.4 million in 2018 proforma).

A breakdown of the expenses is provided in the note 6.1.2. to the consolidated financial statements.

/ Research and development (R&D) policy

Not only the Outcome & Product Operations teams but also Discovery & Innovation teams in charge of R&D deliver products in line with the Group's strategy and market needs and seeking to maintain the competitive edge of ESI Group's solutions, focused on outcomes and industries.

The R&D policy supports:

- the business model to adapt the changes in how products are used and to push boundaries for new computer platforms (GPU, SaaS, Cloud) or platforms in development with a view to upgrading the installed base;
- product improvements with a view to expand the installed base or winning over new customers with existing products;
- new products with a view to encourage our customers to deploy new products and processes or to improve their performance by working jointly with ESI Group.

The teams allot different levels of investment depending on the maturity of the product:

- investments are made in mature products to ensure maintenance, product improvements, widespread adoption of major innovations, and the delivery of new, competitive products;
- investments are made in emerging products with greater demand and with the potential to drive growth, to accelerate adoption of these products in industrial applications;
- investments are made in innovative products by increasing research contracts with leading customers to ensure the viability of these new tools, and where applicable, to increase the chance of commercial success.

The Products Direction also maintains a technology watch in support of all products.

The teams follow an approach that is both specific and generic in nature to meet different goals:

- ensuring generic products and components to meet multiple needs in multiple industrial segments and to support developments of services, customers, or third parties;
- ensuring the competitiveness and productivity of our products by targeting specific, high-potential business applications and solutions;
- maximizing synergies between products to make it easier to release competitive, affordable versions and minimize maintenance efforts;
- integrating this generic expertise into a comprehensive virtual prototyping platform that makes it easy to take needs into account for specific applications or custom services.

The teams continue to partner actively to ensure:

- the identification of technologies, acquisition targets, and market opportunities in collaboration with its Scientific Committee;
- an evaluation of financing opportunities to support the levels of investment;
- a discovery process in partnership with the various approaches to research and development (academic chairs, European projects, and co-creation projects);
- a rapid industrialization for optimal market introduction.

This environment reduces risks and ensures a high rate of co-financing and research tax credits.

The Outcome & Products Operation division follows a methodology tailored to the needs of highly innovative customers and always uses the best tools on the market to avoid redundancies and the obsolescence of in-house solutions. In addition, nearshoring or multi-shoring, which is used to strike a balance between human interests and financial interests, is being expanded to reduce dependence on exchange rate effects and to reduce related expenses.

5.1.3.2. Intellectual property (excluding trademarks)

Most of the Company's intellectual property consists of software and databases that are protected by international copyright, by specific laws concerning database producers within the European Union, and by competition law outside the EU.

The ownership of all development work ordered and performed by ESI Group's subsidiaries is transferred to the Company. ESI Group products are either owned directly by the Company or published by the Company under publishing contracts held by its subsidiaries (which were owners of related intellectual property rights before being acquired by the Company).

Most of the software products and databases published by the Company belong to ESI Group.

The Company is the beneficiary of publishing contracts for the few products that belong to third parties. These products represent either software integrated within the Company's offering (for which replacement solutions could be obtained if the third-party software is discontinued) or complementary solutions. These latter solutions are not, however, critical to the operation of the Company's software.

Furthermore, the Company owns patents directly or through its subsidiaries.

5.1.4. ESI GROUP ANNUAL FINANCIAL STATEMENTS AND ALLOCATION OF NET RESULT

5.1.4.1. ESI Group annual financial statements

ESI Group is the parent company of the Group; therefore, it owns and/ or controls all of its subsidiaries.

It oversees all of its subsidiaries and centralizes most of software publishing activities.

ESI Group's revenue consists mainly of:

1. Royalties paid by subsidiaries, distributors, and agents and received in return for the right to grant software licenses to end customers;
2. Amounts billed to direct customers for software licensing and/ or services, in territories not covered by its subsidiaries;
3. Management fees billed to subsidiaries as compensation for ESI Group oversight responsibilities;
4. Self-created assets stemming from research and development work.

2019 fiscal year ran for 11 months, from February 1 to December 31, not including January. This month being very significant in terms of revenue, 11 months results differ considerably from those of a complete 12 months fiscal year.

The operating result for 2019 is a loss of -€24.7 million, compared to a loss of -€0.3 million for the previous year. This drop results from significantly lower revenue, due to the 11 months fiscal year.

(in € thousands)	2019[(1)] (Feb.-Dec.)	2018[(2)] (Feb.-Jan.)	Change
Revenue	55,296	86,023	(30,727)
Inventory	(553)	53	(606)
Net impact of capitalization of development costs (capitalization and amortization)	476	1,901	(1,425)
External expenses	(56,220)	(62,674)	6,454
Salaries and social charges	(23,041)	(24,710)	1,669
Other change	(651)	(930)	279
TOTAL OPERATING PROFIT	**(24,694)**	**(337)**	**(24,357)**

(1) February 1, 2019 – December 31, 2019.
(2) February 1, 2018 – January 31, 2019.

ESI Group financial result is a loss of -€5.2 million compared to a profit of €2.6 million in 2018. The financial result can be broken down as follows:

(in € thousands)	December 31, 2019[1]	January 31, 2019[2]
Realized foreign exchange currency result	103	143
Interests on loans	(857)	(824)
Net provision for depreciation of investments and related receivables	(4,514)	1,517
Dividends received from subsidiaries	194	1,690
Other financial income (expenses)	(149)	70
TOTAL	**(5,223)**	**2,595**

(1) February 1, 2019 – December 31, 2019.
(2) February 1, 2018 – January 31, 2019.

Operational and financial results lead to an income before tax which is a loss of -€29.9 million, compared to a profit of €2.3 million in 2018.

The Company has also recorded -€1 million of exceptional losses, compared to -€2.1 million in 2018.

The Company recognizes a profit on income tax of €3 million, compared to €2.7 million in 2018, due mainly to French R&D tax credit.

Net result is a loss of -€27.9 million, compared to a profit of €2.8 million in 2018.

The Company's equity stands at €72.7 million, compared to €100.4 million end January 2019, due to 2019 fiscal year net loss.

Main changes in the balance sheet are the following:

- Decrease in account receivables by -€21.6 million, from €61.6 million to €40 million: this important change is the result of the change of closing date from end January to end December and of the seasonality of our activity in January;
- Increase of financial debt by +€9.5 million, due mostly to a higher use of the revolving credit line (€10 million used, which is a usual level end December each year, compared to €1 million used end January 2019).

Breakdown of invoices issued and received at December 31, 2019 (Article d. 441-4 of the French Commercial Code)

Reference terms of payment used are contractual terms.

Terms greater than 91 days are debts to Group subsidiaries.

Invoices issued (Customers) *(in € thousands)* Installment payment	0 day (indicative)	1 to 30 days	31 to 60 days	61 to 90 days	91 days and more	Total (1 day and more)
Number of related invoices	184	15	31	40	907	993
Total amount of the invoices (all taxes included)	11,245	1,330	1,914	1,407	23,314	25,463
Percentage based on total of revenue of the year (all taxes included)	19.79%	2.34%	3.37%	2.48%	36.64%	44.83%
Total amount of invoices excluded related to doubtful receivables or not yet issued	3,324				2,502	2,502

Invoices received (Suppliers) *(in € thousands)* Installment payment	0 day (indicative)	1 to 30 days	31 to 60 days	61 to 90 days	91 days and more	Total (1 day and more)
Number of related invoices	68	44	24	26	1,089	1,183
Total amount of the invoices (all taxes includes)	3,738	1,562	1,221	3,581	22,266	28,628
Percentage based on total of expenses of the year (all taxes included)	5.54%	2.32%	1.81%	5.31%	33.00%	42.43%
Total amount of invoices excluded that are related to bad debts or debts not invoiced or recorded	13,511					

Two branches are integrated within ESI Group's financial statements; details are shown in note F.3 to the financial statements.

5.1.4.2. Allocation of net result

Situation at December 31, 2019:

- Net loss for the year: -€27,851,405.66;
- Profit carried forward: €40,907,521.88;
- Total to be allocated: -€27,851,405.66.

Allocation:

- -€27,851,405.66 to profit carried forward.

Following this allocation, the legal reserve stands at €1,805,367.60. Profit carried forward stands at €13,056,116.22.

5.2. OUTLOOK

5.2.1. LAUNCH OF A NEW PILOTING FRAMEWORK

The Group has announced the implementation of a new Piloting Framework, reflecting its mission and ambitions, in the aim of reaching performance in a more efficient way. It also represents a new mindset and a new way of working together within ESI, as a shared commitment to execute the Group's strategy.

As the world is filled with technological disruption and rapid digital transformation, consumers increasingly value product performance and ecological footprint over sophisticated features. ESI offers its customers a highly credible path and partnership in order to adapt to the "outcome economy". This new Piloting Framework ensures that ESI can fulfill this mission: to double down on ESI DNA while becoming more efficient and more global.

In other words, the Piloting Framework represents a new mindset and a new way to look at performance and pilot the Company.

It's also important to point out that this Piloting Framework is an under continuous-construction project, that aims to provide a global vision to all ESI's stakeholders.

5.2.2. BUSINESS TRENDS

During last two years the Group was under perpetual transformation, resulting in a return to growth. Ongoing transformation plan is still impacting the profitability level of the Group: this impact is necessary and has been announced.

The linearization of the Group's organization to align with the value chain per industry: from Research to the marketing of solutions, *via* innovation and the Go to Market phase, allows it to eliminate silos in its organization, thus strengthening collaboration, complementarities and, de facto, operational efficiency.

By launching at the right time its own in depth technological and organizational transformation, ESI Group has kept pace with the evolution of its industrial lead customers (Industry 4.0 and Smart Factory) and anticipated their future needs. By systematically integrating cutting-edge technologies (Internet of Things, Big Data, Artificial Intelligence, additive manufacturing etc.) into solutions that draw on its unique expertise in physics of materials, ESI Group has articulated a new global approach centered on industrial productivity and the performance of products beyond their initial development to their entire lifecycle (Product Performance Lifecycle™). The Group's vision of: "Toward zero real tests, zero real prototypes, and zero unpredicted downtime", fully addresses the short- and medium-term objectives of global industrial leaders.

Along with shorten industrial development cycles and time-to-market, regulatory and consumer requirements increase, industrial players must find trusted partners that will enable them to innovate more safely and achieve their performance and productivity objectives.

This approach is gaining traction with the Group's strategic customers and is already bearing fruit in the form of tangible commercial successes. For example:

- elimination of the physical prototyping stage in the tender for supply of equipment for a major European car manufacturer;
- achievement of "zero real prototype" prior to the five stars official certification stage at a major European car manufacturer;
- use of immersive virtual reality to accelerate and secure the manufacturing of a new helicopter for a US aeronautic OEM.

One of the main results of the implementation of this approach: Renault Group obtained a 5-star certification (maximum score) in the Euro NCAP safety tests for its new Clio 5 in 2019, using ESI Group's Virtual Prototyping technologies for the design of this model. Since 2001, ESI Group has been supporting Renault Group in its design and manufacturing methodologies for its different vehicle ranges.

5.3. TABLE SUMMARIZING THE RESULTS OF PAST FIVE FINANCIAL YEARS

Closing date	12/31/2019	01/31/2019	01/31/2018	01/31/2017	01/31/2016
Duration of financial year *(number of months)*	11	12	12	12	12
Capital at balance sheet date					
Share capital *(in €)*	18,055,476	18,053,676	18,049,326	17,975,976	17,865,216
Number of shares					
◆ ordinary shares	6,018,492	6,017,892	6,016,442	5,991,992	5,955,072
◆ preference shares					
Maximum number of shares to be created					
◆ via convertible bonds					
◆ via subscription rights	205,334	151,448	108,843	175,733	207,080
Operations and results *(in €)*					
Revenue (excl. tax)	55,295,671	86,022,988	83,883,977	84,313,214	79,156,886
Earnings before tax, employee profit-sharing, allowances for amortization and provisions	(2,973,365)	27,025,120	31,555,313	28,651,433	21,642,463
Income tax	(3,024,257)	(2,698,695)	(2,228,379)	(1,669,380)	(2,205,946)
Employee profit-sharing				15,967	
Allowances for amortization and provisions	33,849,027	26,903,999	28,762,466	28,688,439	19,916,428
Net income	(27,851,406)	2,819,816	5,546,976	1,632,374	3,931,981
Distributed earnings					
Earnings per share *(in €)*					
Earnings after tax and employee profit-sharing, before allowances for amortization and provisions	(0.21)	4.94	5.70	5.06	4.00
Earnings after tax, employee profit-sharing, allowances for amortization and provisions	(4.63)	0.47	0.92	0.27	0.66
Dividend					
Personnel					
Average headcount(1)	258	264	243	234	217
Payroll *(in €)*	15,027,428	15,880,764	14,766,952	14,159,959	13,203,318
Amounts paid in benefits (social security, social welfare, etc.) *(in €)*	6,969,914	7,466,508	6,971,314	6,711,622	6,295,088

(1) Average headcount in France and in branches outside France, presented starting financial year ending January 2019.

6 FINANCIAL STATEMENTS

In accordance with the resolution of the General Meeting of July 18, 2019, the Group now closes its financial statements at 31 December of each fiscal year.

1 2 3 4 5 6 7 8 9

6.1. CONSOLIDATED FINANCIAL STATEMENTS

6.1.1. CONSOLIDATED INCOME STATEMENT

(In € thousands)	Note	December 31, 2019[1] (11 months)	January 31, 2019[2] (12 months)
Licenses and maintenance		75,320	109,836
Consulting		25,718	28,793
Other		1,159	784
Revenue	**4.1**	**102,197**	**139,413**
Cost of sales		(33,873)	(37,907)
Research and development costs	6.1.2	(29,832)	(31,718)
Selling and marketing expenses		(38,841)	(43,042)
General and administrative expenses		(21,476)	(19,970)
Current operating result		**(21,825)**	**6,776**
Other operating income and expenses	3.2.2	1	233
Income from operations		**(21,824)**	**7,010**
Financial result	**7.2**	**(2,563)**	**(1,277)**
Share of profit of associates		26	106
Income before income tax expense and minority interests		**(24,360)**	**5,839**
Provision for income tax	8.1	3,446	(2,505)
Net income before minority interests		**(20,914)**	**3,334**
Minority interests		32	0
NET INCOME (GROUP SHARE)		**(20,946)**	**3,334**
Earnings per share *(in €)*	9.3	(4.06)	0.59
Diluted earnings per share *(in €)*	9.3	(4.01)	0.59

Statement of comprehensive income

(In € thousands)	December 31, 2019[1] (11 months)	January 31, 2019[2] (12 months)
Net income before minority interests	**(20,914)**	**3,334**
Other comprehensive income recycled to income		
Change in the fair value of hedging instruments	(12)	15
Translation differences	866	(534)
Other comprehensive income (loss) not recycled to income		
Actuarial gains and losses	(688)	(201)
Income and expenses recorded directly in equity	**166**	**(720)**
COMPREHENSIVE INCOME	**(20,748)**	**2,614**
Attributable to Group equity holders	(20,792)	2,599
Attributable to minority interests	44	15

The notes are an integral part of the consolidated financial statements.

(1) February 1, 2019 - December 31, 2019.
(2) February 1, 2018 - January 31, 2019.

6.1.2. CONSOLIDATED BALANCE SHEET

(In € thousands)	Note	December 31, 2019	January 31, 2019
Assets			
Non-current assets		**152,176**	**129,389**
Goodwill	3.2	41,448	41,404
Intangible assets	6.1	62,139	61,811
Property, plant and equipment	6.2	5,633	6,101
Rights-of-use assets(1)	4.7	20,680	-
Investment in associates		1,099	1,083
Deferred tax assets	8.2	17,204	10,920
Other non-current assets	10.1.1	3,264	8,070
Cash-flow hedging instruments	7.1.4	6	0
Current assets		**82,183**	**101,186**
Trade receivables	4.2	44,733	65,131
Other current receivables	10.1.2	13,720	15,348
Prepaid expenses	10.1.3	3,489	2,620
Cash and cash equivalents	7.1.3	20,241	18,087
TOTAL ASSETS		**233,655**	**230,575**
Liabilities			
Equity		**85,983**	**105,633**
Equity (Group share)	**9.1**	**85,912**	**104,863**
Capital		18,055	18,054
Additional paid-in capital		25,833	25,818
Reserves and retained earnings		61,982	57,862
Net income (loss)		(20,946)	3,334
Translation differences		987	(205)
Minority interests		**71**	**771**
Non-current liabilities		**65,941**	**51,370**
Long term share of financial debt	7.1.2	30,457	36,255
Non-current finance lease obligation(1)	4.7	20,002	-
Provision for employee benefits	5.3	11,016	9,979
Deferred tax liabilities	8.2	3,761	3,738
Cash-flow hedging instruments	7.1.4	28	13
Other long term debt		677	1,385
Current liabilities		**81,731**	**73,572**
Short-term share of financial debt	7.1.2	19,143	8,801
Current finance lease obligation(1)	4.7	631	-
Trade payables		8,632	8,848
Accrued compensation; taxes and others short-term liabilities	10.2.1	24,230	30,560
Provisions for contingencies, risks and disputes	10.2.2	675	762
Deferred income	4.3	28,421	24,601
TOTAL LIABILITIES		**233,655**	**230,575**

(1) ESI Group has applied IFRS 16 standard for the first time as of February 1, 2019. In accordance with the adopted transition method, the comparative financial information has not been restated.

The notes are an integral part of the consolidated financial statements.

6.1.3. CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

(In € thousands except number of shares)	Number of shares	Capital	Additional paid-in capital	Net income, reserves and retained earnings	Translation differences	Equity attributable to parent company owners	Minority interests	Total Equity
At January 31, 2018	**6,016,442**	**18,049**	**25,782**	**56,460**	**349**	**100,638**	**844**	**101,483**
Change in fair value of hedging instruments				15		15		15
Translation differences					(554)	(554)	20	(534)
Actuarial gains and losses				(196)		(196)	(5)	(201)
Income and expenses recognized directly in equity				**(181)**	**(554)**	**(735)**	**15**	**(720)**
Net income				3,334		3,334	0	3,334
Comprehensive income				**3,153**	**(554)**	**2,599**	**15**	**2,614**
Proceeds from issue of shares	1,450	4	36			40		40
Treasury shares				(131)		(131)		(131)
Share-based payments				751		751		751
Transactions with non-controlling interests				688		688	(89)	599
Other movements				276		276	1	277
At January 31, 2019	**6,017,892**	**18,053**	**25,818**	**61,197**	**(205)**	**104,861**	**771**	**105,633**
Change in fair value of hedging Instruments				(12)		(12)		(12)
Translation differences					848	848	18	866
Actuarial gains and losses				(682)		(682)	(6)	(688)
Income and expenses recognized directly in equity				**(694)**	**848**	**154**	**12**	**166**
Net income				(20,946)		(20,946)	32	(20,912)
Comprehensive income				**(21,640)**	**848**	**(20,792)**	**44**	**(20,748)**
Proceeds from issue of shares	600	2	15			17		17
Treasury shares				22		22		22
Share-based payments				690		690		690
Transactions with non-controlling interests				927		927	(750)	177
Other movements				187		187	6	193
AT DECEMBER 31, 2019	**6,018,492**	**18,055**	**25,833**	**41,383**	**643**	**85,912**	**71**	**85,983**

The notes are an integral part of the consolidated financial statements.

6.1.4. CONSOLIDATED STATEMENT OF CASH FLOWS

(In € thousands)	December 31, 2019(1) (11 months)	January 31, 2019(2) (12 months)
Net income before minority interests	**(20,946)**	**3,334**
Share of profit of associates	(32)	(106)
Amortization and provisions(3)	8,882	4,353
Net impact of capitalization of research & development costs	(1,300)	(2,679)
Income taxes (current and deferred)	(3,446)	2,505
Income taxes paid	(1,980)	(1,736)
Unrealized financial gains and losses	120	(370)
Share-based payment transactions	690	751
Gains (losses) on sales of assets	114	(6)
Operating cash flow	**(17,879)**	**6,046**
Trade receivables	19,446	(442)
Trade payables	(293)	(1,066)
Other receivables and other liabilities	(865)	5,582
Change in working capital requirement	**18,288**	**4,074**
Net cash from operating activities	**409**	**10,120**
Purchase of intangible assets	(591)	(796)
Purchase of property, plant and equipment	(1,390)	(3,395)
Proceeds from the sale of assets	-	8
Acquisition of subsidiaries, net of cash acquired	(795)	(4)
Other investment operations	(7)	(2,425)
Net cash used for investing activities	**(2,784)**	**(6,613)**
Proceeds from loans	14,422	49,365
Repayment of borrowings(3)	(10,148)	(49,869)
Proceeds from issue of shares	17	40
Purchase and proceeds from disposal of treasury shares	22	(131)
Dividends paid	-	(89)
Net cash used from financing activities	**4,312**	**(684)**
Effect of exchange rate changes on cash and cash equivalents	216	(456)
INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	**2,153**	**2,367**
Opening cash position	18,087	15,720
Closing cash position	20,241	18,087
NET CHANGE IN CASH AND CASH EQUIVALENTS	**2,154**	**2,367**

(1) February 1, 2019 – December 31, 2019.
(2) February 1, 2018 – January 31, 2019.
(3) IFRS 16 impact: increase of amortization and provisions and thus improvement of operating cash flow by +€5.2 million, against the repayment of finance lease obligation in the financing part of the Cash Flow Statement for -€5.2 million.

The notes are an integral part of the consolidated financial statements.

6.1.5. NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

Table of contents of notes to the consolidated financial statements

NOTE 1. ACCOUNTING PRINCIPLES

NOTE 1.1. GENERAL INFORMATION

ESI Group is a listed French limited company *(société anonyme)*, registered in France and governed by French law. ESI Group has its head office at 100-102, avenue de Suffren, Paris (75015), France. ESI Group SA is the parent company of some 30 subsidiaries operating throughout the world (see Chapter 1.3.2 of this Universal Registration Document), together comprising ESI Group.

ESI Group is the world's foremost creator of Virtual Prototyping software and services. Specializing in the physics of materials, ESI Group has developed unique expertise to help industrial players replace physical prototypes with virtual ones, thus making it possible to virtually manufacture and test the products of the future, ensuring pre-certification. Used together with latest-generation technologies, today Virtual Prototyping is part of an overarching approach to the Product Performance Lifecycle™ (PPL), which addresses products' operating performance throughout its useful lifecycle, from rollout to withdrawal. The creation of Hybrid Twin™ incorporating simulation, physics and data analysis makes it possible to create smart products, particularly using connected objects, as well as to predict their performance and anticipate their maintenance requirements.

2019 fiscal year ran exceptionally for 11 months, from February 1 to December 31, further to the change of closing date decided by the General Meeting held on July 18, 2019, from January 31 (Y+1) to December 31 (Y). Please refer to note 2 "Significant events of the year".

Financial statements are presented in thousands of euros. The 2019 financial statements were approved by the Board of Directors on March 19, 2020 and will be submitted to the General Meeting of June 25, 2020 for approval.

NOTE 1.2. ACCOUNTING STANDARDS APPLIED

The consolidated financial statements at December 31, 2019 were prepared in accordance with the IFRS standards, as approved by the European Union at this date. These standards are available on the European Union website.

Moreover, consolidated financial statements have been prepared in accordance with the historical cost method, with some exceptions such as financial assets and liabilities booked at fair value.

NOTE 1.3. NEW IFRS STANDARDS AND INTERPRETATIONS

New standards, amendments and interpretations effective in the European Union and mandatory for financial years beginning on or after February 1, 2019

The group applies the mandatory new standards for financial years beginning on or after February 1, 2019:

- IFRS 16 – Leases;
- IFRIC 23 – Uncertainty over income tax treatments.

/ IFRS 16 – Leases

IFRS 16 is a major revision in the accounting of leases. The standard provides a single lessee accounting model, requiring lessees to recognize assets and liabilities for all leases. Based on this model, the amortization of assets is accounted for in operating expense, and the cost of the debt towards the lessor is accounted for in financial expense. Under the standard applied on the financial year ended on January 31, 2019, the rent expense was recorded within the operating expense.

The Company adopts IFRS 16 for the financial year beginning February 1, 2019 using the simplified retrospective approach. Under this approach, the effect of the first-time application of the standard is recognized as adjustment to the opening balance of the consolidated equity without restatement of comparative information.

In accordance with IFRS 16, leases are recognized as property, plant and equipment under a right-of-use. These contracts are recognized at the commencement date of the contract for the discounted value of the minimum lease payments for a liability corresponding to the lease liabilities due to the lessor. The assets are amortized on a straight-line basis over the lease term, which corresponds to the non-cancellable period of each contract, unless the Group is reasonably certain to exercise the contractual renewal options.

As of February 1, 2019, the Group has recognized a new right-of-use assets, mainly related to leased offices and vehicles, and a new liability related to lease debts for an amount of €23.470 million.

The following table summarizes the impacts of adoption IFRS 16 on the Group's Consolidated Balance Sheet as at February 1, 2019 for each of line items affected. The line items which were not affected by the new standard are not included.

(In € thousands)	January 31, 2019	IFRS 16 adjustment	February 1, 2019
Assets			
Non-current assets	**129,389**		**152,859**
Out of which Right-of-use – leased offices		22,166	22,166
Out of which Right-of-use – leased cars		1,304	1,304
TOTAL ASSETS	**230,575**	**23,470**	**254,045**
Liabilities			
Non-current liabilities	**51,370**		**74,840**
Out of which finance lease obligation		23,470	23,470
TOTAL LIABILITIES	**230,575**	**23,470**	**254,045**

Commitments under operating leases as disclosed in the consolidated financial statement as of January 31, 2019	22,831
Renewal options and other adjustments non identified in the commitments	640
FINANCE LEASE OBLIGATION IN LIABILITIES AS OF FEBRUARY 1, 2019	**23,470**

The Group has chosen to use the two exemptions allowed by IFRS 16 and to keep recognition as operating expense for leases with a lease term no more than 12 months or leases with underlying asset of low value.

To determine the lease liabilities, the Group has discounted future lease payments using weighted average marginal borrowing rate as of February 1, 2019 of 2.5%.

Details of impact of IFRS 16 on 2019 financial statements are presented in note 4.7.

/ IFRIC 23 – Uncertainty over income tax treatments

On June 7, 2017, IFRIC IC published IFRIC 23. The application clarifies the accounting for uncertainties in income taxes. ESI Group has undertaken an assessment of the potential impacts of its application starting from February 1, 2019 and has not identified any significant impact.

NOTE 1.4. USE OF ESTIMATES AND ASSUMPTIONS

The preparation of the consolidated financial statements requires the consideration of estimates and assumptions established by Group management that have an impact on the valuation of assets and liabilities, as well as on the amounts recorded as income and expenses during the year. The estimates relate in particular, but not exclusively, to the assumptions used in determining the impact of stock options and free shares allocated to certain employees, business combinations, revenue recognition, depreciation of fixed assets, valuation of deferred tax assets, valuation of derivative instruments, capitalized development costs, provisions for depreciation of doubtful receivables, income tax expense, provisions for risks and litigation and provisions for post-employment commitments.

NOTE 2. SIGNIFICANT EVENTS OF THE YEAR

CHANGE OF CLOSING DATE – PROFORMA INFORMATION

Further to the decision by General Meeting held on July 18, 2019, closing date of the fiscal year has been shifted from January 31 to December 31. Accordingly, 2019 fiscal year has run exceptionally for 11 months, from February 1 to December 31, not including the month of January.

As January is a significant month in terms of sales (renewal of almost half of the contracts in the licensing business), the results for the 11 months 2019 fiscal year differ substantially from those of a full 12 months year.

To ensure good comparability of information and in accordance with AMF Recommendation 2013-08, the main aggregates of the financial statements have been recalculated on proforma basis from January to December for 2019 and 2018. Proforma data allow to present the Group' activity over two full financial years.

(In € millions)	2019 Proforma Jan. to Dec.	2018 Proforma Jan. to Dec.	Variation	Var %
Revenue	146.2	135.7	10.5	7.8%
Gross margin	107.4	97.5	9.8	10.1%
Research and development costs	(31.7)	(31.3)	(0.4)	1.4%
Selling and marketing expenses	(44.3)	(42.0)	(2.3)	5.5%
General and administrative expenses	(23.1)	(20.6)	(2.7)	12.9%
Operating result	8.3	3.6	4.6	127%

(In € millions)	December 31, 2019	December 31, 2018
Gross financial debt	49.6	51.6
Cash and cash equivalent	20.2	12.4
Net financial debt	29.4	39.2

(In € millions)	2019 Proforma Jan. to Dec.
Operating Cash flow	5.7
Change in working capital requirement	4.9
Acquisitions of intangible and tangible assets	(2.6)
Other investment and financing flows	(0.2)
Total change in cash explained	7.8
Opening cash position at January 1, 2019 (proforma)	12.4
Closing cash position at December 31, 2019	20.2
Change in cash position	7.8

Proforma data are presented mainly on the income statement, the cash flow statement and on financial debt. The 12 months proforma results substantially differ from 11 months results. In terms of accounting method, 2018 and 2019 proforma information have been prepared without any IFRS 16 impact to ensure comparability.

Proforma information have been established according to the following methodology:

- Additional consolidation closings have been made for ESI Group and all subsidiaries as of December 31, 2017 and December 31, 2018, enabling to produce income statements from January to December 2018 and 2019 and balance sheet directly comparable with the balance sheet as of December 31, 2019.
- The process applied for additional consolidation closings was the same as for a usual year-end closing for all the Group' subsidiaries.
- More specifically, the following methods have been applied:
  - licensing revenue is related to two performance obligations: access to the software (or license itself) and the maintenance service. Revenue for the access to the license is recognized at a point in time at the moment when control is transferred to the client, and the revenue from maintenance service is recognized on a straight-line basis over the one-year term of the support agreement – which is the usual method of each annual closing, in accordance with IFRS 15;
  - service revenue consists mainly of consulting fees. The consulting revenue is recognized according the percentage of completion method at end December 2018, for all entities with monthly monitoring. In the absence of monthly monitoring, a prorata by month for the last quarter of fiscal year 2018 has been calculated – this approach being acceptable given the month-to-month linearity of this activity's sales;
  - costs directly linked to revenue (such as royalties paid to third parties or commissions paid to agents) were calculated on the basis of monthly revenue;
  - staff costs excluding bonuses result from the payroll and social security charges paid each month, related accruals have been calculated according to the actual situation existing at each closing date. Bonus accruals have been adjusted so that each proforma reflects the costs for a full 12 months year;
  - the net impact of the capitalization of development costs and net charges to amortization, depreciation and provisions were calculated at each closing date;
  - some other external costs may result from *prorata temporis* estimates, such as office rental expenses which are invoiced quarterly.

Finally, the components of the cash flow were determined through a cash flow statement drawn up according to the usual consolidation process.

CHANGE IN SCOPE OF CONSOLIDATION

During the year ended December 31, 2019:

- the Group has exercised its option to purchase the minority interests of ESI ITI GmbH (4%). The ownership of this German entity as well as its French subsidiary ITI Southern Europe is at 100% at December 31, 2019;
- the Group has dissolved the Chinese entity Zhong Guo ESI Co, Ltd and the American entity ESI US Inc. as of December 31, 2019;
- in India, the entity Pacific Mindware Engineering Private Ltd. was absorbed by the entity ESI Software (India) Private Ltd.

Please refer to notes 3.1 and 3.3.

NOTE 3. SCOPE OF CONSOLIDATION

NOTE 3.1. ACCOUNTING POLICIES RELATED TO THE SCOPE OF CONSOLIDATION

Consolidation method

The annual financial statements of the companies controlled by ESI Group are fully consolidated from the date at which ESI Group takes control until the date when control is transferred outside the Group. Associates, defined as companies over which the Group exercises significant influence, are accounted for using the equity method. The Group does not own stakes in any entity over which it exercises joint control.

The Group's scope of consolidation at December 31, 2019 is detailed in note 3.4.

Closing date

The change of closing date from January 31 to December 31 has been applied to all Group's entities, except for India where the only annual closing date permitted by local regulations is March 31. Indian subsidiaries prepare interim statements as of December 31 for consolidation purposes.

Internal transactions

All transactions between consolidated companies, including intra-Group gains, are eliminated in the consolidated financial statements.

Conversion of the financial statements of non-French subsidiaries

The Group's foreign subsidiaries generally use local currency as their functional currency. ESI Group's functional and presentation currency is the euro.

Balance sheet items of foreign subsidiaries are translated to euros at the closing rate, with the exception of components of the net equity, which are maintained at the historical rate. Income statements are translated at the average exchange rate for the period. Translation differences are recorded in a specific "Translation differences" account on a different line from Other Comprehensive Income.

Transactions and balances in foreign currencies

At the closing date, monetary assets and liabilities denominated in a foreign currencies are translated to the functional currency at the year-end exchange rate. Foreign exchange gains and losses on transactions in foreign currencies are recorded as such, with the exception of those arising from transactions that may be characterized as long term investments, which are recorded in equity on a separate line in the Other Comprehensive Income (OCI), under "Translation differences".

Business combinations

Business combinations are recognized by the acquisition method:

- the identifiable assets acquired and liabilities assumed are measured at fair value as of the acquisition date;
- any non-controlling interest in the acquiree (*i.e.* minority interest) is measured either at fair value ("full goodwill method") or at the non-controlling interest's proportion of the acquiree's identifiable net asset ("partial goodwill method"). This option applies on an individual transaction basis.

Any contingent consideration related to business combinations is recognized at its fair value on the acquisition date. After the acquisition date, contingent consideration is measured at fair value at the end of each subsequent reporting period. Any changes in the fair value of contingent consideration arising more than one year after the acquisition date are recognized in income. Changes in fair value within one year of the acquisition date are recognized in income if they clearly result from events after the acquisition date. Other changes are offset against goodwill.

Where put options have been granted to minority shareholders of subsidiaries, the amount recognized in liabilities is measured at the present value of the option exercise price and recorded in "Other long term debt" or "Other short-term liabilities" according to its maturity date. The balance is allocated either to Goodwill ("full goodwill method") or to Equity ("partial goodwill method"). Discounting adjustments are recorded in the Financial Result. Subsequent gains and losses (or changes) in fair value of the liability are recognized directly in equity.

At the acquisition date, goodwill represents the difference between:

- the fair value of the consideration transferred, plus the total minority interests in the acquiree and, for step acquisitions, the fair value of the stake previously held at the corresponding acquisition date, revaluated in the income statement; and
- the net fair value of the identifiable assets and liabilities acquired.

The Group has 12 months from the acquisition date to determine the fair value of the assets and liabilities and declare the amount of goodwill acquired. If the acquisition price is lower than the fair value of identified assets, liabilities and contingent liabilities, the difference is immediately recorded in the income statement.

In accordance with IFRS standards, goodwill is not amortized but is instead subject to an impairment test. This test is performed at least once a year and when an impairment indicator is identified. Goodwill is allocated to cash-generating units ("CGU") for the purposes of impairment test.

Costs directly related to acquisitions are recorded as expenses when incurred, and presented on a separate line of the income statement, in "other operating income and expenses".

For intangible assets acquired in the context of a business combination, amortization is recorded in Current Operating Income, split between "research and development costs" and "selling and marketing expenses", depending on the type of asset – codes are amortized over five years in research and development costs, customer relationships are amortized in selling and marketing expenses over a period which vary according to each newly acquired activity.

Impairment test of goodwill and other intangible assets with an indefinite useful life

ESI Group uses a single CGU for the entire Group. The Group's strategy is to focus on growth through innovation stemming from its R&D efforts and the integration of acquired technologies (source codes, algorithms, etc.).

As the Group has pursued its development, it has become clear that certain technologies acquired to resolve a specific issue could be used to resolve other issues as well. Incorporating this technology portfolio in the Group's software packages makes it possible to use all of these technologies in all of the Group's projects depending on the solutions required. The consequence of this ever-increasing integration is that it is more and more difficult to allocate revenue to a specific technology and to thus create a CGU for each technology or software program.

In addition, the revenue earned by a distribution subsidiary is dependent not only on its own commercial performance but also, even more so, on the software offering.

The impairment test is based on discounted value of forecast future cash flows according to business projections, technology penetration and the competitive situation. Future cash flows are estimated as follows:

- the last financial year for the reference year (Y);
- annual budget for the following year, Y+1;
- cash flows for the years Y+2 to Y+5 are estimated on the basis of Y+1 data by applying growth rates which can be based on past experience.

The cash flows derive from the business plan drawn up by the Group's Management.

The discount rate applied as of December 31, 2019 is the Group's weighted average cost of capital (WACC) adjusted with a risk premium. It stands at 9.95% compared to 10.5% at January 31, 2019.

The present value of the CGU is determined by adding:

- the present value of forecasted future cash flows over the explicit period of 5 years, as described above;
- the terminal value calculated by capitalizing to perpetuity the last cash-flow of the explicit period. The long-term growth rate applied is 3%.

This present value of the CGU either confirms the fair value of the assets of the CGU, or serves as a basis for calculating potential impairment.

The impairment test performed on the CGU at December 31, 2019 did not identify any loss in value for these assets. The test was analyzed for sensitivity to reasonably plausible changes in key assumptions, based on a 1% increase in the discount rate or a 1% decrease in the long-term growth rate. No impairment has been identified. The Group's Management believe no reasonable change in key assumptions mentioned above that would have caused the CGU's recoverable to be significantly below its carrying amount.

NOTE 3.2. IMPACT OF THE CHANGE IN THE SCOPE OF CONSOLIDATION ON GOODWILL AND NON-CURRENT RESULT

3.2.1. Change in goodwill

(In € thousands)	January 31, 2019	Increase	Decrease	Foreign exchange gain/loss	December 31, 2019
Gross values	41,404		(92)	137	41,448
TOTAL NET VALUES	**41,404**		**(92)**	**137**	**41,448**

No acquisition took place during financial year 2019.

3.2.2. Non-current result

(In € thousands)	December 31, 2019	January 31, 2019
Acquisition costs		
Other external expenses and income	1	233
TOTAL OPERATING INCOME AND EXPENSES	**1**	**233**

As a reminder, until January 31, 2018, the amortization of intangibles assets acquired in business combinations was presented in Other operating income and expenses. However, due to significant amounts involved and the recurrence of the amortization, it has been reclassified in the Current operating result effective from January 31, 2019 closing – please refer to note 3.3.

NOTE 3.3. AMORTIZATION OF INTANGIBLES ASSETS ACQUIRED IN BUSINESS COMBINATIONS

Starting from January 31, 2019, the amortization of intangibles assets acquired in business combinations is presented in the Current operating result, allocated between research and development costs and selling and marketing expenses depending on their type (respectively for codes and customer relationships).

At December 31, 2019, the amortization of codes amounts to €561 thousands (€613 thousand as of January 31, 2019), and the amortization of the customer relationships stands at €373 thousand (€406 thousand as of January 31, 2018).

NOTE 3.4. LIST OF ENTITIES IN THE SCOPE OF CONSOLIDATION

The table below presents the dates of creation of head offices of Group subsidiaries and the percentage of capital directly or indirectly held:

Subsidiaries	Date of creation or acquisition	Subsidiary head office	% of capital held December 31, 2019	% of capital held January 31, 2019
Fully consolidated subsidiaries				
Engineering System International	April 1973	Paris, France	100%	100%
Engineering System International GmbH	July 1979	Eschborn, Germany	100%	100%
ESI Japan, Ltd.	July 1991	Tokyo, Japan	97%	97%
ESI North America, Inc.	March 1992	Troy, Michigan, USA	100%	100%
Hankook ESI Co., Ltd.	September 1995	Seoul, South Korea	99%	99%
ESI Group Hispania s.l.	February 2001	Madrid, Spain	100%	100%
STRACO SA	April 2001	Compiègne, France	98%	98%
Mecas ESI s.r.o.	May 2001	Plzen, Czech Republic	95%	95%
ESI UK Ltd.	January 2002	London, England	100%	100%
ESI US Holding, Inc.	August 2002	Dover, Delaware, United States	100%	100%
ESI US R&D, Inc.	August 2002	San Diego, California, United States	100%	100%
Calcom ESI SA	December 2002	Lausanne, Switzerland	99%	99%
ESI Software (India) Private Ltd.	February 2004	Bangalore, India	100%	100%
Hong Kong ESI Co., Ltd.	February 2004	Hong Kong, China	100%	100%
Zhong Guo ESI Co., Ltd.	February 2004	Guangzhou, China	0%	100%
ESI-ATE Holdings Ltd.	July 2006	Hong Kong, China	100%	100%
ESI ATE Technology (China), Ltd.	August 2006	Beijing, China	100%	100%
ESI South America Comércio e Serviços de Informatica, Ltda	June 2008	São Paulo, Brazil	95%	95%
ESI Italia s.r.l.	September 2008	Bologna, Italy	100%	100%
Pacific Mindware Engineering Private Ltd.	December 2008	Pune, India	0%	100%
ESI Services Tunisia	April 2009	Tunis, Tunisia	95%	95%
ESI Group Beijing Co., Ltd.	October 2010	Beijing, China	100%	100%
ESI Software Germany GmbH	August 2011	Stuttgart, Germany	100%	100%
ESI Nordics AB	December 2011	Sollentuna, Sweden	100%	100%
ESI US, Inc.	February 2012	Farmington Hills, Michigan, United States	0%	100%
OpenCFD Ltd.	September 2012	Berkshire, England	100%	100%
CyDesign Ltd.	October 2013	Oxford, England	0%	100%
ESI Services Vietnam Co., Ltd.	December 2013	Ho Chi Minh City, Vietnam	100%	100%
CIVITEC SARL	March 2015	Versailles, France	80%	80%
ITI GmbH	January 2016	Dresden, Germany	100%	96%
ITI Southern Europe SARL	January 2016	Rungis, France	100%	96%
Mineset Inc.	February 2016	Milpitas, United States	100%	100%
Scilab Enterprises	February 2017	Paris, France	100%	100%
Subsidiaries accounted for using the equity method				
JV AECC-ESI (Beijing) Technology Co., Ltd.	February 2014	Beijing, China	45%	45%

NOTE 4. OPERATING DATA

NOTE 4.1. REVENUE

The Group ESI derives revenue from two primary sources: software licensing and related maintenance activity, and services activity.

The Company accounts for a contract with a client when there is a written agreement that creates legally enforceable rights and obligations, including payment terms, when the contract has commercial substance and when collection consideration is probable.

A performance obligation is a promise in a contract with a client to transfer products or services that are distinct from the other promises of the contract.

Revenue is recognized when, or as, control of a promised product or service is transferred to a client, in an amount that reflects the consideration to which the Company expects to be entitled in exchange for those products or services.

Software licensing and maintenance

Licensing revenue is generated from royalties paid under licensing agreements granted to end customers and related maintenance services. Maintenance services include updates and technical support.

Revenue is split between three types of contracts:

- lease of annual renewable licenses that include the right to use the software plus maintenance services for one year;
- lease of "paid up licenses" conferring to end clients the right to use the software for unlimited duration, with one year of maintenance services – with the possibility of renewal through a maintenance contract;
- maintenance services alone – this contract completes "paid up licenses" contracts.

In compliance with IFRS 15, ESI' customer contracts have been analyzed in five stages in order to identify the component of the performance obligations and the price of each. Two performance obligations have been identified: access to the software (the licensing itself) and the maintenance service – please note that this distinction has been applied by the Group prior the entry into force of the standard. For the annual licensing contracts and the "paid up licenses", the allocation of the price has been realized according to the residual approach. As a result, 15% of the price of annual licensing contracts and 5% of the price of "paid up licenses" contracts have been allocated to maintenance service. Revenue for the access to the license is recognized at a point in time at the moment when control is transferred to the client, and the revenue from maintenance service is recognized on a straight-line basis over the one-year term of the support agreement.

Services

Service revenue consists mainly of consulting and training fees.

The consulting revenue is recognized according to the percentage of completion method. Corresponding costs are recorded as soon as they are incurred. Contracts with a probable final loss are covered by a provision for loss on completion, recorded as a liability on the balance sheet. The loss is fully provisioned as soon as it is known and reliably estimated, regardless the stage of completion.

Revenue for training is recognized upon completion.

Backlog

The Group's backlog for licensing activity is composed of all signed orders received from customers at the closing date, with execution starting from the first day of next fiscal year.

Despite most of licensing contracts are renewable from a fiscal year to the next one, only signed orders for next year are included in the backlog. As purchase order are often signed by customers just before start of the execution period, this explain the level of backlog *vs.* high recurring part of licensing contracts.

For services activity, backlog is composed of work to be done on contracts being executed, and of contracts signed at closing date which execution has not started yet.

(In € thousands)	December 31, 2019(1) (Feb. to Dec.)	January 31, 2019(2) (Feb. to Jan.)
Total licenses and maintenance	**75,320**	**109,836**
Consulting	25,718	28,793
Other revenue	1,159	784
Total services	**26,877**	**29,577**
CONSOLIDATED REVENUE	**102,197**	**139,413**
O/w total co-financed research and development projects included in service revenue	**4,102**	**4,567**

(1) February 1, 2019 – December 31, 2019.
(2) February 1, 2018 – January 31, 2019.

Backlog as of December 31, 2019 amounts to €23.2 million, out of which €22 million for Licensing and €1.2 million for Services.

NOTE 4.2. TRADE RECEIVABLES

Trade receivables are initially recorded at their nominal value, as the potential impact of discounting is immaterial. They are then recorded at amortized cost, reduced when applicable by impairment resulting from non recoverable amounts and estimate of future losses.

Receivables are depreciated when their net realizable value, estimated by reference to the risk of non-recovery as determined by type of receivable, is less than their carrying amount. Depending on the nature of receivables, the risk associated with bad debts is appreciated individually or based on statistical methods. Impairment of trade receivables represents best estimate of the risk related to the asset.

Contract assets and liabilities

After having delivered its services, the Group records the customers counterparty either as trade receivables or as contract assets. A trade receivable is an unconditional right to be paid, while a contract asset is a right to be paid which is conditionned to factors other than time.

Contract assets are related to amounts to be invoiced on contracts with milestones or subject to customer's acceptance.

When invoiced amounts exceed recognised revenue, difference is recorded as contract liabilities.

Details of trade receivables

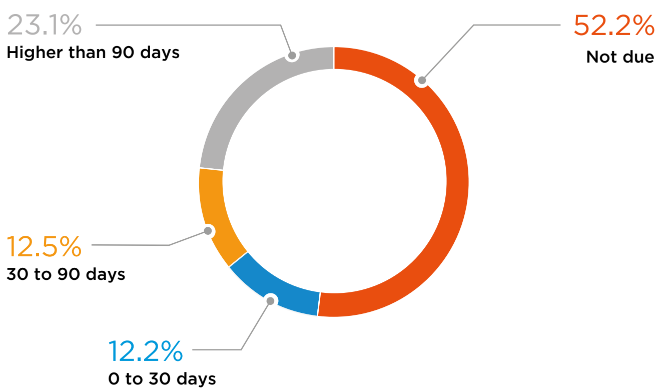
(In € thousands)	December 31, 2019	January 31, 2019
Trade receivables	46,191	64,822
Depreciation of trade receivables	(4,214)	(3,810)
TOTAL TRADE RECEIVABLES, NET OF IMPAIRMENT	**41,977**	**61,012**

(In € thousands)	January 31, 2019	Consolidation scope entry	Provisions	Reversals	Foreign exchange gain/loss	Other movements	December 31, 2019
Depreciation	(3,810)		(463)	53	6		(4,214)
TOTAL	**(3,810)**		**(463)**	**53**	**6**		**(4,214)**

The Group's clientele mainly comprises:

- major industrial corporations, especially companies in the automotive, aerospace and steel industries;
- government agencies for governmental and defense projects;
- academic bodies.

Age of trade receivables



	December 31, 2019	January 31, 2019
Not due	21,894	44,390
0 to 30 days	5,114	5,652
30 to 90 days	5,266	4,999
Higher than 90 days	9,703	5,971
TOTAL	**41,977**	**61,012**

The amount of trade receivables due for more than 90 days includes receivables from Chinese state or parastatal clients for which collection time is more important.

Contract assets

(In € thousands)	December 31, 2019	January 31, 2019
Contract assets	2,755	4,119

NOTE 4.3. CONTRACT LIABILITIES AND DEFERRED INCOME

(In € thousands)	December 31, 2019	January 31, 2019
Contract liabilities – Maintenance services to be rendered	9,485	19,979
Other deferred income	18,936	4,622
DEFERRED INCOME	**28,421**	**24,601**

NOTE 4.4. OPERATING EXPENSES

(In € thousands)	December 31, 2019[1] (Feb. to Dec.)	January 31, 2019[2] (Feb. to Jan.)
Other purchases and external expenses	(9,339)	(13,088)
Real estate rentals*	(1,818)	(6,764)
Fees	(3,990)	(3,164)
Taxes and duties	(598)	(515)
Amortization and provisions*	(8,954)	(3,465)
Personnel costs[3]	(86,787)	(92,774)
Other external expenses and income	(12,535)	(12,866)
Total current operating expenses	**(124,021)**	**(132,636)**
Other operating income and expenses[4]	1	233
TOTAL OPERATING EXPENSES	**(124,020)**	**(132,403)**

(1) February 1, 2019 – December 31, 2019.
(2) February 1, 2018 – January 31, 2019.
(3) Details on personnel costs are presented in note 5.2.
(4) Details on other operating income and expenses are presented in note 3.2.2.
** Significant changes between presented fiscal periods result from IFRS 16 standard application starting 2019.*

NOTE 4.5. INFORMATION BY GEOGRAPHIC AREA

The Group develops sells and provides technical support for its softwares which allow engineers to predict and improve, by virtual tests, the performance and the expected quality of a product. Operating segments are the Group's components which have isolated financial information available and whose operating results are regularly reviewed by the Company's management in order to evaluate their performance and to decide how resources are allocated. The Group works in a unique segment, with close ties between its two-identified business, Licenses and Services. In accordance with paragraphs 31-34 of IFRS 8, ESI Group presents revenue from ordinary activities and non-current assets by region (the three main regions being EMEA (Europe, Middle East, Africa), Asia-Pacific and the Americas).

Revenue is split between regions where it is actually produced.

(In € thousands)	Europe, Middle East and Africa	Asia-Pacific	Americas	Eliminations	Consolidated
Year ended December 31, 2019					
External clients	43,538	41,076	17,583		102,197
Affiliate companies	48,888	8,053	6,478	(63,420)	
Net sales	**92,425**	**49,129**	**24,062**	**(63,420)**	**102,197**
ASSETS ALLOCATED	**276,090**	**41,735**	**14,306**	**(98,476)**	**233,655**
Year ended January 31, 2019					
External clients	68,843	49,769	20,802		139,413
Affiliate companies	83,328	9,425	7,292	(100,046)	
Net sales	**152,172**	**59,193**	**28,094**	**(100,046)**	**139,413**
ASSETS ALLOCATED	**301,695**	**43,191**	**20,188**	**(134,500)**	**230,575**

Intra-Group transactions consist mainly of royalties paid by the Group's subsidiaries. These royalties are proportional to Licensing revenue and based on a common practice observed between software publishers and distributors within the industry covered by ESI Group.

NOTE 4.6. OFF-BALANCE SHEET COMMITMENTS RELATED TO OPERATIONAL ACTIVITIES

At December 31, 2019, ESI Group had a rent security deposit with Crédit du Nord in an amount of €82 thousand, established in November 2012 and expiring November 28, 2021 plus six months.

NOTE 4.7. IMPACT OF IFRS 16 – LEASES

In the assets of the balance sheet, the rights of use of leased assets represent a net value of €20.677 million, of which a gross value of €25.869 million and the amortization of €5.192 million.

(In € thousands)	February 1, 2019	Increase	Decrease	December 31, 2019
Right-of-use – Gross value	**23,470**	**2,399**		**25,869**
For offices	22,166	1,722		23,888
For cars	1,304	677		1,981
Right-of-use – amortization		**(5,192)**		**(5,192)**
For offices		(4,453)		(4,453)
For cars		(739)		(739)
Right-of-use – Net value	**23,470**	**(2,793)**		**20,677**
For offices	22,166	(2,731)		19,435
For cars	1,304	(62)		1,242

In the liabilities of the balance sheet, the lease debts are split between €20.002 million of non-current debts and €631 thousand of current debts.

Maturity of lease debts as at December 31, 2019:

(In € thousands)	< 1 year	Between 1 and 2 years	Between 2 and 4 years	More than 5 years	December 31, 2019
Debts – leased offices	369	9,013	5,698	4,405	19,484
Debts – leased cars	262	870	16		1,149
LEASE DEBTS	**631**	**9,884**	**5,714**	**4,405**	**20,633**

In the income statement, the retreatment of rental expenses amounted to €5.351 million, almost entirely offset by the right-of-use amortization: the impact on the operational result is +€158 thousand. The impact of IFRS 16 retreatment on financial result is an additional expense of -€115 thousand. The impact on the result net is +€44 thousand.

In the cash flow statement, IFRS 16's impact is an increase of amortization and an improvement of cash flow amounted to +€5.236 million, against a reimbursement of lease debts in the financial part of the cash flow statement for -€5.236 million.

NOTE 5. PERSONNEL COSTS AND EMPLOYEE BENEFITS

NOTE 5.1. HEADCOUNT

Headcount is calculated on a "Full-Time Equivalent" (FTE) basis and distributed as follows:

FTE	December 31, 2019[(1)] (Feb. to Dec.)	January 31, 2019[(2)] (Feb. to Jan.)
France	326	317
Rest of the world	912	904
TOTAL	**1,238**	**1,221**

(1) February 1, 2019 – December 31, 2019.
(2) February 1, 2018 – January 31, 2019.

NOTE 5.2. PERSONNEL COSTS

Personnel costs are presented by destination in the income statement. Their break down by nature is as follows:

(In € thousands)	December 31, 2019[1] (Feb. to Dec.)	January 31, 2019[2] (Feb. to Jan.)
Salaries	(69,556)	(73,626)
Payroll taxes	(15,914)	(17,834)
Share-based payments	(689)	(751)
Post-employment benefits	(627)	(563)
TOTAL PERSONNEL COSTS	**(86,787)**	**(92,774)**

(1) February 1, 2019 – December 31, 2019.
(2) February 1, 2018 – January 31, 2019.

NOTE 5.3. PROVISION FOR EMPLOYEE BENEFITS

In certain countries, the Group's employees benefit from different pension plans, retirement compensation, length-of-service awards linked to seniority requirements and additional post-employment benefits. To cover these benefits, the Group has defined-contribution plans and defined-benefit plans in place.

A defined-contribution plan is a pension plan into which the Group pays fixed contributions to a third-party entity. The Group does not have any obligation other than to pay the premiums, and the corresponding expense is recorded in the income statement for the financial year.

A defined-benefit plan is a plan that guarantees a certain level of benefits in the future depending on salary, age and seniority of the employee. Such is the case for benefits that may be paid when the employee retires.

For defined-benefit plans, in accordance with IAS 19 R "Employee Benefits", obligations are determined using the projected unit credit method. This actuarial method stipulates that each period of service entitles the employee to one unit of benefit rights and evaluates each of these units separately to arrive at a final commitment. These calculations use assumptions in terms of mortality, staff turnover and future salary increases.

Defined-benefit pension schemes and long-term benefits recognized in accordance with IAS 19 R are as follows:

- for France: retirement benefits, supplementary pension plan provided by an insurance company;
- for South Korea, India and Japan: severance pay owed to employees upon departure from the company regardless of reason for departure, calculated on the basis of length of service within the company;
- for Germany: defined-contribution benefits owed to selected managers.

5.3.1. Actuarial assumptions

Discount rates	December 31, 2019	January 31, 2019
France	0.80%	1.45%
Germany	0.88%	1.66%
Japan	0.27%	0.43%
South Korea	1.70%	2.10%
India	7.25%	7.83%

Discount rates correspond to:

- for France: AA-rate corporate bond rates in the Eurozone, adjusted according to the duration of the Group's commitments;
- for other counties: rates reported by the central banks.

Rate of salary increase	December 31, 2019	January 31, 2019
France	2.50%	2.50%
Germany	2.00%	2.00%
Japan	3.00%	3.00%
South Korea	4.00%	4.00%
India	10%	10%

Turnover rates are calculated per subsidiary and per age group according to the past experience of each subsidiary.

5.3.2. Change in commitment and provisions

(In € thousands)	January 31, 2019	Change in equity (OCI)	Provisions	Reversals	Foreign exchange gain/loss	Other movements	December 31, 2019
Provision for employee benefits	9,979	936	1,045	(1,008)	64	-	11,016
TOTAL	**9,979**	**936**	**1,045**	**(1,008)**	**64**	**-**	**11,016**

Analysis of the variation in the provision recorded in the balance sheet

(In € thousands)	December 31, 2019	January 31, 2019
Change in commitments		
Commitments at opening	**(12,034)**	**(10,666)**
Acquired companies	-	-
Costs of services rendered in the period	(869)	(902)
Interest expenses	(228)	(223)
Benefits paid	525	243
Actuarial gains and losses	(855)	(271)
Others	0	(5)
Foreign exchange gain/loss	(59)	(211)
COMMITMENTS AT CLOSING	**(13,521)**	**(12,034)**
Change in fair value of assets		
Fair value of assets at opening	**2,086**	**1,867**
Acquired companies		
Yield on assets	52	49
Employer contributions	793	175
Benefits paid	(310)	(21)
Actuarial gains and losses booked in equity	(82)	2
Foreign exchange gains and other	**(3)**	**15**
FAIR VALUE OF ASSETS AT CLOSING	**2,536**	**2,086**
Net expense for the year		
Costs of services rendered	(869)	(901)
Finance charges	(176)	(175)
Interest expenses	(228)	(223)
Yield on assets	52	49
NET EXPENSE FOR THE YEAR	**(1,045)**	**(1,076)**
Provision recorded in the balance sheet		
Commitments financed	(5,367)	(4,900)
Fair value of assets	2,591	2,141
Net commitments financed	**(2,776)**	**(2,759)**
Commitments not financed	(8,239)	(7,686)
PROVISION AT CLOSING	**(11,015)**	**(10,445)**
Change in provision		
Provision at opening	**(9,979)**	**(8,798)**
Net expense for the year	(1,045)	(1,076)
Actuarial gains and losses	(936)	(269)
Employer contributions	793	175
Benefits paid	215	221
Acquired companies		
Foreign exchange gain/loss	(64)	(198)
Others		(35)
PROVISION AT CLOSING	**(11,016)**	**(9,979)**

5.3.3. Sensitivity of commitments to fluctuations in the discount rate

(In € thousands)	December 31, 2019
Commitment -0.5%	(13,453)
Commitment	(13,521)
Commitment +0.5%	(13,588)

(In € thousands)	December 31, 2019
Experience adjustment	(281)
Change in financial assumptions	(689)
Yield on assets	(6)
Change in demographic assumptions	39
TOTAL ACTUARIAL GAINS/LOSSES	**(936)**

NOTE 5.4. SHARE-BASED PAYMENTS

Stock options may be granted to selected Group employees. They entitle employees to subscribe to new shares or purchase existing shares of ESI Group four or five years after stock options are awarded at a fixed exercise price set on the award date. Criteria for the granting of stock options may include performance requirements, additionally to continued employment requirement.

In accordance with IFRS 2, options are measured at the fair value of the benefit granted to the employee, estimated at grant date. They are recorded as personnel costs in the income statement on a straight-line basis over the vesting period of the option, offset against equity. The expense is recorded in the income statement per destination according to the allocation of each concerned person.

The fair value of the option is determined using the "Black-Scholes" model, the main parameters of which include: the exercise price of the options, their expected life period, share price at grant date, the inherent volatility of the share price and the risk-free interest rate.

Free shares may also be awarded to Group employees. The fair value of the benefit granted is determined based on the share price on the day of the award multiplied by the number of shares awarded. This cost is recorded on a straight-line basis over the vesting period.

Terms and conditions of stock options and free shares plans

Stock options and free share grants have been authorized by various General Meetings and could potentially dilute ESI Group's capital. The table below describes the status of the various plans under which options have been granted but not yet exercised.

Plan number (date of General Meeting)	Date of Board of Directors	Number of stock options/ shares allotted or to be allotted	Number of stock options/ shares granted	O/w performance shares	Exercise price	Number of existing stock options/shares at December 31, 2019	Limit year for exercising options
Plan 10 (GM 2012)	02/01/2013		150,850	62,300	27.82	38,700	2021
Plan 10 *bis* (GM 2012)	02/07/2014		11,000		24.42	375	2022
Plan 10 *ter* (GM 2012)	02/01/2015		15,000		21.66		2025
Plan 10 *quater* (GM 2012)	07/22/2015		3,150		27.17	2,100	2025
	Total GM 2012	**180,000**	**180,000**	**62,300**		**41,175**	
Plan 15 (GM 2013)	02/01/2015	**294,538**	20,000	20,000	21.66		2025
	Total GM 2013						
Plan 17 (GM 2014)	07/22/2015		7,350		27.17	4,900	2023
Plan 17 *bis* (GM 2014)	03/11/2016		10,000		23.35		2026
Plan 17 *ter* (GM 2014)	05/05/2017		18,175		50.92	16,300	2025
Plan 17 *quater* (GM 2014)	05/05/2017		1,875	1,875	50.92		2025
	Total GM 2014	**180,000**	**37,400**	**1,875**		**21,200**	
Plan 19 (GM 2017)	07/18/2018		43,950	32,963	42.97	38,100	2026
Plan 19 *bis* (GM 2017)	02/01/2019		20,000	15,000	27.04	20,000	2027
Plan 19 *ter* (GM 2017)	12/18/2019		24,660		29.12	24,660	2027
	Total GM 2017	**180,000**	**88,610**	**47,963**		**82,760**	
Authorization given at the GM of July 2017		**229,600**					
Total stock-options		**1,064,138**	**326,010**	**132,138**		**145,135**	
Plan 6 (GM 2016)	07/21/2016		25,000			4,164	2020
Plan 7 (GM 2016)	12/23/2016		2,275				2021
Plan 8 (GM 2016)	08/01/2017	60,000	9,000			2,501	2021
Plan 9 (GM 2018)	07/18/2018		10,617	7,964		10,367	2020
Plan 9 *bis* (GM 2018)	07/18/2018		2,441			2,184	2020
Plan 9 *ter* (GM 2018)	07/18/2018		15,500			15,500	2022
Plan 9 *quater* (GM 2018)	07/18/2018		16,250			16,250	2023
Plan 9 *quinquies* (GM 2018)	12/18/2019		6,712			6,712	2022
Plan 9 *sexies* (GM 2018)	12/18/2019	60,000	2,521			2,521	2021
Total free shares			**90,316**	**7,964**		**53,534**	
TOTAL STOCK-OPTIONS AND FREE SHARES		**1,184,138**	**415,876**	**140,102**		**205,334**	

The total expense related to share-based payments for the financial year ended December 31, 2019 stands at €164 thousand. That related to free shares stands at €526 thousand.

All stock options and free shares include a continued employment requirement.

Movements in stock options and free shares plans

	2019		2018	
	Numbers of stock options and free shares	Weighted average exercise price	Numbers of options and free shares	Weighted average exercise price
Stock options and shares existing at the opening	**151,448**	**24.49**	**108,843**	**20.34**
Stock options/free shares granted	70,143	17.95	72,510	42.97
Stock options expired or canceled	(4,990)	24.92	(9,823)	36.84
Stock options exercised and free shares delivered	(11,367)	40.01	(20,080)	41.01
Stock options and shares existing at the closing	**205,334**	**23.83**	**151,448**	**24.49**
OPTIONS THAT MAY BE EXERCISED AT THE CLOSING	**0**		**0**	

The main data and assumptions underlying the valuation of stock options and free shares at fair value were as follows:

	Share price at grant date	Exercise period of stock options/free shares in years	Volatility	Dividend rate	Interest rate
Stock-options					
Plan 10 (Board of 02/01/2013)	26.99	4	24.80%	0%	1.30%
Plan 10 *bis* (Board of 02/07/2014)	24.50	3	23.73%	0%	0.30%
Plan 10 *ter* (Board of 02/01/2015)	24.94	4	22.13%	0%	0.36%
Plan 10 *quater* (Board of 07/22/2015)	28.31	4	23.36%	0%	0.65%
Plan 15 (Board of 02/01/2015)	24.94	4	23.36%	0%	0.65%
Plan 17 *bis* (Board of 07/22/2015)	28.31	4	22.13%	0%	0.36%
Plan 17 *ter* (Board of 03/11/2016)	24.39	1 to 5	22.79%	0%	0.65%
Plan 17 *quater* (Board of 05/05/2017)	55.56	2 to 4	28.16%	0%	0.86%
Plan 17 (Board of 05/05/2017)	55.56	2 to 4	28.16%	0%	0.86%
Plan 19 (Board of 07/18/2018)	42.97	2 to 4	37.33%	0%	0.66%
Plan 19 *bis* (01/02/2019)	27.04	3	34.56%	0%	0.61%
Plan 19 *ter* (12/12/2019)	29.12	3	26.76%	0%	0.65%
Free shares					
Plan 6 (Board of 07/21/2016)	30.30	2 to 4	n.a	0%	1.2%
Plan 7 (Board of 12/23/2016)	45.73	2	n.a	0%	1.1%
Plan 8 (Board of 08/01/2017)	46.19	2 to 4	n.a	0%	1.1%
Plan 9 / 9 *bis* / 9 *ter* (Board of 07/18/2018)	42.97	2 to 4	n.a	0%	0.95%
Plan 9 *quater*	31.4	2 to 4	n.a	0%	0.70%
Plan 9 *quinquies* / 9 *sexies*	31.00	2	n.a	0%	0.65%

NOTE 6. INTANGIBLE AND TANGIBLE ASSETS

NOTE 6.1. INTANGIBLE ASSETS

6.1.1. Change in the gross value, amortization and net value of intangible assets

(In € thousands)	January 31, 2019	Increase	Decrease	Foreign exchange gain/loss	Other movements	December 31, 2019
Gross values						
Development costs	63,192	28,323	(21,990)	-	-	69,525
Intangible assets with an indefinite useful life	12,044			-		12,044
Other intangible assets	21,636	554	(3)	(44)	-	22,143
TOTAL	**96,872**	**28,878**	**(21,993)**	**(44)**	**-**	**103,712**
Amortization						
Development costs	(19,041)	(27,024)	21,990		-	(21,990)
Intangible assets with an indefinite useful life	(73)				-	(73)
Other intangible assets	(15,948)	(1,526)	3	44	-	(17,427)
TOTAL	**(35,062)**	**(28,550)**	**21,993**	**44**	**-**	**(39,490)**
Net carrying amounts						
Development costs	44,152	1,300		-	-	45,452
Intangible assets with an indefinite useful life	11,971			-	-	11,971
Other intangible assets	5,687	(972)	-	-	-	4,716
TOTAL	**61,811**	**328**	**-**	**-**	**-**	**62,139**

6.1.2. Capitalized development costs

Research costs borne to gain new scientific or technical knowledge are recorded as expenses when incurred.

Development costs are capitalized in situations where the six requirements set forth under IAS 38, "Intangible Assets", are met:

- technical feasibility of completing the development project has been established;
- the Group intends to complete the project;
- the Group will be able to use or sell the product arising from the research and development project;
- the product is likely to generate future economic benefits, and a market exists for this product;
- there are appropriate technical, financial and other resources available to complete the research and development project and to sell the resulting product;
- the Group has the ability to reliably measure the expenses attributable to the research and development project.

The expenses thus converted into assets include the cost of direct labor as well as sub-contracting.

Capitalized expenses are amortized on a straight-line basis over a period of 12 months for development work that leads to the yearly release of new annual versions of software packages sold by the Group, and on a straight-line basis over 24 or 36 months for development work that leads to major improvements to existing products, depending on the degree of innovation.

Research and development costs that do not meet IAS 38 criteria are recorded as expenses when incurred.

In certain cases, research and development costs entitle the Group to a tax credit, recorded during the financial year when expenses were incurred. These tax credits are deducted from research and development costs.

Net impact of the capitalization of development costs

(In € thousands)	December 31, 2019	January 31, 2019
Development costs capitalized during the period	28,323	29,937
Development costs amortized during the period	(27,024)	(27,258)
NET IMPACT OF THE CAPITALIZATION OF DEVELOPMENT COSTS	**1,300**	**2,679**

Releases, which correspond to the commercial launch of new versions or upgrades to our software, are the result of commercial and strategic decisions. In some cases, management may decide to wait until several upgrades have been made before marketing a new version rather than to release several different versions with minor upgrades during the year; in other cases, a new version featuring a major innovation may be marketed even if other improvements are planned in the near future. While project releases are generally planned on a yearly basis, the actual release timeline may vary from one year to the next. These changes have an impact on amortization start dates and, consequently, on amortization amounts recorded.

Net value of capitalized developments costs represents 15 months of research and development costs (€45.5 million) incurred at December 31, 2019, compared to 14.4 months (€44.1 million) at January 31, 2019.

Reconciliation of R&D costs incurred and accounted for in the income statement

(In € thousands)	December 31, 2019	January 31, 2019
R&D costs incurred during the period[(1)]	**(33,656)**	**(36,763)**
Development costs capitalized during the period	28,323	29,937
Development costs amortized during the period	(27,024)	(27,258)
French R&D tax credit	3,086	2,979
Amortization of codes acquired in business combinations	(562)	(613)
TOTAL R&D COSTS RECOGNIZED AS EXPENSES DURING THE FINANCIAL YEAR	**(29,832)**	**(31,718)**

(1) Including €5,332 million in expenses accounted for as direct costs in 2019, compared to €6,826 million in 2018.

6.1.3. Intangible assets with an indefinite useful life

Intangible assets with an indefinite useful life include source codes that allow the Company to obtain intellectual property rights to the software code. Specifically, it involves the translation of the laws of physics into programming language in the form of algorithms that make it possible to simulate the reaction of materials under external constraints.

The intangible assets stemming from the purchase of business units are deemed to have indefinite useful lives as long as no substitute technology currently exists and as long as the recurrent business model (yearly leases) ensure that the installed base continues to generate revenue over the long term.

The Group is of the opinion that the useful life of these intangible assets cannot be determined as long as the underlying scientific content in purchased products is not challenged by a technological breakthrough that would render it obsolete. Furthermore, significant research and development efforts (accounting for 30% of revenue from licensing) focusing on these up-and-coming products guarantee the long term value of the asset.

Assets with an indefinite useful life are not amortized. They are subject to impairment tests performed each year. The impairment testing process and results at December 31, 2019 are described in note 3.1.

The useful life of an intangible asset with an indefinite useful life is reviewed each year to determine whether events and circumstances continue to support an indefinite useful life assessment for this asset. If they do not, the change in the useful life assessment from indefinite to finite must be accounted for prospectively.

6.1.4. Other intangible assets

Intangible assets with a finite useful life consist mainly of software. In accordance with IAS 38, they are valued at cost.

Amortization is recorded in the income statement based on the estimated useful life of the asset, according to the following criteria:

	Method	Useful life
Office and similar software applications	Straight-line	1 to 3 years
Other operational software	Straight-line	3 to 5 years
Codes – third-party software integrated into products	Straight-line	5 to 8 years

The period and method of amortization for an intangible asset with a finite useful life are re-measured at the end of each period or more frequently. Any change in the estimated useful life or the expected pattern of consumption of the future economic benefits embodied in the asset are recorded by modifying the period or method of amortization. The impact of such change is accounted for prospectively as a change in estimate.

Amortization costs of intangible assets with finite useful lives are recorded in the income statement under the category of expense related to the function of the intangible asset.

NOTE 6.2. PROPERTY, PLANT AND EQUIPMENT

6.2.1. Accounting principles

In accordance with IAS 16 "Property, Plant and Equipment", these assets are valued at cost. They are not subject to any type of revaluation. Amortization is recorded in the income statement based on the estimated useful life of the asset, according to the following criteria:

	Method	Useful life
Fixtures and fittings	Straight-line	5 to 10 years
Computer hardware	Straight-line	3 to 5 years
Office furnishings	Straight-line	5 to 10 years

6.2.2. Change in the gross value, amortization and net value of property, plant and equipment

(In € thousands)	January 31, 2019	Increase	Decrease	Other movements[1]	Foreign exchange gain/loss	December 31, 2019
Gross values						
Fixtures and fittings	4,596	102	-	6	31	4,735
Computer hardware	15,633	1,123	(1,072)	(17)	109	15,777
Office furnishings and other tangible assets	3,508	106	(243)	25,890	24	29,285
TOTAL	**23,737**	**1,331**	**(1,315)**	**25,879**	**164**	**49,797**
Amortization						
Fixtures and fittings	(2,254)	(283)	-	(2)	(16)	(2,555)
Computer hardware	(12,791)	(1,334)	1,072	64	(81)	(13,070)
Office furnishings and other tangible assets	(2,591)	(5,359)	203	(92)	(19)	(7,858)
TOTAL	**(17,636)**	**(6,976)**	**1,274**	**(29)**	**(116)**	**(23,484)**
Net carrying amounts						
Fixtures and fittings	2,342	(181)	-	4	15	2,180
Computer hardware	2,842	(211)	-	48	28	2,707
Office furnishings and other tangible assets	917	(5,254)	(40)	25,799	5	21,426
TOTAL	**6,101**	**1,153**	**(41)**	**25,850**	**48**	**26,313**

(1) Booking of right-of-use assets related to IFRS 16.

NOTE 7. FINANCING AND FINANCIAL INSTRUMENTS

NOTE 7.1. FINANCIAL ASSETS AND LIABILITIES

Financial assets and liabilities mainly comprise:

- long term financial debts, short-term borrowings and overdrafts, together comprising gross debt – see details in note 7.1.2;
- loans and other short-term financial assets, and cash and cash equivalents – see details in note 7.1.3 – which added to gross debt represent net financial debt;
- derivative financial instruments – see details in note 7.1.4;
- short-term trade receivables — see details in note 4.2, and short-term trade payables.

7.1.1. Fair value of financial assets and liabilities

(In € thousands)	Carrying amount: Amortized cost	Carrying amount: Fair value through equity	Carrying amount: Fair value through profit and loss	December 31, 2019: Total
Assets				
Financial assets:				
◆ Non-consolidated investments			28	28
◆ Deposits and guarantees	2,968			2,968
◆ French R&D tax credit receivables for 2016	2,433			2,433
◆ Derivative assets			-	-
Trade receivables	44,733			44,733
Cash and cash equivalents			20,241	20,241
Liabilities				
Bank borrowings	45,851			45,851
Factoring of French R&D tax credit for 2016	2,433			2,433
Other financial debts	1,305		-	1,305
Derivative liabilities		28		28
Other financial liabilities		490		490
Payables	8,631			8,631

In accordance with IFRS 13, the various valuation techniques for each financial instrument must be ranked. The different categories are as follows:

- Level 1: direct reference to quoted (unadjusted) prices accessible on active markets for identical assets or liabilities;
- Level 2: valuation method based on directly or indirectly observable data associated with the asset or liability other than the quoted prices included in level 1 data;
- Level 3: valuation method based on unobservable data.

The fair value of cash and cash equivalents is calculated using level 1.

Derivative instruments (see notes 7.1.4 and 7.3) are valued using level 2.

Debts on earnouts, put options (other financial liabilities) and investments in non-consolidated companies are valued using level 3.

7.1.2. Gross financial debt

ESI Group's main source of financing is the syndicated loan which consists of a long-term part of €28 million at December 31, 2019 and a €15 million revolving credit, out of which €10 million confirmed. The long-term part will be gradually reimbursed annually on April 30 each year until April 30, 2025. The syndicated loan is remunerated based on the Euribor rate and a margin of 2%, 2.25% or 2.5% depending on the level of the Net financial debt/EBITDA ratio related to previous year financial statements. The margin applied since June 2019 is 2.25%.

All financial debts are denominated in euros.

/ Detail and maturity of financial debt

	Maturity at December 31					
(In € thousands)	2020	2021	2022	2023	2024 and beyond	Total
Syndicated loan	3,500	4,405	4,905	4,905	9,810	27,525
Short-term revolving loan	10,000					10,000
Other bank borrowings	2,900	800	800	800	2,775	8,075
Factoring of French R&D 2016 tax credit	2,433					2,433
Repayable advances	-	451			740	1,191
Other financial debts	309	65				374
TOTAL	**19,142**	**5,721**	**5,705**	**5,705**	**13,325**	**49,598**
	CURRENT: 19,142					**NON-CURRENT: 30,457**

	Maturity at January 31					
(In € thousands)	2019	2020	2021	2022	2023 and beyond	Total
Syndicated loan	2,000	1,890	3,390	4,390	17,780	29,450
Short-term revolving loan	1,000					1,000
Other bank borrowings	3,111	600	600		1,575	5,886
Factoring of French R&D tax credit for 2015, 2016 and 2017	2,448	2,433		2,441		7,322
Repayable advances	119	33			995	1,147
Other financial debts	123	65	65			253
TOTAL	**8,801**	**5,021**	**4,055**	**6,831**	**20,350**	**45,058**
	CURRENT: 8,801					**NON-CURRENT: 36,256**

/ Financial debt by type of interest rate and maturity

	Maturity at December 31					
(In € thousands)	2020	2021	2022	2023	2024 and beyond	Total
Fixed-rate debt	400	800	800	800	2,775	5,575
Variable-rate debt	18,433	4,405	4,905	4,905	9,810	42,458
No-interest debt	309	516			740	1,565
TOTAL	**19,142**	**5,721**	**5,705**	**5,705**	**13,325**	**49,598**
	CURRENT: 19,142					**NON-CURRENT: 30,457**

The following table shows the changes in financial debt in 2019, with a split between flows with cash impact and flows without cash impact.

		Flows with cash impact			Flows without cash impact			
(In € thousands)	At January 31, 2019	New borrowings	Repayment	Other cash flows from financing activities	Change in consolidation scope	Foreign exchange gain/ loss	Other movement	At December 31, 2019
Syndicated loan	29,450		(2,000)	-	-	-	75	27,525
Short-term revolving loan	1,000	10,000	(1,000)	-	-	-	-	10,000
Other bank borrowings	5,886	4,000	(1,800)	-	-		(11)	8,075
Factoring of French R&D tax credit	7,322	-		-	-	-	(4,889)	2,433
Profit-sharing funds	1,147	162	(40)	-	-	-	(78)	1,191
Other financial debts	253	260	(73)	-	-	2	(68)	374
TOTAL	**45,058**	**14,422**	**(4,913)**	**-**	**-**	**(2)**	**(4,971)**	**49,598**

Other movement related to factoring of French R&D tax credit represents (i) the repayment by the French state of 2015 receivable directly to the factoring bank and (ii) the deconsolidated factoring of 2017 receivable. These flows have no cash impact for ESI Group.

7.1.3. Cash and cash equivalents

"Cash and cash equivalents" correspond to cash, bank deposits, interest-bearing accounts, mutual funds, money market funds and other liquid and easily convertible investments, subject to an insignificant risk of changes in value, in accordance with IAS 7.

In accordance with IFRS 9, marketable securities are recognized at market value at the closing date. Changes in market value are recognized in Financial Result.

The Group classifies as cash equivalents no-risk investments in interest-bearing accounts, commercial paper and certificates of deposit originally maturing in three months or less and not bearing any significant interest rate risk.

(In € thousands)	December 31, 2019	January 31, 2019
Cash	20,241	18,073
Marketable securities	-	14
TOTAL CASH AND CASH EQUIVALENTS	**20,241**	**18,087**

7.1.4. Financial instruments

The Group uses derivative instruments to manage its exposure to fluctuations in exchange rates and interest rates. In accordance with IFRS 9, derivative instruments are recorded at fair value on the balance sheet.

Changes in fair value of derivative financial instruments are accounted for as follows:

- hedges accounting: changes in value are recognized in equity and reclassified in profit or loss until the effective completion of the forecast transaction;
- instruments not qualifying for hedge accounting: changes in fair value measurement of these derivative instruments are recognized in Financial Result.

Interest rate instruments

Interest rate swaps signed by ESI Group have always been set up to hedge the variable interest rate of the syndicated loan.

The syndicated loan signed in December 2018 requires set up of interest rates hedging instruments for 50% of the outstanding loan.

Two swaps have been setup in the 2019 first semester, with a nominal value of €14 million each, ESI Group receiving variable rate 3-month Euribor (with a 0% floor) and paying a fixed rate of 0.085% and 0.092%.

At December 31, 2019, the market value of these instruments was -€28 thousand.

/ Foreign exchange instruments

In order to manage foreign currency risk on cash flows between the Group's parent company and its subsidiaries, ESI Group may purchase foreign currency options at any time and enter into any other type of foreign exchange contract. Foreign exchange instruments in place during 2019 concerned Japanese yen. At December 31, 2019, all foreign exchange instruments arrived to maturity.

NOTE 7.2. FINANCIAL INCOME AND EXPENSES

(In € thousands)	December 31, 2019	January 31, 2019
Interest and related expenses on borrowings	(994)	(1,187)
Interest income	16	32
Foreign exchange gain/(loss)	(998)	379
Other financial expenses	586	(501)
FINANCIAL RESULT	**(2,563)**	**(1,277)**

Interests on borrowings are mostly related the syndicated credit and related charges.

Details on foreign exchange gains and losses are as follows:

(In € thousands)	December 31, 2019	January 31, 2019
USD	(708)	184
JPY	(23)	(54)
KRW	44	206
Other currencies	(311)	42
TOTAL	**(998)**	**379**

The negative foreign exchange result is mainly due to the revaluation at closing rate of the accounts payables and receivables.

Other financial expenses include:

- interest charges calculated on employee benefit commitments;
- factoring expenses for receivables related to the French R&D tax credit;
- overdraft interest charges.

NOTE 7.3. RISK MANAGEMENT POLICY

Country risk and foreign currency risk

During the financial year ended December 31, 2019, 42.6% of the Group's revenue was generated in Europe, 40.2% in Asia (mainly Japan, South Korea, China and India) and 17.2% in the Americas (mainly the United States). The Group is thus exposed to economic and political uncertainties in these areas.

The Group is also highly exposed to risks stemming from changes in foreign exchange rates: for the financial year ended December 31, 2019, 38.5% of revenue was generated in EUR, 20.3% in USD (US dollar), 24.3% in JPY (Japanese yen), 5.3% in KRW (Korean won) and 4.7% in CZK (Czech koruna).

Furthermore, 55.4% of costs are spent in EUR, 15% in USD, 8.6% in JPY, 6.6% in INR (Indian rupee), 2.8% in KRW, 3.4% in CZK and 2.2% in CHF (Swiss franc).

The following table shows the results of sensitivity analysis of EBIT to exchange rate fluctuations. The assumption is a 10% decline in the average exchange rate applied to all transactions (purchases and sales), with respect to the principal currencies to which the Group is exposed.

Currency	Average consolidation exchange rate	Exchange rate used for analysis	Effect on Current Operating Result *(in € millions)*
JPY	121.85	134.03	(1.3)
KRW	1,307.03	1,437.73	(0.2)
CZK	25.67	28.24	(0.1)
USD	1.12	1.23	(0.2)
INR	78.67	86.54	0.5
CHF	1.11	1.22	0.2

Interest rate risk

Most of the Group's financial debts feature variable interest rates. To limit the negative impacts of rate fluctuation, the Group applies a non-speculative management policy, using derivatives described in note 7.1.4.

/ Sensitivity analysis to interest rate risk

The only debts included in the calculation of interest rate sensitivity are those with variable interest rates. These are mostly bank loans for which drawdown and repayment are left to the borrower's discretion.

At December 31, 2019, €10 million of the revolving credit line has been used and this line was entirely paid off at the date of approval of accounts by the Board of Directors. Given ESI Group's optimization of cash flow management, the amount of debt incurred from bank loans over the course of the year has fluctuated, with generally lower levels, like-for-like, than at the end of the financial year.

The calculations of foreign-exchange sensitivity presented below assume that financial debts remain stable at December 31, 2019 levels, meaning a fixed level of drawdown on bank loans as of that date.

The table below simulates the effects in terms of outflows of interest rates rising and falling by 1%:

(In € thousands)	< 1 year	≥ 1 year, < 5 years	≥ 5 years	Total
Variable rate financial liabilities	(18,433)	(14,215)	(9,810)	(42,458)
Variable rate financial assets				
Off-balance sheet commitments				
NET POSITION	**(18,433)**	**(14,215)**	**(9,810)**	**(42,458)**
Sensitivity to a 1-point decrease				-
Sensitivity to a 1-point increase				(145)

Equity risk

In accordance with IAS 32, treasury shares are accounted for as part of consolidated shareholder equity and variations in value are not recorded. When treasury shares are acquired or sold, shareholder equity is adjusted to reflect the value of the shares acquired or sold. note 9.1 contains a detailed description of changes in treasury stock, whether in the context of a liquidity agreement or intended to cover stock options and free share grants.

As part of its cash flow management strategy, the Group does not directly hold any other listed stock and does not invest in equity-dominated or equity-benchmark UCITS. Thus, the Group's net financial income is not directly or significantly affected by variation in any given stock or market index.

Liquidity risk

The Company has specifically reviewed its liquidity risk and it considers itself to be in a position to satisfy future payment obligations. The ratio to be maintained with regard to the syndicated loan contract entered into in December 2018 is detailed in note 7.4.

NOTE 7.4. OFF-BALANCE SHEET COMMITMENTS RELATING TO GROUP FINANCING

As part of the credit agreement dated December 20, 2018, ESI Group granted a pledge of 99.98% of the shares of Engineering System International, 100% of the shares of the subsidiary ESI Software Germany, and 96% of the shares of the subsidiary ESI ITI GmbH.

As long as it owes an obligation under the agreement or the security documents, the borrower undertakes, under prepayment constraint, to comply with the ratio of consolidated net financial debt divided by consolidated EBITDA, the thresholds to be respected over the term of the syndicated loan agreement are gradually decreasing. As at December 31, 2019, the threshold to be respected is 3.5%. At December 31, 2019, on the basis of the annual consolidated financial statements certified by the Statutory Auditors, the Group was in compliance with this ratio.

Off-balance sheet financial commitments also include factoring of French R&D tax credit receivables of 2017 and 2018, which have been factored in 2018 for €2.441 million and in 2019 for €2.659 million. The terms and conditions of those factorings justify the non-recognition of those commitments as financial liabilities on the balance sheet (deconsolidating contracts).

NOTE 8. INCOME TAX

NOTE 8.1. INCOME TAX EXPENSE

Deferred tax assets and liabilities reflect future decreases or increases in income tax expense to be paid that result, for certain asset and liability items, from temporary valuation differences between their carrying amounts and their tax base, as well as from tax loss and tax credit carryforwards. Deferred tax assets and liabilities are assessed by tax entity or group based on the tax rates applicable to the years during which these temporary differences are likely to be reversed or paid. Deferred tax assets and liabilities are adjusted for each entity to present either a net asset position or a net liability position.

Deferred tax assets are only recorded in cases where it is likely that the future tax savings they represent will be realized. The Group reviews the probability of future recovery of deferred tax assets on a periodic basis for each tax entity. In some cases, this review can lead the Group to derecognize deferred tax assets that it had recognized in prior years.

The Group has three tax groups:

- in France, with the parent company, ESI Group, as head company;
- in Germany, with ESI Software Germany GmbH as head company;
- in the United States, with ESI North America, Inc. as head company.

8.1.1. Income tax expense

(In € thousands)	December 31, 2019	January 31, 2019
Current taxes	(2,372)	(2,397)
Deferred taxes	5,818	(109)
TOTAL	**3,446**	**(2,505)**

8.1.2. Tax proof

(In € thousands)	December 31, 2019	January 31, 2019
Net income before taxes	**(24,360)**	**5,840**
Including share of profit of associates	26	106
Theoretical tax rate	**28%**	**29.5%**
Theoretical tax (expense)/benefit	**6,828**	**(1,692)**
Permanent differences between net result and taxable income	(2,202)	(452)
Impact of liability method	13	(39)
Impact of standard tax rate differentials between parent company and subsidiaries	44	384
Unrecognized deferred tax assets and unused tax losses	(1,319)	(706)
Recognition of previously unrecognized deferred tax assets	81	-
GROUP INCOME TAX EXPENSE	**3,446**	**(2,505)**
Effective tax rate	(14.1)%	43.7%

NOTE 8.2. DEFERRED TAXES

Breakdown of deferred taxes by tax base

(In € thousands)	December 31, 2019	January 31, 2019
Deferred tax assets		
Tax loss carryforwards	8,801	1,128
Temporary differences related to tax treatment of maintenance	2,632	4,478
Provisions for employee benefit commitments	3,322	3,159
Temporary differences related to personnel	876	590
Provisions and other adjustments	1,574	1,566
Total deferred tax assets	**17,204**	**10,920**
Deferred tax liabilities		
Amortization of acquired intangible assets	(808)	(1,323)
Other	(2,953)	(2,415)
Total deferred tax liabilities	**(3,761)**	**(3,738)**
NET DEFERRED TAX	**13,443**	**7,182**

Unrecognized deferred tax assets on tax loss carryforwards came to €2.9 million. The timeframe used for estimating the recoverability of these deferred tax assets is generally five years.

Reconciliation of deferred income tax expense on the balance sheet and income statement

(In € thousands)	
Net deferred tax assets at opening (February 1, 2019)	**7,182**
Acquired companies	83
Deferred tax expenses recorded in the income statement	5,617
Deferred tax expenses recognized directly in equity (IAS 19 revised)	262
Foreign exchange gain/loss on deferred tax expenses	(7)
Other movements	306
NET DEFERRED TAX ASSETS AT CLOSING (DECEMBER 31, 2019)	**13,443**

NOTE 9. EQUITY AND EARNINGS PER SHARE

NOTE 9.1. SHARE CAPITAL, RESERVES AND TREASURY STOCK

ESI Group's share capital is made up of ordinary shares.

The "Currency translation difference" line item is used to record losses or gains generated by converting the financial statements of foreign subsidiaries into euros as well as foreign exchange losses or gains on transactions characterized as long term investments with foreign subsidiaries.

When the Group buys back its own shares, these shares are recorded at their net purchase price as treasury stock and deducted from equity. The proceeds from the sale of treasury stock are accounted for directly in equity.

/ Share capital

At December 31, 2019, ESI Group's share capital was €18.053 million, comprising 6,018,492 common shares with a par value of €3 each.

/ Dividend payout

ESI Group did not pay out any dividend during the period.

1 2 3 4 5 6 7 8 9

/ Treasury shares

The number of treasury shared declined by 13,540 shares over the financial year. The percentage of capital held as treasury shares following these transactions stood at 6.3% at December 31, 2019, compared to 6.4% at January 31, 2019. The Group owns a total of 377,342 treasury shares, purchased at a historical cost of €4.093 million and with a market value of €12.284 million at the same date, for an unrealized gain of €8.171 million.

/ Transactions with non-controlling interests

Transactions with non-controlling interests are recognized directly in equity. See details in notes 3.1 and 3.2.

NOTE 9.2. MINORITY INTERESTS

If, in the event of losses, the part of equity corresponding to minority interests becomes negative, it will be retreated so as to be at least equal to zero.

NOTE 9.3. EARNINGS PER SHARE

The table below details the net income (Group share) per share:

(In € thousands)	December 31, 2019	January 31, 2019
NET INCOME (GROUP SHARE)	**(20,946)**	**3,334**
Net earnings per share *(in €)*	(4.06)	0.59
Average number of shares	5,164,418	5,616,310
Diluted earnings per share *(in €)*	(4.01)	0.59
Average number of diluted shares	5,225,409	5,666,522

Only stock options and free shares may have a dilutive effect.

NOTE 10. OTHER BALANCE SHEET ITEMS

NOTE 10.1. OTHER ASSETS

10.1.1. Other non-current assets

(In € thousands)	December 31, 2019	January 31, 2019
Security deposits	2,968	2,929
Factored French R&D tax credit	-	4,874
Other long term assets	266	239
Investments in non-consolidated companies	28	28
TOTAL OTHER NON-CURRENT ASSETS	**3,262**	**8,070**

Security deposits mainly concern real estate rentals.

The evolution of factored French R&D tax credit results from the reclassification of 2016 receivable in other current assets (see note 10.1.2) and the deconsolidation of debt related to 2017 receivable (see note 7.4).

10.1.2. Other current receivables

(In € thousands)	December 31, 2019	January 31, 2019
French R&D tax credit	5,847	6,036
Other tax credits	1,501	1,392
VAT and other receivables	6,371	7,920
TOTAL OTHER CURRENT ASSETS	**13,720**	**15,348**

French R&D tax credit receivables as of December 31, 2019 relates to costs incurred in 2019 for an amount of €3.103 million, and to 2016 receivable (repayment by the French State to the factor planned for 2019).

10.1.3. Prepaid expenses

Prepaid expenses consist primarily of rent for real estate and other property.

NOTE 10.2. OTHER LIABILITIES

10.2.1. Tax payables, employee-related liabilities and other short-term liabilities

(In € thousands)	December 31, 2019	January 31, 2019
Employee-related liabilities	16,008	15,329
Tax payables	6,275	10,640
Other current liabilities	1,946	4,590
TAX PAYABLES, EMPLOYEE-RELATED LIABILITIES AND OTHER SHORT-TERM LIABILITIES	**24,229**	**30,560**

Tax payables consist primarily of VAT payables for €5.061 million.

10.2.2. Other provisions

In accordance with IAS 37 “Provisions, Contingent Liabilities and Contingent Assets”, a provision is recorded when the following three conditions are met: the Group has an obligation towards a third party resulting from past events, it is probable that future outflows of resources embodying economic benefits will be necessary to settle the obligation, the amount of the obligation can be estimated in a reliable way.

(In € thousands)	January 31, 2019	Provisions	Reversals – provisions used	Reversals – provisions not used	Foreign exchange gain/loss	December 31, 2019
Disputes	762	93	(193)	-	13	675
CURRENT PROVISIONS FOR LIABILITIES	**762**	**93**	**(193)**	**-**	**13**	**675**

NOTE 11. RELATED PARTY TRANSACTIONS

/ Executive corporate officers' compensation

Compensation and benefits paid to the Group's four executive corporate officers during the financial years ended December 31, 2019 and January 31, 2019 breaks down as follows:

(In € thousands)	December 31, 2019	January 31, 2019
Fixed compensation	1,069	717
Variable compensation	-	42
Travel bonus	-	17
Benefits in kind	20	160
Directors' fees	98	16
TOTAL	**1,186**	**952**

/ Related party transactions

Not applicable.

NOTE 12. FEES PAID TO STATUTORY AUDITORS

	PricewaterhouseCoopers Audit				Ernst & Young				Total			
	Amount		%		Amount		%		Amount		%	
(In € thousands, excluding tax)	Y	Y-1	Y	Y-1	Y	Y-1	Y	Y-1	Y	Y-1	Y	Y-1
Statutory audit												
Certification, review of annual and consolidated financial statements												
◆ Parent company	160	161	57%	51%	191	184	57%	58%	351	344	57%	55%
◆ Fully consolidated subsidiaries	63	86	23%	28%	139	128	41%	28%	202	214	33%	34%
Services other than certification of accounts												
◆ Parent company	21	21	7%	7%	7	7	2%	2%	28	28	4%	4%
◆ Fully consolidated subsidiaries	0	0	0%	0%	0	0	0%	0%	0	0	0%	0%
Sub-total statutory audit	**244**	**267**	**87%**	**86%**	**337**	**319**	**100%**	**100%**	**581**	**586**	**94%**	**93%**
Other work and services directly related to statutory audit												
Legal, tax, social	34	45	13%	14%	0	0	0%	0%	34	45	6%	7%
Others	0	0	0%	0%	0	0	0%	0%	0	0	0%	0%
Sub-total other services	**0**	**45**	**13%**	**14%**	**0**	**0**	**0%**	**0%**	**34**	**45**	**6%**	**7%**
TOTAL	**278**	**312**	**100%**	**100%**	**337**	**319**	**100%**	**100%**	**615**	**631**	**100%**	**100%**

The Group opted to follow the recommendations of the French Association of Statutory Auditors (CNCC) to record, at the reporting date, expenses related to audit fees corresponding to services actually rendered during the period. The total budget for certification fees for the parent company and consolidated financial statements for the financial year ended December 31, 2019 came to €351 thousand. Services other than certification of accounts correspond primarily to certification of costs statements issued for co-financed projects and of bank covenant calculation.

NOTE 13. SUBSEQUENT EVENTS

CORONAVIRUS

In the short term, the global pandemic related to Covid-19 is expected to impact our financial year results, however many remaining uncertainties make it impossible to precisely quantify this impact at this stage. The resilience of our business model solidly anchored on renewable and critical software licenses will help us manage risks over the year.

6.1.6. STATUTORY AUDITORS' REPORT ON THE CONSOLIDATED FINANCIAL STATEMENTS

This is a translation into English of the Statutory Auditors' report on the consolidated financial statements of the Company issued in French and it is provided solely for the convenience of English speaking users. This Statutory Auditors' report includes information required by European regulation and French law, such as information about the appointment of the Statutory Auditors or verification of the information concerning the Group presented in the management report and other documents provided to shareholders. This report should be read in conjunction with, and construed in accordance with, French law and professional auditing standards applicable in France.

Eleven-months period ended December 31, 2019

To the General Meeting of ESI Group,

Opinion

In compliance with the engagement entrusted to us by your general meeting, we have audited the accompanying consolidated financial statements of ESI Group for the eleven-months period ended December 31, 2019. These consolidated financial statements were approved by the Board of Directors on March 19, 2020 on the basis of the elements available at that date, in the evolving context of the health crisis related to Covid-19.

In our opinion, the consolidated financial statements give a true and fair view of the assets and liabilities and of the financial position of the Group as at December 31, 2019 and of the results of its operations for the year then ended in accordance with International Financial Reporting Standards as adopted by the European Union.

The audit opinion expressed above is consistent with our report to the Audit Committee.

Basis for opinion

/ Audit Framework

We conducted our audit in accordance with professional standards applicable in France. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Our responsibilities under those standards are further described in the Statutory Auditors' Responsibilities for the Audit of the Consolidated Financial Statements section of our report.

/ Independence

We conducted our audit engagement in compliance with independence rules applicable to us, for the period from February 1, 2019 to the date of our report and specifically we did not provide any prohibited non-audit services referred to in Article 5(1) of Regulation (EU) No 537/2014 or in the French Code of Ethics *(Code de déontologie)* for Statutory Auditors.

Emphasis of matter

Without qualifying our opinion expressed above, we draw your attention to the following matters:

- The note 1.3 "New IFRS standards and interpretations" which describes the impact on the consolidated financial statements of the first application of IFRS 16 – Leases;
- The note 2 "Significant events of the year "which presents the change in the closing date of the financial year and the information established for comparability purposes.

Justification of assessments – Key Audit Matters

In accordance with the requirements of Articles L. 823-9 and R. 823-7 of the French Commercial Code *(Code de commerce)* relating to the justification of our assessments, we inform you of the key audit matters relating to risks of material misstatement that, in our professional judgment, were of most significance in our audit of the consolidated financial statements of the current period, as well as how we addressed those risks.

These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on specific items of the consolidated financial statements.

Capitalization of development costs

Risk identified	In the balance sheet of the Group, non-current assets include capitalized development costs. As of December 31, 2019, their net book value amounts to €45,452 thousand. They correspond mostly to cost of direct labor as well as sub-contracting, incurred for the development of new annual versions or major improvements of existing ESI software. As indicated in note 6.1.2 to consolidated financial statements, development costs are capitalized in situations where the six requirements set forth under IAS 38, "Intangible Assets", are met. Capitalized development costs start to be amortized after the market release of the related version of the software. Capitalized expenses are amortized on a straight-line basis over a period of 12 months for new annual versions of software, and over 24 or 36 months for major improvements to existing products, depending on the degree of innovation. ESI Management set up procedures and rules to ensure that: ◆ the process to distinguish between research and development costs is respected; ◆ capitalized development costs met all criteria set forth under IAS 38; and ◆ useful life period over which each project is amortized is adapted to the nature/level of innovation of the project. However, regarding the significant impact on the consolidated income statement of capitalization of development costs amounting to €29,832 thousand, and the significant gross balance of these capitalized costs recorded as assets in the consolidated balance sheet amounting to €69,525 thousand, it follows that any deviation from the procedures in place or any misinterpretation of the capitalization criteria could lead to significant impacts on the Group's consolidated financial statements and financial performance. The assessment of compliance with the criteria for capitalization of development costs, as well as the determination of the amortization period depending on the nature of the project, are very much based on Management's judgment and the reliability of the procedures applied for the identification and allocation of expenses between the different projects. On this basis, we considered capitalization of development costs as a key audit matter.
Our response	We examined the compliance of the Group's accounting treatment of research and development costs with current accounting standards. We also conducted a critical review of how this methodology was implemented. In particular, we conducted the following procedures: ◆ we have taken notice of the procedure followed by the Group to distinguish between research and development costs and, for the latter, the rules put in place to assess compliance with the capitalization criteria laid down in IAS 38; ◆ we tested by sampling the correct application of the procedures implemented for the identification, monitoring and recording of research and development costs; ◆ we audited, for a selection of projects, the correct application of the capitalization criteria set out in IAS 38 and tested the accuracy and completeness of the most significant expenses charged to these projects; ◆ we verified the correct calculation of amortization expense mainly by controlling the correct application of the rules for setting the straight-line amortization period, depending on the nature of the project (major improvement or new version); We have reconciled accounting and management data in order to assess the accuracy and completeness of information reporting process for recording.

/ Valuation of goodwill

Risk identified	As part of its development, the Group was led to carry out targeted acquisitions leading to recognition of goodwill. This goodwill, which corresponds to the difference between the price paid and the fair value of identifiable assets and liabilities acquired, amounts to €41,448 thousand at end December 2019. Any adverse change in the expected returns of the business, due to internal or external factors, for example related to the economic and financial environment, is likely to significantly affect the recoverable amount and require the recognition of impairment. Such a change therefore implies a regular reappraisal (at least once a year, or when an indication of loss of value is identified) of the relevance of all the assumptions used to determine this value as well as the reasonableness and coherence of the valuation parameters. To this end, Management examines indicators of potential losses and performs an impairment test by ensuring annually that the book value of goodwill does not exceed their recoverable amount. This recoverable amount is determined by reference to the value in use, itself calculated from the present value of the expected cash flows of the group of assets. For the purpose of the impairment test, goodwill is allocated to cash generating units ("CGUs"). ESI Group uses a single CGU for the entire Group. Methodology applied for the impairment test and assumptions used are presented in note 3.1 to consolidated financial statements. The determination of the recoverable value of goodwill is largely based on Management's judgment, in particular as regards the growth rate used for the cash flow projections and the discount rate applied. We therefore considered the valuation of goodwill as a key audit matter.
Our response	We obtained the last budget and strategic plan as well as the impairment test established by Management. Based on this information, we performed the following procedures: ◆ We examined the regularity and permanence of the accounting principles and methods applied; ◆ We analyzed the key assumptions retained: • regarding cash flows: critical review of the budget and strategic plan validated by Management, based on our knowledge of the Group, • regarding the long-term growth rate and the discount rate applied to these flows, we have assessed, with the help of our valuation specialists, the main assumptions used, • we obtained and reviewed sensitivity analyzes performed by Management.

/ Revenue recognition principles

Risk identified	The group ESI derives revenue from two primary sources: software licensing and related maintenance activity, and services activity. In the case of contracts that include several of these items sold together, the determination of the date of recognition of the revenue and its allocation between the different components of the contracts may require, if necessary, a part of the judgment of Management. In compliance with IFRS 15, ESI customer contracts have been analyzed in five stages in order to identify the component of the performance obligations and the price of each. For licensing revenue, two performance obligations have been identified: access to the software (the licensing itself) and the maintenance service. The part of revenue allocated to maintenance is determined as presented in note 4.1 to consolidated financial statements. This allocation of revenue between the different components of a contract requires analyzes and restatements of the Management. We therefore considered for these various reasons the recognition of revenue as a key audit matter.
Our response	As part of our audit, we conducted tests on all contracts deemed significant as well as on a sample of contracts selected at random, in order to (i) review the allocation (in accordance with the accounting principles described in note 4.1 to consolidated financial statements) of the revenue between each component of the contract; (ii) analyze the revenue recognition for the appropriate amount and the appropriate accounting period. These tests include analyzing the contractual terms, recalculating each item and examining the revenue recognition in accordance with the principles set out in note 4.1 to consolidated financial statements, which compliance with IFRS was previously assessed.

Specific verifications

We have also performed, in accordance with professional standards applicable in France, the specific verifications required by laws and regulations of the information given in the Board of Directors's Group management report, as approved on March 19, 2020. Regarding the events that occurred, and the elements known after the date of approval of the consolidated financial statements relating to the effects of the Covid-19 crisis, Management has informed us that such events and elements will be communicated to the annual general meeting called to decide on these financial statements.

We have no matters to report as to their fair presentation and their consistency with the consolidated financial statements.

We attest that the consolidated non-financial information statement required by Article L. 225-102-1 of the French Commercial Code is presented in the Group's information given in the management report, being specified that, in accordance with Article L. 823-10 of this Code, the information given in this statement have not been verified by us with respect to the fair presentation and consistency with the consolidated financial statements and has to be subject to a report by an independent third party.

Report on other legal and regulatory requirements

/ Appointment of the Statutory Auditors

We were appointed as Statutory Auditors of ESI Group by the General Meeting held on June 25, 2009 for PricewaterhouseCoopers Audit and on December 16, 1997 for Ernst & Young Audit.

As at December 31, 2019, PricewaterhouseCoopers Audit and Ernst & Young Audit were in the 11th year and 23rd year of total uninterrupted engagement (which is the 20th year since securities of the Company were admitted to trading on a regulated market) respectively.

Responsibilities of Management and those charged with Governance for the consolidated financial statements

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with International Financial Reporting Standards as adopted by the European Union and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, Management is responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless it is expected to liquidate the Company or to cease operations.

The Audit Committee is responsible for monitoring the financial reporting process and the effectiveness of internal control and risks management systems and where applicable, its internal audit, regarding the accounting and financial reporting procedures.

The consolidated financial statements were approved by the Board of Directors.

Statutory Auditors' responsibilities for the audit of the consolidated financial statements

/ Objectives and audit approach

Our role is to issue a report on the consolidated financial statements. Our objective is to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with professional standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As specified in Article L. 823-10-1 of the French Commercial Code *(Code de commerce)*, our statutory audit does not include assurance on the viability of the Company or the quality of management of the affairs of the Company.

As part of an audit conducted in accordance with professional standards applicable in France, the Statutory Auditor exercises professional judgment throughout the audit and furthermore:

- Identifies and assesses the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, designs and performs audit procedures responsive to those risks, and obtains audit evidence considered to be sufficient and appropriate to provide a basis for his opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control;
- Obtains an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the internal control;

- Evaluates the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by Management in the consolidated financial statements;
- Assesses the appropriateness of Management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. This assessment is based on the audit evidence obtained up to the date of his audit report. However, future events or conditions may cause the Company to cease to continue as a going concern. If the Statutory Auditor concludes that a material uncertainty exists, there is a requirement to draw attention in the audit report to the related disclosures in the consolidated financial statements or, if such disclosures are not provided or inadequate, to modify the opinion expressed therein;
- Evaluates the overall presentation of the consolidated financial statements and assesses whether these statements represent the underlying transactions and events in a manner that achieves fair presentation;
- Obtains sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. The Statutory Auditor is responsible for the direction, supervision and performance of the audit of the consolidated financial statements and for the opinion expressed on these consolidated financial statements.

/ Report to the Audit Committee

We submit to the Audit Committee a report which includes in particular a description of the scope of the audit and the audit program implemented, as well as the results of our audit. We also report, if any, significant deficiencies in internal control regarding the accounting and financial reporting procedures that we have identified.

Our report to the Audit Committee includes the risks of material misstatement that, in our professional judgment, were of most significance in the audit of the consolidated financial statements of the current period and which are therefore the key audit matters that we are required to describe in this report.

We also provide the Audit Committee with the declaration provided for in Article 6 of Regulation (EU) No. 537/2014, confirming our independence within the meaning of the rules applicable in France such as they are set in particular by Articles L. 822-10 to L. 822-14 of the French Commercial Code *(Code de commerce)* and in the French Code of Ethics *(Code de déontologie)* for Statutory Auditors. Where appropriate, we discuss with the Audit Committee the risks that may reasonably be thought to bear on our independence, and the related safeguards.

Neuilly-sur-Seine and Paris-La Défense, April 23, 2020

The Statutory Auditors

French original signed by

PricewaterhouseCoopers Audit	Ernst & Young Audit
Thierry Charron	Frédéric Martineau

6.2. ESI GROUP ANNUAL FINANCIAL STATEMENTS

6.2.1. INCOME STATEMENT

(In € thousands)	Notes	December 31, 2019	January 31, 2019
Revenue	**E.1**	**55,296**	**86,023**
Production held as inventory		(495)	83
Capitalized production		29,478	29,975
Operating subsidies		131	63
Reversals of provisions and amortization, expense transfers		1,405	2,578
Other income		412	890
Operating income		**86,228**	**119,611**
Purchase and change in stock of goods		58	40
Other purchases and external expenses	E.3	56,220	62,674
Taxes and duties	E.4	1,044	1,363
Wages and salaries		15,027	15,881
Payroll taxes		6,970	7,467
Depreciation and amortization of non-current assets	E.5	27,821	28,661
Provisions	E.5	2,718	2,054
Other expenses	E.6	1,064	1,809
Operating expenses		**110,922**	**119,948**
OPERATING RESULT		**(24,694)**	**(337)**
FINANCIAL RESULT	**E.7**	**(5,223)**	**2,595**
CURRENT RESULT BEFORE TAX		**(29,916)**	**2,258**
EXCEPTIONAL RESULT	**E.8**	**(958)**	**(2,138)**
Employee profit-sharing		0	0
Income tax	F.5	(3,024)	(2,699)
NET PROFIT (LOSS)		**(27,851)**	**2,820**

6.2.2. BALANCE SHEET

Assets

(In € thousands)	Notes	December 31, 2019 Gross value	December 31, 2019 Amortization/ Provisions	December 31, 2019 Net value	January 31, 2019 Net value
Intangible assets	C.1	95,632	(30,993)	64,639	61,649
Property, plant and equipment	C.2	11,472	(8,774)	2,698	2,928
Financial assets	C.3	69,951	(9,229)	60,722	64,387
Non-current assets		**177,055**	**(48,996)**	**128,059**	**128,964**
Inventories		1,091		1,091	1,998
Down payments to suppliers		7		7	152
Trade receivables	C.4	42,534	(2,515)	40,019	61,559
Other receivables	C.4	10,042		10,042	9,840
Marketable securities (treasury shares)	C.5	4,036		4,036	4,163
Cash		5,178		5,178	2,365
Current assets		**62,888**	**(2,515)**	**60,373**	**80,077**
Prepaid expenses	C.6	2,498		2,498	1,550
Expenses capitalized, to be amortized	C.7	473		473	552
Foreign exchange gains and losses	C.7	1,435		1,435	890
TOTAL ASSETS		**244,329**	**(51,511)**	**192,838**	**212,033**

Liabilities

(In € thousands)	Notes	December 31, 2019	January 31, 2019
Share capital	D.2	18,055	18,054
Additional paid-in capital		38,364	38,350
Legal reserve		1,805	1,805
Retained earnings		40,908	38,088
Net profit (loss)		(27,851)	2,820
Regulated provisions		1,434	1,284
Equity	**D.10**	**72,715**	**100,400**
Other equity	**D.4**	**1,184**	**1,029**
Provisions for contingencies and charges	**D.5**	**6,566**	**5,452**
Bank borrowings	D.7	43,859	34,386
Miscellaneous financial debt	D.8	2,500	2,500
Financial liabilities		**46,359**	**36,886**
Down payments from clients	D.6	225	219
Trade payables		45,878	42,034
Tax payables and employee-related liabilities	D.9	7,288	8,500
Other liabilities	D.6 & D.10	9,076	14,992
Operating liabilities and miscellaneous debts		**62,498**	**65,745**
Deferred income		1,083	630
Foreign exchange gains and losses		2,432	1,890
TOTAL LIABILITIES		**192,838**	**212,033**

6.2.3. NOTES TO ESI GROUP ANNUAL FINANCIAL STATEMENTS

Table of contents of notes to the annual financial statements

Total balance sheet at December 31, 2019 amounts to €192,838 million and the income statement for the financial year shows net loss of €27.851 million.

2019 fiscal year ran exceptionally for 11 months, from February 1 to December 31, further to the change of closing further to the change of closing date from January 31 (Y+1) to December 31 (Y) such as decided by the General Meeting held on July 18, 2019.

Refer to note A. Significant events of the year.

The financial statements were prepared in accordance with the French General Accounting Plan and generally accepted accounting principles (French GAAP Art. 831-1/1).

All amounts listed in these notes are in thousands of euros unless otherwise indicated.

The notes below are an integral part of the annual financial statements.

NOTE A. SIGNIFICANT EVENTS OF THE YEAR

Change of closing date & proforma information

Further to the decision by General Meeting held on July 18, 2019, closing date of the fiscal year has been shifted from January 31 to December 31. Accordingly, 2019 fiscal year has run exceptionally for 11 months, from February 1 to December 31, not including the month of January.

As January is a significant month in terms of sales (renewal of almost half of the contracts in the licensing business), the results for the 11 months 2019 fiscal year differ substantially from those of a full 12 months year.

To ensure good comparability of information and in accordance with AMF Recommendation 2013-08, the main aggregates of the financial statements have been recalculated on proforma basis from January to December for 2019 and 2018.

Proforma data allow to present the Group' activity over two full financial years.

The data presented mainly relate to the income statement, cash and financial debt.

(In € millions)	2019 Proforma January – December	2018 Proforma January – December
Revenue	88.8	80.8
Operating result	5.2	(0.7)

(In € millions)	December 31, 2019	December 31, 2018
Financial debt	47.0	46.3
Cash	9.2	8.2

Changes in scope occurred during the year

- Acquisition of minority interests in ESI ITI Gmbh (4%): percentage ownership of this German entity, as well as of its French subsidiary company ITI Southern Europe, is 100% as of December 31, 2019.
- Payment of the purchase additional price (final) for Scilab Enterprises.
- Dissolution of the Chinese entity Zhong Guo ESI Co., Ltd as of December 31, 2019.

Refer to note C.3.

NOTE B. ACCOUNTING PRINCIPLES AND METHODS

The rules and methods remain unchanged from last year.

The general accounting conventions have been applied prudently, in accordance with the following assumptions:

- Basic assumptions:
  - going concern,
  - consistency in accounting methods from one financial year to the next,
  - independence of financial years;
- General rules for preparing and presenting annual financial statements: the basic method used to measure accounting items is the historical cost method.

NOTE B.1. USE OF ESTIMATES

Preparation of the financial statements requires the use of estimates and assumptions that may have an impact on the carrying amount of certain items in the balance sheet or income statement, as well as the information provided in selected notes.

ESI Group carries out comprehensive reviews of these estimates and assessments to take account of past experience and other factors judged relevant with regard to economic conditions.

These estimates, assumptions and assessments are established on the basis of existing information or situations at the time the financial statements are drawn up, and which may not reflect future realities.

These estimates mainly concern provisions for contingencies and charges and assumptions used for the valuation of equity investments and selected intangible assets.

NOTE B.2. INTANGIBLE ASSETS

Research and development costs

Internal research and development costs are recorded in the appropriate expense category; expenses corresponding to research and development performed by service providers within the Group or third parties are recorded as subcontracting expenses.

Internal expenses related to development work incurred during the financial year (wages, payroll taxes and environment-related costs) are capitalized and recognized as capitalized production.

Capitalization is performed on a per-project basis. Only projects meeting the six criteria for capitalization defined in the regulation on assets are capitalized as assets. Research projects or the portion of expenses not meeting all of the six criteria continue to be recognized as expenses in the income statement. Amortization starts upon release of the project. Projects that are unfinished at the closing date are capitalized as work in progress.

Projects involving development of new versions of ESI software delivered on a yearly basis are amortized over 12 months.

Projects involving the development of new, significant features are amortized over 24 or 36 months depending on the degree of innovation.

Amortization starts at release of the version.

If there is a risk that a project will not be marketed, a provision for depreciation is recorded on developments that will not generate future economic gains.

At the end of the amortization period, development costs are removed from the asset line.

Other intangible assets

Other intangible assets (patents, software) are amortized according to the straight-line method according to their estimated useful life.

Office and similar software applications	1 year on a straight-line basis
Other operational software	3 years on a straight-line basis
Codes – third-party software integrated into products	5 years on a straight-line basis

Assets with an indefinite useful life (including goodwill) are not amortized. They are recorded on the balance sheet at their gross carrying amount. They are subject to impairment tests if there are signs of impairment or at least once per year. A provision based on the difference between the calculated value and the carrying amount is recorded if applicable.

NOTE B.3. PROPERTY, PLANT AND EQUIPMENT

Property, plant and equipment are valued at cost (purchase price plus related expenses), and amortized according to expected useful life:

General facilities	6 years on a straight-line basis
Fixtures and fittings, miscellaneous building work	10 years on a straight-line basis
Transportation equipment	5 years on a straight-line basis
Office equipment	3 years on a straight-line basis
New computer equipment	3 years on a tapering basis
Used computer equipment	1 year on a straight-line basis
Furnishings	5 to 10 years on a straight-line basis

NOTE B.4. FINANCIAL ASSETS

Equity investments and related receivables, acquisition costs

Equity investments are recorded on the balance sheet at the historical cost of acquisition of shares.

At the closing date, if the restated value of the shares is less than their purchase price, a provision is established for the difference. The restated value is calculated using one of the methods presented here below according to the situation of the subsidiary:

- equity investments in active subsidiaries are valued on the basis of a multiple of revenue adjusted for net cash position of the subsidiary, or alternatively on the basis of discounted forecasted cash flows for recently acquired entities;
- equity investments in dormant subsidiaries or those with reduced activity are valued on the basis of the share of the net equity attributable to ESI Group.

Acquisition costs are recorded as part of the cost of the equity investments and deducted, for tax purposes, through accelerated capital allowances, over a period of five years.

Receivables related to equity investments are provisioned if there is a risk of non-recovery.

Other investments

Other investments mainly comprise deposits and factoring guarantee funds (factoring of receivables from the French R&D tax credit).

NOTE B.5. INVENTORIES

Supply inventories

Other supply inventories are valued at cost according to the first in, first out method.

Work in progress

Work in progress corresponds to consulting studies in progress and valued at production cost with a margin assessed according to the percentage of completion method.

NOTE B.6. RECEIVABLES AND DEBTS

Receivables and debts are measured at par value.

A provision for impairment is recognized where the inventory value of a receivable (excluding advances to subsidiaries), based on the likelihood of recovery, is lower than its net book value. All impairment is determined on a case-by-case basis or following statistical analysis. Regarding advances granted to subsidiaries, the net book value of these receivables follows the same rules as equity investments in terms of impairment.

NOTE B.7. MARKETABLE SECURITIES

Marketable securities are recorded at their net purchase price. If, at the closing date, the net asset value is lower than the acquisition value, impairment is recorded for the difference.

At December 31, 2019, marketable securities were made up exclusively of the Company's treasury shares, valued according to the first in, first out method.

NOTE B.8. TREASURY SHARES

In the context of the authorizations, limits and objectives set by the Shareholders' General Meeting, ESI Group may purchase, exchange or transfer its own shares.

The recognition and impairment method for treasury shares depends on the objective underlying the acquisition.

Treasury shares related to the liquidity contract signed by the Company are recognized as financial assets. Treasury shares acquired in the context of other objectives set by the General Meeting (primarily external growth and grants to employees) are recognized as marketable securities.

Impairment is recorded when the share acquisition cost related to liquidity contract exceeds the actual value as determined by the share market price at the closing date.

NOTE B.9. FOREIGN CURRENCY TRANSACTIONS

Income and expenses in foreign currency are recorded at their converted value using the exchange rate of the transaction date. Liabilities, receivables and cash in foreign currency are recorded on the balance sheet converted at the exchange rate of the closing date.

The difference resulting from the conversion of the debts and receivables at the exchange rate of the closing date is recorded on the balance sheet as a "currency translation adjustment".

A provision for contingencies for foreign exchange losses is recorded only for the part of related flows that does not have hedging.

Foreign exchange realized gains and losses, as well as provision for unrealized losses, are booked in operating result if related to operating flows/receivables/payables, and in financial result if related to financial flows/receivables/payables.

NOTE B.10. FOREIGN EXCHANGE INSTRUMENTS

ESI Group uses financial instruments to manage its exposure to exchange rate fluctuations. The Group's policy is to trade in the financial markets only to hedge its business-related obligations and not for speculative purposes.

Gains or losses stemming from the financial instruments used as part of hedging operations are assessed and recorded in line with the income and expenses recorded on underlined transactions.

At maturity date, gains and losses from financial instruments are booked in operating result when they are related to operating receivables or debts and in financial result when they are related to financial receivables or debts.

Signed financial instruments are presented as Off-balance-sheet commitments in the notes to the financial statements in the period between subscription and maturity.

NOTE B.11. REGULATED PROVISIONS

Regulated provisions consist of accelerated capital allowances of two types:

- differences between tax-related amortization and amortization for depreciation;
- amortization of equity investments acquisition costs.

These regulated provisions are recorded in the income statement as exceptional allowances and reversals.

NOTE B.12. PROVISIONS FOR CONTINGENCIES AND CHARGES

Provisions for contingency and charges are calculated on the basis of the assessment of related risks at the closing date.

Provision for retirement and post-employment benefits

Retirement commitments are valued and recognized using the projected unit credit method. This actuarial method stipulates that each period of service entitles the employee to one unit of benefit rights and evaluates each of these units separately to arrive at a final commitment.

These calculations use assumptions in terms of mortality, staff turnover, discount rate, inflation rate and future salary increases.

Differences observed between the valuation of obligations and forecasts of such obligations (on the basis of new projections or assumptions) are known as actuarial gains and losses.

The expense for the period is recognized:

- in operating profit or loss for the amount pertaining to cost of services and changes in actuarial gains and losses;
- in financial income and expense for the amount pertaining to interest on discounting to present value.

The provision at year-end represents the actuarial commitment. The Company has no hedging asset.

NOTE B.13. REVENUE RECOGNITION

Licensing revenue is generated from royalties paid under licensing agreements granted to end customers and related maintenance services.

This revenue is recognized when the following four criteria are met:

- the Group can demonstrate the existence of an agreement with the client;
- the software has been delivered and accepted;

- the amount of the user license for the software is determined or determinable;
- the recovery is likely.

Revenues from services consist mainly of consulting and training fees. They are recognized according to the percentage of completion method with regard to projects, such as the margin. Costs are recorded as soon as they are incurred. A provision for losses on completion is recorded if necessary.

Intragroup revenue mainly comprises royalty income received from the Group's distribution subsidiaries and income from subcontracted consulting services, re-invoicing of personnel expenses and invoicing of management fees.

Co-financed projects

During production of a co-financed project, recognized revenue is determined on the basis of the percentage of completion of the project, on a prorata basis with regard to the proportion financed.

NOTE B.14. TAX CONSOLIDATION

On February 1, 2008, ESI Group has formed a tax consolidation group with its French subsidiary, Engineering System International.

As part of the tax consolidation agreement, it was agreed that the tax cost of Engineering System International integrated for tax purposes would be equal to that which would have applied to it if the subsidiary was not a member of the tax Group.

As regards the financial statements for the financial year, for Engineering System International there is no difference between the tax borne as part of the tax consolidation group and that which would have been borne in the absence of tax consolidation.

Neither of the two companies in the tax Group has loss carryforwards prior to the current year.

For information, the French competitiveness and employment tax credit *(crédit d'impôt pour la compétitivité et l'emploi* or CICE) is recognized in the income statement as a deduction from tax expense.

NOTE C. ASSET DETAILS

NOTE C.1. INTANGIBLE ASSETS

(In € thousands)	January 31, 2019	Increase	Decrease	December 31, 2019
Development costs	42,879	28,524	(23,668)	47,736
Patents, licenses, brands	26,339	2,542		28,881
Goodwill	1,028		0	1,028
Intangible assets in progress, development costs	16,617	21,968	(21,047)	17,539
Other intangible assets in progress	2,402	512	(2,465)	449
Total gross value	**89,265**	**53,546**	**(47,180)**	**95,631**
Development costs	(17,146)	(26,309)	23,668	(19,787)
Patents, licenses, brands	(10,397)	(736)		(11,133)
Goodwill	(73)			(73)
Total amortization, provisions	**(27,616)**	**(27,045)**	**23,668**	**(30,993)**
Development costs	25,733	2,215		27,948
Patents, licenses, brands	15,942	1,806		17,748
Goodwill	955			955
Intangible assets in progress, development costs	16,617	21,968	(21,047)	17,539
Other intangible assets in progress	2,402	512	(2,465)	449
TOTAL NET VALUE	**61,649**	**26,501**	**(23,512)**	**64,639**

The decrease in development costs reflects scrapping of fully amortized assets.

The goodwill mainly reflects the acquisition on July 26, 1991 from the company Engineering System International, of the branch specialized in the edition of digital simulation software (Product in Applied Mechanics). It has not been impaired or amortized since this date.

1 2 3 4 5 6 7 8 9

NOTE C.2. PROPERTY, PLANT AND EQUIPMENT

(In € thousands)	January 31, 2019	Increase	Decrease	December 31, 2019
Fixtures and fittings	2,961	42		3,003
Office furnishings and equipment	8,013	423		8,435
Other tangible non-current assets	27			27
Total gross value	**11,001**	**465**		**11,466**
Fixtures and fittings	(1,293)	(193)		(1,486)
Office furnishings and equipment	(6,761)	(501)		(7,261)
Other tangible non-current assets	(20)	(0)		(20)
Total amortization, provisions	**(8,073)**	**(695)**		**(8,768)**
Fixtures and fittings	1,668	(151)		1,517
Office furnishings and equipment	1,252	(78)		1,174
Other tangible non-current assets	7	0		7
TOTAL NET VALUE	**2,928**	**(230)**		**2,698**

NOTE C.3. FINANCIAL ASSETS

(In € thousands)	January 31, 2019	Increase	Decrease	December 31, 2019
Equity investments	55,002	795		55,797
Receivables related to equity investments	12,419	320		12,739
Other financial assets[(1)]	1,368	56		1,414
Total gross value	**68,788**	**1,161**		**69,950**
Provisions for impairment of equity investments	(2,608)	(3,582)		(6,190)
Provisions for receivables related to equity investments	(1,790)	(1,248)		(3,038)
Provisions for depreciation of other financial assets	(4)			0
Total amortization, provisions	**(4,402)**	**(4,830)**		**(9,229)**
Equity investments	52,394	(2,787)		49,607
Receivables related to equity investments	10,629	(928)		9,700
Other investments	1,364	46		1,414
TOTAL NET VALUE	**64,386**	**(3,669)**		**60,722**

(1) This line primarily includes deposits and guarantees on rental properties and factoring guarantee.

/ Movements in equity investments (gross value)

(In € thousands)	January 31, 2019	Increase	Decrease	December 31, 2019
Engineering System International	458			458
ESI Japan, Ltd.	75			75
ESI North America, Inc.	3,726			3,726
ESI UK Ltd.	164			164
Calcom ESI SA	2,678			2,678
Hankook ESI Co., Ltd.	941			941
ESI Group Hispania s.l.	100			100
Mecas ESI s.r.o.	912			912
STRACO SA	1,789			1,789
ESI US Holding, Inc.	834			834
Zhong Guo ESI Co., Ltd.	193		193	-
Acquisition costs Zhong Guo ESI Co., Ltd.	2			2
ESI Software (India) Private Ltd.	2			2
ESI US R&D, Inc.	111			111
Hong Kong ESI Co., Ltd.	119			119
Acquisition costs Hong Kong ESI Co., Ltd.	2			2
ESI-ATE Holdings Ltd.	1,737			1,737
Acquisition costs ESI-ATE Holdings Ltd.	56			56
ESI Italia s.r.l.	1,050			1,050
ESI South America Comércio e Serviços de Informática Ltda	6			6
ESI Services Tunisia	242			242
Acquisition costs ESI Services Tunisia	8			8
ESI Group Beijing Co., Ltd.	543			543
ESI Software Germany GmbH	10,708			10,708
Acquisition costs ESI Software Germany GmbH	322			322
Efield AB	446			446
Acquisition costs Efield AB	129			129
OpenCFD Ltd.	2,351			2,351
Acquisition costs OpenCFD Ltd.	162			162
ESI Services Vietnam Co., Ltd	124			124
Acquisition costs ESI Services Vietnam Co. Ltd.	14			14
Avic-ESI (Beijing) Technology Co. Ltd	576			576
Acquisition costs Avic-ESI (Beijing) Technology Co. Ltd.	87			87
Participation Mineset Inc.	4,017			4,017
Acquisition costs Mineset Inc.	293			293
CIVITEC	900			900
Acquisition costs CIVITEC	62			62
ESI ITI GmbH	17,952	758		18,710
Acquisition costs ESI ITI GmbH	436			436
Scilab Enterprises	550	230		780
Acquisition costs Scilab Entreprises	25			25
Cademce SAS	100			100
TOTAL	**55,002**	**988**	**193**	**55,797**

Movements of the year are related to acquisition of minority interests in ESI ITI Gmbh (currently 100% of the capital owned by ESI Group); payment of the additional final price for Scilab Enterprises, and the liquidation of Zhong Guo Co (disposal of gross value of equity investment and of acquisition costs).

/ Movements in the provision for equity investments

(In € thousands)	January 31, 2019	Increase	Reversal	December 31, 2019
ESI-ATE Holdings Ltd.	1,737			1,737
Hong Kong ESI CO., Ltd.	119			119
Zhong Guo Co., Ltd.	193		193	0
OpenCFD Ltd.	459	296		755
Mineset	0	3,479		3,479
Cademce	100			100
TOTAL	**2,608**	**3,775**	**193**	**6,190**

As at December 31, 2019, following dissolution of the subsidiary Zhong Guo Co., Ltd, its related equity investment provision has been fully reversed, and those of the subsidiary OpenCFD has been adjusted according to the restated value of the shares (note B.4). The net carrying amount of the equity investment of Mineset has been adjusted to the value of the subsidiary's net equity.

/ Receivables related to equity investments

	Gross value		
(In € thousands)	January 31, 2019	December 31, 2019	Remuneration rate
Loan ESI North America, Inc. ($9.7 million)	8,444	8,681	6-month Libor $ +1% margin
Loan Hong Kong ESI ($1.124 million)(1)	978	1,006	6-month Libor $ +1% margin
Loan ESI Group Hispania SL	1,020	1,020	Profit-sharing loan capped at 5%
Loan ESI ATE Holdings ($2.271 million)(1)	1,977	2,033	6-month Libor $ +1% margin
TOTAL	**12,419**	**12,739**	

(1) These two loans are fully impaired.

NOTE C.4. RECEIVABLES – PROVISIONS FOR DEPRECIATION OF RECEIVABLES

	At December 31, 2019			At January 31, 2019
(In € thousands)	Gross value	Due in 1 year or less	Due in between 1 and 5 years	Gross value
Loans granted to subsidiaries	12,739		12,739	12,419
Treasury shares	57		57	70
Deposits and guarantees	1,358		1,358	1,298
Doubtful or disputed receivables	2,502	2,502		1,939
Trade receivables	12,083	12,083		12,978
Trade receivables with affiliate companies	27,949	27,949		48,600
Income tax receivables – advance payment	327	327		210
R&D tax credit receivable	3,024	3,024		3,189
Competitiveness and employment tax credit receivable	553	553		620
Other tax credits	264	264		443
Value added tax (VAT)	1,735	1,735		1,569
Co-financed projects	2,607	2,607		2,732
Trade payables debtors	696	696		742
Group and associates	718	718		486
Other receivables	520	520		130
Prepaid expenses	2,095	2,095		1,550
TOTAL	**69,227**	**55,072**	**14,154**	**88,974**

Details of provisions for depreciation of receivables

(In € thousands)	January 31, 2019	Increase	Reversal unused	Reversal used	December 31, 2019
Provisions for doubtful receivables	1,958	578	21	0	2,515
Provisions for other receivables	280	0	0	280	0
TOTAL	**2,238**	**578**	**21**	**280**	**2,515**

NOTE C.5. TREASURY SHARES

Treasury shares in the balance sheet are classified in Financial assets for €57 thousand (liquidity contract) and in Marketable securities for €4.036 million.

Change in the number of treasury shares

	January 31, 2019	Increase	Decrease	December 31, 2019
TREASURY SHARES	**410,306**	**56,196**	**69,736**	**396,766**

The total value on the balance sheet is thus €4.093 million, compared to a market fair value of €12.284 million at December 31, 2019, for an unrealized gain of €8.171 million.

NOTE C.6. PREPAID EXPENSES AND EXPENSES CAPITALIZED, TO BE AMORTIZED

(In € thousands)	December 31, 2019	January 31, 2019
Prepaid rent	847	420
Maintenance prepaid expenses	903	493
Other prepaid expenses	749	638
Expenses related to syndicated loan set up[(1)]	473	552
TOTAL	**2,971**	**2,102**

(1) Amortization over the duration of the loan.

NOTE C.7. FOREIGN EXCHANGE GAINS AND LOSSES

These gains and losses pertain to the following balance sheet items:

(In € thousands)	December 31, 2019	January 31, 2019
Trade receivables	897	473
Trade payables	538	416
TOTAL	**1,435**	**890**

NOTE C.8. ACCRUED INCOME

(In € thousands)	December 31, 2019	January 31, 2019
Receivables to be invoiced	2,594	5,755
Receivables to be invoiced from affiliate companies	731	1,552
Vendor credit notes to be issued	0	123
Group vendors credit notes to be issued	696	619
Miscellaneous income	17	0
TOTAL	**4,037**	**8,050**

NOTE D. LIABILITY DETAILS

NOTE D.1. EQUITY

The main movements during the financial year are summarized in the table below:

(In € thousands)	January 31, 2019	Allocation of 2018 profit	2019 net result	Other	December 31, 2019
Capital	18,054				18,054
Share premium	25,818			16	25,834
ESI Software merger premium	9,677				9,677
Systus merger premium	2,854				2,854
Legal reserve	1,805				1,805
Retained earnings	38,088			2,819	40,907
Net result for the year	2,820	(2,820)	(27,851)		(27,851)
Regulated provisions	1,285			151	1,435
TOTAL	**100,400**	**(2,820)**	**(27,851)**	**2,986**	**72,715**

NOTE D.2. LEGAL CAPITAL

	Number of shares		
	At the end of the financial year	Created during the financial year	Repaid during the financial year
Common shares (par value of €3)	6,018,492	600	-
O/w preferred shares (double voting rights)	2,254,387		-

The capital increase is attributable to the exercise of stock subscription options for 11,267 shares.

NOTE D.3. STOCK SUBSCRIPTION OPTION PLAN

Stock options have been authorized by various General Meetings and could potentially dilute ESI Group's legal capital. The table below describes the status of the various plans under which options have been granted but not yet exercised.

Plan number (date of General Meeting)	Date of Board of Directors	Number of stock options/ shares allotted or to be allotted	Number of stock options/ shares granted	O/w performance shares	Exercise price	Number of existing stock options/shares at December 31, 2019	Limit year for exercising options
Plan 10 (GM 2012)	02/01/2013		150,850	62,300	27.82	38,700	2021
Plan 10 *bis* (GM 2012)	02/07/2014		11,000		24.42	375	2022
Plan 10 *ter* (GM 2012)	02/01/2015		15,000		21.66		2025
Plan 10 *quater* (GM 2012)	07/22/2015		3,150		27.17	2,100	2025
	Total	**180,000**	**180,000**	**62,300**		**41,775**	
Plan 15 (AG 2013)	02/01/2015	**294,538**	20,000	20,000	21.66		2025
Plan 17 (GM 2014)	07/22/2015		7,350		27.27	4,900	2023
Plan 17 *bis* (GM 2014)	03/11/2016		10,000		27.27		2026
Plan 17 *ter* (GM 2014)	05/05/2017		18,175		27.92	16,300	2025
Plan 17 *quater* (GM 2014)	05/05/2017		1,875	1,875	50.92		2025
	Total	**180,000**	**37,400**	**1,875**		**21,200**	
Plan 19 (GM 2017)	07/18/2018		43,950	32,963	42.97	38,100	2026
Plan 19 *bis* (GM 2017)	02/01/2019		20,000	15,000	27.04	20,000	2027
Plan 19 *ter* (GM 2017)	12/18/2019		24,660		29.12	24,660	2027
	Total	**180,000**	**88,610**	**47,963**		**82,760**	
Authorization given at the GM of July 2017		**229,600**					
Total stock-options		**1,064,138**	**326,010**	**132,138**		**145,135**	
Plan 6 (GM 2016)	07/21/2016		25,000			4,164	2020
Plan 7 (GM 2016)	12/23/2016		2,275				2021
Plan 8 (GM 2016)	08/01/2017	60,000	9,000			2,501	2021
Plan 9 (GM 2018)	07/18/2018		10,617	7,964		10,367	2020
Plan 9 *bis* (GM 2018)	07/18/2018		2,441			2,184	2020
Plan 9 *ter* (GM 2018)	07/18/2018		15,500			15,500	2022
Plan 9 *quater* (GM 2018)	07/18/2018		16,250			16,250	2023
Plan 9 *quinquies* (GM 2018)	12/18/2019		6,712			6,712	2022
Plan 9 *sexies* (GM 2018)	12/18/2019	60,000	2,521			2,521	2021
Total free shares		**120,000**	**90,316**	**7,964**		**53,534**	
TOTAL STOCK-OPTIONS AND FREE SHARES		**1,184,138**	**415,876**	**140,102**		**205,334**	

All stock options and free shares include a continued employment requirement.

NOTE D.4. CONDITIONAL ADVANCES

(In € thousands)	December 31, 2019	Up to 1 year	1 to 5 years	More than 5 years	January 31, 2019
Ademe advance	803		803		772
Bpifrance advance	382		382		257
TOTAL	**1,184**		**1,184**		**1,029**

NOTE D.5. PROVISIONS FOR CONTINGENCIES AND CHARGES

(In € thousands)	January 31, 2019	Increase	Reversal	December 31, 2019
Foreign exchange unrealized losses (note C.7)	890	1,438	(890)	1,438
Provisions for contingencies and charges (operating result)	193	93	(193)	93
Provision for retirement obligations	4,369	666		5,035
TOTAL	**5,452**	**2,197**	**(1,083)**	**6,567**

Movements of the year mostly refer to foreign exchange rates fluctuations. Provisions for contingencies and charges (operating result) correspond to social risks.

Provision allowance for retirement obligations breaks down as follows:

- €609 thousand of operating allowance, o/w €257 thousand in costs for services rendered, €398 thousand in actuarial losses and -€46 thousand for indemnities paid by the employer;
- €57 thousand of financial allowance corresponding to interest expenses.

/ Actuarial assumptions for retirement obligations

	December 31, 2019	January 31, 2019
Discount rates	0.80%	1.45%
Rate of salary increase	2.50%	2.50%

The discount rate corresponds to AA-rate corporate bond rates in the Eurozone, adjusted according to the duration of the Group's commitments. Turnover rates are calculated per age group according to the past experience of the Company.

NOTE D.6. STATEMENT OF LIABILITIES

(In € thousands)	December 31, 2019	Up to 1 year	1 to 5 years	More than 5 years	January 31, 2019
Banks borrowings (D.7)	43,859	14,174	24,275	5,400	34,386
Miscellaneous financial debt (D.8)	2,500	2,500			2,500
Trade payables	6,179	6,179			7,293
Group trade payables	39,647	39,647			34,690
Personnel and related receivables (D.9)	4,796	4,796			4,361
Payroll taxes (D.9)	1,607	1,607			1,652
Value-added tax (D.9)	626	626			1,999
Other tax expense (D.9)	259	259			489
Liabilities to fixed asset suppliers	52	52			51
Other operating payables – Group and associates (D.10)	7,762	7,762			12,362
Other operating payables – out of Group (D.10)	1,570	4,203			2,630
Deferred income	1,083	1,083			630
TOTAL	**109,940**	**80,264**	**24,275**	**5,400**	**103,042**

NOTE D.7. BANK BORROWINGS

At December 31, 2019, bank borrowings stand at €43.859 million and break down as follows:

- €28,000 thousand related to the long-term syndicated lines of credit, of which 3,5 million that needs to be repaid in 2020;
- €10 million in drawdowns from the revolving credit line;
- €4 million in long term borrowings from Bpifrance, including €400 thousand due in 2020;
- €1,575 thousand corresponding to a loan to finance the cost of moving Rungis' offices – due October 2023;
- €284 thousand mostly in accrued interest on borrowings.

ESI Group's main source of financing is the syndicated loan. This syndicated loan consists of a long-term part of €28 million and a revolving loan (at December 31, 2019) of €15 million, of which €10 million has been confirmed. The long-term part will be gradually reimbursed annually on April 30 each year until April 30, 2025. The syndicated loan is remunerated based on the Euribor rate and a margin of 2%, 2.25% or 2.5% depending on the level of the Net financial debt/EBITDA ratio related to previous year financial statements. The margin used since June 2019 is 2,25%.

Off-balance-sheet commitments associated with this syndicated loan are presented in note F.4.

NOTE D.8. MISCELLANEOUS FINANCIAL DEBT

(In € thousands)	December 31, 2019	Up to 1 year	1 to 5 years	More than 5 years	January 31, 2019
Promissory note	2,500	2,500			2,500
TOTAL	**2,500**	**2,500**			**2,500**

NOTE D.9. TAX PAYABLES AND EMPLOYEE-RELATED LIABILITIES

(In € thousands)	December 31, 2019	January 31, 2019
Provision for paid leave, including payroll taxes	2,295	2,557
Provision for bonuses to be paid to employees, including payroll taxes	2,501	1,804
Other payroll taxes	1,607	1,652
VAT collected	626	1,999
Other taxes	259	489
TOTAL	**7,288**	**8,500**

NOTE D.10. OTHER OPERATING PAYABLES

(In € thousands)	January 31, 2019	Increase	Decrease	December 31, 2019
Creditor trade receivables	40	216		256
Subsidiaries current account	12,362		(4,600)	7,762
Advances on co-financed projects	2,536		(1,260)	1,276
Other liabilities	54	0	(17)	38
TOTAL	**14,992**	**216**	**(5,859)**	**9,332**

NOTE D.11. FOREIGN EXCHANGE GAINS AND LOSSES

These gains and losses pertain to the following balance sheet items:

(In € thousands)	December 31, 2019	January 31, 2019
Trade receivables	304	359
Trade payables	505	229
Intercompany receivables	1,622	1,302
TOTAL	**2,432**	**1,890**

NOTE D.12. ACCRUED EXPENSES

(In € thousands)	December 31, 2019	January 31, 2019
Borrowings and financial debts	197	11
Trade payables	13,517	12,195
Provision for paid leave, including payroll taxes	2,293	2,557
Provision for bonuses to be paid to employees, including payroll taxes	2,592	1,804
Other tax expenses	229	182
Other liabilities (advances on co-financed projects)	1,276	2,536
Other liabilities	0	2
TOTAL	**20,104**	**19,287**

NOTE E. DETAILS ON INCOME STATEMENT

NOTE E.1. REVENUE

Breakdown by type:

(In € thousands)	December 31, 2019	January 31, 2019
Software licenses	9,195	15,531
Sub-contracting, consulting and other income	2,214	2,958
Royalties received from Group distribution subsidiaries	35,270	58,583
Sub-contracting, consulting and other income – Group	3,422	3,831
Income from related activities – Group	1,859	1,855
Management fees Group	3,335	3,264
TOTAL	**55,296**	**86,023**

Breakdown by geographic area:

(In € thousands)	December 31, 2019	January 31, 2019
France	4,477	13,449
Europe (except France)	14,807	27,105
Americas	10,419	13,746
Asia	25,593	31,723
TOTAL	**55,296**	**86,023**

NOTE E.2. OTHER INCOME FROM OPERATIONS

(In € thousands)	December 31, 2019	January 31, 2019
Production held as inventory	(495)	83
Capitalized production	29,478	29,975
Reversal on depreciation and amortization	494	973
Reversal on foreign exchange provision on trade receivables and payables	890	1,576
Foreign exchange gains on trade receivables and payables	412	889
Other income	153	93
TOTAL OTHER INCOME	**30,933**	**33,588**

NOTE E.3. OTHER PURCHASES AND EXTERNAL EXPENSES

(In € thousands)	December 31, 2019	January 31, 2019
Engineering studies and other services	4,858	8,224
Engineering studies and other services – Group	16,847	17,824
Research and development costs – Group	20,596	20,978
Materials and supplies	265	338
Leases and rental expenses	4,314	4,473
Maintenance and repairs	1,999	1,953
Insurance	206	339
Payments to intermediaries and fees	2,713	2,153
Royalties on third-party products and sales commissions	1,055	2,286
Advertising, external relations	858	962
Travel expenses	1,459	2,014
Postage, telecommunications expenses	388	428
Miscellaneous	662	701
TOTAL	**56,220**	**62,674**

NOTE E.4. INCOME TAX EXPENSE

(In € thousands)	December 31, 2019	January 31, 2019
Corporate Value-Added Contribution (CVAE)	477	697
Corporate Real Estate Contribution (CFE)	208	115
Apprenticeship, continuing education and construction-related taxes	266	314
Other taxes	93	236
TOTAL	**1,044**	**1,363**

NOTE E.5. OPERATING ALLOWANCES

(In € thousands)	December 31, 2019	January 31, 2019
Amortization allowance for development costs	26,309	27,225
Amortization allowance for other intangible assets	736	500
Amortization allowance for tangible assets	695	856
Amortization allowance for capitalized expenses to be amortized	81	80
Provision for impairment of trade receivables	578	491
Provision for impairment of other assets		150
Provision for retirement obligations	609	322
Provision for foreign exchange on trade receivables and payables	1,438	926
Provision for contingencies and charges	93	165
TOTAL	**30,539**	**30,715**

NOTE E.6. OTHER OPERATING EXPENSES

(In € thousands)	December 31, 2019	January 31, 2019
Royalties	68	56
Directors' fees	263	169
Foreign exchange losses on trade receivables and payables	322	1,148
Loss on trades receivables	282	433
Miscellaneous expenses	129	3
TOTAL	**1,064**	**1,809**

NOTE E.7. FINANCIAL RESULT

(In € thousands)	December 31, 2019	January 31, 2019
Foreign exchange gain/(loss) realized	103	144
Interest on borrowings	(857)	(824)
Interest on subsidiaries current account	(41)	39
Provision for retirement obligations	(57)	(55)
Provision for impairment equity investments and related receivables	(4,990)	0
Reversal provision for investments (C3)	193	1,517
AVIC ESI dividend	0	18
Mecas ESI s.r.o. dividend	0	1,690
Zhong Guo ESI Co, Ltd. dividend	194	0
Other financial income/(expenses)	(51)	67
TOTAL	**(5,223)**	**2,595**

NOTE E.8. EXCEPTIONAL RESULT

(In € thousands)	December 31, 2019	January 31, 2019
Profit or loss on movements of treasury shares	(100)	(211)
Accelerated capital allowances	(150)	(224)
Exceptional amortization of set up costs of the previous syndicated loan	0	(291)
Exceptional amortization	0	(30)
Dissolution result of subsidiary CyDesign Labs, Inc.	0	(1,285)
Presto additional payment	(3)	(73)
Miscellaneous[1]	(705)	(24)
TOTAL	**(958)**	**(2,137)**

(1) Definitive loss on unused tax credit for €745 thousand.

NOTE F. OTHER INFORMATION

NOTE F.1. AVERAGE HEADCOUNT

(In full-time equivalent)	December 31, 2019 Employees	January 31, 2019 Employees
Executives	240	245
Office personnel	18	19
TOTAL	**258**	**264**

Average headcount in France and in branches outside France, data for year ended January 31, 2019 have been restated.

NOTE F.2. COMPENSATION PAID TO EXECUTIVE CORPORATE OFFICERS

Total compensation paid to ESI Group's four executive corporate officers are as follows:

(In € thousands)	December 31, 2019	January 31, 2019
Wages	345	393
Benefits in kind	10	12
Directors' fees	98	16
Compensation paid by controlled companies	724	381
Fringe benefits paid by controlled companies	10	148
TOTAL	**1,186**	**951**

NOTE F.3. BRANCHES

There are two branches integrated within ESI Group's financial statements:

Name	Address	Country
ESI Group Netherlands – Branch Office	Postbus 1000-Box E57-2260BA Leidschendam	Netherlands
ESI Group Shanghai Representative Office	Cross Region Plaza, Unit 20D, 899 Lingling Road 200235 Shanghai	China

NOTE F.4. OFF-BALANCE SHEET COMMITMENTS

/ Future lease obligations

(In € thousands)	Less than 1 year	Between 1 and 5 years
Real estate rentals	1,301	7,519
Movable property rentals	1,444	474
TOTAL	**2,744**	**7,992**

Future lease commitments correspond to the outstanding amounts due on the Group's main lease and rental contracts until the contractual next maturity date.

/ Financial commitments

As part of the credit agreement dated December 20, 2018, ESI Group granted a pledge of 99.98% of the shares of Engineering System International, 100% of the shares of the subsidiary ESI Software Germany, and 96% of the shares of the subsidiary ESI ITI GmbH.

As long as it owes an obligation under the agreement or the security documents, the borrower undertakes, under prepayment constraint, to comply with the ratio of consolidated net financial debt divided by consolidated EBITDA, the thresholds to be respected over the term of the syndicated loan agreement are gradually decreasing. As at January 31, 2019, the threshold to be respected is 3.5%. At December 31, 2019, on the basis of the annual consolidated financial statements certified by the Statutory Auditors, the Group was in compliance with this ratio.

In terms of managing its exposure to changes in foreign exchange and interest rates, ESI Group has subscribed to the following financial instruments. Results at maturity are recognized in financial income for interest rate instruments and in operating income for foreign exchange instruments:

- Interest rate instruments
  - The syndicated credit agreement signed in December 2018 requires the set-up of variable rate hedging up to 50% of the outstanding loan amount. Two swaps were signed during 2019 first half to meet this requirement, with a nominal value of €14 million each, where ESI Group receives a 3 months Euribor (with a 0% floor) and pays a fixed rate of 0.085% and 0.092% respectively.
- Foreign exchange instruments
  - In order to hedge foreign currency cash flows between the Group's parent company and its subsidiaries, ESI Group may at any time acquire currency options and any other form of currency contract. The instruments in place during the year ended December 31, 2019 were the Japanese yen (tunnels). As at December 31, 2019, all financial instruments had matured.

/ Pledges

At December 31, 2019, ESI Group had a rent security deposit with Crédit du Nord in an amount of €82 thousand, established in November 2012 and expiring November 28, 2021 plus 6 months.

NOTE F.5. RECONCILIATION OF PROFIT/(LOSS) AND TAX INCOME/(CHARGE)

(In € thousands)	Profit (loss) before tax	Reconciliation of income/loss	Taxable income	Tax (expense)/ income	Profit (loss) after tax
Current income (loss)	(29,917)	8,024	(21,893)	0	(21,893)
Exceptional income	(958)	3	(955)		(955)
Competitiveness and employment tax credit					
French R&D tax credit	3,024				
TAX INCOME (LOSS)		**8,027**	**(22,848)**		**(22,848)**

NOTE F.6. INCREASES AND DECREASES IN FUTURE TAX LIABILITIES

(In € thousands)	December 31, 2019
Special social security contribution (contribution sociale de solidarité)	90
Translation differences	2,432
Interest	902
TOTAL TEMPORARY DIFFERENCES	**3,424**
NET DECREASE IN FUTURE INCOME TAX LIABILITIES (TAX RATE OF 33.33%)	**1,141**

Increases and decreases in future income tax liabilities were measured based on the statutory tax rate for the French income tax. They result from time difference between tax and accounting treatment of income and expenses.

NOTE F.7. ESI GROUP, CONSOLIDATING COMPANY

ESI Group is the consolidating holding company of the Group of the same name.

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NOTE F.8. TABLE OF CONTROLLED ENTITIES AND AFFILIATES (AT DECEMBER 31, 2019)

					Carrying number of shares held						
(In € thousands)	Head-quarters	Capital (converted at the closing rate)	Shareholders' equity other than capital and net profit for the year (converted at the closing rate)	% of capital owned *(In %)*	Gross	Net	Outstanding loans and advances granted by the Company or by the subsidiary	Total guarantees granted by the Company	Revenues, after tax, for the last financial year (converted at the average exchange rate)	Profit or loss for the last financial year (covered at the average exchange rate	Dividends received by the Company during the financial year
A. Detailed information on each security with gross value exceeding 10% of the Company's capital											
1. Over 50%-owned subsidiaries											
Engineering System International	France	1,020	3,325	100.0	458	458	(2,976)		9,063	(2,482)	
STRACO	France	499	3,046	97.7	1,789	1,789	(511)		0	45	
ESI Japan, Ltd.	Japan	99	2,440	97.0	75	75			25,136	(389)	
Hankook ESI Co., Ltd.	South Korea	1,126	(2,186)	98.8	941	941			5,458	(318)	
ESI North America, Inc.	USA	0	(1,599)	100.0	3,726	3,726	8,681		16,809	(2,320)	
ESI Group Hispania s.l.	Spain	100	(631)	100.0	100	100	1,020		2,757	(533)	
Mecas ESI s.r.o.	Czech Republic	16	1,926	95.0	912	912	(1,210)		5,552	(626)	0
ESI UK Ltd.	United Kingdom	120	1,269	100.0	164	164			2,685	(99)	
ESI US R&D, Inc.	USA	194	1,687	74.0	111	111			10,093	403	
Calcom ESI SA	Switzerland	83	634	98.5	2,678	2,678			3,056	271	
Zhong Guo Co., Ltd	China	0	3	0	0	0			0	(3)	194
ESI Software (India) Private Ltd	India	1	6,271	100.0	2	2			10,483	705	
Hong Kong ESI Co., Ltd.	China	1	(838)	100.0	119	0	1,006		0	0	
ESI-ATE Holdings Ltd.	China	10	(965)	100.0	1,737	0	2,033		0	0	
ESI Italia s.r.l.	Italy	500	218	100.0	1,050	1,050			3,114	(220)	
ESI South America Comércio e Serviços de Informática, Ltda	Brazil	9	99	95.0	6	6			696	16	
ESI Services Tunisia	Tunisia	61	1,042	95.0	242	242			434	(9)	
ESI Group Beijing Co., Ltd	China	650	1,785	100.0	543	543			2,577	(852)	
ESI Software Germany GmbH	Germany	517	8,169	100.0	10,708	10,708	(1,231)		7,440	342	
ESI Nordics AB	Sweden	10	682	100.0	446	446	(9)		1,663	54	
OpenCFD Ltd.	United Kingdom	0	(229)	100.0	2,351	1,595	(126)		1,155	(409)	
ESI Services Vietnam Co., Ltd	Vietnam	73	25	100.0	124	124			180	12	
CIVITEC	France	1,125	(1,026)	80.0	900	900	715		285	(427)	

(In € thousands)	Head-quarters	Capital (converted at the closing rate)	Shareholders' equity other than capital and net profit for the year (converted at the closing rate)	% of capital owned *(In %)*	Carrying number of shares held		Outstanding loans and advances granted by the Company or by the subsidiary	Total guarantees granted by the Company	Revenues, after tax, for the last financial year (converted at the average exchange rate)	Profit or loss for the last financial year (covered at the average exchange rate	Dividends received by the Company during the financial year
					Gross	Net					
ESI ITI GmbH	Germany	26	3,209	100	18,710	18,710	(1,299)		5,893	201	
Mineset Inc.	USA	0	463	100	4,017	538			570	74	
SAS Scilab Enterprises	France	424	(858)	100	780	780	(400)		41	(132)	
ESI US Holding, Inc.	USA	674	(474)	100	834	834			0	0	
2. 10-50% owned subsidiaries											
JV AECC-ESI	China	1,275	672	45.0	576	576			0	236	

Data as of December 31, 2019 presented in this table are non-audited data.

NOTE F.9. SUBSEQUENT EVENTS

Coronavirus

In the short term, the global pandemic related to Covid-19 is expected to impact our financial year results, however many remaining uncertainties make it impossible to precisely quantify this impact at this stage. The resilience of our business model solidly anchored on renewable and critical software licenses will help us manage risks over the year.

6.2.4. STATUTORY AUDITORS' REPORT ON THE FINANCIAL STATEMENTS

This is a translation into English of the Statutory Auditors' report on the financial statements of the Company issued in French and it is provided solely for the convenience of English-speaking users. This Statutory Auditors' report includes information required by European regulation and French law, such as information about the appointment of the Statutory Auditors or verification of the management report and other documents provided to the shareholders. This report should be read in conjunction with, and construed in accordance with, French law and professional auditing standards applicable in France.

Eleven-months period ended December 31, 2019

To the General Meeting of ESI Group,

Opinion

In compliance with the engagement entrusted to us by your general meeting, we have audited the accompanying financial statements of ESI Group for the eleven-months period ended December 31, 2019. These financial statements were approved by approved by the Board of Directors on March 19, 2020 on the basis of the elements available at that date, in the evolving context of the health crisis related to Covid-19.

In our opinion, the financial statements give a true and fair view of the assets and liabilities and of the financial position of the Company as at December 31, 2019 and of the results of its operations for the year then ended in accordance with French accounting principles.

The audit opinion expressed above is consistent with our report to the Audit Committee.

Basis for opinion

/ Audit Framework

We conducted our audit in accordance with professional standards applicable in France. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Our responsibilities under those standards are further described in the Statutory Auditors' Responsibilities for the Audit of the Financial Statements section of our report.

/ Independence

We conducted our audit engagement in compliance with independence rules applicable to us, for the period from February 1, 2019 to the date of our report and specifically we did not provide any prohibited non-audit services referred to in Article 5(1) of Regulation (EU) No. 537/2014 or in the French Code of Ethics *(Code de déontologie)* for Statutory Auditors.

Emphasis of matter

Without qualifying our opinion expressed above, we draw your attention to the following matter:

- The note A "Significant events of the year "which presents the change in the closing date of the financial year and the information established for comparability purposes.

Justification of assessments – Key Audit Matters

In accordance with the requirements of Articles L. 823-9 and R. 823-7 of the French Commercial Code *(Code de commerce)* relating to the justification of our assessments, we inform you of the key audit matters relating to risks of material misstatement that, in our professional judgment, were of most significance in our audit of the financial statements of the current period, as well as how we addressed those risks.

These matters were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on specific items of the financial statements.

Capitalization of development costs

Risk identified	In the balance sheet of the Company, fixed assets include capitalized development costs. As of December 31, 2019 their net book value amounts to €27,948 thousand. They correspond mostly to direct labor costs as well as sub-contracting, incurred for the development of new annual versions or major improvements of existing ESI software. As indicated in note B.2 to annual financial statements, capitalization of development costs is subject to compliance with the six criteria set out in the regulation on assets of the *Autorité des Normes Comptables*. Capitalized development costs start to be amortized after the market release of the related version of the software. Capitalized expenses are amortized on a straight-line basis over a period of 12 months for new annual versions of software, and over 24 or 36 months for major improvements to existing products, depending on the degree of innovation. Regarding the significant impact on the income statement of capitalization of development costs amounting to €20,596 million, and the significant gross balance of these capitalized costs recorded as assets in the balance sheet amounting to €47,736 million, it follows that any deviation from the procedures in place or any misinterpretation of the capitalization criteria could lead to significant impacts on the Company's annual financial statements and financial performance. The assessment of compliance with the criteria for capitalization of development costs, as well as the determination of the amortization period depending on the nature of the project, are very much based on Management's judgment and the reliability of the procedures applied for the identification and allocation of expenses between the different projects. On this basis, we considered capitalization of development costs as a key audit matter.
Our response	We examined the compliance of the Company's accounting treatment of research and development costs with current accounting standards. We also conducted a critical review of how this methodology was implemented. In particular, we conducted the following procedures: ◆ we have taken notice of the procedure followed by the Company to distinguish between research and development costs and, for the latter, the rules put in place to assess compliance with the capitalization criteria laid down in French accounting rules and principles; ◆ we tested by sampling the correct application of the procedures implemented for the identification, monitoring and recording of research and development costs; ◆ we audited, for a selection of projects, the correct application of the capitalization criteria set out in French accounting rules and principles and tested the accuracy and completeness of the most significant expenses charged to these projects; ◆ we verified the correct calculation of amortization expense mainly by controlling the correct application of the rules for setting the straight-line amortization period, depending on the nature of the project (major improvement or new version).

/ Valuation of equity investments

Risk identified	In the balance sheet as of December 31, 2019, net book value of equity investments amounts to €49,607 thousand. At acquisition date, equity investments are valued at acquisition cost, which includes the purchase price and the costs directly attributable thereto. At each year-end, the net book value of equity investments is compared with its value in use, and if the value is lower than the net book value, a provision for depreciation is recorded in order to reduce the book value to the value in use of the asset. The different methods used to determine the value in use of equity investments are described in note B.4 to annual financial statements and are detailed as follows: ◆ Equity investments in active subsidiaries are valued on the basis of a multiple of revenue adjusted for net cash position of the subsidiary, or alternatively on the basis of discounted forecast cash flows for recently acquired entities; ◆ Equity investments in dormant subsidiaries or those with reduced activity are valued on the basis of the share of the net equity attributable to ESI Group. Estimating the value in use of equity investments requires the exercise of Management's judgment in identifying the criteria determining the choice of valuation method to be applied and the factors to be considered depending on the participating interests, particularly historical items (equity) or forecasts (profitability forecasts and economic conditions in related countries). We therefore considered equity investments valuation as a key audit matter.
Our response	We examined the compliance of the Company's methodology for the valuation of equity investments with the applicable accounting standards. Our work consisted of reviewing the justification provided by Management for the valuation method chosen and the data used. Our review of the methodology applied, for both types of equity investments, is detailed as follows: For equity investments related to active subsidiaries: ◆ Obtaining the multiple of revenue adjusted for net cash position of the subsidiary and assessing the consistency of the data used with the accounts of the corresponding entities; ◆ Review of the permanence of the calculation method used and its execution; ◆ Obtaining the cash flow and operating forecasts of the entities concerned and assessing their consistency with the forecast data from the latest strategic plans, drawn up under the control of Senior Management and approved by the Board of Directors; ◆ Review of the consistency of assumptions used with the economic environment at the closing date; ◆ Comparison of the forecasts retained for previous periods with corresponding achievements in order to assess the achievement of past objectives; ◆ Verification that the value resulting from the cash flow forecasts has been adjusted for the indebtedness of the entity. For equity investments in dormant subsidiaries or those with reduced activity: ◆ Reconciliation of net equity attributable to ESI Group retained for the valuation with the accounts of the concerned entities and, if applicable, examination of the documentation justifying the adjustments made.

Specific verifications

We have also performed, in accordance with professional standards applicable in France, the specific verifications required by laws and regulations.

/ Information given in the management report and in the other documents with respect to the financial position and the financial statements provided to the shareholders

We have no matters to report as to the fair presentation and the consistency with the financial statements of the information given in the management report of the Board of Directors as at March 19, 2020 and in the other documents with respect to the financial position and the financial statements provided to the shareholders.

Regarding the events that occurred and the elements known after the date of approval of the financial statements relating to the effects of the Covid-19 crisis, Management has informed us that such events and elements will be communicated to the annual general meeting called to decide on these financial statements.

We attest the fair presentation and the consistency with the financial statements of the information relating to the payment terms required by Article D.441-4 of the French Commercial Code.

/ Report on corporate governance

We attest that the Board of Directors' Report on corporate governance sets out the information required by Articles L. 225-37-3 and L. 225-37-4 of the French Commercial Code *(Code de commerce).*

Concerning the information given in accordance with the requirements of Article L. 225-37-3 of the French Commercial Code *(Code de commerce)* relating to remunerations and benefits received by the directors and any other commitments made in their favour, we have verified its consistency with the financial statements, or with the underlying information used to prepare these financial statements and, where applicable, with the information obtained by your Company from controlling and controlled companies. Based on these procedures, we attest the accuracy and fair presentation of this information.

With respect to the information relating to items that your Company considered likely to have an impact in the event of a takeover bid or exchange offer, provided pursuant to Article L. 225-37-5 of the French Commercial Code *(Code de commerce)*, we have agreed this information to the source documents communicated to us. Based on these procedures, we have no observations to make on this information.

/ Other information

In accordance with French law, we have verified that the required information concerning the purchase of investments and controlling interests and the identity of the shareholders and holders of the voting rights has been properly disclosed in the management report.

Report on other legal and regulatory requirements

/ Appointment of the Statutory Auditors

We were appointed as Statutory Auditors of ESI Group by the General Meeting held on June 25, 2009 for PricewaterhouseCoopers Audit and on December 16, 1997 for Ernst & Young Audit.

As at December 31, 2019, PricewaterhouseCoopers Audit were in the 11th year of total uninterrupted engagement and Ernst & Young Audit were in the 23rd year (which is the 20th year since securities of the Company were admitted to trading on a regulated market).

Responsibilities of Management and those charged with governance for the financial statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with French accounting principles and for such internal control as Management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, Management is responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless it is expected to liquidate the Company or to cease operations.

The Audit Committee is responsible for monitoring the financial reporting process and the effectiveness of internal control and risks management systems and where applicable, its internal audit, regarding the accounting and financial reporting procedures.

The financial statements were approved by the Board of Directors.

Statutory Auditors' responsibilities for the audit of the financial statements

/ Objectives and audit approach

Our role is to issue a report on the financial statements. Our objective is to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with professional standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As specified in Article L. 823-10-1 of the French Commercial Code *(Code de commerce)*, our statutory audit does not include assurance on the viability of the Company or the quality of management of the affairs of the Company.

As part of an audit conducted in accordance with professional standards applicable in France, the Statutory Auditor exercises professional judgment throughout the audit and furthermore:

- Identifies and assesses the risks of material misstatement of the financial statements, whether due to fraud or error, designs and performs audit procedures responsive to those risks, and obtains audit evidence considered to be sufficient and appropriate to provide a basis for his opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control;
- Obtains an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the internal control;
- Evaluates the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by Management in the financial statements;
- Assesses the appropriateness of Management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. This assessment is based on the audit evidence obtained up to the date of his audit report. However, future events or conditions may cause the Company to cease to continue as a going concern. If the Statutory Auditor concludes that a material uncertainty exists, there is a requirement to draw attention in the audit report to the related disclosures in the financial statements or, if such disclosures are not provided or inadequate, to modify the opinion expressed therein;
- Evaluates the overall presentation of the financial statements and assesses whether these statements represent the underlying transactions and events in a manner that achieves fair presentation.

/ Report to the Audit Committee

We submit to the Audit Committee a report which includes in particular a description of the scope of the audit and the audit program implemented, as well as the results of our audit. We also report, if any, significant deficiencies in internal control regarding the accounting and financial reporting procedures that we have identified.

Our report to the Audit Committee includes the risks of material misstatement that, in our professional judgment, were of most significance in the audit of the financial statements of the current period and which are therefore the key audit matters that we are required to describe in this report.

We also provide the Audit Committee with the declaration provided for in Article 6 of Regulation (EU) No. 537/2014, confirming our independence within the meaning of the rules applicable in France such as they are set in particular by Articles L. 822-10 to L. 822-14 of the French Commercial Code *(Code de commerce)* and in the French Code of Ethics *(Code de déontologie)* for Statutory Auditors. Where appropriate, we discuss with the Audit Committee the risks that may reasonably be thought to bear on our independence, and the related safeguards.

Neuilly-sur-Seine and Paris-La Défense, April 23, 2020

The Statutory Auditors

French original signed by

PricewaterhouseCoopers Audit	Ernst & Young Audit
Thierry Charron	Frédéric Martineau

7 RESOLUTIONS SUBMITTED TO THE GENERAL MEETING

In accordance with the resolution of the General Meeting of July 18, 2019, the Group now closes its financial statements at 31 December of each fiscal year.

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DECISIONS FALLING WITHIN THE COMPETENCE OF THE ORDINARY GENERAL MEETING

1. Approval of the parent company financial statements for the financial year ended December 31, 2019
2. Approval of the consolidated financial statements for the financial year ended December 31, 2019
3. Allocation of net profit for the year
4. Special report of the Statutory Auditors on the regulated agreements and commitments and approval of the new agreements referred to in Article L. 225-38 of the French Commercial Code
5. Renewal of mandate of Mr. Vincent Chaillou
6. Renewal of mandate of Mr. Yves de Balmann
7. Approval of the remuneration policy of the members of the Board of Directors for 2020 financial year
8. Approval of the remuneration policy of the Chairman of the Board of Directors for 2020 financial year
9. Approval of the remuneration policy of the Chief Executive Officer for 2020 financial year
10. Approval of the remuneration policy of the Chief Operating Officers for 2020 financial year
11. Approval of the components of the total compensation payable or allocated to Mr. Alain de Rouvray, Chairman of the Board of Directors, for the financial year ended on December 31, 2019
12. Approval of the components of the total compensation payable or allocated to Mrs. Cristel de Rouvray, Chief Executive Officer, for the financial year ended on December 31, 2019
13. Approval of the components of the total compensation payable or allocated to Mr. Vincent Chaillou, Chief Operating Officer, for the financial year ended on December 31, 2019
14. Approval of the components of the total compensation payable or allocated to Mr. Christopher St John, Chief Operating Officer, for the financial year ended on December 31, 2019
15. Determination of the compensation paid to the members of the Board of Directors
16. Authorization to be granted to the Board of Directors for the Company to buy back its own shares

DECISIONS FALLING WITHIN THE COMPETENCE OF THE EXTRAORDINARY GENERAL MEETING

17. Delegation of authority to the Board of Directors to award stock subscription options
18. Delegation of authority to the Board of Directors to award stock purchase options
19. Delegation of authority to the Board to reduce the share capital through the cancellation of shares purchased by the Company within the scope of Article L. 225-209 of the French Commercial Code
20. Delegation of authority to the Board of Directors to award free shares to eligible employees and executive corporate officers of the Company and of its affiliated companies

JOINT DECISIONS

21. Powers for formalities

7.1. DECISIONS FALLING WITHIN THE COMPETENCE OF THE ORDINARY GENERAL MEETING

First resolution

Approval of the parent company financial statements for the financial year ended December 31, 2019

Statement of reasons

Based on the review of the Management report of the Board of Directors, the report of the Board of Directors on corporate governance, the reports of the Statutory Auditors on the parent company financial statements, the General Meeting is requested to approve the parent company financial statements for the financial year ended December 31, 2019, showing deficit of -€27,851,405.66.

It is reminded that 2019 financial year has 11 months due to the change in the financial closing date.

The General Meeting, having reviewed the Management report of the Board of Directors, the report of the Board of Directors on corporate governance, and the reports of the Statutory Auditors on the parent company financial statements and the parent company financial statements for the financial year ended December 31, 2019, approves the financial statements and balance sheet, as presented, showing a deficit of -€27,851,405.66.

It approves the transactions reflected in said financial statements or summarized in said reports.

The General Meeting also approves the total expenses and charges not deductible from profits subject to income tax, equal to €5,003,109.

Second resolution

Approval of the consolidated financial statements for the financial year ended December 31, 2019

Statement of reasons

Based on the review of the Management report of the Board of Directors, the report of the Board of Directors on corporate governance, and the reports of the Statutory Auditors on the consolidated financial statements, the General Meeting is requested to approve the consolidated financial statements for the financial year ended December 31, 2019 showing a net deficit of -€20,914,070.

It is reminded that 2019 financial year lasts 11 months due to the change of closing date.

The General Meeting, having reviewed the Management report of the Board of Directors, the report of the Board of Directors on corporate governance, and the reports of the Statutory Auditors on the consolidated financial statements and the consolidated financial statements as at December 31, 2019, approves these financial statements as presented, resulting in a net deficit of -€20,914,070.

Third resolution

Renewal of the mandate of of net profit for the year

Statement of reasons

The General Meeting is requested to allocate the deficit of -€27,851,405.66 as follows:

- €0 to the legal reserve;
- -€27,851,405.66 to retained earnings.

Following this allocation, the balance of the legal reserve will stand at -€1,805,367.60.

Following this allocation, retained earnings will stand at -€13,056,116.22.

The Board of Directors reminds the General Meeting that no dividends have been paid out for the past three financial years.

The General Meeting, noting that the net deficit for the year ended December 31, 2019 amounted to -€27,851,405.66, decides, on a proposal from the Board of Directors, to allocate the result as follows:

Current position:

- net result for the year: -€27,851,405.66;
- retained earnings: -€40,907,521.88;
- total to be allocated: -€27,851,405.66

Allocated as follows:

- €0 to the legal reserve;
- -€27,851,405.66 to retained earnings.

Following this allocation, the balance of the legal reserve will stand at -€1,805,367.60.

Following this allocation, retained earnings will stand at -€13,056,116.22.

The Board of Directors reminds the General Meeting that no dividends have been paid out for the past three financial years.

Fourth resolution

Special report of the Statutory Auditors on the regulated agreements and commitments and approval of the new agreements referred to in Article L. 225-38 of the French Commercial Code

Statement of reasons

Based on the special report by the Statutory Auditors on regulated agreements, the General Meeting is requested to acknowledge that during the financial year ended on December 31, 2019, no new agreement gave rise to the procedure provided for in Articles L. 225-38 *et seq.* of the French Commercial Code.

It should be noted that the special report by the Statutory Auditors on the agreements referred to in Article L. 225-38 of the French Commercial Code is presented in section 2.6 of the 2019 Universal Registration Document and will be submitted for approval of the General Meeting to be held on June 25, 2020.

The General Meeting, having reviewed the special report by the Statutory Auditors on the agreements and commitments referred to in Articles L. 225-38 *et seq.* of the French Commercial Code, takes note of the conclusions of the said report and approves the agreements and commitments therein.

Fifth resolution

Renewal of the mandate of Mr. Vincent Chaillou

Statement of reasons

As the directorship of Mr. Vincent Chaillou expires at the end of this General Meeting, the shareholders are requested to renew his directorship for a term of four years, until the General Meeting to be convened in 2024 to approve the financial statements for 2023 financial year.

The Board of Directors reminds the General Meeting that Vincent Chaillou has been director of the Company since its creation in 2004. He also exercises the function of Chief Operating Officer. His biography is presented in the report of the Board of Directors on corporate governance in section 2.3.2 of the 2019 Universal Registration Document.

The General Meeting, having reviewed the report of the Board of Directors on corporate governance and noting that the term of office of Mr. Vincent Chaillou expires at the end of the General Meeting, resolves to renew his directorship for a term of four years, expiring at the end of the General Meeting to be convened in 2024 to approve the financial statements for 2023 financial year.

Sixth resolution

Renewal of the mandate of Mr. Yves de Balmann

Statement of reasons

As the directorship of Mr. Yves Balmann expires at the end of this General Meeting, the shareholders are requested to renew his directorship for a term of four years, until the General Meeting to be convened in 2024 to approve the financial statements for 2023 financial year.

The Board of Directors reminds the General Meeting that Mr. Yves Balmann has been an independent director since 2016. His biography is presented in the report of the Board of Directors on corporate governance in section 2.3.2 of the 2019 Universal Registration Document.

The General Meeting, having reviewed the report of the Board of Directors on corporate governance and noting that the term of office of Mr. Yves de Balmann expires at the end of the General Meeting, resolves to renew his directorship for a term of four years, expiring at the end of the General Meeting to be convened in 2024 to approve the financial statements for 2023 financial year.

Seventh, eighth, ninth and tenth resolutions

Approval of the remuneration policy for the members of the Board of Directors, the Chairman of the Board of Directors, the Chief Executive Officer and the Chief Operating Officers for 2020 financial year

Statement of reasons

In accordance with Article L. 225-37-2 of the French Commercial Code, the General Meeting is requested every year to approve the principles and criteria for determining, distributing and allocating the fixed, variable and exceptional components of the total remuneration and benefits of all types attributable to the Chairman of the Board of Directors, Chief Executive Officer and the Chief Operating Officers, in respect to their mandate for 2020 financial year.

The remuneration policy applicable to corporate officers is presented in the report of the Board of Directors on corporate governance in section 2.4.1.2 and 2.4.2.2 of the 2019 Universal Registration Document.

Seventh resolution

The General Meeting, pursuant to Article L. 225-37-2 of the French Commercial Code (paragraph 1), approves the remuneration policy, attributable to members of the Board of Directors for 2020 financial year, as presented in the corporate governance report of the Board of Directors referred to in Article L. 225-37 of the French Commercial Code and set out in section 2.4.1.2 of the 2019 Universal Registration Document.

Eighth resolution

The General Meeting, pursuant to Article L. 225-37-2 of the French Commercial Code (paragraph 1), approves the remuneration policy, attributable to the Chairman of the Board of Directors for 2020 financial year, as presented in the corporate governance report of the Board of Directors referred to in Article L. 225-37 of the French Commercial Code and set out in section 2.4.1.2 of the 2019 Universal Registration Document.

Ninth resolution

The General Meeting, pursuant to Article L. 225-37-2 of the French Commercial Code (paragraph 1), approves the remuneration policy, attributable to the Chief Executive Officer for 2020 financial year, as presented in the corporate governance report of the Board of Directors referred to in Article L. 225-37 of the French Commercial Code and set out in section 2.4.2.2 of the 2019 Universal Registration Document.

Tenth resolution

The General Meeting, pursuant to Article L. 225-37-2 of the French Commercial Code (paragraph 1), approves the remuneration policy, attributable to the Chief Operating Officers for 2020 financial year, as presented in the corporate governance report of the Board of Directors referred to in Article L. 225-37 of the French Commercial Code and set out in section 2.4.2.2 of the 2019 Universal Registration Document.

Eleventh, twelfth, thirteenth and fourteenth resolution

Approval of the fixed, variable and exceptional components of the total remuneration payable or allocated to the Chairman of the Board of Directors, Chief Executive Officer and Chief Operating Officers for the financial year ended on December 31, 2019

Statement of reasons

In accordance with Article L. 225-100 II of the French Commercial Code, the General Meeting is requested every year to approve the fixed, variable and exceptional components of the total remuneration and benefits of all kinds payable or allocated to the Chairman of the Board of Directors, Chief Executive Officer and Chief Operating Officers in respect to their mandate.

These components of the remuneration are presented in the report of the Board of Directors on corporate governance in section 2.4 of the 2019 Universal Registration Document, including in particular a summary table under section 2.4.2.1.13.

Eleventh resolution

Approval of the components of the total compensation payable or allocated to Mr. Alain de Rouvray, Chairman of the Board of Directors, for the financial year ended on December 31, 2019

The General Meeting, in accordance with Article L. 225-100 III of the French Commercial Code, approves the fixed, variable and exceptional components of the total compensation and benefits of all kinds paid or allocated to Mr. Alain de Rouvray, Chairman of the Board of Directors, for the financial year ended on December 31, 2019 as set out in the report of the Board of Directors on corporate governance pursuant to Article L. 225-37 of the French Commercial Code and presented in section 2.4.2.1.13 in the 2019 Universal Registration Document.

Twelfth resolution

Approval of the components of the total compensation payable or allocated to Mrs. Cristel de Rouvray, Chief Executive Officer, for the financial year ended on December 31, 2019

The General Meeting, in accordance with Article L. 225-100 III of the French Commercial Code, approves the fixed, variable and exceptional components of the total compensation and benefits of all kinds paid or allocated to Mrs. Cristel de Rouvray, Chief Executive Officer, for the financial year ended on December 31, 2019, as set out in the report of the Board of Directors on corporate governance pursuant to Article L. 225-37 of the French Commercial Code and presented in section 2.4.2.1.13 in the 2019 Universal Registration Document.

Thirteenth resolution

Approval of the components of the total compensation payable or allocated to Mr. Vincent Chaillou, Chief Operating Officer, for the financial year ended on December 31, 2019

The General Meeting, in accordance with Article L. 225-100 III of the French Commercial Code, approves the fixed, variable and exceptional components of the total compensation and benefits of all kinds paid or allocated to Mr. Vincent Chaillou, Chief Operating Officer, as set out in the report of the Board of Directors on corporate governance pursuant to Article L. 225-37 of the French Commercial Code, and presented in section 2.4.2.1.13 in the 2019 Universal Registration Document.

Fourteenth resolution

Approval of the components of the total compensation payable or allocated to Mr. Christopher St John, Chief Operating Officer, for the financial year ended on December 31, 2019

The General Meeting, in accordance with Article L. 225-100 III of the French Commercial Code, approves the fixed, variable and exceptional components of the total compensation and benefits of all kinds paid or allocated to Mr. Christopher St John, Chief Operating Officer, as set out in the report of the Board of Directors on corporate governance pursuant to Article L. 225-37 of the French Commercial Code, and presented in section 2.4.2.1.13 in the 2019 Universal Registration Document.

Fifteenth resolution

Determination of the compensation paid to the members of the Board of Directors

Statement of reasons

The General Meeting is requested to set the total annual amount of compensation to be allocated to members of the Board of Directors for the 2020 financial year at €350,000 (*vs.* €280,000). This increase is part of the remuneration policy of the Directors as presented in the report of the Board of Directors on corporate governance in section 2.4.1.2 of the 2019 Universal Registration Document.

It will therefore allow the directors to be allocated specific missions in favour of the transformation of the Company and to anticipate possible changes in the composition of the Board of Directors.

The General Meeting decides to set the compensation paid to the members of the Board of Directors at €350,000 for the 2020 financial year.

The Board will freely distribute this amount among its members.

Sixteenth resolution

Authorization to be granted to the Board of Directors for the Company to buy back its own shares

Statement of reasons

As the existing authorization expires in January 2021, it is proposed to the General Meeting to terminate this authorization and grant the Board of Directors a new authorization for the Company to buy back its own shares for a new period of 18 (eighteen) months as from the General Meeting of June 25, 2020.

It is proposed to set the maximum purchase price at €60 (sixty) per share. Pursuant to current legislation, the maximum number of shares that may be vested is limited to 10% of the capital, after deduction of treasury stock held by the Company, 6.3% as at December 31, 2019. The Company will not be allowed to pay out more than €13,000,000 (thirteen million) under the share buyback program.

The Company can buy back its own shares to:

- stimulate the secondary market or the liquidity of ESI Group shares through a liquidity contract signed with an investment service provider;
- allocate them to free share awards or stock purchase options;
- hold them and use them at a later date as payment for acquisitions;
- cancel them by a reduction in share capital.

The General Meeting, having reviewed the report of the Board of Directors in accordance with Article L. 225-209 of the French Commercial Code:

1. authorizes the Board of Directors to purchase the Company's shares, not to exceed 10% of its capital, for a period of 18 months beginning on June 25, 2020, in order to:
   (i) stimulate the secondary market or the liquidity of ESI Group shares through a liquidity contract signed with an investment service provider and compliant with the AMAFI's Code of Ethics dated September 23, 2008 and approved by the French Financial Markets Authority (AMF),
   (ii) fulfill its share issue obligations, in accordance with the terms and conditions set forth by law, undertaken as part of the following:
      - plans granting stock options for the purchase of existing shares by the Group's employees or corporate officers,
      - employee profit-sharing plans under which these shares would be granted to employees and/or corporate officers,
      - free share grants to the Group's employees and corporate officers,
      - shares provided upon exercise of the rights attached to securities giving access to shares by any means, whether immediately or in the future, under the conditions set forth by the AMF and at any time deemed appropriate by the Board of Directors,
   (iii) retain shares to subsequently use them in exchange or as payment for future business acquisitions,
   (iv) cancel shares by a reduction in share capital;
2. decides that the purchase price per share may not exceed €60 (sixty);
3. decides to fix the maximum amount that the Company may spend within the framework of this buyback program at €13,000,000 (thirteen million);
4. acknowledges that this authorization shall render ineffective the previous authorization granted by the fourteenth resolution of the Combined General Meeting of July 18, 2019 authorizing the Board to trade on its own shares;
5. decides that the shares may be purchased or retained at the discretion of the Board of Directors by any means by trading on or off the market, or on an over-the-counter market, on one or more occasions. All shares purchased under the authorized share buyback program may be acquired in the form of blocks of shares. Such transactions may be carried out at any time, including during public offering periods, in accordance with the regulations in force;
6. acknowledges that the Company may not, at any time, hold, either directly or *via* an intermediary, more than 10% of the total shares making up its own share capital;
7. grants full authority to the Board of Directors to:
   - publish, on the website of the AMF, a detailed notice explaining this share buyback program authorized by the General Meeting prior to using this authorization,
   - place any and all stock market orders and enter into any and all agreements to record share purchases and sales,
   - make any and all disclosures to the stock market regulators, carry out any other formalities and, in general, take any necessary steps.

The Board of Directors shall inform shareholders of any purchases or sales carried out pursuant to this authorization in its management report.

7.2. DECISIONS FALLING WITHIN THE COMPETENCE OF THE EXTRAORDINARY GENERAL MEETING

Seventeenth resolution

Delegation of authority to the Board of Directors to award stock subscriptions options

Statement of reasons

As the existing authorization expires in August 2020, it is proposed to the General Meeting to terminate this authorization and grant the Board of Directors a new authorization to award stock subscription options to corporate officers and employees of the Company and its affiliates, or certain categories of them, for a new period of 38 months starting with the General Meeting of June 25, 2020.

The number of shares that may be awarded under this authorization must not exceed 3% of the share capital at the date of the General Meeting, *i.e.* 180,000 options.

The subscription price of shares will be determined at the date on which the options are granted by the Board of Directors. Pursuant to current legislation, this price shall be no less than 80% of the average share price from the last 20 trading days preceding the date on which the options are granted.

The Board of Directors will determine the identity of the beneficiaries of the share grants and the procedures and conditions under which they are awarded within the limits of this authorization and within legal and regulatory limits.

Options must be exercised no later than eight years after the date on which they are granted; however, the Board of Directors may nonetheless shorten this period for all or part of the beneficiaries.

The Board of Directors may prohibit the immediate resale of the shares subscribed; however, the period of time during which beneficiaries are required to retain shares may not exceed three years from the date on which the option is exercised.

This authorization will entail the Shareholders' express waiver, for the benefit of beneficiaries of the options, of the Shareholders' preferential subscription rights to shares that will be issued as options are exercised.

In accordance with legal requirements, the increase in capital resulting from the exercise of stock subscription options will be final and definite as of the declaration of the exercise of the option(s) accompanied by the corresponding payment made in cash or by offsetting receivables with the Company.

The Extraordinary General Meeting, having reviewed the Report of the Board of Directors and the special report of the Statutory Auditors, authorizes the Board of Directors to grant to the corporate officers defined by law and the employees of the Company and its affiliates, as defined under Article L. 225-180 of the French Commercial Code, options for the subscription of new Company shares to be issued through the Company's capital increase operations, not to exceed the number of shares representing 3% of the capital as of the date of this Meeting, *i.e.* 180,000 options.

This authorization, which may be exercised on one or more occasions, is granted for a term of thirty-eight months from the date of this General Meeting.

The subscription price of shares will be determined at the date on which the options are granted by the Board of Directors. This price shall be no less than 80% of the average share price from the last 20 trading days preceding the date on which the options are granted.

This price may not be subsequently modified, except where necessary to protect the interests of beneficiaries of options pursuant to Article L. 225-181 of the French Commercial Code.

No option may be granted less than 20 days following an ex-coupon date (whereby the option entitled the holder to a dividend or to participate in a share issue), nor within a period of ten trading days preceding and following the date on which the consolidated financial statements, or, in the absence thereof, the parent-company financial statements, are published, nor within the period between the date on which the Company's corporate bodies became aware of information that, if it were disclosed to the public, would have a material impact on the Company's share price and the date ten trading days after the date on which said information is made public.

Options must be exercised no later than eight years after the date on which they are granted; however, the Board of Directors may nonetheless shorten this period for all or part of the beneficiaries.

The Board of Directors may prohibit the immediate resale of the shares subscribed; however, the period of time during which beneficiaries are required to retain shares may not exceed three years from the date on which the option is exercised.

The General Meeting acknowledges that this authorization entails the Shareholders' express waiver, for the benefit of beneficiaries of the options, of the Shareholders' preferential subscription rights to shares that will be issued as options are exercised.

The General Meeting grants full authority to the Board of Directors to decide all other terms and conditions regarding the granting and exercising of options, within legal and regulatory limits, and specifically authorizes the Board of Directors to:

- Grant options to designated individuals;
- Determine the expiration date of the options, within the limits set forth above;
- Set forth requirements governing the granting and exercising of options; the Board of Directors may:
  - restrict, limit or prohibit (i) the exercise of options or (ii) the sale or conversion to bearer shares of the shares obtained through the exercise of options, during certain periods or within a certain period following certain events,
  - bring forward exercise dates or periods for the options, extend the exercisable nature of the options or modify dates or periods within which the shares obtained by exercise of the options may not be transferred or converted to bearer shares;
- Establish, where applicable, a period during which shares arising from the exercise of options may not be sold or converted to bearer shares; such lock-up period may not exceed three years from the date on which the option was exercised;
- Adjust the number and the price of the shares that may be obtained by exercising options, where applicable, in keeping with the legal and regulatory requirements in force.

The increase in capital resulting from the exercise of stock subscription options will be final and definite as of the declaration of the exercise of the option(s) accompanied by the corresponding payment made in cash or by offsetting receivables with the Company.

At its first meeting following the end of each fiscal year, the Board of Directors will record the total shares issued during the course of the year, where applicable, amend the articles of association as necessary and perform any public disclosure formalities.

This authorization cancels, in the amount of the unused portion, the tenth resolution of the Combined General Meeting of June 29, 2017.

Eighteenth resolution

Delegation of authority to the Board of Directors to award stock purchase options

Statement of reasons

As the previous authorization expires in August 2020, it is proposed to the General Meeting to terminate and grant the Board of Directors with a new delegation to award stock purchase options to corporate officers and employees of the Company and its affiliates, or certain categories of them, for a new period of 38 months starting with the General Meeting of June 25, 2020.

The number of shares that may be awarded under this authorization must not exceed 5% of the share capital at the date of the General Meeting, *i.e.* 300,000 shares.

The purchase price of shares will be determined at the date on which the options are granted by the Board of Directors. Pursuant to current legislation, this price shall be no less than 80% of the average share price over the last 20 trading days preceding the date on which the options are granted.

The Board of Directors will determine the identity of the beneficiaries of the share grants and the procedures and conditions under which they are awarded within the limits of this authorization and within legal and regulatory limits.

Options must be exercised no later than eight years after the date on which they are granted; however, the Board of Directors may nonetheless shorten this period for all or part of the beneficiaries.

The Board of Directors may prohibit the immediate resale of the shares subscribed; however, the period of time during which beneficiaries are required to retain shares may not exceed three years from the date on which the option is exercised.

The Extraordinary General Meeting, having reviewed the Report of the Board of Directors and the special report of the Statutory Auditors, authorizes the Board of Directors to grant to the corporate officers defined by law and the employees of the Company and its affiliates, as defined under Article L. 225-180 of the French Commercial Code, options to purchase existing shares bought back by the Company under the conditions provided for by law, not to exceed the number of shares representing 5% of the capital as of the date of this Meeting, *i.e.* 300,000 shares.

This authorization, which may be exercised on one or more occasions, is granted for a term of thirty-eight months from the date of this General Meeting.

The purchase price of shares will be determined at the date on which the options are granted by the Board of Directors.

This price shall be no less than 80% of the average share price over the last 20 trading days preceding the date on which the options are granted.

This price may not be subsequently modified, except where necessary to protect the interests of beneficiaries of options pursuant to Article L. 225-181 of the French Commercial Code.

No option may be granted less than 20 days following an ex-coupon date (whereby the option entitled the holder to a dividend or to participate in a share issue), nor within a period of ten trading days preceding and following the date on which the consolidated financial statements, or, in the absence thereof, the parent-company financial statements, are published, nor within the period between the date on which the Company's corporate bodies became aware of information that, if it was disclosed to the public, would have a material impact on the Company's share price and the date ten trading days after the date on which said information is made public.

Options must be exercised no later than eight years after the date on which they are granted; however, the Board of Directors may nonetheless shorten this period for all or part of the beneficiaries.

The Board of Directors may prohibit the immediate resale of the shares purchased; however, the period of time during which beneficiaries are required to retain shares may not exceed three years from the date on which the option is exercised.

The General Meeting grants full authority to the Board of Directors to decide all other terms and conditions regarding the granting and exercising of options, within legal and regulatory limits, and specifically authorizes the Board of Directors to:

- Grant options to designated individuals;
- Determine the expiration date of the options, within the limits set forth above;
- Set forth requirements governing the granting and exercising of options; the Board of Directors may (a)restrict, limit or prohibit (i) the exercise of options or (ii) the sale or conversion to bearer shares of the shares obtained through the exercise of options, during certain periods or within a certain period following certain events and (b) bring forward exercise dates or periods for the options, extend the exercisable nature of the options or modify dates or periods within which the shares obtained by exercise of the options may not be transferred or converted to bearer shares;
- Establish, where applicable, a period during which shares arising from the exercise of options may not be sold or converted to bearer shares; such lock-up period may not exceed three years from the date on which the option was exercised;
- Adjust the number and the price of the shares that may be obtained by exercising options, where applicable, in keeping with the legal and regulatory requirements in force.

This authorization cancels, in the amount of the unused portion, the eleventh resolution of the Combined General Meeting of June 29, 2017.

Nineteenth resolution

Delegation of authority to the Board to reduce the share capital through the cancellation of shares purchased by the Company within the scope of Article L. 225-209 of the French Commercial Code

Statement of reasons

As the previous authorization expires in September 2020, it is proposed to the General Meeting to terminate and grant the Board of Directors with a new delegation to cancel shares purchased, allowing it to carry out share cancellations, subject to the legal limits and the limit of 10% of the share capital at the day of operation. This authorization shall be granted for a duration of 26 (twenty-six) months from the General Meeting of June 25, 2020.

The General Meeting, having reviewed the report of the Board of Directors and the special report of the Statutory Auditors:

1. Authorizes the Board of Directors, with the right to sub-delegate, in accordance with the legal and regulatory requirements, pursuant to Article L. 225-209 of the French Commercial Code, to:
   - cancel, at its sole discretion, on one or more occasions, the shares purchased by the Company on the basis of the authorization given by the General Meeting in the sixteenth resolution (provided that this resolution is adopted) or any similar resolutions adopted by previous General Meetings, within the limit of 10% of its share capital, this percentage applying to the share capital as subsequently adjusted following transactions after this General Meeting, per 24 (twenty-four) months period, and
   - conduct, for the same amount, a reduction in share capital by cancelling shares;
2. Gives to the Board of Directors all powers, with the right to subdelegate, in accordance with the legal and regulatory requirements, pursuant to Article L. 225-209 of the French Commercial Code, to:
   - determine the final amount of the capital reduction within the limits provided by the law and by this resolution,
   - set the terms for said operation and record its completion,
   - deduct the difference between the book value of the cancelled shares and their par value from the available reserves and premiums at the choice of the Board,
   - carry out all deeds, formalities, or declarations in order to record and finalize the capital reductions that may be conducted in accordance with this authorization and that would result in subsequent amendment to the articles of association;
3. Acknowledges that this authorization shall render ineffective the previous authorization granted by the thirteenth resolution of the Extraordinary General Meeting held on July 18, 2018.

This authorization is granted to the Board of Directors for a duration of 26 (twenty-six) months from this General Meeting.

Twentieth resolution

Delegation of authority to the Board of Directors to award free shares to eligible employees and corporate officers of the Company and of its affiliated companies

Statement of reasons

As the Company is considering the granting of free shares to employees and corporate officers of the Company and its affiliates, it is proposed to the General Meeting to terminate the authorization granted to the Board of Directors in 2018 and to grant it a new authorization for this purpose.

Under the scope of this authorization, the number of free shares that may be granted may not exceed 60,000 shares, representing around 1% of the share capital existing on June 25, 2020.

The Board of Directors will decide the identity of the beneficiaries of the grants, the number of shares allocated to each one, the terms, and, where applicable, the criteria for such share grants.

The Board of Directors will be able to set, in accordance with the provisions of Article L. 225-197-1 of the French Commercial Code, the duration of vesting and holding periods, provided that the time condition respects a minimum vesting period of at least one year and the total duration of both vesting and holding periods is at least two years. Pursuant to Article L. 225-197-1 of the French Commercial Code, the free grant of shares to their beneficiaries will become final and binding subject to the satisfaction of the other conditions set at the time of the grant, and specifically the employment condition and/or the performance condition, after a vesting period set out by the Board of Directors.

The General Meeting, having reviewed the report of the Board of Directors and the special report of the Statutory Auditors, and in accordance with Article L. 225-129-1 and L. 225-197-1 and following. of the French Commercial Code:

1. Authorizes the Board of Directors to carry out, on one or several occasions, free grants of existing shares or shares to be issued by ESI Group, to employees and executive corporate officers of the Company or its affiliated entities, in accordance with Article L. 225-197-2 of the French Commercial Code and the conditions set out hereinafter;
2. Resolves that the Board of Directors will decide the identity of the beneficiaries of the grants, the number of shares allocated to each one, as well as the conditions, and, where applicable, the criteria for such share grants;
3. Decides that the number of free shares that may be granted under the scope of this authorization may not exceed 60,000 shares, representing around 1% of the share capital existing on June 25, 2020;

4. Decides that the Board of Directors will be able to set, in accordance with the provisions of Article L. 225-197-1 of the French Commercial Code, the duration of vesting and holding periods, provided that the time condition respects a minimum vesting period of at least one year and the total duration of both vesting and holding periods is at least two years;
5. Decides that the free grant to their beneficiaries will become final and binding after a vesting period set out by the Board of Directors;
6. Authorizes the Board of Directors to vest the shares prior to the end of the vesting period as well as to permit the free transfer of these shares in the event the beneficiary has a disability corresponding to the second or third categories defined by Article L. 341-4 of the French Social Security Code;
7. Decides that the Board of Directors shall have all powers, including powers of sub-delegation in accordance with the legal requirements, to implement this authorization, and, in particular, in order to:
   - determine whether to grant existing shares or whether to issue shares for such purpose,
   - determine all the terms relating to the granting of shares, in particular the conditions under which such shares will be vested (especially the presence and performance conditions), define the categories of beneficiaries, the beneficiaries and establish the number of shares granted to each of them and the grant date or dates in compliance with the law and regulations in force as of the date of transactions contemplated,
   - adjust, during the vesting period, if it deems necessary, the number of shares granted in order to protect the rights of the beneficiaries, in compliance with the laws and regulations in force as of the date of the transactions contemplated, based on potential Company equity transactions, it being specified that the shares, granted further to these adjustments, shall be deemed granted on the same date as, that of the initial share grant, and
   - more generally, to take all necessary measures, in particular to conclude any and all agreements and contracts to effect the closing of an issuance, to carry out any and all formalities to effect the related share capital increase or increases subsequent to the vesting of Company shares, to amend the articles of association;
8. Acknowledges that this authorization automatically entails the waiver by shareholders of their preferential subscription rights to ordinary Company shares which may be issued for the purposes of the vesting of free shares, and of all rights to ordinary shares granted under the scope of this authorization;
9. Acknowledges that this authorization supersedes the unused portion of the previous authorization granted by the fourteenth resolution of the Extraordinary General Meeting held on July 18, 2018.

Each year, in accordance with the legal and regulatory requirements, in particular pursuant to Article L. 225-197-4 of the French Commercial Code, the Board of Directors shall inform the General Meeting about the operations carried out under this authorization.

This authorization is granted to the Board of Directors for a duration of 38 (thirty-eight) months from the date of this Meeting.

7.3. JOINT DECISIONS

Twenty-first resolution

Powers to carry out formalities

Statement of reasons

This resolution is intended to grant the powers necessary to carry out formalities subsequent to the General Meeting.

The General Meeting grants full powers to the bearer of an original, excerpt or copy of the minutes of this Meeting to carry out all legal and administrative formalities, as well as all filing and publication requirements set forth by applicable law.

8 INFORMATION ON THE COMPANY AND SHARE CAPITAL

In accordance with the resolution of the General Meeting of July 18, 2019, the Group now closes its financial statements at 31 December of each fiscal year.

8.1. INFORMATION ON THE COMPANY

8.1.1. GENERAL INFORMATION

Corporate name and head office

ESI Group
100-102, avenue de Suffren
75015 Paris, France

Legal form

ESI Group is a French limited company (*société anonyme*) with a Board of Directors

Legislation governing the issuer

French

Date of incorporation and term of the issuer

ESI Group was incorporated on January 28, 1991. The term of the Company is 99 years from registration, unless extended or dissolved before such time.

Company registration

Paris Trade and Companies Registry No. 381 080 225

Legal Entity Identifier (LEI)

LEI – 969500SJCEYK6O6RXV95

Corporate purpose (Article 2 of the articles of association)

The Company pursues the following corporate purpose in France and in all other countries:

- to research, develop, design, manufacture and distribute computer software. To provide all forms of assistance, training and, in general, all activities that may be directly or indirectly related to the corporate purpose;
- to acquire, receive, hold, manage and trade in a portfolio of securities, especially in fields related to the publishing of scientific software, including digital simulation software for prototyping and manufacturing processes and related decision-making support tools.

The Company may perform any of the abovementioned operations on its own behalf or on behalf of third parties by creating new companies, forming partnerships, subscribing to shares in existing companies, purchasing securities or rights to equity instruments, merging companies, forming business alliances, undertaking joint investments, obtaining the use of any property under a lease or lease management agreement, forming joint ventures or otherwise.

To this end, the Company carries out any and all economic or financial studies necessary and provides recommendations in relation to investments, acquisitions and divestitures. It also helps as a management consultant to companies in which it holds a stake and to other companies. It prepares all types of reports and expert opinions; it assists with business restructuring measures and mergers.

In general, it carries out any and all financial, commercial or industrial operations and real estate and property transactions that may be directly or indirectly related to the corporate purpose of the Company or likely to promote the Company's expansion or growth.

Financial year (Article 22 of the articles of association)

The financial year begins on January 1 and ends on December 31 of each year. It covers 12 months.

Exceptional events and disputes

To the best of the Company's knowledge, there is no exceptional event or dispute that may have or has had a material impact on the financial position or profit of the Company or the Group of which it is a part.

Except for disputes arising in the ordinary course of business, the Company was not involved in any governmental, judicial or arbitration procedure during the exercise that ended at December 31, 2019.

8.1.2. INFORMATION REGARDING RIGHTS, PRIVILEGES AND RESTRICTIONS ATTACHED TO SHARES

Allocation of income and distribution of profits (Article 22 of the articles of association)

Pursuant to Article 22 of the articles of association, 5% of the net profit for the financial year, less any losses carried forward, will be set aside to form the legal reserve fund; this deduction is no longer required once the legal reserve has reached one-tenth of the share capital; the requirement applies again when, for any reason, the reserve falls below said one-tenth fraction.

The balance of said profit, plus any retained earnings, forms the profit available for distribution.

Shareholders have sole control over this profit and decide how it will be appropriated at the Annual General Meeting. To this end, the Annual General Meeting may decide to allocate this profit, in full or in part, to any general or special reserve funds, carry it forward or distribute it to the shareholders.

However, except in the case of a capital reduction, no profit may be distributed to the shareholders if net assets are or will subsequently become less than the total capital plus reserves that may not be distributed in accordance with the law or the articles of association.

Any losses are recorded in the balance sheet under a special account once the financial statements have been approved by the Annual General Meeting.

The General Meeting has the faculty to allow each shareholder, for all or part of the dividend distributed or advances on dividends, an option between the payment of the dividend or advances on dividends in cash or in shares.

Provisions of the articles of association concerning the participation of shareholders in General Meetings (Articles 18 and 19 of the articles of association)

Please refer to section 2.5.3 of this Universal Registration Document.

Shareholders' right to information (Article 21 of the articles of association)

All shareholders are entitled to receive information, and the Board of Directors is required to send or make available any documents necessary for shareholders to make informed decisions relating to the management and situation of the Company.

Shareholders' right to information, the nature of documents provided and the arrangements for such documents to be made available or transmitted shall adhere to the terms set out by applicable law.

Double voting rights (Article 9 of the articles of association)

In accordance with Article 9 of the articles of association, each share gives its holder ownership interest in the Company's assets and profits, proportionate to the percentage of the share capital the share represents.

Anyone who has held fully paid-up registered shares for at least four years as of the date of the Extraordinary General Meeting of June 14, 2000 or thereafter is entitled to double voting rights under the law. Furthermore, if the capital is increased through the capitalization of reserves, profits or share premiums, this double voting right will apply, from the time of issue, to registered shares awarded free of charge to shareholders on the basis of shares already held that bear this entitlement.

Any shares converted to bearer shares or transferred to a different owner are stripped of double voting rights, although other rights and obligations attached to the share are transferred to any owner thereof.

However, double voting rights are not lost and the abovementioned four-year period is not interrupted in the event that shares are transferred by way of an inheritance, following the liquidation of a marital estate, or in the form of an *inter vivos* gift to a spouse or a relative in the direct line of succession.

Shareholding thresholds (Article 9 B of the articles of association)

In accordance with the provisions of Article L. 233-7 of the French Commercial Code, any natural or legal person, acting alone or in concert, that comes to own, directly or indirectly, a number of shares accounting for more than the twentieth, the tenth, the three-twentieths, the fifth, the quarter, the three-tenths, the third, the half, the two thirds, the eighteen twentieths or the nineteen twentieths of the share capital or voting rights is required to so inform the Company as provided by law.

In case they are not declared, the shares exceeding the participation to be declared are deprived of the right to vote under the conditions provided for by Article 233-14 of the French Commercial Code, *i.e.* for a period of two years from the regularization of the notification.

In addition to the obligations provided for in paragraph 1 of Article L. 233-7 of the French Commercial Code, any crossing of a statutory threshold of 2.5% (and any multiple of this fraction) of the total number of shares or the Company's voting rights must be declared at the latest on the 4th trading day following the day the threshold is crossed.

Form and transfer of shares (Article 9 of the articles of association)

/ Form

Shareholders may opt to hold fully paid-up shares as either registered shares or bearer shares. Shares will be recorded in the Company's accounts in accordance with the terms and procedures set forth by law.

/ Transfer of shares

Shares may be freely traded unless otherwise stipulated by law or regulation. Shares may be sold or traded by the Company and by third parties *via* transfer between accounts in accordance with the regulations in force.

8.1.3. INFORMATION CONCERNING ADMINISTRATIVE AND MANAGEMENT BODIES

Information on administrative and management bodies, as well as their respective authority, is presented in Chapter 2, "Corporate governance".

8.2. INFORMATION ON THE COMPANY'S CAPITAL

8.2.1. STATUTORY REQUIREMENTS GOVERNING MODIFICATIONS TO THE CAPITAL AND RIGHTS ATTACHED TO SHARES (ARTICLE 8 OF THE ARTICLES OF ASSOCIATION)

Extraordinary General Meetings have sole authority to decide to carry out or to authorize capital increases, upon recommendation by the Board of Directors.

If the share capital is increased through the capitalization of reserves, profit or share premiums, the General Meeting may make such decision in accordance with the requirements for quorum and majority set forth for Ordinary General Meetings.

The share capital must be fully paid up prior to any issue of new shares to be paid up in cash; otherwise the transaction may be declared null and void.

Shareholders are entitled, in proportion to their total shares, to preferential subscription rights to shares issued for cash as part of a capital increase.

The value of any contributions in kind must be appraised by one or more contribution appraisers appointed upon request by the presiding judge of the relevant commercial court.

Shares representing contributions in kind or stemming from the capitalization of profits or reserves must be fully paid up upon issuance.

At least one-fourth of the value of cash shares and the entire share premium, where applicable, must be paid up at the time of subscription. The remainder must be paid up in one or more installments within a period of five years from the date on which the capital increase was finalized.

Subject to the restrictions and reserves set forth by law, Extraordinary General Meetings may also decide to carry out or authorize a reduction in the share capital for any reason or in any manner whatsoever, including due to losses or *via* repayment or partial buyback of shares, reduction in the number of shares, or reduction in the par value of shares; under no circumstances may the reduction in capital undermine the principle of equality between shareholders.

8.2.2. ISSUED SHARE CAPITAL AND AUTHORIZED UNISSUED SHARE CAPITAL

For a summary of the delegations granted to the Board of Directors that may impact the Company's share capital, please refer to section 2.5.2 of this Universal Registration Document.

8.2.3. HISTORY OF CHANGES IN SHARE CAPITAL

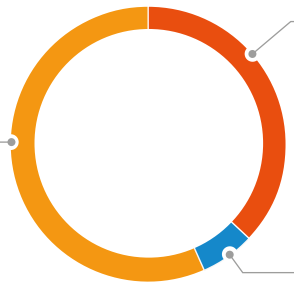
		Change in share capital Issue of cash shares					
Meeting date*	Operation type	Par value *(in €)*	Premium *(in €)*	Number of created shares	Resulting total share capital	Number of cumulated shares	Par value *(in €)*
BoD meeting of 03/14/2018	Share capital adjustment Exercise of share subscription options	3	637,909	24,450	18,049,326	6,016,442	3
BoD meeting of 02/01/2019	Share capital adjustment Exercise of share subscription options	3	40,339	1,450	18,053,676	6,017,892	3
BoD meeting of 02/12/2020	Share capital adjustment Exercise of share subscription options	3	16,692	600	18,055,476	6,018,492	3

* *BoD: Board of Directors.*

8.2.4. CORPORATE SHAREHOLDING STRUCTURE

Shareholding structure

As of December 31, 2019, the shareholding structure of ESI Group is as follows:



Change in the breakdown of the Company's share capital over the past three financial years

Over the past three financial years, the breakdown of share capital and voting rights evolved as follows:

At December 31, 2019 First and last name	Number of shares	% of capital	Number of voting rights that may be exercised	% of voting rights that may be exercised
De Rouvray	1,824,385	30.31%	3,648,770	46.22%
Xiu Mei Dubois	25,200	0.42%	50,400	0.64%
Alex Peng Dubois-Sun	355,419	5.91%	710,838	9.00%
Sub-total of shareholders' agreement (registered shares)	**2,205,004**	**36.64%**	**4,410,008**	**55.86%**
Vincent Chaillou	21,197	0.35%	34,794	0.44%
Charles-Helen des Isnards	3,951	0.07%	7,702	0.10%
Éric d'Hotelans	1,589	0.03%	3,178	0.04%
Véronique Jacq	157	0.00%	158	0.00%
Rajani Ramanathan	1	0.00%	2	0.00%
Yves de Balmann	1	0.00%	2	0.00%
Members of the Board of Directors (registered shares) (excluding founders)	**26,896**	**0.45%**	**45,836**	**0.58%**
Total employee shareholding (registered shares)	**81,312**	**1.35%**	**99,465**	**1.26%**
Public shareholding, registered shares	23,891	0.40%	36,181	0.46%
Public shareholding, bearer shares	3,303,698	54.89%	3,303,698	41.84%
Sub-total public shareholding	**3,327,589**	**55.29%**	**3,339,879**	**42.30%**
Treasury shares	377,691	6.28%	0	0.00%
TOTAL	**6,018,492**	**100.00%**	**7,895,188**	**100.00%**

Total number of theoretical voting rights: 8,279,879.

At January 31, 2019 First and last name	Number of shares	% of capital	Number of voting rights that may be exercised	% of voting rights that may be exercised
De Rouvray	1,824,385	30.2%	3,638,907	46.1%
Xiu Mei Dubois	25,200	0.42%	48,200	0.61%
Alex Peng Dubois-Sun	355,419	5.91%	710,838	9.03%
Sub-total of shareholders' agreement (registered shares)	**2,205,004**	**36.64%**	**4,397,945**	**55.84%**
Vincent Chaillou	21,197	0.35%	34,794	0.44%
Charles-Helen des Isnards	3,951	0.07%	7,352	0.09%
Éric d'Hotelans	1,589	0.03%	3,178	0.04%
Véronique Jacq	61	0.00%	62	0.00%
Rajani Ramanathan	1	0.00%	2	0.00%
Yves de Balmann	1	0.00%	2	0.00%
Members of the Board of Directors (registered shares) (excluding founders)	**26,800**	**0.45%**	**45,390**	**0.58%**
Total employee shareholding (registered shares)	**70,953**	**1.18%**	**87,416**	**1.11%**
Public shareholding, registered shares	32,782	0.54%	50,234	0.64%
Public shareholding, bearer shares	3,294,006	54.74%	3,294,448	41.83%
Sub-total public shareholding	**3,326,788**	**55.28%**	**3,334,682**	**42.47%**
Treasury shares	**388,347**	**6.45%**	**0**	**0.00%**
TOTAL	**6,017,892**	**100.00%**	**7,875,433**	**100.00%**

Total number of theoretical voting rights: 8,263,780.

At January 31, 2018 First and last name	Number of shares	% of capital	Number of voting rights that may be exercised	% of voting rights that may be exercised
De Rouvray	1,824,385	30.3%	3,638,907	46.4%
Estate of Jacques Dubois	380,619	6.3%	759,038	9.6%
Sub-total of shareholders' agreement (registered shares)	**2,205,004**	**36.6%**	**4,397,945**	**56.0%**
Vincent Chaillou	16,197	0.3%	28,893	0.4%
Charles-Helen des Isnards	3,751	0.1%	6,852	0.1%
Éric d'Hotelans	1,589	0.0%	3,178	0.0%
Véronique Jacq	61	0.0%	61	0.0%
Rajani Ramanathan	1	0.0%	1	0.0%
Yves de Balmann	1	0.0%	1	0.0%
Members of the Board of Directors (registered shares) (excluding founders)	**21,600**	**0.4%**	**38,986**	**0.5%**
Total employee shareholding (registered shares)	**68,311**	**1.1%**	**84,874**	**1.1%**
Public shareholding. registered shares	27,709	0.5%	42,31	0.5%
Public shareholding. bearer shares	3,286,830	54.6%	3,286,830	41.9%
Sub-total public shareholding	**3,314,539**	**55.1%**	**3,329,140**	**42.4%**
Treasury shares	**406,988**	**6.8%**	**0**	**0.0%**
TOTAL	**6,016,442**	**100.0%**	**7,850,945**	**100.0%**

Total number of theoretical voting rights: 8,257,933.

Shareholdings above legal thresholds

Pursuant to the provisions of Article L. 233-13 of the French Commercial Code, it is noted that at December 31, 2019, Mr. Alain de Rouvray, jointly with its family group, held 1,824,385 shares representing 31% of the share capital and 46.21% of voting rights.

On December 31, 2019, Mr. Alex Pen Dubois-Sun held 355,419 shares representing 5.91% of share capital and 9.03% of voting rights.

As of the filing date of this Universal Registration Document, the Long Path Partners and Loys Investments funds each held more than 5% of the company's capital:

- Long Path Partners holds 461,475 shares, *i.e.* 7.50% of the capital – 5.46% of the voting rights;
- LOYS Investments SA holds 271,079 shares, *i.e.* 4.50% of the capital – 3.72% of the voting rights.

Crossing of legal and statutory thresholds declared to the Company during the financial year ended December 31, 2019 and until the filing date of this Universal Registration Document

As of the filing date of this Universal Registration Document, the following exceedances of thresholds have been declared:

- Long Path Partners

  By letter dated October 7, 2019 sent by Vigilant Compliance, LLC, acting on behalf of the Long Path Partners fund, declares that the latter has crossed the legal and statutory threshold of 5% of the company's capital upwards with 307,393 shares representing 5.11% of the shares and 3.89% of the voting rights.

  By letter dated January 5, 2020 sent by Vigilant Compliance, LLC, acting on behalf of the Long Path Partners fund, declares that the latter has crossed the legal and statutory threshold of 5% of the company's voting rights upwards with 414,752 shares representing 6.89% of the shares and 5.01% of the voting rights.

  By letter dated February 13, 2020 sent by Vigilant Compliance, LLC, acting on behalf of the Long Path Partners fund, declares that the latter has crossed the statutory threshold of 7.50% of the company's capital upwards with 451,475 shares representing 7.50% of the shares and 5.46% of the voting rights.

- LOYS Investments SA

  By letter dated October 3, 2019, the LOYS Investment SA fund declared that it had crossed the legal and statutory threshold of 5% of the company's capital downward with 264,672 shares representing 4.40% of the shares and 3.20% voting rights.

  By letter dated December 13, 2019, the LOYS Investment SA fund declared that it had crossed the legal and statutory threshold of 5% of the company's capital upward with 305,412 shares representing 5.08% of the shares and 3.69% voting rights.

  By letter dated March 9, 2020, the LOYS Investment SA fund declared that it had crossed below the legal and statutory threshold of 5% of the company's capital with 288,458 shares representing 4.79% of the shares and 3.49% of the voting rights.

  By letter dated March 25, 2020, the LOYS Investment SA fund declared that it had crossed the legal and statutory threshold of 5% of the company's capital upwards with 305,739 shares representing 5.08% of the shares and 3.70% of the voting rights.

  By letter dated April 7, 2020, the LOYS Investment SA fund declared having crossed the legal and statutory threshold of 5% of the company's capital downwards with 291,614 shares representing 4.84% of the shares and 3.52% of the voting rights.

  By letter dated April 15, 2020, the LOYS Investment SA fund declared having crossed the legal and statutory threshold of 5% of the company's capital upwards with 308,079 shares representing 5.12% of the shares and 3.72% of the voting rights.

  By letter dated April 17, 2020, the LOYS Investment SA fund declared having crossed the legal and statutory threshold of 5% of the company's capital downwards with 271,079 shares representing 4.50% of the shares and 3.28% of the voting rights.

Shareholders' agreement and other agreements

An agreement signed on October 25, 2000 and published in *La Tribune* on Friday October 27, 2000, after CMF decision n ° 200C1608 on October 27, 2000, related to the date of the filing of this Universal Registration Document, Alain de Rouvray (Chairman and founder), the members of his family group composed of Amy de Rouvray, Cristel Anne de Rouvray, John Alexandre de Rouvray and Amy Louise de Rouvray, as well as the heirs of the Dubois estate. This pact includes a mutual pre-emptive right.

This agreement includes a right of first refusal.

This right of first refusal does not apply to transfers of shares to the heirs of any shareholder who is a private individual and a party to the agreement in the event of death, or to transfers between members of the de Rouvray family who are party to the agreement.

This agreement also contains:

- an obligation on the part of the parties to the agreement, to either purchase or sell their shareholding: in the event that Alain de Rouvray decides to sell all ESI Group shares that he currently holds or may hold at some point in the future, each party is irrevocably bound to either:
  - exercise its right of first refusal and purchase the shares under the conditions set forth under the agreement, or
  - waive its right of first refusal and consequently sell its entire shareholding at the sale price;
- a commitment to act in concert prior to the purchase of any additional shares that would force the parties to the agreement to jointly file a draft takeover bid.

In keeping with this agreement, the parties declare that they act in concert. In accordance with the "Dutreil" law in France, an agreement was also signed on December 22, 2003, and renewed on December 31, 2011 for a term of five years and six months. renewable indefinitely, between Mr. Alain de Rouvray (Chairman and founder of the Company), Ms. Amy de Rouvray, Ms. Cristel Anne de Rouvray, Mr. John Alexandre de Rouvray and Ms. Amy Louise de Rouvray in their capacity as shareholders of the Company. At December 31, 2019, this agreement represented 30.31% of the Company's capital and 46.22% of voting rights, and collectively binds its signatories to retain half of their shares.

1 2 3 4 5 6 7 8 9

8.2.5. COMPANY SHARE BUYBACKS

The Shareholders' Meeting of July 18, 2019 authorized the Board of Directors. pursuant to the provisions of Article L. 225-209 of the French Commercial Code, of European regulation No. 596/2014 of April 16, 2014 on market abuse and of AMF's General Rule, to purchase or sell Company's shares in the context of the implementation of a buyback program. The maximum purchase price has been fixed to €60 per share. The number of shares acquired could not exceed 10% of the share capital. This authorization was granted for a duration of 18 months and supplanted the previous authorization of the Shareholders' Meeting of June 29, 2017.

The description of the share buyback program implemented by the Board of Directors' meeting of July 18, 2019, pursuant to the authorization granted by the Shareholders' Meeting can be consulted on the website.

Shares buyback for the financial year ended December 31, 2019

In 2019, ESI Group did not buy back any shares.

Cancellation of shares for the financial year ended December 31, 2019

In 2019, ESI Group did not cancel any shares.

Assignments or transfers of shares for the financial year ended December 31, 2019

In 2019, ESI Group distributed 10,667 shares under its free share plans.

Liquidity contract

A liquidity contract was concluded with CIC in 2009 and remains in force. The monthly report on the liquidity contract is also available on the website.

Table summarizing the operations of the company on its own shares during its financial year ended on December 31, 2019

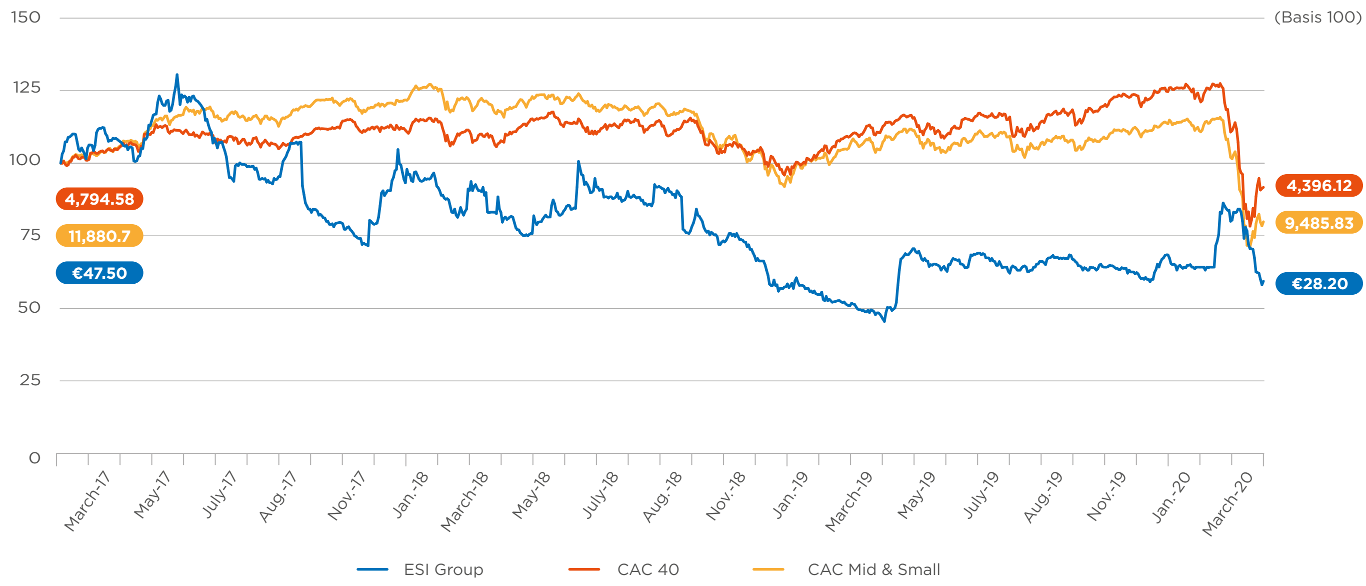
Date of authorization by the General Meeting	Resolution 14 of July 18, 2019
Date of expiration of the authorization	January 17, 2021
Ceiling on authorized buybacks	10% of share capital at the transaction date
Maximum purchase price per share	€60
Authorized purposes	Cancellation Share purchase options Free share grants Liquidity and market-making External growth
Board of Directors' meeting at which buybacks were implemented	July 18, 2019
Number of shares purchased in 2019	0
Number of shares cancelled in 2019	0
Number of treasury shares at December 31, 2019(1)	377,691
Percentage of capital held by the Company at December 31, 2019	6.3%

(1) *Excluding liquidity contract.*

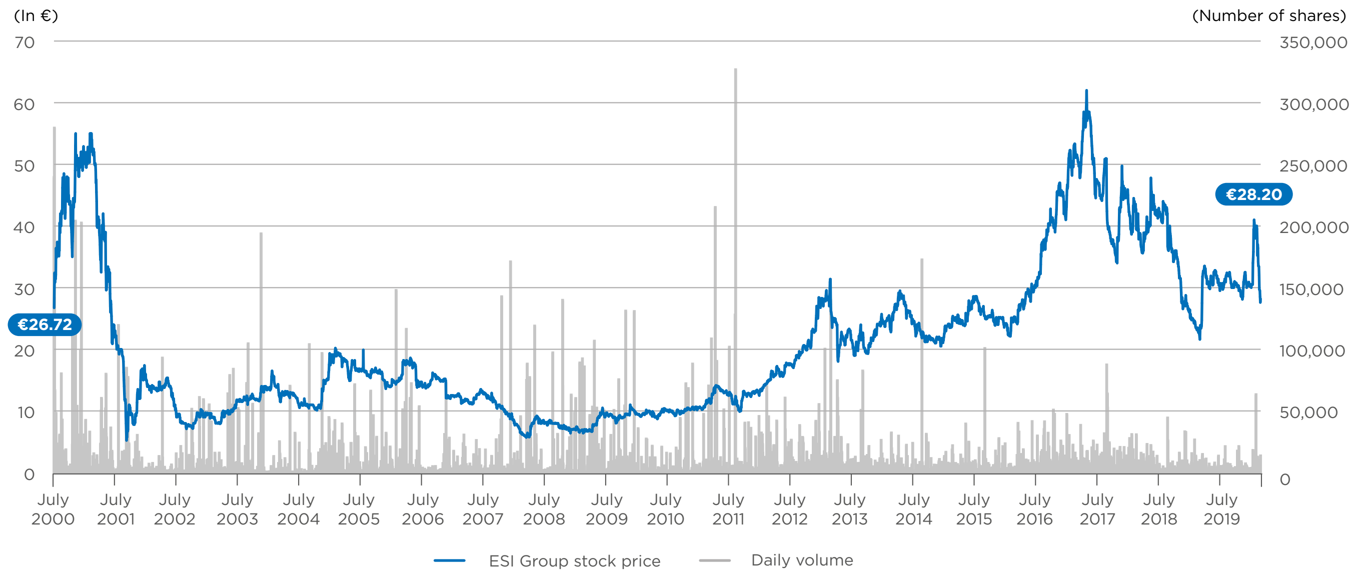
8.3. ESI SHARES – MARKET

8.3.1. SHARE PRICE TRENDS

The chart below shows how ESI Group's stock price has performed relative to the CAC Mid & Small and CAC 40 index since February 1, 2017 until the end of March 2020:



The chart below shows how ESI Group's stock price has performed since its initial public offering on July 6, 2000 until the beginning of April 2020 and the daily volume of transactions:



8.3.2. SURVEY OF IDENTIFIABLE BEARER SHARES

On March 31, 2020 the Group carried out a survey of identifiable bearer shares *(TPI: titres au porteur identifiable)* on 99% of its free float (excluding treasury shares) which could be compared to the one realized on April 25, 2019.

	At March 31, 2020		At April 25, 2019	
	As % of free float	*As % of share capital*	*As % of free float*	*As % of share capital*
French institutional investors	28.2%	15.4%	33.9%	18.6%
Foreign investors	65.6%	36%	58.6%	32.2%
Individual shareholders	6%	3.9%	7.5%	4.1%
Companies	0%	0%	0%	0%

This analysis points to a strong increase in foreign shareholders. which currently account for 36% of share capital. compared to 32.2% last year.

9 ADDITIONAL INFORMATION

In accordance with the resolution of the General Meeting of July 18, 2019, the Group now closes its financial statements at 31 December of each fiscal year.

9.1. PERSONS RESPONSIBLE FOR THE UNIVERSAL REGISTRATION DOCUMENT

9.1.1. PERSON RESPONSIBLE FOR THE CONTENT OF THE UNIVERSAL REGISTRATION DOCUMENT

Paris, April 23, 2020.

Mrs. Cristel de Rouvray, Chief Executive Officer of ESI Group:

"I certify, after having taken all reasonable care to ensure that effect, that the information contained in the Universal Registration Document are, to the best of my knowledge, in accordance with the facts and does not include any omissions that might alter the contents thereof.

I hereby certify that, to the best of my knowledge, the financial statements have been prepared in accordance with applicable accounting standards and give a true and fair view of the assets, liabilities, financial position and results of the Company and all consolidated companies making up the Group, and that the attached management report presents a fair picture of the business trends, results and financial position of the Company and all consolidated companies making up the Group, as well as a description of the main risks and uncertainties these entities face."

9.1.2. PERSON RESPONSIBLE FOR THE FINANCIAL INFORMATION

Mrs. Cristel de Rouvray, Chief Executive Officer of ESI Group.

9.2. STATUTORY AUDITORS

STATUTORY AUDITORS

/ PricewaterhouseCoopers Audit

63, rue de Villiers
92200 Neuilly-sur-Seine

Represented by Mr. Thierry Charron.

Date of appointment: Combined General Meeting of July 22, 2015 for a term of six years.

Term of office: Annual General Meeting called to approve the financial statements for the year ended December 31, 2020.

PricewaterhouseCoopers Audit is a member of the Versailles Regional Association of Statutory Auditors.

/ Ernst & Young Audit

Faubourg de l'Arche
1/2, place des Saisons
92400 Courbevoie Paris-La Défense 1

Represented by Mr. Frédéric Martineau.

Date of appointment: Combined General Meeting of July 22, 2015 for a term of six years.

Term of office: Annual General Meeting called to approve the financial statements for the year ended December 31, 2020.

Ernst & Young Audit is a member of the Versailles Regional Association of Statutory Auditors.

ALTERNATE AUDITORS

/ Auditex

Faubourg de l'Arche
11, allée de l'Arche
92037 Paris-La Défense Cedex

Represented by Mr. Emmanuel Roger.

Date of appointment: Combined General Meeting of July 22, 2015 for a term of six years.

Term of office: Annual General Meeting called to approve the financial statements for the year ended December 31, 2020.

/ Mr. Yves Nicolas

63, rue de Villiers
92200 Neuilly-sur-Seine

Date of appointment: Combined General Meeting of July 22, 2015 for a term of six years.

Term of office: Annual General Meeting called to approve the financial statements for the year ended December 31, 2020.

9.3. DOCUMENTS AVAILABLE TO THE PUBLIC

All corporate documents related to the Company can be consulted at the Company's headquarters, located at **100-102, avenue de Suffren in Paris (75015), France,** and on its website: www.esi-group.com starting from April 23, 2020. The website provides both in French and English a detailed description of the Group and its business activities, as well as financial information for shareholders and investors, including all mandatory information required under the European Transparency Directive. It provides access to Universal Registration Documents, financial reports, annual and interim consolidated financial statements, press releases, regulated information, the articles of association, shareholders letters and guides and stock prices.

Following the Transparency Directive adopted in 2007, ESI Group has decided to use a reporting service licensed by the French Financial Markets Authority (AMF). This allows the Group to provide proof of compliance with legal reporting requirements.

Lastly, if you have any questions regarding this Universal Registration Document, please contact:

ESI Group

Florence Barré

100-102, avenue de Suffren

75015 Paris

investors@esi-group.com

Shan

Florent Alba

30, rue des Mathurins

75008 Paris

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CROSS-REFERENCE TABLES

UNIVERSAL REGISTRATION DOCUMENT CROSS-REFERENCE TABLES

These cross-reference tables include the headings provided in Appendices I and II of the Commission Delegated Regulation (EU) 2019/980 of 14 March 2019 and refer to the pages of this Universal Registration Document where the information relating to each of these headings is mentioned.

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For ease of reference, the following cross-reference table facilitates identification of information making up the annual financial report, the publication of which is required under Article L. 451-1-2 of the French Financial and Monetary Code and Article 222-3 of French Financial Markets Authority (AMF) General Regulations.

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MANAGEMENT REPORT CROSS-REFERENCE TABLE

For ease of reference, the following cross-reference table facilitates identification of information required in the Management report pursuant to Articles L. 225-100 *et seq.*, L. 232-1 *et seq.* and R. 225-102 *et seq.* of the French Commercial Code.

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SUSTAINABLE DEVELOPMENT AND CORPORATE SOCIAL RESPONSIBILITY CROSS-REFERENCE TABLE

For ease of reference, the following cross-reference table facilitates identification of environmental, social and societal information making up the report on sustainable development and Corporate Social Responsibility, provided in accordance with Articles L. 225-102-1, R. 225-105 and R. 225-105-1 of the French Commercial Code.

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French limited company (*société anonyme*)
with a share capital of €18,055,476

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