

Leonardo 2020

Accelerating technology evolution

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# Innovation footprint

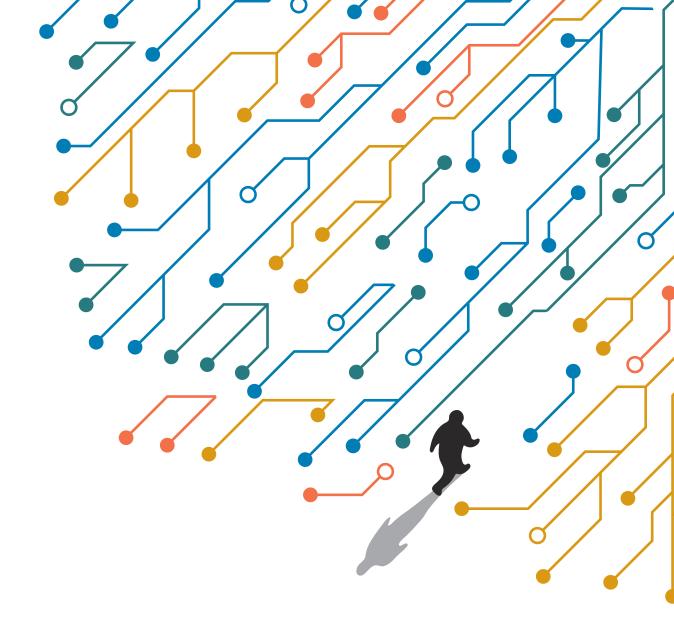
Presiding over strategic security technologies is central to the evolutionary path in which the human race is planning its future; a future that cannot ignore intelligent, safe and sustainable technological design to serve people, society and the planet.

# The course Leonardo sets in this process represents the footprint of its innovation.

Digitisation is the enabler of this structural change in production and society. The ability to collect data and process information, to measure data using supercomputing techniques, quantitatively and qualitatively interpreting the complexity of interactions between industrial activities and natural phenomena, is a fundamental step towards bringing together progress, competitiveness and sustainability.

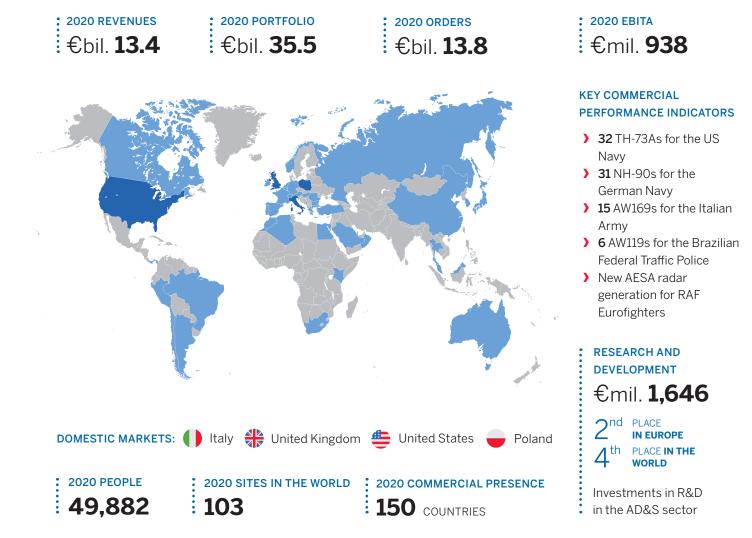
For this reason, Leonardo's financial report integrates economic and financial data with indicators of sustainability and innovation, on the basis of the goals of the UN Agenda 2030, in order to assess their actual implementation and prospects in the short, medium and long term. The process is driven by a model of governance that supports reporting.

It represents a specific commitment to stakeholders: a clear and articulate tool for understanding, which also involves them personally in a number of sessions for discussion and evaluation.

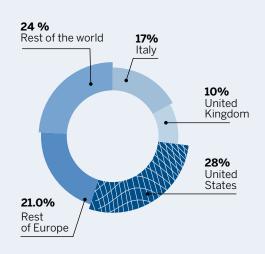


Over the next 10 years we will have the opportunity to establish a new social pact, also involving the ecosystem and global redistribution of wealth, health, knowledge and security. This is where the challenges of the future lie.

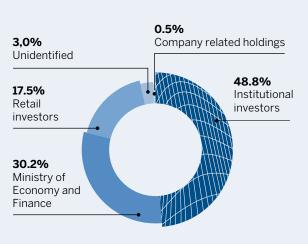
# :: Profile



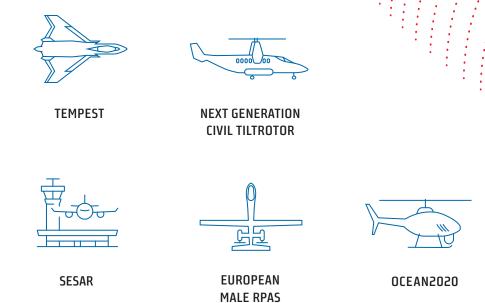
## **REVENUES BY GEOGRAPHICAL AREA**



# SHAREHOLDERS

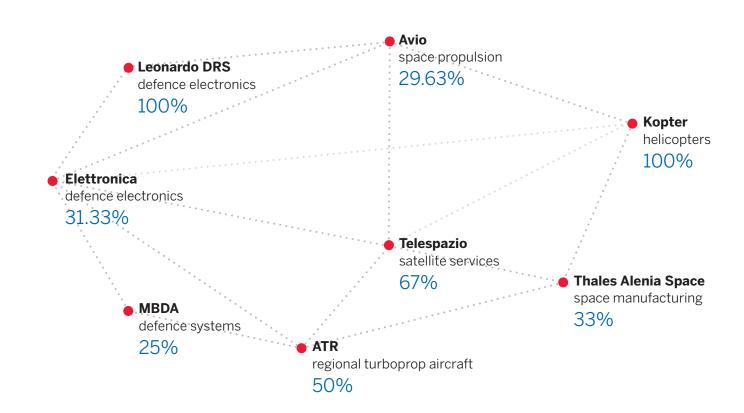


# :: Strategic Programmes



# :: Ecosystem of alliances

Shareholdings and joint ventures



# :: Sustainable business model

### : CAPITAL

# **PEOPLE AND SKILLS**

- **49,882** employees
- **approx. 8,800** people in R&D and engineering

### FINANCIAL RESOURCES

- **) € 1.6 bil.** in R&D
- > € 8.9 bil. in purchases of goods and services
- ) € 8.5 bil. net invested capital

# TECHNOLOGY AND INTELLECTUAL **PROPERTY**

- **) 6.1** petaflops of computing power
- > 27.1 petabytes of storage capacity
- > 10 Leonardo Labs

### INDUSTRIAL ASSETS

- ) 103 main sites and plants
- ) approx. € 300 mil. investments in tangible assets

### RELATIONSHIPS AND PARTNERSHIPS

- ) approx. 70 universities and research centres
- > approx. 11,000 suppliers

# **ENERGY AND NATURAL RESOURCES**

- **) 100%** electricity from renewable sources in Italy and the UK
- > 52% of waste recovered

# **RESULTS AND IMPACTS**

# PEOPLE



- **3,222** new hires, **43%** hold a STEM degree, **41%** under 30 and **23%** women
- ) approx. 800,000 hours of training delivered to employees
- ) approx. 780 training opportunities activated with the educational
- ) approx. 41% reduction of injury rate

year 2020

# PLANET



- > -8% intensity of water withdrawals
- > -8% intensity of waste produced
- **) -3%** intensity of energy consumption
- > 28,770 tons of CO<sub>2</sub> avoided through the use of virtual training systems

year 2020





# PROSPERITY 🕭



- ) approx. 50% SDG-aligned investments
- > 124,000 employed and €bil. 10.5 of direct, indirect and induced added value generated in Italy (2019 figures)
- ) approx. 250 operators use Leonardo helicopters for emergency medical services

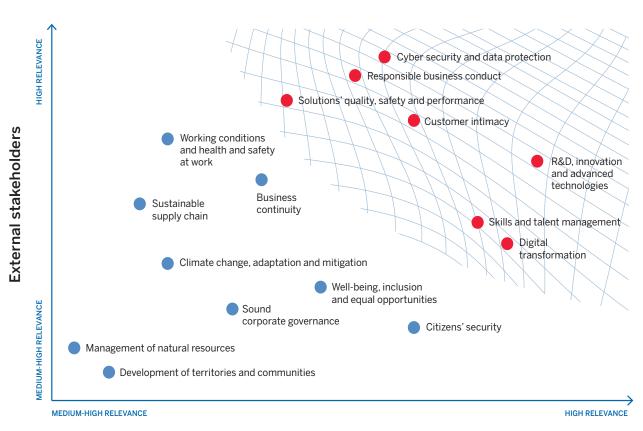
year 2020







# :: Priorities matrix



### Internal stakeholders

# : ESG AWARDS



Ranked first in the Aerospace & Defence sector in the Dow Jones Sustainability Indices (DJSI), for the second year in a row. Leonardo has been included in the DJSI for 11 years in a row.



In the CDP 2020 Climate-A List, among 8 Italian companies and 2 in the A&D sector.



Ranked in A band in the Defence Companies Index on Anti-Corruption and Corporate Transparency (DCI) of Transparency International.



Recognised UN Global Compact LEAD for its commitment to the world's biggest corporate sustainability initiative.



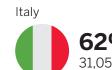
Included in the Bloomberg Gender-Equality Index



Obtained the SEAL (Sustainability, Environmental Achievement & Leadership) Business Award honouring the 50 most sustainable companies in the world.

# : People

# : EMPLOYEES WORLDWIDE (2020)



United Kingdom



**15%** 

**United States** 



**15%** 7,299

Poland



Rest of the world



**3%** 1,558

# : EMPLOYEES BY GENDER AND AGE GROUP





**10.3%** < 30 year

**52.4%** 30 - 50 year

**37.3%** > 50 year

# \*\* HUMAN CAPITAL EVOLUTION INDICATORS

(2020 data compared to 2017)

GROWTH OF WORKFORCE

+11%

+4,748 employees

**EMPLOYEES UNDER 30** 

from 8.2% to 10.3%

+1,455 employees

WOMEN MANAGERS

from 15.1% to 17.3%

of total managers and junior managers

+269 employees

**WOMEN HIRED** 

Over **3,400** 

Best Employer of Choice among the top 20 companies in Italy

Among the companies included in Bloomberg's **Gender Equality Index**  Military Friendly Employer and Best for Vets Award in the United States

Investors in People (liP),
Investor in Young People
(liYP) and We invest in
WellBeing (IIP's) in the United
Kingdom

# ∵ Training

# :: LOVE FOR LEARNING: INVESTING IN SKILLS

Leonardo has redesigned its training offerings to enable all resources to keep their professional skills up to date. With the LOVE FOR LEARNING initiative launched in July 2020, Leonardo became the first Italian company to extend to all its personnel, worldwide, Coursera's extensive training services as one of the world's leading MOOC (Massive Online Open Courses) platforms, offering a catalogue of some 4,500 courses produced by the world's top universities, accessible from home and office, from a desktop or mobile device. The university level of the courses enables all participants to obtain the corresponding certificates.

62%

**of employees** hold a STEM degree

43%

**of new hires in 2020** hold a STEM degree

About

800,000

hours of training delivered

# :: LEONARDO ENGINEERING TRANSFORMATION

The first in Italy and in the world in the AD&S (Aerospace, Defence & Security) sector to use a cutting-edge platform applying AI to internal reskilling and new talent search processes, with a STEM-based upskilling map.

# SCIENTIFIC CITIZENSHIP

The promotion of scientific citizenship is an integral part of the strategy of Leonardo - which aims to be a reference point for STEM culture in the countries where it operates - for strengthening skills and the innovation pipeline.

More than

37,000

students reached with university Career Days and job fairs in Italy and the United States More than

**training opportunities** activated with the educational system

1,653

hours of teaching by Leonardo employees in 5 Italian Technical High Schools (ITS) 46

Italian institutes supported with the crowdfunding project "Leonardo for the School"

# :: Leadership in Aerospace, Defence and Security



# : HELICOPTERS

Research, design, development and production of helicopters for civil - where it is the world's leading manufacturer - and defence applications. Leonardo's helicopters, from the 1.8 ton single-engine to the 16 ton three-engine, fulfil missions of public utility, public order, off-shore, search and rescue, helicopter rescue and defence on land and sea. To respond to the needs of future vertical mobility, Leonardo is committed to researching innovative technologies and platforms, such as the tiltrotor and the optionally piloted or unmanned helicopter.

2020 ORDERS 2020 PORTFOLIO €bil. **4.5** 



MARKET 2020-2029 CAGR 2020-2029 €bil. **156 2.0%** 

## HIGHLIGHTS

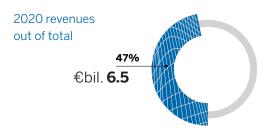
- Over 4,300 helicopters operating in more than 130 countries
- > 156 helicopter simulators and training devices sold

# DEFENCE ELECTRONICS & SECURITY

Design, development and production of complex integrated systems, subsystems, equipment and components for applications in the land, sea, air, space and cyber domains.

To ensure global security, design, development and production of integrated systems and solutions for physical and logical security, digital transformation and secure communications.

2020 ORDERS 2020 PORTFOLIO
€bil. **7.4** €bil. **13.4** 



MARKET 2020-2029 CAGR 2020-2029 €bil. **3,234 6.4%** 

# HIGHLIGHTS

- 5,000 networks and 70,000 users protected by cyber services in 130 countries
- **900** air defence and surveillance radars sold in **58** countries
- **200** airports in **110** countries use ATC systems
- **) 20** ports in **7** countries use vessel traffic control systems





### : AERONAUTICS

Design, development and production of aircraft for training, tactical transport, defence and surveillance, ranging from basic training to complex defence and peace enforcement operations; from tactical transport to humanitarian support; from command & control to intelligence, surveillance and reconnaissance. Participation in the Eurofighter, European MALE, F-35/JSF and Tempest programmes.

Specific expertise in the manufacture and assembly of large composite and traditional metal structural components, including the design of aerostructures for some of the most important commercial aircraft, such as classleading ATR regional transport aircraft.

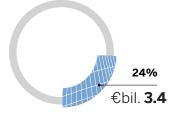
2020 ORDERS

€bil. **2.6** 

2020 PORTFOLIO

€bil. **10.7** 

2020 revenues out of total



MARKET 2020-2029 CIVIL

\_

€bil. **2,080** 

MARKET 2020-2029 DEFENCE

€bil. **815** 

CAGR 2020-2029 CIVII

\_ \_

2.8%

CAGR 2020-2029 DEFENCE

4.4%

# HIGHLIGHTS

- **> 86** M-346s ordered
- Over 1700 ATRs ordered by 200 airlines in more than 100 countries worldwide
- **> 87** C-27J aircraft ordered by **15** countries

# :: SPACE

Design and manufacture of electro-optical instruments, robotics and equipment for space programmes.

Through Telespazio, telecommunications, navigation and positioning, Earth observation and geoinformation services. Launch operations and putting into orbit.

Through Thales Alenia Space, design and production of orbiting infrastructure, satellites, radar sensors and subsystems.

: MARKET 2020-2029

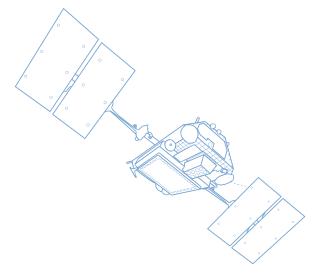
CAGR 2020-2029

€bil. **1,312** 

4.3%

### HIGHLIGHTS

- On board ASI's PRISMA mission is the only hyperspectral instrument currently in orbit, capable of performing chemical and physical analysis of elements observed on Earth
- More than 1,000,000 radar images acquired by the COSMO-SkyMed constellation of ASI and the Italian Ministry of Defence in its first 10 years of operation
- More than 40% of the habitable volume of the International Space Station built by Thales Alenia Space



# : Key events of 2020



# Launch of the Be Tomorrow - Leonardo 2030 strategic plan

Vision of the company in ten years and beyond, with parallel definition of the plan for digital transformation and the 2030 Sustainability Plan.



### Launch of Leonardo Labs

Technology incubators to support Leonardo in long-term research and development of the most innovative technologies, particularly digital technologies.

# ★ kopter

# Kopter acquisition

This operation strengthens our leadership in the helicopter sector, accelerating development of revolutionary technologies, new mission capabilities and increased performance.

# TRANSPARENCY INTERNATIONAL

# Transparency

Ranked in A band in Transparency International's Defence Companies Index on Anti-Corruption and Corporate Transparency (DCI).



## Launch of the whistleblowing platform

Launch of Leonardo's new whistleblowing platform for more effective management of reports of internal violations.



# Drone contest organisation

Open Innovation project to promote the development of AI applied to unmanned systems, carried out in collaboration with six Italian universities.



# Launch of davinci-1

Leonardo's supercomputer, ranked among the top one hundred in the world for performance, with a computing power of over 5 million billion floating-point operations per second.



### **Business Hero**

The UK Chambers of Commerce organisation awards Leonardo the Business Hero award for its contribution during the Covid-19 emergency.



# Extension of the second generation COSMO-SkyMed

Signature of a contract with the Italian Ministry of Defence and the Italian Space Agency for the doubling of the Earth observation system satellites.



# Laying the cornerstone of the IFTS

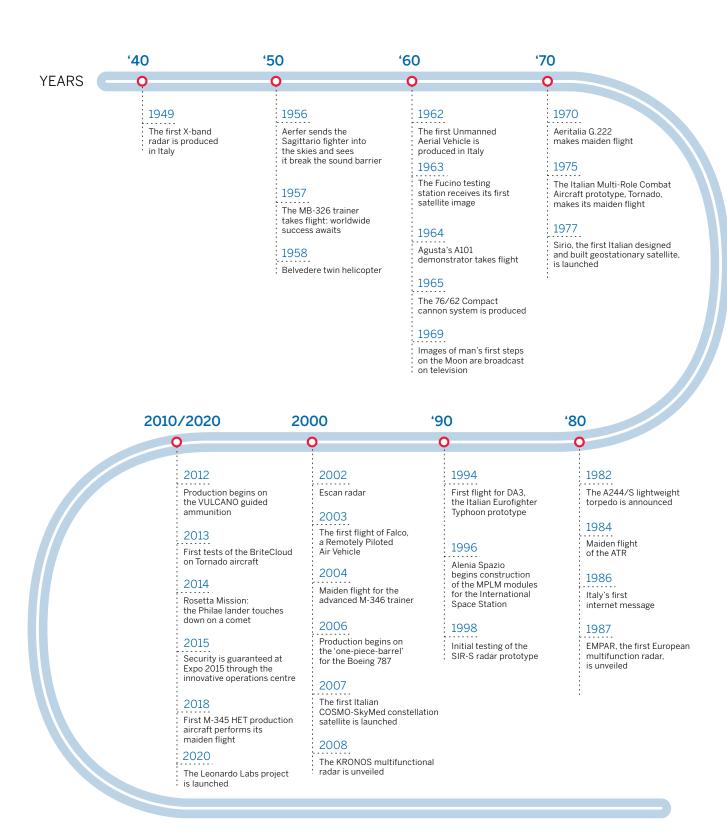
Work begins on the International Flight Training School, an international benchmark for advanced military pilot training, in collaboration with the Italian Air Force.

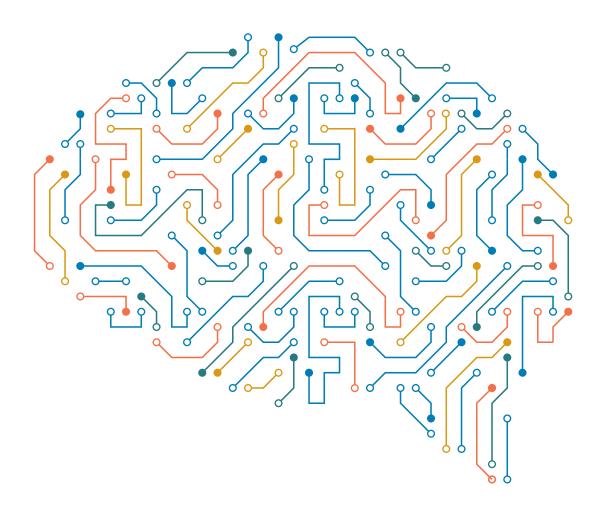


# Launching the X-2030 platform

A secure city management solution concentrating technologies such as AI and the Cloud and processing them by providing a snapshot of the situation, collecting huge amounts of data also from open sources (web, social media, satellite data).

# :: Innovation timeline





# ·· Evolutionary

Planning for the future requires knowledge, expertise and the ability to control the practical implications of our actions over time. The most important resource for meeting this kind of challenge is people. People who, with their know-how, actively promote the kind of open, multidisciplinary environment essential for guiding innovation, technology and society over time.

In pursuit of this transformation, Leonardo Labs were set up in 2020: technology incubators designed to direct Leonardo's research and development over the long term with the aim of anticipating innovation cycles, advancing the frontier of technology.

The digital revolution is a key part of this transformation. Digitisation means processing huge amounts of data, being able to perform calculations at very high speeds, extracting new information and generating knowledge. This is why we have built one of the world's most powerful supercomputers, the davinci-1.

A concrete example of digitisation is the digital twin, which virtually models a product to permit accurate predictive assessments in even the most critical situations. Its potential is based on the possibility of collecting data with diffuse sensors and then processing the data through interaction with multiple sources to gain a greater understanding of the complexity of the phenomena being modelled. The result is an information *continuum* that teaches itself, constantly learning to improve with feedback that reviews processes at every stage, increasing its efficiency, offering clear advantages in terms of time, costs and environmental impact.

Digitisation is the direction in which Leonardo's technology is evolving towards the future, integrating new functions that allow applications in new areas, with important benefits also in terms of sustainability.

Digital transformation is radically changing us and the world we live in. This represents an important opportunity to reprogramme our society on the basis of a deeper understanding of the complexity that surrounds us, with assessments that also take long-term effects into account.



Be Tomorrow - Leonardo 2030 is the strategic plan with which the company has expressed a clear vision of its path for the next ten years and beyond: to strengthen and transform the business in order to grow, accelerate the process of innovation and increase long-term competitiveness in a logic of sustainability. The goal is to develop new skills, in both the civil and military domain, to respond to the challenges posed by the complexity of the digital age: interdependence, interrelation and rapid evolution.

# \*\* TARGET FOR 2030

# 1. Solid



- Attractive to investors and highly dependable
- Profitable and with a solid ability to generate cash

# 2. Global



- A world leader in our top sectors: helicopters, simulation and training
- Number one in Europe in Defence Electronics and unmanned aereal systems
- Key player in collaborative international aviation programmes
- Reference partner of institutions in safety & security programmes
- Global player in Space

# 3. Driver of Innovation



- The engine of an innovative eco-system along interconnected technological lines
- Point of reference for 'green' innovation

### : GUIDELINES FOR DEVELOPMENT

# 1. Strengthen our "core"

- > Evolve from product supplier to global partner
- > Strengthen our sales network
- Optimise the product portfolio built around our distinctive capabilities

# 2. Transform to grow

- Invest in people and know-how
- > Become a fully digitalised company in all key processes
- Promote a quality, innovative, integrate, resilient supply chain
- Promote an offering based on an excellent customer service

# 3. Master the new

- Accelerate the process of innovation and boost investment in research
- Create corporate laboratories to develop technologies with highly innovative content, cutting across all our business sectors
- Make the most of intellectual property rights, adopting an open approach to the market and to innovative startups
- > Establish a high-tech fund to enhance the IP produced by Leonardo Labs while investing in innovative start-ups
- > Strong focus on Intelligent Autonomous Systems
- ▶ Enhance our positioning in the Space sector as a domain for application of new technologies and key assets to reinforce our offering of high value-added services

# : National Recovery and Resilience Plan

Under Italy's PNRR - National Recovery and Resilience Plan - Leonardo is putting its expertise at the service of the country to guide it through the process of digital and green transition. Leonardo's Cloud Computing platform, integrated in the National Cloud, becomes a primary tool for the modernisation and revitalisation of the country.

# :: 5 REFERENCE CLUSTERS



# **Global Monitoring**

Continuous monitoring and securing of critical infrastructure



### **Smart Cities**

Increasing the safety and resilience of cities by promoting sustainable mobility



# Digital PA

Facilitating the delivery of easily usable, efficient and secure digital public services



# **Digital Logistics**

Contributing to the development of connected, automated and secure multimodal logistics



## Health

Contributing to the development of an efficient and interconnected health system

# : ENABLERS



Private/Hybrid Cloud



High Performance Computing



Artificial Intelligence Algorithms



Predictive Simulation Capability



Tools Supporting Decision-making



Command & Control



Cyber-security

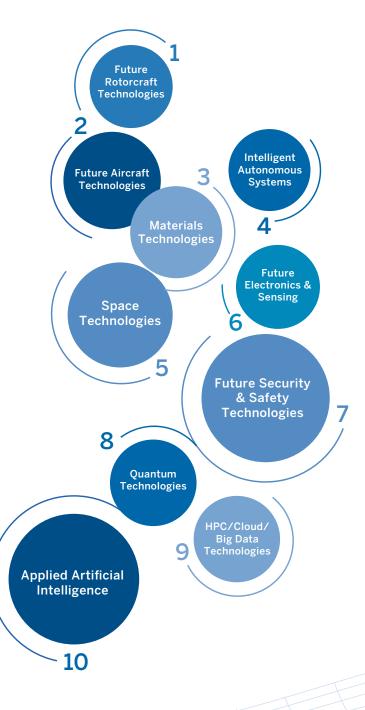
# :: Corporate Research Programme

# 10 Leonardo Labs

Technology hubs dedicated to long-term research and development of the most innovative technologies. An international network made up of centres in Italy and abroad - also in collaboration with industrial partners and research centres - connected to the global research ecosystem.

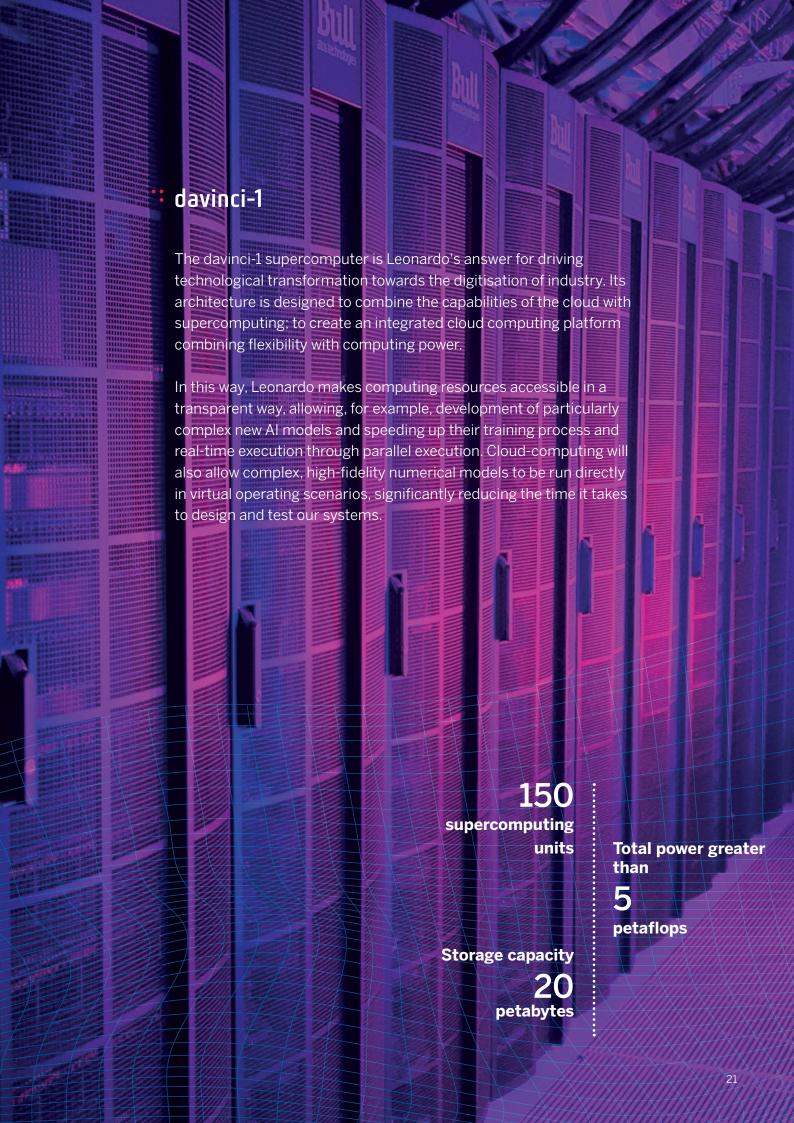
# 8 Areas of research

- > Digital twins and advanced simulation
- Artificial Intelligence and Green Computing
- ) Big Data
- > HPC/CLOUD
- Unmanned and Robotic Technologies
- ) Quantum Technologies
- > Platform hybridisation and electrification
- Materials technologies

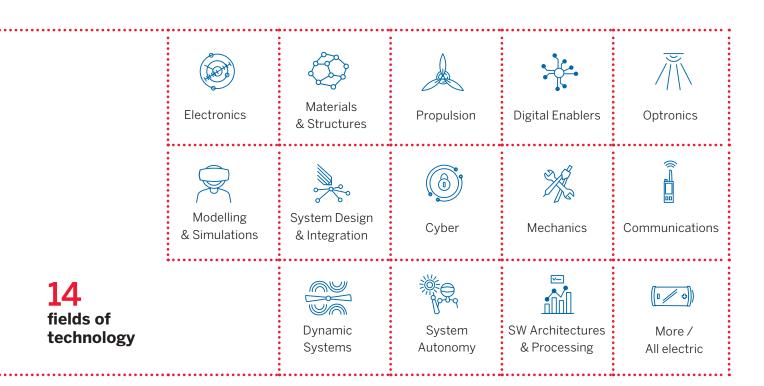


# DIGITAL TWIN

- Multiphysics and multi-scale modelling through advanced numerical simulations of complex systems, fully using the HPC davinci-1 infrastructure and GPUs (Graphics Processing Unit) parallel computing – a calculation performed in parallel on highly scalable hardware platforms
- Development of a big data analytics infrastructure, Internet of Things and specific artificial intelligence algorithms to analyse and define strategies for predictive maintenance
- Creation of an automated framework for product design activities, to complete the transition to computational engineering and reduce time to market
- Advanced and parallel simulation to develop virtual experiments with the aim of minimising physical tests during certification activities
- Data-driven systems based on numerical simulation data, on-board sensors and manufacturing cycle, to create advanced virtual models and accelerate advanced prototyping activities thermoplastics and RF shielding.



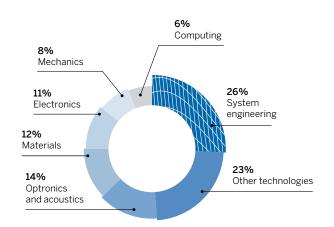
# :: Leonardo and its research



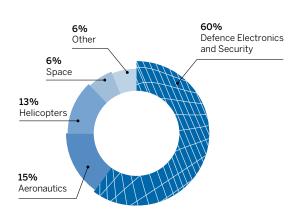
# : INTELLECTUAL PROPERTY

The type of patents developed are mainly oriented toward dual use of technologies in sectors adjacent to AD&S (Aerospace, Defence & Security), assisting small and medium-sized enterprises in the development of their products and supporting emerging start-ups.

# Patents by key technology



# Patents by sector



# :: The figures on innovation



**1.6 billion euros** invested in R&D in 2020



**5%**Compound annual growth rate (CAGR) of patent portfolio over last 10 years



More than 400

**technologies** make up Leonardo's technology portfolio



More than
70
universities and
research centres
around the world with
whom we collaborate

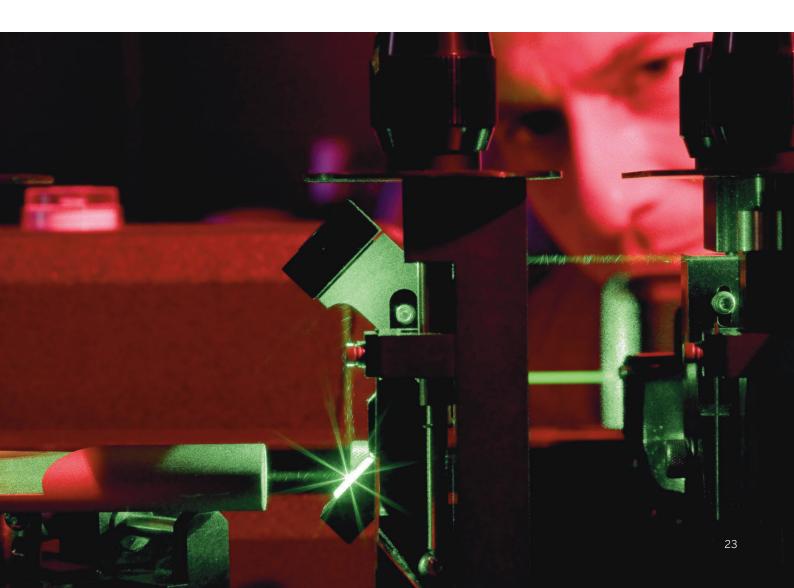


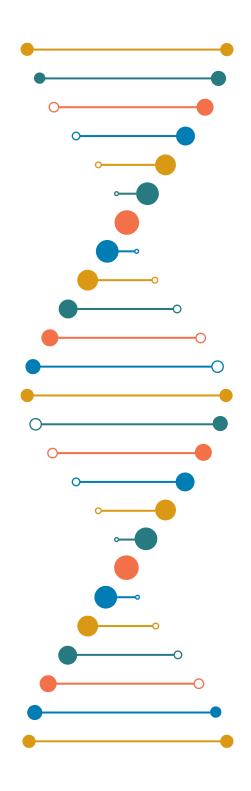
Around **9,000**people involved in research and development activities



**6.1** petaflops of computing power

**27.1** petabytes of storage capacity





# Authority over key technologies

Leonardo's most important value lies in its ability to create strategic technologies for aerospace, defence and security, guiding their evolution: an articulated industrial ecosystem specialising in areas such as helicopters, electronic and autonomous systems, aircraft, space, new materials, robotics, artificial intelligence and supercomputing. These are sectors in which the company is pushing forward the frontiers of innovation, to increase its competitiveness and design and shape the solutions that will characterise the Leonardo of tomorrow, identifying the directions of future evolution.

Paths that become cutting-edge products and services in a variety of fields in which Leonardo boasts internationally recognised excellence. From the AW139 multi-role helicopter, a world best-seller in its class, to the Falco Xplorer unmanned system used for surveillance missions. From the M-346 trainer, one of the most advanced jet aircraft for training military pilots, to the COSMO-SkyMed constellation, the first Earth observation satellite system designed for dual purposes.

Distinctive traits that allow us to play a leading role in international strategic programmes in the defence sector (Eurofighter, F-35, NH90, NATO AGS, FREMM, Tempest and Male 2025), aviation (CleanSky, SESAR) and in space (Galileo, Copernicus, COSMO-SkyMed, ExoMars and Artemis). And to play a primary role in public-private partnerships with institutions, defence and international organisations such as the European Commission, ASI, ESA, NATO and NASA, in order to define new concepts - in terms of protection and surveillance of allied nations - and explore innovative frontiers, from artificial intelligence to digital networks.

Driving technological progress is our sustainability project for society.

# :: Leonardo Production System

The LPS programme is an advanced production system that improves the process of transformation from raw materials to finished products through standardisation of processes and development of people's professional skills.

In line with the Be Tomorrow - Leonardo 2030 strategic plan, the LPS 4.0 programme was launched to digitise the LPS methodology and tools for accelerating execution and results.

Baseline 2019



Over
2,200
projects launched



1,200 people involved



13 plants



+20%



+30% productivity



-90% accidents at work



# :: Leonardo as the centre of an ecosystem of companies

Leonardo's activity develops an interconnected and innovation-driven supply chain. A system that translates into a supply chain present in 77 countries and made up of 11,000 companies - over 4,000 in Italy alone - with an order value of around 9 billion euros, 4 billion of which is generated in Italy.

LOCAL SUPPLY CHAINS: SMES AS A PERCENTAGE OF THE TOTAL









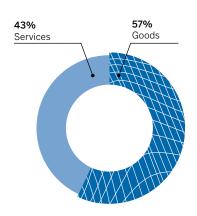
Italy 86%

United Kingdom 71%

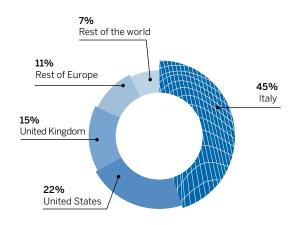
United States 71%

Poland 87%

### **PURCHASES BY TYPE**



### **PURCHASES BY COUNTRY**



€bil. **8.9** 

of purchases of goods and services

63%

incidence of purchases on revenues

82%

of purchases related to domestic markets, with a supply chain of more than 7,000 SMEs

In Italy, where related industries generate €10.5 billion in added value, Leonardo is at the heart of an ecosystem employing over 124,000 people and generating a value of production of around €22 billion, including direct, indirect and related industries.

# :: LEAP2020 PROGRAMME

Leonardo Empowering Advanced Partnerships 2020 (LEAP2020) is a new supplier management model, which aims to create the best conditions for enhancing partners' capabilities and technological excellence.

- More than 1,300 suppliers analysed
- > 200 eligible for partnerships
- More than 100 involved in development projects and managerial and specialist training programmes, commercial partnership agreements, financial agreements, support for technology transfer and digital transformation

# :: Customer centricity

# \*\* TRAINING SERVICES PROVIDER

Integrated training services for civil and military pilots, operators and technical personnel, through a global network of training centres with extensive use of simulation systems and LVC (Live-Virtual- Constructive) learning environments, to ensure the highest levels of safety.

# \*\* MRO (MAINTENANCE REPAIR AND OVERHAUL) AND ADVANCED/FULL SERVICE OFFERINGS

MRO and advanced / full services, powered by a global network of assistance and logistics centres to guarantee support for platforms and systems throughout their life cycle. A portfolio of advanced turnkey services supported by proprietary digital tools to ensure operations, mission effectiveness, cost and warehouse optimisation.

# \*\* AN INNOVATIVE AND COMPREHENSIVE GLOBAL PARTNER

Services supporting the operational capabilities of partners in all types of missions and ensuring their long-term industrial technological growth.

# TECHNICAL SERVICES PROVIDER

Technical and logistical services, 24/7 assistance, easy access through the Leonardo Customer Portal: site management, installation and setup, in-service data acquisition, configuration and obsolescence management, technical publications and infologistics services.

# 26%

of total 2020 revenues from Customer Support, Service and Training

# 220

people involved in the first edition of the MOVE (Mindset, Objectives, Vision, Enhancement) course

# More than **2.800**

people in the Customer Support, Services & Training all over the world

# 900

people involved in the Data Driven Mindset pilot course, aimed at making data management an added value for the customer



# :: Strategic Products

### HELICOPTERS

# AW139

A multi-role helicopter capable of carrying out any type of mission: search and rescue, security, offshore, private and executive transport.

#### AW101

The most advanced and powerful multi-role aircraft available on the market today. Equipped with sophisticated avionics and mission systems, it guarantees maximum operational efficiency, thanks to its high degree of autonomy.

### AW609

The first tiltrotor for civil and governmental applications.
Combining the benefits of helicopters with those of airplanes.



#### :

# **AERONAUTICS**

### C27-J

World benchmark for new generation medium-sized tactical turboprop transport aircraft.

### M-346

Among the most advanced jet aircraft for training military pilots. Offering extensive training capabilities, long-term reliability and reduced costs in operation.

# M-345

Trainer intended for the basic to advanced phases of military pilot training with the performance typical of a jet aircraft and operating costs comparable to those of high-powered turboprop trainers.





### :.

# **SPACE**

# COSMO-SkyMed

Italian satellite system for Earth observation, equipped with synthetic aperture radar sensors, ensuring global coverage of the planet under all weather conditions.

### SICRAL

Italian satellite system for military communications, guaranteeing interoperability of defence, public safety and civil protection networks.

# Copernicus

European satellite programme for monitoring the Earth, the marine environment, the atmosphere and climate change.

## Galileo

The European Union's Global Navigation Satellite System (GNSS).

# DEFENCE ELECTRONICS & SECURITY

### **FALCO Xplorer**

Unmanned system providing 24/7 surveillance under all conditions, covering a wide range of military and civil missions.

### SeaSpray

AESA (Active Electronically Scanned Array) radar for surveillance with air-to-air and air-to-ground capabilities, including the detection of small targets.

### **KRONOS**

A family of state-of-the-art, multifunction, multi-mission radars for land and naval air surveillance and defence.

### **ATHENA**

Advanced naval theatre management system for all ship types, from patrol vessels to the largest aircraft carriers.

# Miysis DIRCM (Directed InfraRed Counter Measure)

System for protecting aircraft against potential threats.

# IRST (InfraRed Search & Track) systems

Family of sensors for supporting air-to-air and air-to-surface missions with long-range target discovery and tracking capability in all scenarios and modes.

## Software Defined Radio

Family of radios for broadband communications, designed so that functions and features can be modified by software.

# SICOTE

Territorial control system supplied to the Carabinieri, with threat prevention and analysis functions.

# OTO 76/62 SR

Multi-role defence system, also installable on small ships.

### **Black Shark**

Multi-target heavy torpedo (surface or underwater threats), usable from a variety of launch platforms (submarines, surface units, shore stations).





# :: International programmes

# **TEMPEST**

A next generation 'system of systems' to meet the future combat air challenges of the future.

# NEXT GENERATION CIVIL TILTROTOR

Research project for development of a new generation tiltrotor, equipped with new technologies and a new aircraft architecture permitting a 50% reduction in CO<sub>2</sub> emissions.

### **EUROPEAN MALE RPAS**

Medium-altitude, long-range remotely piloted aircraft for global ISTAR (Intelligence, Surveillance, Target Acquisition & Reconnaissance) missions.

### **SESAR**

European research programme for transforming air traffic management and making it more modular, automated, interoperable and focused on the flow of flights.

# OCEAN2020

EU-funded research project focusing on naval surveillance technologies to strengthen European defence capabilities.

# International partnerships

# **EUROFIGHTER**

Multi-role fighter born from a collaborative project of the defence industries of Italy, the UK, Germany and Spain.

### NATO AGS

NATO system for territorial surveillance, based on radar technology and implemented with the contribution of 15 allied countries.

# F-35

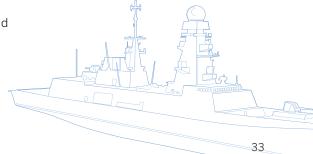
A new generation network-enabled fighter with stealth features.

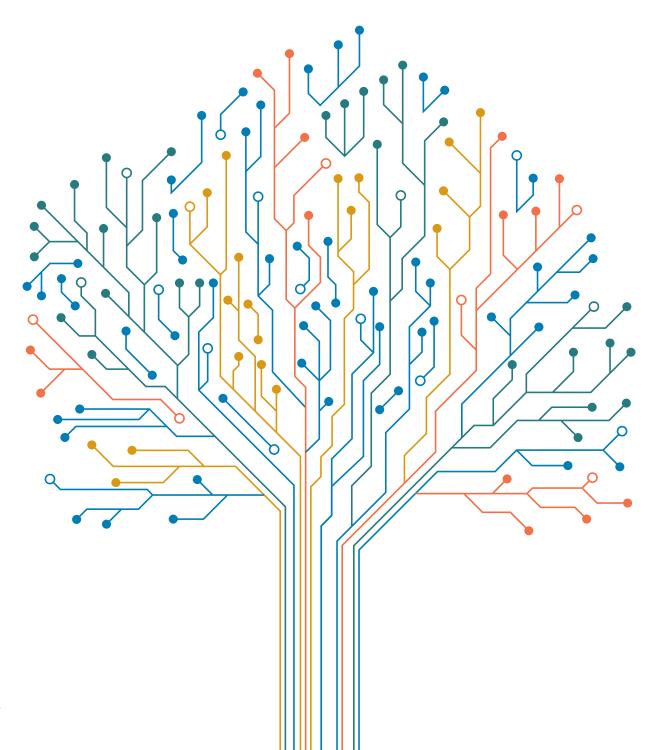
### **FREMM**

The most important naval military programme ever established at European level, carried out in cooperation between France and Italy.

# NH90

Europe's largest helicopter programme, developed to meet the needs of military operators worldwide, with dedicated mission systems for land and naval operations.





# Sustainability in action

Sustainability is the ability to take a long-term view and to consider the impact of what we do across the entire value chain. Sustainable development is a prerequisite for long-term progress for people, the planet and prosperity, in line with the sustainable development goals of the UN 2030 Agenda. The company's Sustainability Plan, in line with the Be Tomorrow - Leonardo 2030 strategic vision, translates this into concrete actions capable of generating shared and measurable long-term value.

Being sustainable brings advantages across the board: it catalyses talent, speeds up innovation processes and makes products more competitive. It helps to attract investors and improves access to credit, cost structure and process efficiency. It supports community development through the active involvement of stakeholders.

Its main strength is measurability. It has precise indicators linking economic and financial performance, the efficiency of processes, the professional development of people, and the impact on society and the environment. This provides a clear, verifiable reference point for the project, permitting assessment of its development over time.

Leonardo's environmental, social and governance (ESG) Key Performance Indicators (KPIs) are an essential prerequisite for all strategic, organisational, investment and business decisions: a way of working that Leonardo shares with the entire industrial ecosystem of which it is the driving force.

The sustainability goals adopted in Leonardo's business model represent essential elements for improving the company's competitiveness and generating lasting value for its stakeholders.

# :: ESG awards

- At the top of Transparency International's Defence Company Indices on Anti-Corruption and Corporate Transparency.
- Industry Leader, for the second time running, in the Aerospace and Defence sector of the Dow Jones Sustainability Indices, where it has featured since 2010.
- UN Global Compact Lead and member of the CFO task force.
- Included in Bloomberg's Gender Equality Index for the first time.
- Included in the CDP 2020 climate-A list for climate change and environmental impact rankings.

## :: CLIMATE A LIST

Leonardo is included in the Climate A List 2020 of the international non-profit organisation CDP, the highest category, including the world's leading companies - out of more than 9,500 analysed - in the fight against climate change. The list is compiled from information on environmental impact, risks and opportunities requested by more than 500 investors representing \$106 trillion in assets under management.

# **DOW JONES SUSTAINABILITY INDICES**

Leonardo ranked first in the Aerospace & Defence sector in the Dow Jones Sustainability Indices (DJSI), confirming its leadership for the second year in a row.

The result demonstrates that sustainability is an integral and guiding part of Leonardo's strategy, governance and vision to 2030. Leonardo has been included in the DJSI for 11 years in a row.

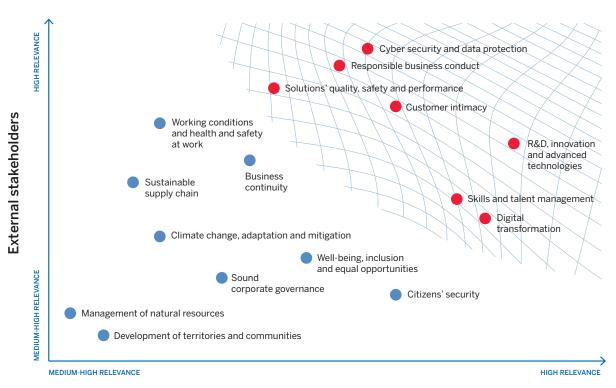
# \*\* TRANSPARENCY INTERNATIONAL INDEX

Leonardo has achieved the highest level in the Defence Companies Index on Anti-Corruption and Corporate Transparency (DCI) drawn up by Transparency International, joining A band, to which only two companies were admitted. Following analysis of the leading players in the sector worldwide, the non-governmental organisation Transparency International recognised and rewarded the measures implemented by Leonardo, from adoption of stricter anti-corruption policies to a significant increase in the level of transparency. The assessment is based solely on the analysis of public information accessible to all stakeholders, looking at 134 companies in the sector in 38 different countries.

# :: Priorities matrix

To identify strategic priorities (material issues), intelligence tools and big data analytics were used following a data-driven approach - involving external and internal stakeholders through surveys. The data-driven analysis adopted enhances understanding of

stakeholder priorities by leveraging state-of-the-art methodologies to analyse vast amounts of publicly available data. The issues identified will allow risks and opportunities to be assessed and monitored over time in a more effective, timely and continuous manner.



## Internal stakeholders

## : PRINCIPLES OF GOVERNANCE

Effective control of business risks, the utmost transparency towards the market and integrity of decision-making processes in the interest of all stakeholders are the pillars of Leonardo's corporate governance, oriented towards protecting and maximising the company's long-term value.

26%

of share capital held by shareholders who are signatories to the Principles for Responsible Investment (PRI) promoted by the United Nations 42%

women on the Board of Directors

Long-term **remuneration policy** for the CEO and top management is based on achievement of performance targets, also of a non-economic nature, linked to **ESG indicators**:

- **>** Reducing CO₂emissions
- Increased recruitment of women with STEM profiles

# : Measuring sustainability

Leonardo's Sustainability Plan covers the entire value chain: from research and technological innovation to operations and development of new solutions and new business models. Eight thematic areas (clusters) are identified in the Plan to accelerate the transition to a sustainable business model, in line with the objectives of the UN Agenda and the European Green Deal. Each cluster is structured into specific actions and projects, identified taking into account measurability, business and progress against the SDGs.

	الشمر		Clusters	Actions	SDGs
	R&D		Research and innovation	Implementation of Leonardo Labs as sustainability drivers in R&I	4 county 4 county 5 county 6 c
			Industrial and energy efficiency	<ul> <li>Optimisation of productivity by accelerating digitalisation</li> <li>Energy efficiency</li> </ul>	9 SECTION NOTION 11 SECTION 11 SE
	Operations		Environmental management and circular economy	<ul> <li>Decarbonisation</li> <li>Reduction of water withdrawals; reduction and recovery of waste</li> <li>Reduction of plastic and paper use</li> </ul>	
CHAIN		E W	Sustainable supply chain and circular economy	<ul> <li>Support for the sustainable development of SMEs</li> <li>Increased digitalisation of procurement processes</li> <li>Definition of measures to prevent ESG risks in the supply chain</li> </ul>	
VALUE CHAIN	Solutions and customer support		Earth observation and emergency management	Advanced solutions in space industry for agriculture and forestry, resilience and risk reduction, environmental protection and emergency response	2 7000 STATE S CONSTITUTE OF THE PARTY OF TH
	Soli	÷	Mobility solutions and security systems	<ul> <li>Solutions for transportation sector to reduce the environmental impact</li> <li>Solutions for surveillance</li> </ul>	14 unitation 15 miles  15 miles  15 miles  15 miles  15 miles
	npacts		Business integrity and human rights	<ul> <li>Trade control and governance</li> <li>Strengthening of assessment and control over human rights</li> <li>Launch of the whistleblowing platform</li> </ul>	16 PAGE, MISTER  BETTER  BETTE
	Social impacts	AAA	Social commitment and scientific citizenship	Improvement of gender equality within the Group     Development of cross-national STEM programmes	

# The circular economy model

# : OPTIMISE

- Reducing materials through advanced design systems.
- Applying the Product Life Cycle Management and Ecodesign approach.
- Using composite materials to reduce weight, consumption and impact.

Reduction in fuel consumption by 10-15% and in emissions by 20% with the use of carbon fibre for aerostructures of aircrafts and helicopters. About 60% less of waste by using Additive Manufacturing for the construction of primary composite parts of the tiltrotor.

# : SHARE AND DEMATERIALISE

- > Selling flight hours instead of products.
- Virtual product testing.
- Virtual training systems.

More than 28,770 tons of  $\mathrm{CO}_2$  avoided through the use of virtual training systems in 2020. Reduction in IT energy consumption thanks to the rationalisation and consolidation from two data centres to two target data centres, increasing reliability and security.

### : EXTEND USEFUL LIFE

- ) Optimising maintenance cycle.
- Replacing only components that reach end of life.
- Upgrading software to extend the life of hardware components.

Aircraft structures capable of maintaining a level of useful life greater than 20 years of operation.

## : RECYCLE/REUSE

- ) Using recyclable metal materials.
- > Regeneration of used components.
- Recycling of auxiliary materials, packaging, assembly platforms and metal equipment.
- > Buy-back of used helicopters.

More than 70% of aircraft and helicopters in circulation composed of recyclable metal parts. 52% of waste produced was recovered in 2020. Over 1,500 kg of ferrous material put back into use thanks to the disposal of 4,000 kg of WEEE (Waste of Electrical and Electronic Equipment) through a social impact project in 2020.

# :: Sustainability goals

Pillar	Scope	Objectives	Target year	Impacts
Governance	Promote a responsible business model	Issue of a Trade Compliance Guideline including Human Rights Impact Assessment (HRIA) and development of country risk assessment tools for Leonardo SpA	2021	Target 16.5, 16.6
		Extending Trade Compliance Directive to the Group	2022	<u>Y</u>
		Renewal/maintenance of the ISO 37001:2016 "Anti-Bribery Management System" certification standard	2023	
		Expanding the business compliance training to other types of third parties (distributors/resellers), making it a mandatory prerequisite for the completion of the engagement	2022	
		Training in whistleblowing	2021	
People	Attract and promote talent	More than 100 training hours per employee in the period 2018-2022	2022	Target 4.3, 4.4 Target 5.1, 5.5, 5.b
		Under 30s equal to at least 40% of total new hires	2022	5 GENGER 4 QUALITY
	Promote an inclusive	Women equal to at least 32% of total new hires	2022	
	environment	Women equal to 30% of total new hires in STEM areas	2025	
		20% female representation at management levels	2025	
Planet	Reduce energy consumption and	10% reduction in electricity consumption*	2025	Target 8.4 Target 9.4
	CO <sub>2</sub> emissions	4% reduction in Scope I + Scope II emissions (location-based)*	2025	Target 12.2, 12.5 Target 13.1, 13.3
		40% reduction in Scope I + Scope II emissions (market-based)**	2030	8 от при на при
	Reduce environmental impacts	10% reduction in water withdrawals*	2025	12 SESPONSBUE CONSUMPTION AND PRODUCTION
		10% reduction in the amount of waste produced*	2025	
Prosperity	Develop the supply chain	Implement supply chain development programmes and medium/long-termpartnerships, focused on SMEs, to improve business sustainability	2023	Target 8.2, 8.3 Target 9.4, 9.5 Target 12.2, 12.5 Target 13.1
		Manage more than 75% of the value of orders placed by Leonardo Divisions with digital collaboration platforms***	2022	8 DECENTI WORK AND PRODUCTION OF ANOTHER AND ANOTHER SERVICITURE
		Raise awareness of/deliver training on SDGs and supporting tools for reporting to more than 80% of key suppliers (over 500 suppliers)	2023	12 description 13 debut 12 description 15 debut 15 debut 16 debut 17 debut
		100% of LEAP2020 partners with set targets and plans on green energy, CO <sub>2</sub> emission reduction, waste recycling, water consumption	2023	
	Strengthen digitalisation	Increasing computing power by 40% per capita****	2025	
	and processing capacity	Increasing storage capacity by 40% per capita****	2025	

<sup>\*</sup> Calculated in relation to revenues. 2019 year baseline.

<sup>\*\*</sup> Reduction in absolute value. 2019 year baseline.

<sup>\*\*\*</sup> Includes recurring suppliers. Leonardo DRS is not included in the scope.

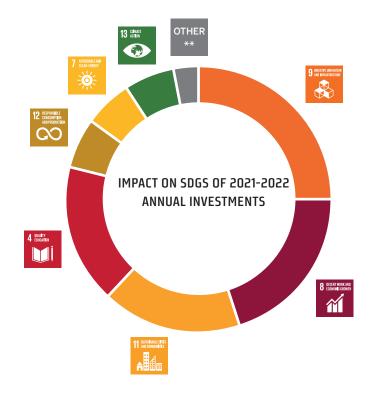
<sup>\*\*\*\*</sup> Calculated as the number of flops (floating point operations per second) and bytes in relation to employees in Italy. 2020 year baseline.

# :: 2017-2020 ESG performance

Areas	Performance in the period 2017-2020	Impacts
Attract and promote talent	) Over 6,400 people under 30 hired	
	> Employees under 30 from 8.2% to 10.3% of workforce (+1,455 employees under 30)	4 QUALITY EDUCATION
	<ul> <li>Over 3,200 training opportunities activated with the educational system</li> </ul>	5 GENDER
Promote an inclusive environment	) Over 3,400 women hired	S EQUALITY
	<ul> <li>Increased women managers from 15.1% to 17.3% of total managers and middle managers (+269 women managers among employees)</li> </ul>	8 DECENT WORK AND EDUNOVE GROWTH
Extend the adoption of certified environmental, health and safety management systems	<ul> <li>75% of employees work in sites with certified health and safety management system (56% in 2017)</li> </ul>	9 MOUSTRY, INNOVATION AND INFRASTRUCTURE
	<ul> <li>76% of employees work in sites with certified environmental management systems (66% in 2017)</li> </ul>	12 RESPONSIBLE CONSIMINATION
Reduce energy consumption and ${\rm CO_2}$ emissions	> 16% reduction in intensity of energy consumption	AND PRODUCTION
	<ul> <li>1% reduction in Scope I and II CO<sub>2</sub> emissions intensity (location-based)</li> </ul>	13 CLIMATE ACTION
Reduce environmental impacts	> 7% reduction in intensity of waste produced	
	› About 73,000 tons of waste recovered	
	> 23% reduction of intensity of water withdrawals	

# :: SDG-aligned investments

- Ver the 2021-2022 two-year period, Leonardo will invest an average of €600-700 million annually\*
- Leonardo is committed to keeping about 50% of its investments aligned with the SDGs
- The initiatives mainly impact SDG 9 "Enterprise, Innovation and Infrastructure", SDG 8 "Decent Work and Economic Growth", and SDG 11 "Sustainable Cities and Communities"



<sup>\*</sup>Includes gross capitalised R&D, Investment in tangible assets, equipment and other intangible assets

<sup>\*\*</sup>Includes SDG 6, SDG 14 and SDG 15  $\,$ 

For more information, see:

