Leonardo 2022

SUSTAINABILITY IN ACTION
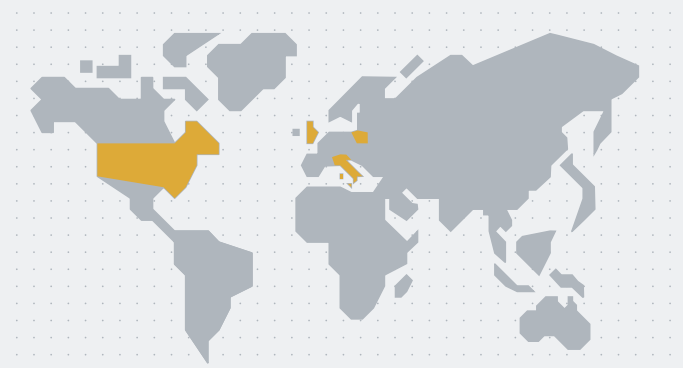
LEONARDO

INDEX

FACTS AND FIGURES*

Leonardo at a glance

€ 14.1 bil.
revenues

€ 35.5 bil.
backlog

€ 14.3 bil.
orders 2021

50,413
people

106
sites all over the word

150 countries
commercial presence

11,000
suppliers all over the word

>4,000
suppliers in Italy

DOMESTIC MARKETS

🇮🇹 Italy   🇺🇸 United States   🇬🇧 United Kingdom   🇵🇱 Poland

Commitment to environment and climate

-19%
CO_{2e} emissions in the last 3 years

>100,000
tons of CO_{2e} avoided in 2021 thanks to the partial replacement of SF_6

~117,200
tons of CO_2 avoided using virtual training systems from 2019

1/10
CO_{2e} emissions produced with one hour of simulated flight compared to one hour of real flight

-20%
of CO_{2e} emissions with the use of carbon fibre for aerostructures

~100,000
tons of CO_{2e} avoided in one year with Leonardo's Free Route ATM system in the Italian sky

≤80%
reduction of CO_2 emissions over the entire life cycle thanks to the use of SAFs with respect to traditional fuels

-6%
intensity of **energy consumption**

80%
of **electricity acquired** from **renewable sources**

>16,000 MWH
of energy yearly saved through **more than 12,000 LEDs installed** from 2014

-24%
intensity of **waste produced**

~52,500
tons of waste recovered from 2019

>70%
of aircraft and helicopters composed of recyclable metal parts

12
helicopter models that can operate on fuels with up to 50% of Sustainable Aviation Fuel

Sustainable finance

50%
of total sources of financing **linked to ESG** parameters

€ 600-700 mil.
yearly average of **investments** for 2021-2023

>50%
of investments in 2021 contributed **to achieving SDGs**

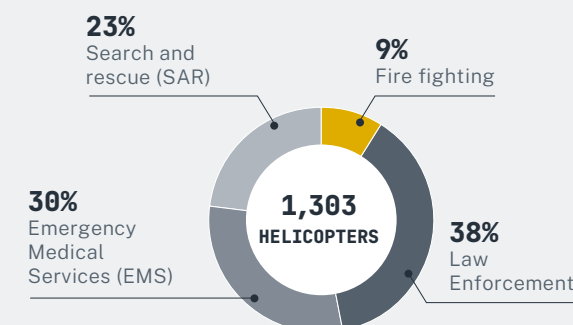## Solutions and technologies for sustainability

243
operators in 72 countries use Leonardo helicopters **for public order, search and rescue, and fire-fighting missions**

5,000
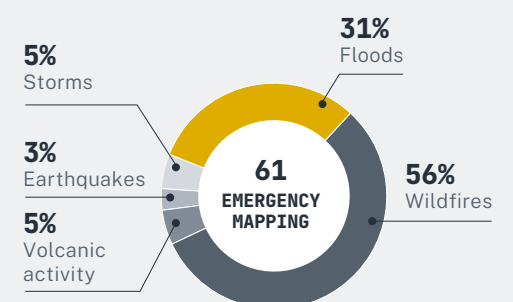**networks** protected by cyber security services in **130 countries**

61
emergency mapping for earthquakes, floods, fires and humanitarian crises in **30 countries**

35,400
fixed and mobile radios provided and 200 control rooms for secure communications for Police

LEONARDO HELICOPTERS BY TYPE OF MISSION

1,303 HELICOPTERS

- 23% Search and rescue (SAR)
- 9% Fire fighting
- 30% Emergency Medical Services (EMS)
- 38% Law Enforcement

SATELLITE SERVICES BY TYPE OF EVENT

61 EMERGENCY MAPPING

- 5% Storms
- 31% Floods
- 3% Earthquakes
- 56% Wildfires
- 5% Volcanic activity

Innovation

€ 1.8 bil.
spent on R&D and product engineering

3rd
place in Italy and 4th place amongst **European companies in the A&D sector** for R&D investments

11
Leonardo LABS in 6 Italian regions and 1 in the United States

4
joint laboratories in collaboration with third-party entities (Solvay and Istituto Italiano di Tecnologia)

>90
collaborations with universities and research centres in Italy and across the world

9,600
people dedicated to R&D work

62%
of employees hold a **STEM** qualification

200
researchers to be engaged by 2023

ESG awards

Global Compact LEAD, UN – the only company in the A&D sector-confirmed for the 2nd consecutive year

Dow Jones Sustainabilty Indices (DJSI), S&P Global –included for 12 years, achieving the highest score in the A&D sector for the 3rd year running, based on data from the Corporate Sustainability Assessment (CSA)

Defence Companies Index on Anti-Corruption and Corporate Transparency (DCI), Transparency International 2021 – the company was ranked in Band A

MIB ESG Index, Borsa Italiana (Euronext) –included in the first ESG index for Italian blue chips companies

CDP (formerly the Carbon Disclosure Project) – confirmed for the 2nd consecutive year in the CDP Climate A List

Bloomberg Gender Equality Index (GEI) 2022–included again for the 2nd year in a row
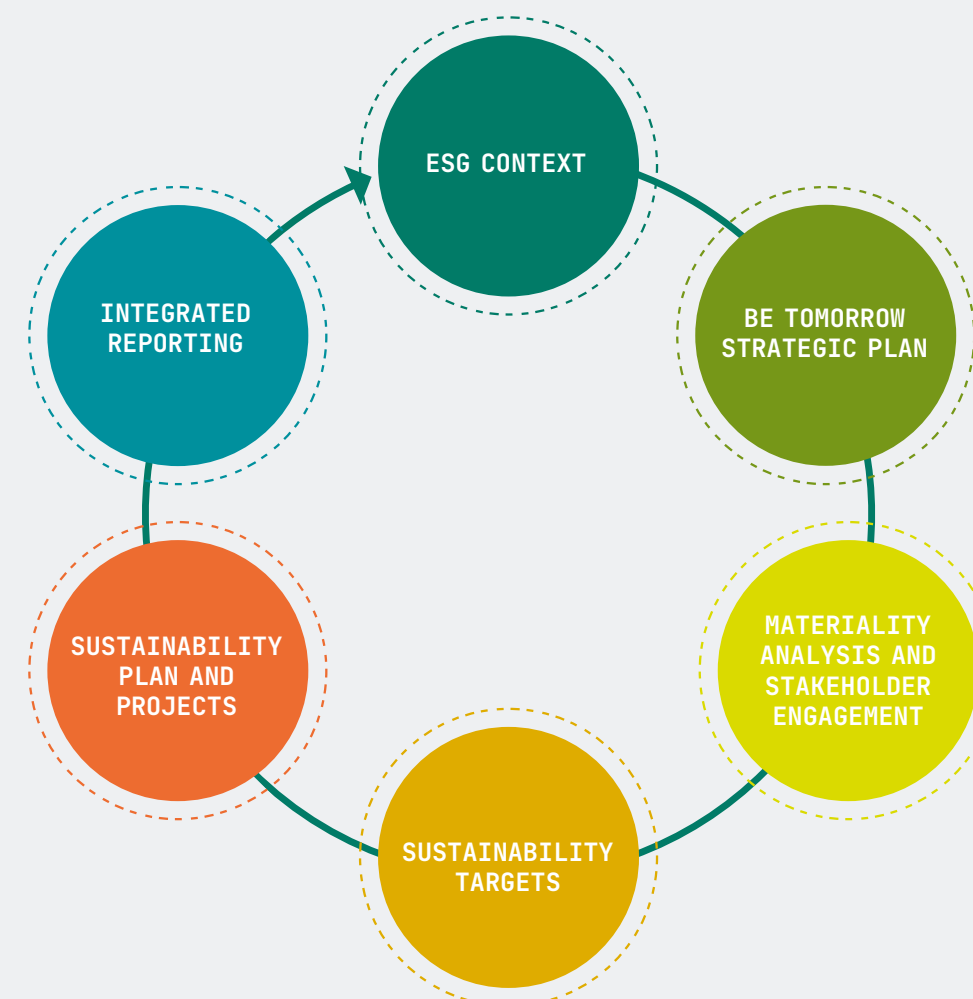
*Unless otherwise indicated, all data refers to 2021

SUSTAINABILITY IN ACTION

The latest, global, economic, geopolitical and pandemic-led changes are heightening the urgency of a **sustainable transition**. The efforts of institutions, civil society and businesses must converge towards common goals to protect the future of the planet and its inhabitants. **As its compass, Leonardo is being guided by the Sustainable Development Goals (SDGs) of the UN 2030 Agenda and the integration of the ESG (Environmental, Social, Governance) dimension into the business**. These same principles form the basis of the actions and metrics that Leonardo has devised to guide its own path of sustainable development, and are the cornerstone of the **Be Tomorrow – Leonardo 2030 Strategic Plan**.

Following careful **dialogue with key stakeholders**, Leonardo has drawn up its priorities, defined by a set of sustainability targets that are measurable and monitored constantly. This commitment is also implemented through Leonardo's **Sustainability Plan** projects. **Technological development, innovation and digitalisation drive Leonardo's sustainable transition and its supply chain**, in a transformation led by the skills of its human capital. At the same time, the **solutions and technologies** developed by the Company contribute to the protection and safeguarding of the Planet and its people.

Leonardo's sustainability process

- ESG CONTEXT
- BE TOMORROW STRATEGIC PLAN
- MATERIALITY ANALYSIS AND STAKEHOLDER ENGAGEMENT
- SUSTAINABILITY TARGETS
- SUSTAINABILITY PLAN AND PROJECTS
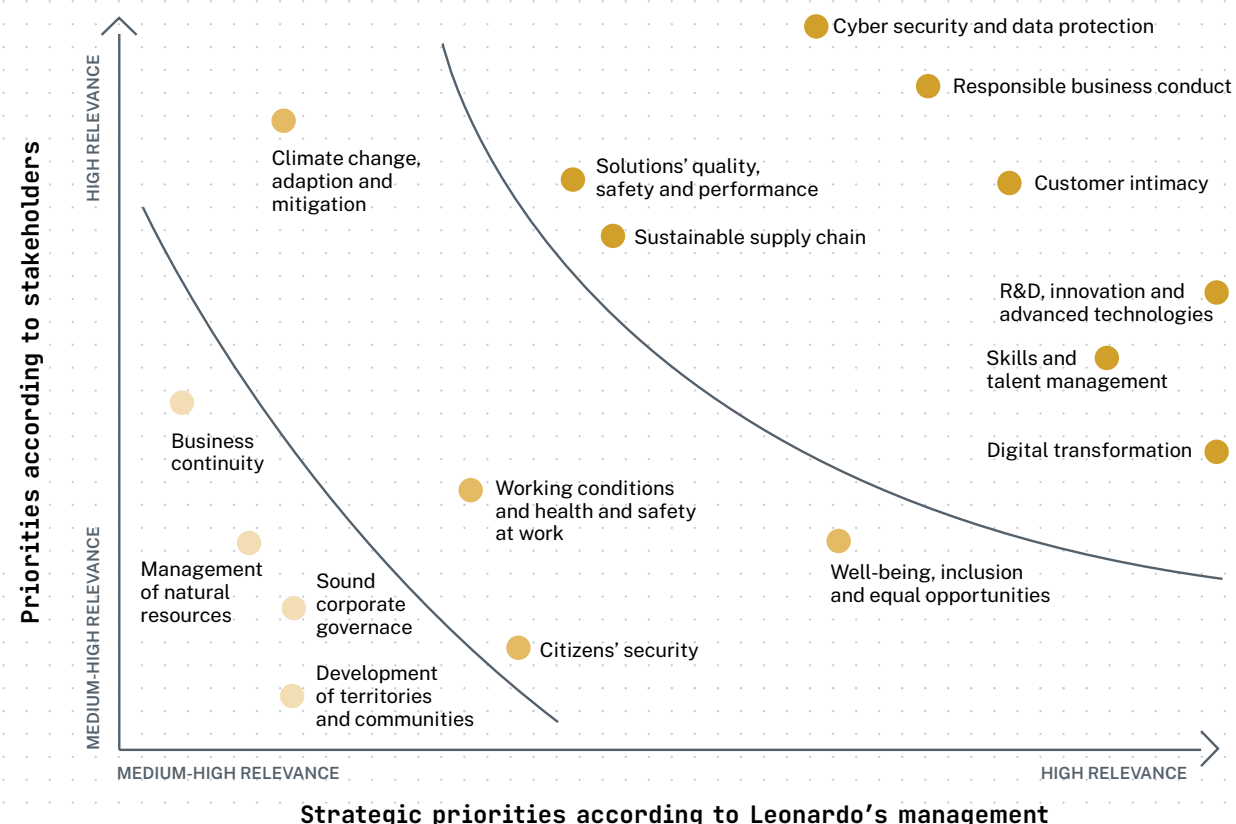- INTEGRATED REPORTING

MATERIALITY ANALYSIS

The materiality analysis is **a process for identifying and evaluating the strategic priorities for Leonardo and its stakeholders**. Based on a data-driven and participatory approach, it helps define the Strategic Plan and the Sustainability Plan, in line with the Group's operating model and sustainability policy.

The results of the latest analysis (2021) recognise Cybersecurity, data protection and Responsible business conduct as key materiality topics for Leonardo and its stakeholders. It has also identified differences in perception regarding Climate change, adaptation and mitigation (on which specific actions will be implemented).

Priorities according to stakeholders

- HIGH RELEVANCE
- MEDIUM-HIGH RELEVANCE

Cyber security and data protection

Responsible business conduct

Climate change, adaption and mitigation

Solutions' quality, safety and performance

Customer intimacy

Sustainable supply chain

R&D, innovation and advanced technologies

Skills and talent management

Business continuity

Digital transformation

Management of natural resources

Working conditions and health and safety at work

Sound corporate governance

Well-being, inclusion and equal opportunities

Citizens' security

Development of territories and communities

MEDIUM-HIGH RELEVANCE   HIGH RELEVANCE

Strategic priorities according to Leonardo's management

Data-driven analysis

1,877
national and international regulations analysed

21
companies in the sector used in the benchmark analysis

10,829
press articles and more than 450 million tweets analysed

134
stakeholders from 13 countries have responded to the online survey

SUSTAINABILITY TARGETS

Leonardo's sustainability targets underpin the long-term growth of the Company and its supply chain. Encompassing themes of **People, Planet, Prosperity and Governance**, the targets aim to:

› **Attract and promote talent, favouring an inclusive environment** (People): e.g. ≥40% of hires aged under 30 in 2022 and 30% of women with STEM backgrounds out of the total people hired in STEM areas by 2025.

› **Reduce energy consumption, CO_2 emissions and environmental impact** (Planet): e.g. -10% of electricity consumption by 2025; 40% reduction in Scope1 and Scope 2 emissions by 2030; and 10% reduction in waste production and water withdrawals by 2025.

› **Developing the supply chain, reinforcing digitalisation** (Prosperity): e.g. 100% of LEAP partners with defined environmental targets by 2023 and a 40% increase in computing power and storage capacity per capita, by 2025.

› **Promoting a responsible business model** (Governance): e.g. inclusion of the Human Right Impact Assessment in the Trade Compliance Guidelines.

SUSTAINABILITY TARGETS

PILLAR	SCOPE	OBJECTIVES	TARGET YEAR	SDGs
PEOPLE	Attract and promote talent	More than 100 training hours per employee in the 2018-2022 period	2022	4 QUALITY EDUCATION / 5 GENDER EQUALITY / 8 DECENT WORK AND ECONOMIC GROWTH
PEOPLE	Attract and promote talent	Under 30 equal to at least 40% of total new hires	2022	
PEOPLE	Promote an inclusive environment	Women equal to at least 32% of total new hires[1]	2022-2025	
PEOPLE	Promote an inclusive environment	Women equal to 30% of total new hires in STEM areas	2025	
PEOPLE	Promote an inclusive environment	20% female representation at management levels	2025	
PEOPLE	Promote an inclusive environment	Women equal to 20% of total employees	2025	
PEOPLE	Promote an inclusive environment	27% of women in succession plans	2025	
PLANET	Reduce energy consumption and CO_2 emissions	10% reduction in consumption of electricity withdrawn from external grid[2]	2025	8 DECENT WORK AND ECONOMIC GROWTH / 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE / 12 RESPONSIBLE CONSUMPTION AND PRODUCTION / 13 CLIMATE ACTION
PLANET	Reduce energy consumption and CO_2 emissions	4% reduction in Scope 1 + Scope 2 (location-based) emissions[2]	2025	
PLANET	Reduce energy consumption and CO_2 emissions	40% reduction in Scope 1 + Scope 2 (market-based) emissions[3]	2030	
PLANET	Reduce environmental impacts	10% reduction in water withdrawals[2]	2025	
PLANET	Reduce environmental impacts	10% reduction in the amount of waste produced[2]	2025	
PROSPERITY	Develop the supply chain	Implementing supply chain development programmes and medium/long-term partnerships, focused on SMEs, to improve business sustainability	2023	4 QUALITY EDUCATION / 8 DECENT WORK AND ECONOMIC GROWTH / 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE / 12 RESPONSIBLE CONSUMPTION AND PRODUCTION / 13 CLIMATE ACTION
PROSPERITY	Develop the supply chain	Managing more than 75% of the value of orders placed by Leonardo divisions with digital collaboration platforms[4]	2022	
PROSPERITY	Develop the supply chain	Raising awareness of/delivering training on SDGs and supporting tools for reporting to more than 80% of key suppliers (over 500 suppliers)	2023	
PROSPERITY	Develop the supply chain	100% of LEAP partners with set targets and plans on green energy, CO_2 emission reduction, waste recycling, water consumption	2023	
PROSPERITY	Strengthen digitisation and processing capability	Increasing computing power by 40% per capita[5]	2025	
PROSPERITY	Strengthen digitisation and processing capability	Increasing storage capacity by 40% per capita[5]	2025	
GOVERNANCE	Promote a responsible business model	Issuance of a Trade Compliance Guideline including Human Rights Impact Assessment (HRIA) and development of country risk assessment tools for Leonardo SpA	2021	16 PEACE, JUSTICE AND STRONG INSTITUTIONS
GOVERNANCE	Promote a responsible business model	Extending Trade Compliance Directive to the Group	2022	
GOVERNANCE	Promote a responsible business model	Renewal/maintenance of the international ISO 37001:2016 "Anti-Bribery Management System" certification	2023	
GOVERNANCE	Promote a responsible business model	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	

(1) Compared to the target published in 2020, the target year has been updated for the objective relating to 32% of women out of total hires in response to the characteristics of the AD&S sector. In particular, an intermediate objective to 2022 has been set out on new hires, excluding blue collar workers, and the target on total new hires has been postponed to 2025.
(2) Calculated in relation to revenues. 2019 year baseline.
(3) Reduction in absolute value. 2019 year baseline.
(4) Includes recurring suppliers. Leonardo DRS is not included in the scope.
(5) Calculated as the number of flops and bytes in relation to employees in Italy. 2020 year baseline.

SUSTAINABILITY PLAN

Leonardo's Sustainability Plan aims to **accelerate the sustainable transition**, by traslating its sustainability vision and targets into concrete actions, projects and practices that are measurable in the short, medium and long term through a data-driven approach. **Technological innovation and digitalisation** are the main drivers of the plan and are key to adressing the challenges of sustainability at a global level.

Leonardo's focus spans the **entire value chain**, from research and development to operations. It also extends to the solutions offered to customers to increase their sustainability while magnifying their social impact. The plan is divided into **eight areas** which include, among others, the supply chain, mobility solutions and scientific citizenship. The plan is built around **six core SDGs** in particular: developing skills (SDG 4); creating qualified work and growth for partners (SDG 8); supporting innovation and digital transformation (SDG 9); creating solutions promoting the security of people, infrastructure and communities (SDG 11); fighting climate change (SDG 13); and integrating sustainable production models into business activities (SDG 12).

It also covers to a broader range of SDGs, such as: reducing food waste (SDG 2); developing solutions to fight health emergencies (SDG 3); promoting a culture that supports gender equality (SDG 5); increasing energy efficiency and the use of energy from renewable sources (SDG7); mitigating environmental impacts on oceans and supporting biodiversity (SDG 14, 15); and progressively reinforcing a responsible approach to business and human rights (SDG 16).

Leonardo's Sustainability Plan is being realised through the development of **100 projects** – 48 of which are "tactical", with a short-term impact, and 52 of which are "transformative", with a medium-to-long-term impact.

Integration into Leonardo value chain

- Energy
  and industrial
  efficiency

- Environmental
  management and
  circular economy

Research & Innovation •

- Sustainable supply chain

RESEARCH & DEVELOPMENT

OPERATIONS

SOCIAL IMPACTS

SOLUTIONS AND
CUSTOMER SUPPORT

**Business integrity
and human rights** •

- Earth observation and
  emergency management

**Social commitment
and scientific
citizenship** •

- Mobility solutions
  and security systems

IMPACT ON SDGs

CORE

| 4 QUALITY EDUCATION | 8 DECENT WORK AND ECONOMIC GROWTH | 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE | 11 SUSTAINABLE CITIES AND COMMUNITIES | 12 RESPONSIBLE CONSUMPTION AND PRODUCTION | 13 CLIMATE ACTION |

OTHERS

| 2 ZERO HUNGER | 3 GOOD HEALTH AND WELL-BEING | 5 GENDER EQUALITY | 7 AFFORDABLE AND CLEAN ENERGY | 14 LIFE BELOW WATER | 15 LIFE ON LAND | 16 PEACE, JUSTICE AND STRONG INSTITUTIONS |

Main actions of the Sustainability Plan

PROJECTS

Decarbonisation
› Identifying and implementing emission reduction
  initiatives along the value chain.
› Improving energy efficiency initiatives.

Full Potential Lighting

Energy Self-Production
Programme

Substitution of SF_6 gas

District Heating

Reduce environmental impact
and improve circularity
› Reduce, reuse, and recycle waste; incentivise plastic
  and paperless projects.
› Reduce water withdrawals and improve water efficiency.
› Improve circularity.

Digital Warehouse

Water Risk Assessment

Joint Lab LDO-Solvay

Sustainable Supply Chain
› Support the sustainable development of the supply chain.
› Increase the digitalisation of the Procurement.
› Define measures to prevent ESG risks along
  the supply chain.

LEAP

LEADS

Sustainability Solutions
› Develop solutions for agriculture, forestry,
  environmental protection.
› Develop low-emission solutions for the transport sector.
› Develop solutions for Industry 4.0.

Earth Observation

Smart Mobility

Secure Connected Factory

Business Integrity
› Improve trade control and governance in commercial
  transactions.
› Strengthen assessment and control measures over
  human rights issues.

Trade Compliance
Guidelines and Directive

Diversity & Inclusion, Education & STEM
› Foster gender equality.
› Improve sustainability culture.
› Strengthening STEM programmes.

Succession plans,
Salary Review

Training and engagement

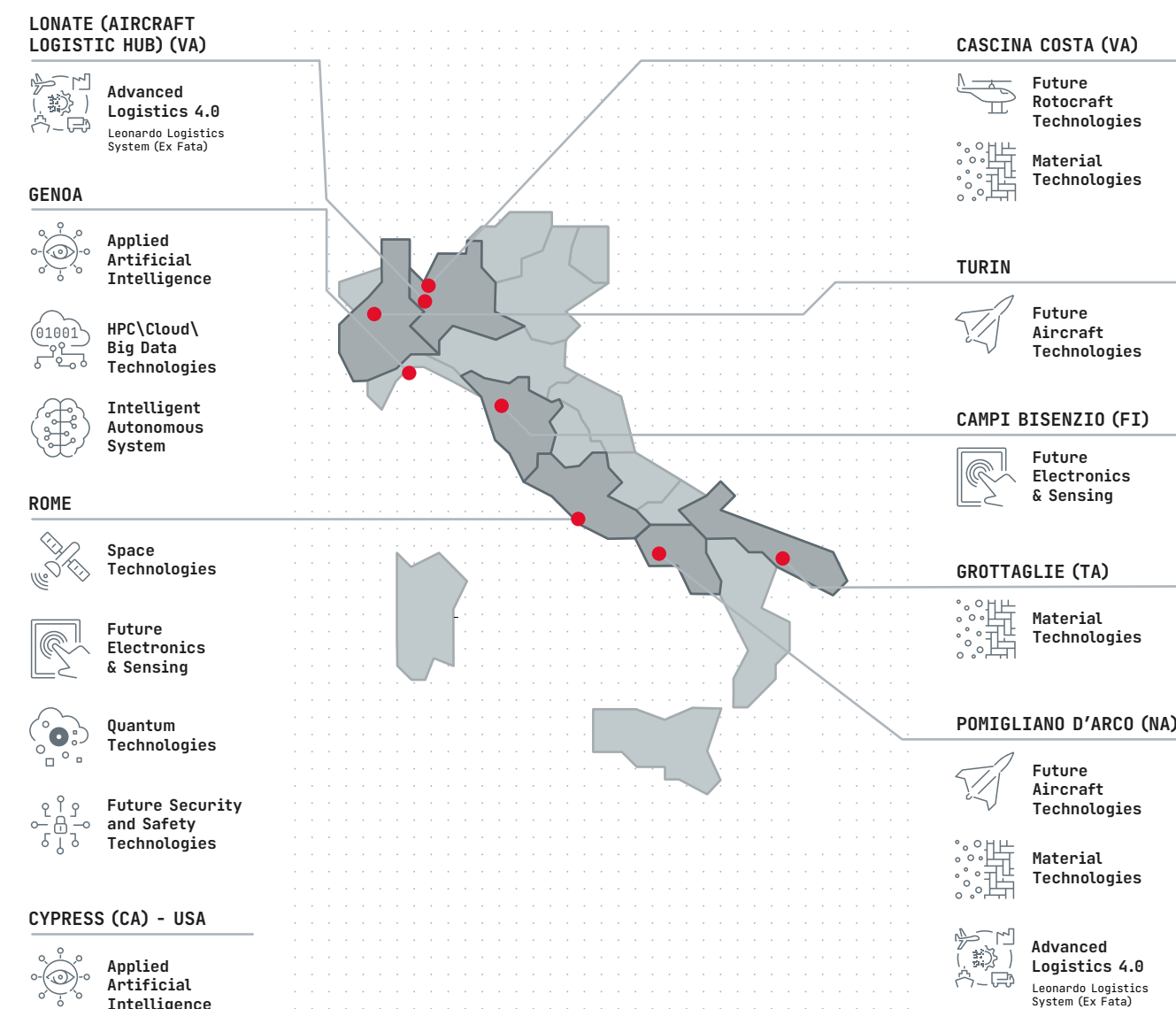STEMLab, Young Cyber
and Security Academy

INNOVATION, DIGITALISATION AND SUSTAINABILITY

Digitalisation, combined with new infrastructures for R&D and supercomputing make a decisive contribution to the acceleration of Leonardo's technological innovation towards the advancement of the UN 2030 Agenda SDGs.

LEONARDO LABS

The Labs act as **technological incubators for the research and development of cutting-edge programmes** in specific technological areas. They provide an ecosystem within which young researchers can cooperate with external research centres, universities, polytechnics, companies and start-ups around the world.
These Labs make significant contributions to sustainability: from the **electrification of helicopters and aircraft** to the **innovation of advanced materials and industrial processes**, as well as the **analysis of satellite observation data**.

LONATE (AIRCRAFT LOGISTIC HUB) (VA)
Advanced Logistics 4.0
Leonardo Logistics System (Ex Fata)

GENOA
Applied Artificial Intelligence
HPC\Cloud\Big Data Technologies
Intelligent Autonomous System

ROME
Space Technologies
Future Electronics & Sensing
Quantum Technologies
Future Security and Safety Technologies

CYPRESS (CA) - USA
Applied Artificial Intelligence

CASCINA COSTA (VA)
Future Rotocraft Technologies
Material Technologies

TURIN
Future Aircraft Technologies

CAMPI BISENZIO (FI)
Future Electronics & Sensing

GROTTAGLIE (TA)
Material Technologies

POMIGLIANO D'ARCO (NA)
Future Aircraft Technologies
Material Technologies
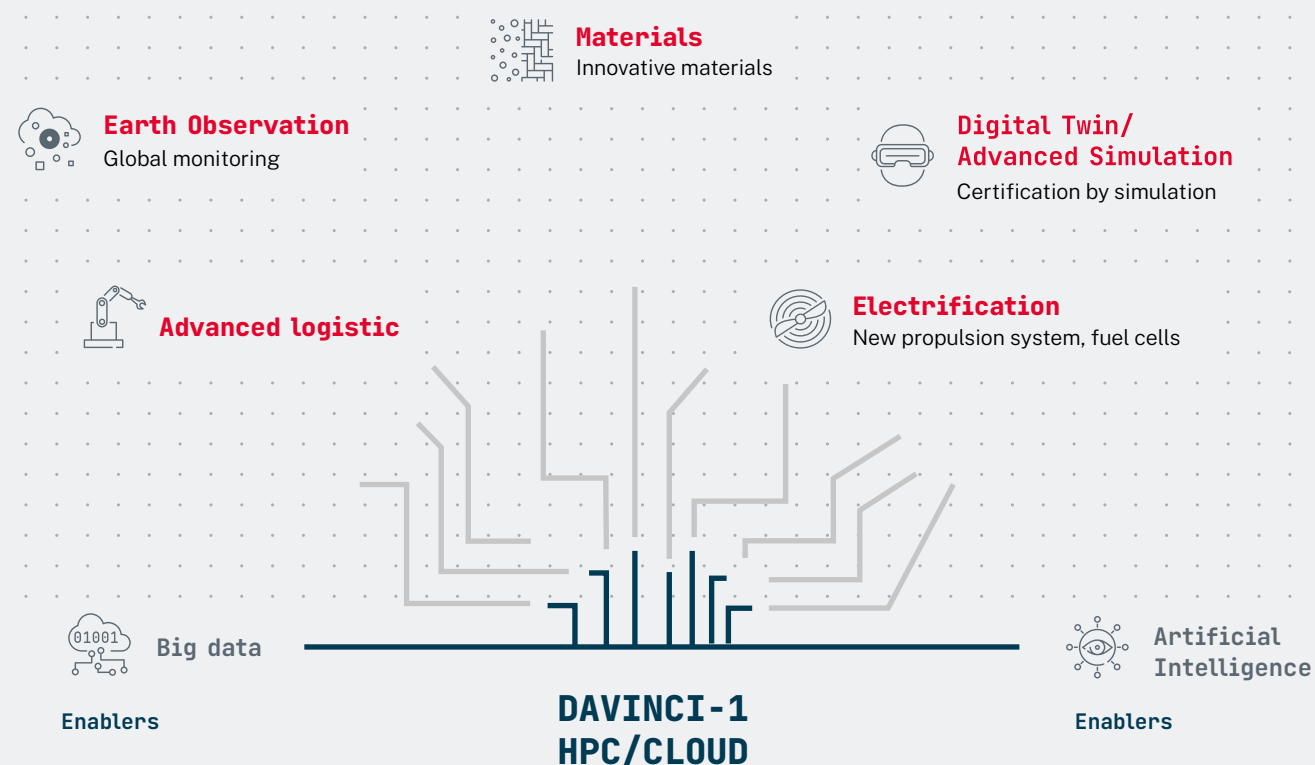Advanced Logistics 4.0
Leonardo Logistics System (Ex Fata)

DAVINCI-1

The supercomputer is Leonardo's answer to the technological transformation of industry towards digitalisation. Its architecture **offers the capacity to combine the cloud with supercomputing** in an integrated platform (cloud computing) that provides both flexibility and computational power. This supports the rapid development of advanced algorithms to facilitate Deep Learning and Artificial Intelligence, as well as the customisation of technological platforms (including aircraft, helicopters, satellites and monitoring and control systems). Supercomputer technology is also able to achieve highly accurate data analysis and the rapid generation of big data.

davinci-1 is the backbone infrastructure of the Leonardo Labs' network which enables research into disruptive technologies capable of generating sustainable solutions.

THE VALUE OF DIGITALISATION

By employing new functionalities, digitalisation - the engine for Leonardo's technological growth - generates significant sustainability benefits. A concrete example is Digital Twinning: **a virtual copy of a product, process or system** that models its behaviour over time by integrating different sources of data and information. Using a virtual model makes it possible to intervene at all stages of a product's lifecycle - from design and development to production and testing up to its use and maintenance. Digital Twinning offers clear advantages in terms of time, cost and **reduced emissions**.

In the helicopter sector, for example, the simulation makes it possible to significantly reduce, or even eliminate, the flight hours required to certify platforms and/or subsystems, with a reduction of CO_2 emissions of around 20%. Moreover, Leonardo contributes to Destination Earth, an ambitious EU project that aims to create a digital twin of the Earth in the form of a mathematical model, simulating the planet's atmosphere and state of health. This project will make it possible to monitor and predict climate changes, with a far greater level of accuracy.

Materials
Innovative materials

Earth Observation
Global monitoring

**Digital Twin/
Advanced Simulation**
Certification by simulation

Advanced logistic

Electrification
New propulsion system, fuel cells

Big data

**Artificial
Intelligence**

Enablers

Enablers

**DAVINCI-1
HPC/CLOUD**

COMPUTING AND STORAGE CAPABILITIES

› **Amongst the world's first supercomputers** in AD&S.

› Total power **over 5PFlops** (5 million billion floating point operations per second).

› **200 servers installed** at Torre Fiumara, Genoa.

› **20 million gigabytes** of memory.

› Products and solutions **designed to save energy and materials**.

DECARBONISATION

Technological development and digitalisation are key factors to reduce **emissions from operations** and implement new products and services, accelerating the decarbonisation of suppliers and the wider supply chain. This process is reinforced by the Leonardo Labs' research work performed in the areas of Digital Twinning, materials, electrification and logistics. In addition, Leonardo participates in European research programmes - such as Clean Sky 2, SESAR 2020 and their 'successors' Clean Aviation and SESAR 3 - and collaborates with suppliers, partners and institutions. Leonardo's approach is in line with the **targets of Destination 2050**, the principal industry initiative in Europe defining the roadmap for achieving zero emissions from air transport by 2050, for airlines, airports and aerospace companies.

REDUCING EMISSIONS IN OPERATIONS

As a major industrial and manufacturing player, Leonardo invests in various initiatives focused on decarbonisation and energy consumption reduction. Regarding the latter, one crucial activity involves an energy self-production programme that will enable the Group to reduce its energy dependency and avoid around 5,000 tonnes of CO_2 emissions from 2025 onwards. The Company is also implementing a full-potential LED lighting programme, which will save 7,400 tonnes of CO_2 annually by 2025.

As for the streamlining and digitalisation of production processes, **Leonardo aims to minimise its production footprint (Scope I and II)** through various initiatives, including the substitution of SF_6 gas – an initiative that cuts atmospheric emissions of CO_2 by more than 100k tonnes in 2021 - and the development of innovative solutions. For example, **Digital Twinning is helping Leonardo to redesign its processes and revise the design and production phases of its products and services**. The focus on decarbonisation is intensifying in all of the Group's operational regions, particularly in **the UK** where **a specific decarbonisation plan has already been made public**.
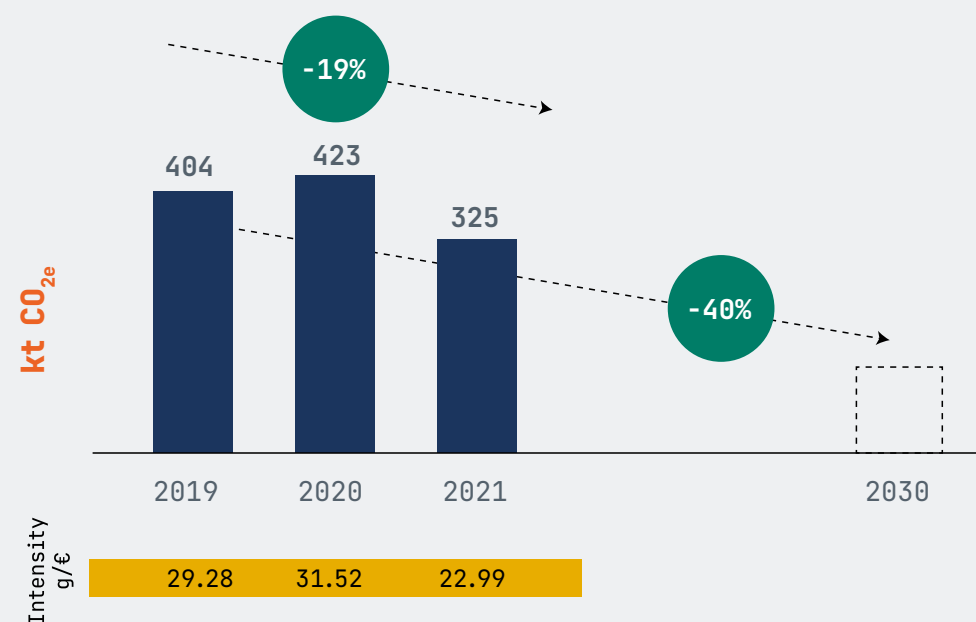
Innovative solutions for cutting emissions by 2030

EMISSIONS of CO_2, SCOPE 1 and 2*
*marked-based

REDUCING EMISSIONS IN THE SUPPLY CHAIN

Decarbonisation must extend across Leonardo's whole supply chain. The Company has set up a **Supply Chain Sustainability Manifesto** focused on: industrial efficiency, action for the Planet, green energy, ecodesign and the circular economy.

Leonardo has conceived a set of **specific awareness, training and support programmes for suppliers**, to accompany them in the preparation of their sustainability planning and reporting. It aims to promote a proactive working culture across the supply chain to accelerate decarbonisation. This training is centred around three lines of action:

› **Dedicated workshops** , with the involvement of experts and industrial market leaders in the area of green solutions;

› **Managerial training programmes for suppliers,** provided free of charge through the use of cross-industry funds and/or public funding;

› **Video courses and toolkits** for suppliers to develop a sustainability plan and introduce a non-financial reporting.

REDUCING EMISSIONS IN THE AERONAUTICS AND HELICOPTERS BUSINESS

Leonardo's approach to decarbonisation applies to innovation and the development of products in all areas of operations, particularly in fixed-wing and rotary-wing platforms. The main results obtained so far are:

Virtualisation and digitisation
› In 2021, 33,700 training hours using flight simulators.

› Approximately 117,000 tons of CO_{2e} emissions avoided using virtual training systems as from 2019.

› Air traffic control: 100,000 tons of CO_{2e} emissions prevented in 2021 through the use of Leonardo's Free Route ATM system in the skies over Italy.

New materials
› -20% CO_2 emissions through the use of carbon fibre for aerostructures (2021).

› Introduction of thermoplastic materials reducing aircraft weight and therefore fuel consumption.

Evolution of aircraft and new propulsion tools
› Study of electric or hybrid aircraft.

› Adoption of SAF (Sustainable Alternative Fuel): up to 80% less CO_2 emissions over the entire life cycle compared to conventional fuels.

› 12 Leonardo helicopter models able to run on fuels containing up to 50% SAF.

SF$_6$ REPLACEMENT
Over 100,000 tonnes of CO_{2e} saved by replacing climate altering SF_6 gas

FULL POTENTIAL LIGHTING PROGRAMME
Approx. 6,000 tonnes of CO_2 emissions prevented annually, since 2014, through the use of LED lighting. An additional 7,400 tonnes of CO_2 emissions will be saved annually by 2025 (vs 2019)

ENERGY SELF-PRODUCTION PROGRAMME
About. 5,000 tonnes of CO_2 emissions avoided per year starting from 2025, due to increasing renewables and reducing energy consumption from the external grid

DISTRICT HEATING
For Turin, Brescia, and Genoa sites and the Świdnik plant in Poland

Under the forward-looking Clean Sky 2 Programme, Leonardo is developing a new, more eco-efficient, next-generation commercial tiltrotor aircraft: the **Next Generation Civil Tiltrotor (NGCTR)**. This aircraft couples the speed, the radius of action, and the altitude of a turboprop fixed-wing aircraft with the vertical take-off/landing and hovering capabilities of a helicopter. **The aim is to cut CO_2 emissions by up to 50%, slash acoustic emissions by 30% during take-off, and by up to 75% during the flyover**, compared to the average noise levels of rotary-wing aircraft currently on the market. Under the programme, Leonardo is advancing eco-design techniques for the development of **NGCTR** specific subsystems. Life Cycle Assessment (LCA) models have been developed to quantify the environmental benefits obtained from the design of transmission components, using additive manufacturing and wing structures built with composite materials.

REPLACEMENT OF CLIMATE-ALTERING GASES: A SUCCESS STORY

In order to **reduce its CO_{2e} emissions**, Leonardo has updated its manufacturing processes related to casting magnesium alloys by partially replacing the use of the inert gas SF_6 with the R134a gas (GWP 1,300 vs. GWP 23,500 of SF_6),which has a lower level of Global Warming Potential (GWP). As a result, in 2021, **direct emissions of CO_{2e} were cut by more than 100,000 tonnes through the partial replacement of SF_6 with R134a**. In 2021, **direct emissions of CO_{2e} were decreased by more than 100,000 tonnes through the partial replacement of SF_6 with R134a**.

CIRCULAR ECONOMY

The transition to a circular economic model that can reduce the use of raw materials and environmental impacts is a key cornerstone of **Leonardo's Sustainability Plan**. This transition is implemented through a transformative approach across the entire value chain, driven by technology and innovation.

Leonardo's circularity strategy focuses on four interconnected elements:

› **optimising the use and choice of materials starting from the design stage,** for example through ecodesign;

› **using digital platforms** to dematerialise and virtualise activities and solutions offered to customers;

› **extending the lifetime of products** through the use of forecasting models for the optimisation of maintenance cycles;

› **promoting the recycling and reuse of materials** to cut levels of waste production by 10% by 2025.

By creating a circular ecosystem, Leonardo promotes initiatives that help to strengthen the Company's long-term competitiveness and links with its supply chain, with a positive impact on their economic, social and environmental performance.

Amazon River. Landsat-8 2021 © USGS

Circular economy model

KEY LEONARDO INITIATIVES RELATING TO CIRCULAR ECONOMY

OPTIMISE

Reducing materials through advanced design systems

Applying the Product Life Cycle Management and Ecodesign approach

Using innovative materials to reduce weight, consumption and impact

Studying new materials to promote reuse and limit disposal

Reducing fuel consumption by 10-15% and emissions by 20% thanks to the use of carbon fibre for aircraft and helicopters aerostructures.

12 Leonardo helicopter models that can operate on fuels with up to 50% SAF (Sustainable Aviation Fuel) made from residues and waste such as cooking oil.

SHARE AND DEMATERIALISE

Sale of helicopter's flight hours instead of the product

Virtual product testing

Virtual training systems

Removal of paper in production processes

~41,450 tonnes of CO_2 avoided through the use of virtual training systems.

From 50 data centres to **two new generation computing hubs**, virtualising services offered on the cloud and optimising performance, resulted in energy **savings of ~20%.**

EXTEND LIFETIME

Optimising maintenance cycle

Implementing predictive maintenance of helicopters

Replacing only those components that reach end of life

Upgrading software to extend the life of hardware components

Buy-back of pre-owned helicopters

>70% of aircraft and helicopters in circulation manufactured with recyclable metal parts.

Aircraft structures **with a lifetime of > 20 years** of operation.

RECYCLE / REUSE

Regenerating used components

Employing recyclable materials

Recycling and reusing auxiliary materials, packaging, assembly platforms and metal equipment

Recycling of composite materials (such as carboresins)

1.3 tonnes of WEEE (Waste from Electrical and Electronic Equipment) material recycled (10.2 tonnes since 2019) from obsolete servers in data centres.

51% of produced waste recovered in 2021.

DIGITAL TWINNING AND ADDITIVE MANUFACTURING

Leonardo sees digitisation as a primary factor enabling the transition to a circular model. The employment of **Digital Twinning** reduces the use of resources in the prototyping, testing and training of developed products, as well as rethinking production cycles. Consequently, additive manufacturing **lower production process waste**, while predictive maintenance **extends product life**.

MATERIALS RESEARCH

The commitment to a circular model also ties in with the Company's ongoing research and study of new materials to promote their reuse and limit their disposal. In **partnership with Solvay** - a Belgian company operating in the chemical sector - Leonardo has set up a **Joint Lab** for the development of new composite materials and production processes, that are fundamental to the future of the aerospace industry.
Under this partnership, activities are being developed to implement the **circularity of aeronautical composite materials** and the testing of engineered materials. Thermoplastic matrix composites are easily recyclable, improve product performance, extend their lifespan and increase the efficiency of the production line, while **reducing environmental impacts**.

COMPOSITE RECYCLING

Leonardo is developing a new process for recycling carbon fibre a material widely used in aeronautics that is hard to source because of its chemical and physical properties. This is thanks to Leonardo's strong relationship with the supply chain, and the contribution of the technological partners and international associations.
The **New Materials and Circular Economy Accelerator** is a think tank launched by Leonardo with **CSR Europe** and other leading international companies, associations and universities. It was established to develop a **new framework for the circularity of composite materials**. The think tank reflects the collaborative approach that forms the basis of Leonardo's circular model.

STRATEGIC PARTNERSHIPS

Leonardo's approach to circularity **takes into account the entire supply chain** through partnerships with other companies, customers and suppliers, with the ultimate goal of safeguarding the Earth's resources.
For example, Leonardo has set up a **strategic partnership with Enel X** aimed at **ensuring the efficient use of energy all over Italy**. Adopting a 'demand-response' logic, the energy that is not absorbed by Leonardo's production sites will be fed – on demand - into the national electricity grid.

"SOCIAL" CIRCULARITY

The recovery of surplus food from the Group's main Italian **factories for non-profit organisations** is an example of the Company's commitment to developing circular models for the benefit of local communities. Through the **Responsible Canteens Programme**, conducted together with the Banco Alimentare Onlus Foundation and canteen service providers, about 114,000 food servings were collected in Leonardo's canteens in 2021, along with bakery products, fruit and vegetables, worth a total of around EUR 230,000 (about EUR 3 million since the programme started in 2013). Then, in 2021, the **agreement with the Banco Alimentare Onlus Foundation was extended to all 37 Group canteens** in Italy. Furthermore, Leonardo supported the Banco Alimentare Foundation by promoting the 'National Food Drive', which, in 2021, like the year before, was transferred online, allowing purchases to be made online or at participating supermarkets.

TECHNOLOGICAL SOLUTIONS FOR SUSTAINABILITY

Leonardo's technological solutions – stemming from its research and development as well as from international partnerships and collaborations - **provide services such as observation and monitoring for the protection of the Earth and its resources**. These technologies operate in an integrated, synergistic manner, with a precision that can be minute, providing essential data on the Earth's surface.

EARTH'S OBSERVATION AND PROTECTION TECHNOLOGIES

Leonardo's satellite technologies and services - developed through Telespazio and Thales Alenia Space*, under major European programmes such as Copernicus[1] or the COSMO-SkyMed constellation[2] - can detect t**he use and status of natural resources to optimise their management, as well as their related waste. Moreover, these technologies make it possible to monitor climate and environment changes, as well as critical infrastructures**. Leonardo's solutions make use of advanced Artificial Intelligence (AI) and Big Data analysis, combine and enhance information coming from heterogeneous sources: the data from outside the Earth's atmosphere supplied by satellites, with the audio, video and IoT sensors' network ground-based.
For example, territorial monitoring that takes advantage of satellite radar interferometry (InSAR = Synthetic Aperture Radar - SAR) allows **high precision analysis**, measuring minute movements and changes of land and infrastructure.

* Telespazio (Leonardo 67%, Thales 33%) and Thales Alenia Space (Thales 67%, Leonardo 33%).
[1] Earth observation programme, developed by the EU in collaboration with the European Space Agency (ESA), monitoring the planet and its environment to the benefit of citizens.
[2] The Earth observation satellite system of the Italian Space Agency (ASI) and Italy's Defence Ministry, is equipped with synthetic aperture radar sensors, that ensure the global coverage of the planet under all weather conditions.
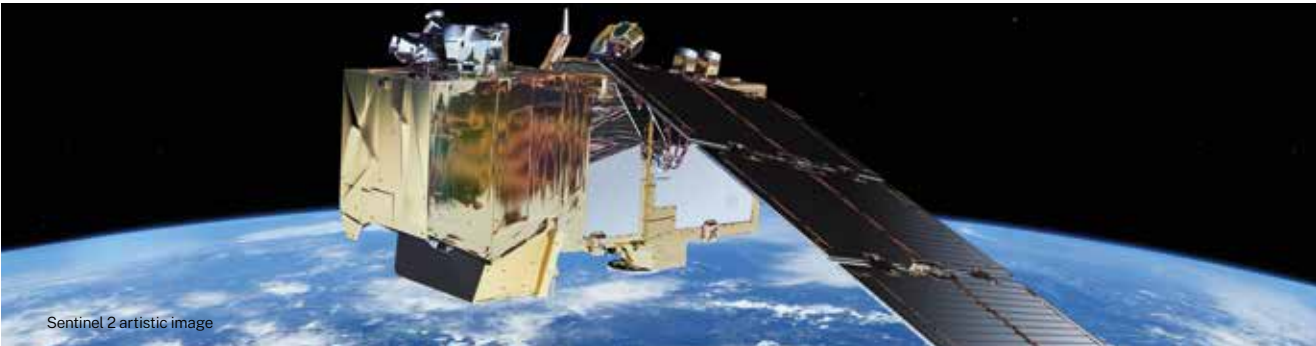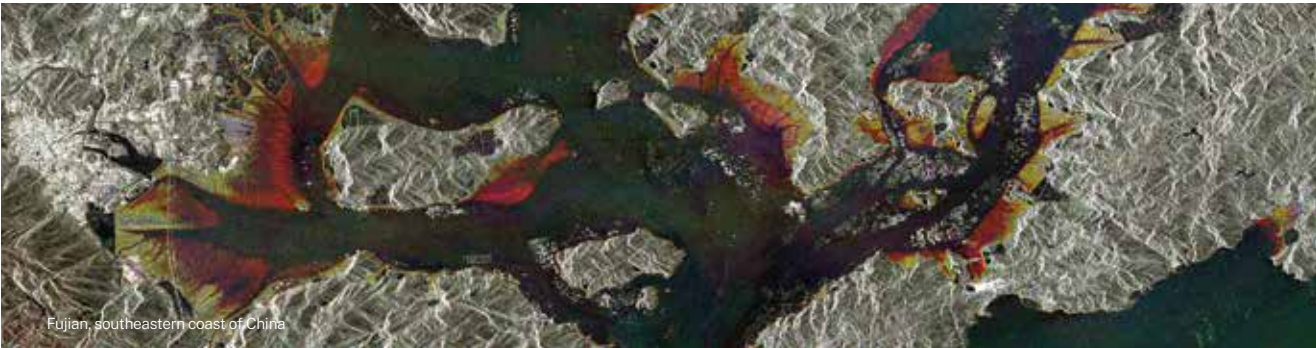
PRISMA MISSION

PRISMA is amongst Leonardo's most important environmental monitoring solutions. **PRISMA** is the Italian Space Agency's hyperspectral mission to map the Earth's surface to manage environmental risks. Leonardo's hyperspectral instrument was created in 2019. It operates in more than 200 bands of both the visible and infrared short wave light spectrums, at 27,000 km per hour. PRISMA analyses the chemical and physical composition of the areas observed, identifying even the slightest signal of fragility and supplying valuable data to monitor the health of the planet, to preserve its resources, and promote a concrete sustainable transition. PRISMA acquires data to **monitor the Earth's delicate ecosystem, to check the transparency of waters, the health of crops, the risk of drought, biodiversity loss, fire, atmospheric pollution, and natural disasters such as volcanic eruptions, landslides and floods**.

Danube-Black Sea Canal, Romania. COSMO-SkyMed Image

Environmental monitoring to protect the Earth and its resources

Thanks to geo-information platforms and instruments on board the satellites, developed in the context of domestic and European programmes and missions, **it is possible to monitor climate phenomena** such as: melting glaciers, the movement of ice caps, coastal erosion, desertification, rising ocean temperatures, and air quality. They can also be used to improve the accuracy of weather forecasts. It is through the observation of trends in natural phenomena and the misuse of resources (deforestation, presence of illicit waste and harmful substances) that it becomes possible to **develop mitigation and intervention strategies, while studying the effects of human activity** on the Earth.

Monitoring of infrastructure and artistic and cultural heritage

With the aid of electrical/optical sensors and radars, satellites can reveal minor alterations in the structures of buildings and infrastructures that may lead to collapse, deformation or damage. This information is essential for monitoring critical assets and cultural heritage. It also makes it possible to analyse the areas around the structures to detect unlawful dumping or the spread of plant infestation that represents a fire hazard. It offers preventive security with regards to the implementation and decommissioning of infrastructures; that is, monitoring of the effective state of progress on the construction of a plant or infrastructure and, if it has to be decommissioned, surveillance of operations to avoid possible damage to the bordering area.

Fujian, southeastern coast of China

Sentinel 2 artistic image

Tuvalu Island, Polynesian subregion of Oceania in the Pacific Ocean.

GLOBAL MONITORING TECHNOLOGIES

The technologies used for global monitoring – territorial monitoring and control systems – integrate satellite information and the associated Earth observation services with data from **radar systems and sensors, secure communication systems, command and control rooms, helicopters, aircraft and remote-controlled drones** for reconnaissance operations. They represent a constant and rich source of information to help decision-makers and operators.

X-2030

The X-2030 platform is a 'system of systems' with command and control, communication, cyber and intelligence capabilities for territorial monitoring. It can process and exploit vast amounts of data from disparate sources in real time. Through command and control rooms, X-2030 provides an integrated view of the operational environment. It is used, for example, **for monitoring environmental and anthropogenic events, risks prevention, city management and urban security**.

SURVEILLANCE AND EMERGENCY RESPONSE TECHNOLOGIES

The effective management of environmental and pandemic emergencies is a top priority. However, this field faces growing levels of complexity and requires an integrated management approach for the deployment of the latest generation of technological tools.

Solutions for responding to medical emergencies

Leonardo has developed solutions enabling to **monitor disaster areas and support the intervention** for medical emergencies during **environmental catastrophes** that require evacuation. Command and control solutions are capable of integrating real-time information coming from sensors located in the air, at sea, or on land. This allows the **coordination of rescue operations via land, air and sea in a net-centric environment, using networks, mission-critical communication systems, terminals and satellite connections**.
Moreover, significant use can be made of the C-27J aircraft and helicopters configured to transport equipment, supplies and operational personnel.

"Flying hospital" programme – Helicopters and tiltrotors can become 'flying hospitals' equipped with life-saving medical care, **bringing the doctor to the patient** as quickly as possible. The EMS (Emergency Medical Service) version allows medical teams to intervene very rapidly, to stabilise the patient and **send clinical information to the hospital via data link**. The employment of these machines has completely transformed the scale and quality of medical care provision across large distances.

Integrated health emergency platforms – Telespazio and e-GEOS have developed the ECO4CO (Earth COgnitive system for Covid-19), a platform that integrates the satellite Earth observation and positioning data with non-satellite information generated from the web and social networks, in combination with predictive analysis systems with tracking and data learning ability. The ECO4CO is capable of **overseeing aggregated areas, identifying gatherings of people** (parks, markets, stadiums) **to isolate new outbreaks of infection**. Moreover, through the Logistics Planning service, the platform is able **to develop forecasts on emergency situations**, and predict future healthcare needs (e.g. for drugs and hospital beds) to support local institutions - by providing the latest figures on new infections, cured patients, deaths, hospitalisation and the saturation levels of intensive care units.

The Hermes project – Hermes is a **system of services helping medical institutions to optimise their response to pandemic emergencies by identifying the outbreaks of infections**. It stems from a partnership with the Italian Red Cross, Gabriele D'Annunzio University in Chieti-Pescara, and the Bio-Medical Campus of Rome, as well as the Italian Armed Forces, with the involvement of the Celio Hospital. The project offers geo-referenced information for monitoring the statistical distribution of Covid-19 infection cases in pre-triage and screening centres. HERMES is supported by a hybrid satellite-terrestrial high-speed communication infrastructure that is supplied by Telespazio and a Data Centre developed by e-GEOS. The latter is based on CLEOS, a new geo-information solution that not only collects all available diagnostic Big Data but also allows - through Artificial Intelligence – scientific analyses to correlate the results from different testing methods and therefore exclude any suspected cases.

Health Tech Platform – This **is Italy's first digital healthcare infrastructure with cloud architecture**. It is the outcome of the integration of the davinci-1 supercomputer with the Exscalate molecular library, containing the polypharmacological profiles of more than 5 billion digitally synthesized molecules.

UAV (Unmanned Aerial Vehicle) solutions to transport biomedical material – The trial of this solution, launched in partnership with the Bambino Gesù Children's Hospital in Rome, involves the **delivery of biomedical material using drones with a low environmental impact over stretches of road with a high volume of traffic**. In addition, under the Memorandum of Understanding for Advanced Air Mobility signed by the Lazio Region and ENAC (the Italian Civil Aviation Authority), Leonardo - starting from 2023 - will participate in testing innovative transport services. It will consist of vertical take-off and landing (VTOL) electrically powered aircraft systems - manned, unmanned or autonomous – to be tested in order to improve the accessibility and mobility of cities and regions, while improving environmental impacts.

Solutions for land and maritime emergencies

Land and maritime surveillance – Falco Evo, a remote-controlled system with a high flight range, is equipped with radar and electro-optical systems, for land and maritime surveillance.

Firefighting – The C-27J Spartan Next Generation, in Fire Fighter configuration, is employed in firefighting missions. Its features include the MAFF II (Modular Airborne Fire Fighting System) which can interact with ground assets to respond effectively during emergencies. The system is used to 'attack fires' and also for prevention activities such as clearing land that is at a high risk of fires.

AIRCRAFT IN ACTION DURING THE PANDEMIC

During the Coronavirus emergency, as part of its established partnership with the Guardia di Finanza (Italian Finance Police), Leonardo developed a new configuration of the ATR42MP aircraft with bio-containment systems to transport Covid 19 patients. The C-27J Spartan aircraft, equipped with systems able to transport highly infectious patients, was also deployed for emergency support in Europe, Latin America and the US.

COPERNICUS EMERGENCY MANAGEMENT SERVICE (EMS) – RAPID MAPPING

In the context of the Copernicus programme for the Earth's satellite observation, e-GEOS is the leader of the industrial consortium providing the Copernicus EMS (Emergency Management Service) Rapid Mapping for the European Commission. The service supports civil protection in countries all over the world, **providing rapid mapping of the areas affected by natural or man-made disasters, as well as humanitarian or health crises**. The Copernicus EMS Risk & Recovery service provides risk analyses for the prevention and planning of actions aimed at mitigating the effects of natural events or overseeing reconstruction following an emergency. **Since 2012, more than 4,000 maps have been produced in response to 342 incidents in 85 countries all over the world**.

FROM SPACE TO EARTH - TECHNOLOGICAL SOLUTIONS, PROGRAMMES AND MISSIONS SUPPORTING SDGs

Air and wind

13 CLIMATE ACTION

Applications

Monitoring winds, checking air quality and atmospheric pollution.

**ALADIN
(Atmospheric, Laser Doppler Instrument)**
An ultraviolet laser instrument for measuring winds on board the Aeolus satellite.

**MTG
Meteosat Third Generation**
ESA programme in collaboration with EUMETSAT for developing increasingly accurate climate forecasts using predictive models.

**MetOp Second Generation
(Meteorological Operational Satellites)**
ESA programme in collaboration with EUMETSAT using polar satellites to provide meteorological and environmental predictions.

Aeolus
The first satellite capable of measuring wind's speed and direction even where meteorological measurements are not available, e.g. over the oceans. It provides forecasts to up to 7 days and increasingly accurate climate models.

Lightening Imager
An instrument for round-the-clock monitoring of more than 80% of the globe from a distance of 36,000 km, on board MTG-imager satellites, due to be launched by the end of 2022.

**GOME-2
(Global Ozone Monitoring Experiment-2)**
An instrument (spectrometer) for measuring the concentration of ozone and other atmospheric gases that protect the Earth from the harmful effects of ultraviolet rays. On board the MetOP satellites.

**PLATiNO
(Piattaforma spaziale ad Alta TecNOlogia - Advanced Technology Space Platform)**
A programme developed by ASI and the Italian Government incorporating two missions planned for 2022 and 2023. The missions will be equipped with SAR (Synthetic Aperture Radar) technologies; the second mission will also be equipped with an infrared thermal device for measuring temperatures on Earth.

**3MI
(Multi-viewing, Multi-channel, Multi-polarisation Imager)**
An electro-optical instrument for studying air quality and the features of clouds, to be set up on board the second generation of MetOp satellites. It is capable of covering the entire Earth in less than one day.

Water

6 CLEAN WATER AND SANITATION | **13 CLIMATE ACTION** | **14 LIFE BELOW WATER**

Applications

protection and management of water resources and ocean biodiversity by analysing water quality/quantity; checking the state of erosion of coastlines and rising sea levels.

**SEonSE
(Smart Eyes on the SEas)**
It integrates satellite and land-based data with underwater sensors, processing information to increase situational awareness of the seas, including unlawful behaviour and environmental risks.

**Cleos
(Cloud Earth Observation Services)**
It allows the development and distribution of geo-information products for small to mid-sized enterprises and the development of models based on Digital Twins.

**Aware
(Agile Watching of Assets and Resources)**
It offers the ability to view and analyse data on the quality and quantity of resources, while supplying detailed information on the status of infrastructure.

**SLTSR Radiometer
(Sea and Land SurfaceTemperature Radiometer)**
On board the Sentinel 3 satellite (part of the Copernicus programme), the radiometer uses optical and thermal sensors to measure land and water temperatures to a precision of within one tenth of a degree from a height of 800 km.

Terra

13 CLIMATE ACTION | **15 LIFE ON LAND**

Applications

Protection of the biodiversity of flora and fauna and the development of precision agriculture through sustainable soil management, monitoring of deforestation, and combatting desertification.

AgriGeo
It combines geo-information, advanced Big Data and Artificial Intelligence to supply a series of services responding to a number of needs in agriculture and silviculture (the growing and cultivation of trees). It is also used to respond to the increasing demand for sustainable food for a growing global population.

brAINT
It uses data supplied by satellites in the Cosmo Sky-Med constellation offering images with a high level of detail, permitting detection of even the slightest changes in surfaces, considered of key importance for the protection of wooded areas.

Geo Information Centre
It supplies added-value products based on satellite imagery, integrating systems, processors, algorithms and a number of application platforms in a single 'end to end' solution. Users may autonomously choose a satellite image, process it, watch it, and decode it through a single web platform.

**FLEX
(FLuorescence, EXplorer)**
ESA satellite programme for mapping the fluorescence of photosynthesis, due to be launched in 2024.

Aware (Agile Watching of Assets and Resources)
It offers the ability to view and analyse data in terms of resource quality and quantity, as well as supplying detailed information on the status of infrastructures.

**CLEOS
(Cloud Earth Observation Services)**
It allows the development and distribution of geo-information products for small to mid-sized enterprises and the development of models based on Digital Twin.

Floris
High-resolution spectrometer that can detect, from a distance of about 800 km, the intensity of fluorescence of chlorophyll photosynthesis to map the state of health of vegetation worldwide. It is used in the FLEX programme.

Biomass
ESA mission due to be launched in 2023 to monitor the structure of forests, including biomass, providing more information on the carbon cycle.

**SLTSR Radiometer
(Sea and Land SurfaceTemperature Radiometer)**
It measures land and water temperatures with a precision of within a tenth of a degree, from a height of 800 km.

Legend: Platforms | Programmes and missions | Earth observation instruments

SPACE TO THE FUTURE

The **satellite technologies and services** developed by Leonardo, Telespazio, Thales Alenia Space and e-GEOS[3] permit Earth observation with a **privileged view from Space**. The data and information provided make an essential contribution to environmental sustainability and the protection of the Earth.

The planet's future and well-being are linked to orbiting technologies, the contribution of which is multiplied by Big Data Analysis, Artificial Intelligence and the computational capabilities of davinci-1.

Leonardo's role in Space also includes a **Europe-wide partnership between Leonardo Labs and the ESA** (European Space Agency) **Φ-lab**, which will accelerate the implementation of new solutions through research into Earth observation technologies.

Through the joint ventures of the Space Alliance[4] Leonardo is playing a leading role in the most important international space programmes producing satellites, orbiting infrastructures and rovers (Thales Alenia Space), equipment and instruments, and satellite services and applications - the latter provided by Telespazio and e-GEOS.

SPACE SITUATIONAL AWARENESS (SSA): SECURITY BEYOND THE CONFINES OF EARTH

Space Situational Awareness is the capability **to visualise, understand and map the physical position of natural and artificial objects orbiting the Earth**. There are now more than 600 thousand objects in low orbit, exposing space assets of great value to the risk of collision. These include objects of various kinds, all of which represent a potential safety hazard to the population, given the damage they could potentially cause in the event of an uncontrolled fall to inhabited parts of the Earth.
The Northstar constellation, a set of satellites developed by the Canada-based NorthStar Earth & Space, will pinpoint **to identify the orbits of objects and space debris**. Telespazio's role in this project involves developing the Earth's segment (Satellite Operations Centre and Ground Stations Network) and launching the satellites into orbit (LEOP).

INNOVATION REWARDING SUSTAINABILITY: THE TELESPAZIO SANTA LUCIA GIC PROJECT

Telespazio's Santa Lucia GIC project provides local authorities on the Caribbean Island of Saint Lucia, with a 'tailor-made' warning solution for extreme weather events such as hurricanes.
The platform developed by Leonardo enables **accurate forecasting and real-time monitoring of what is happening on the island. This allows the prevention and management of hydrogeological risks, as well as the assessment of damage** to delicate local ecosystems. It thus improves the entire ecosystem's resilience and its adaptability to the effects of climate change.

[3] e-GEOS (Telespazio 80% and Agenzia Spaziale Italiana 20%).
[4] The Space Alliance, established in 2005, is a strategic partnership between Leonardo and Thales that includes two joint ventures: Telespazio (Leonardo 67%, Thales 33%) and Thales Alenia Space (Thales 67%, Leonardo 33%).

Si Phan Don Islands, a river archipelago on the Mekong River, Laos.
Second generation COSMO-SkyMed

19 February 2022, Isla de San Cristobal - The impressive clarity of this image even permits the perception of the movement of waves around the islands.
Second generation COSMO-SkyMed

LEONARDO AT THE CENTRE OF A SUSTAINABLE ECOSYSTEM

Promoting sustainability in a supply chain involving more than **11,000 suppliers** - primarily Small-to Medium-sized Enterprises (SMEs) - is key to Leonardo's competitiveness. This is implemented by:

› raising awareness of SDGs and supporting sustainability reporting tools among more than 80% of Leonardo's key suppliers;

› promoting among its partners the adoption of defined targets and plans in the areas of green energy, reduction of CO_2 emissions, waste recycling and water consumption.

More specifically, **the tools** developed by Leonardo that guide the efforts of SMEs are: the LEAP (Leonardo Empowering Advanced Partnership) Partnership for Sustainability programme for the development of the supply chain; the Sustainable Supply Chain Manifesto; and LEADS (Leonardo Assessment and Development for Sustainability), an assessment model measuring a series of parameters pertaining to various dimensions of suppliers' sustainability.

LEAP (LEONARDO EMPOWERING ADVANCED PARTNERSHIP) PROGRAMME

The strategy for the sustainable growth of the supply chain and the development of Leonardo's key suppliers has been broken down into several different actions and projects implemented through the LEAP Programme launched in 2018. LEAP **accelerates a process of transformation seeking to measure, assess, select, engage and develop the Group's partners and suppliers** through a framework of shared processes, methods and tools. LEAP specifically aims to establish the best possible conditions to assess partners' technological skills and excellence in the context of greater sustainability.

Sustainability is integrated at every stage of the process linking Leonardo to its suppliers: from pre-qualification and qualification requirements to selection criteria for tenders, from contractual terms and conditions to assessments aimed at ongoing improvement of critical suppliers. The intensity of Leonardo's 'drive' differs according to the supplier's role in the supply chain.

The issue of sustainability is pursued through targets and plans conceived to ensure that, **by 2023, LEAP suppliers will be committed to green energy, to reduce CO_2 emissions and water consumption, to increase waste recycling, along with those initiatives that promote awareness and education in this area**. More than 1,300 suppliers have been analysed, and 200 have been identified as eligible for partnership, while 120 have been involved in plans for improvement and development.
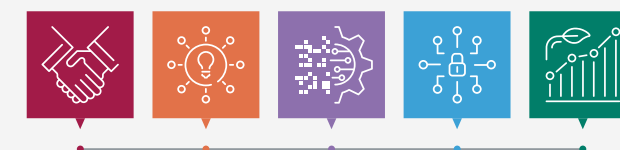
LEONARDO
EMPOWERING
ADVANCED
PARTNERSHIP

LEADS - LEONARDO ASSESSMENT AND DEVELOPMENT FOR SUSTAINABILITY

In 2020 Leonardo introduced LEADS, a new **model for assessing sustainability-related aspects and risks as well as developing key suppliers**. LEADS has the objective to achieve an all-around measurable growth of Leonardo's partners in a number of areas.

Regarding **ESG sustainability**, in 2021, Leonardo launched a questionnaire **to assess the maturity of more than 500 key suppliers in the areas of Compliance, Business Health, Social-Environmental Responsibility, Innovation and Managerial Capabilities**. The questionnaire identified the strengths and the areas for improvement along the supply chain. As a result, each participant received an appraisal form with an initial **roadmap for development**.

This assessment represents the starting point for building a path to a new concept of excellence for an **integrated sustainable ecosystem**. 38 of the 500 key suppliers analysed in relation to the ESG component completed LEADS in two areas of assessment (operative performance and technical skill; and industrial capacity) and have been included in the ongoing improvement process. The **progress is monitored every quarter** by a multi-departmental multi-divisional team.

SUSTAINABLE SUPPLY CHAIN MANIFESTO

In 2021, on the basis of the LEADS supplier sustainability assessment's results, Leonardo published its Sustainable Supply Chain Manifesto with the aim **to guide the SMEs in its supply chain on the path toward sustainability**. The manifesto focuses on three main areas: Digital Transformation, Cyber Security and **People & Planet**. In the latter, Leonardo is encouraging its supply chain to explore issues such as:

› **Industrial efficiency**: optimising the efficiency of production processes, e.g. through lean transformation programmes.

› **Action for Planet**: mobilising resources for measuring and reducing GHG emissions, water consumption and waste production, e.g. through sustainable mobility.

› **Green energy**: aiming at 100% guaranteed renewable energy.

› **Ecodesign and circular economy**: designing new products using eco-compatible materials and a circular perspective.

LEADS – Main results in the People & Planet area

People & Planet

Job stability
74% of companies have annual staff turnover <5%

Business Ethics
75% of companies have adopted their own code of ethics

Safety
65% of companies regularly perform safety audits and structured activities for accident prevention

Planet
18% of companies have already defined/planned measurable projects to reduce environmental impact

STEM
45% of companies have more than half of their employees with a STEM high-school certification/degree

Skill mapping
60% of companies have an up-to-date mapping of their employees' skills

Community
40% of companies systematically cooperate with schools and technical high schools (ITS) to train young people, or finance, at least occasionally, community projects

Modern slavery
96% of companies say they have no suppliers in countries considered at risk

Local Supply Chains - Incidence of national SMEs in domestic countries

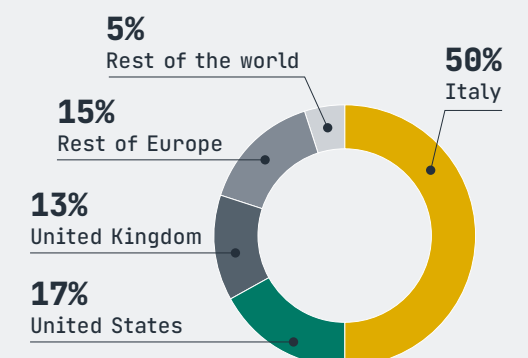| 87%	72%	60%	82%
Italy	United Kingdom	United States	Poland

PURCHASES BY COUNTRY

€ 9.3 bil.
of purchases of goods and services

65%
incidence of purchases on revenues

81%
of purchases related to domestic markets, with a supply chain of over **6,700 SMEs**

5%
Rest of the world

15%
Rest of Europe

13%
United Kingdom

17%
United States

50%
Italy

BUSINESS TRANSPARENCY AND INTEGRITY

Integrity and respect for the rule of law are **guiding principles for Leonardo's relations with all stakeholders**. They form the foundation of a responsible business model based on transparency, an element that the Group has strengthened over time with a system of rules, codes and control processes. This system aims to prevent, identify and deal with potential risks in managing the business, from **anti-corruption** to human rights.

Leonardo has developed a policy guiding its commitment in three main areas of **human rights**: employee management, relationships with suppliers, and product sales and distribution.

By acknowledging the importance of these themes, it is working to reinforce its commitment to SDG 16 with synergistic action among companies, institutions and civil society in the countries in which it operates. In addition, Leonardo focuses on a **culture of integrity** aimed at constantly improving the Group's **business** and **trade compliance system**.

COMMITMENT TO SDG 16

Since 2019, Leonardo has participated in the **SDG 16 Action Platform**, a UN Global Compact initiative focused on peace, justice and strong institutions. The Company contributed to the development of the **SDG 16 Business Framework**, a tool to promote companies' structural transformation, starting with governance, with the goal of reinforcing a culture of integrity, ethics and responsible business conduct.

Leonardo shared its experience in strengthening a responsible and transparent business model as well as the relations with its external stakeholders. This led to the Company's inclusion in the **highest level (category A) of Transparency International's Defence Companies Index on Anti-Corruption and Corporate Transparency (DCI)**. The index assesses public information on 134 industry companies, in 38 countries all over the world, in relation to 10 key risk areas. Leonardo is the only company in the Aerospace and Defence sector to be ranked in category A of the "Agents, Intermediaries and Joint Ventures" area.

RESPONSIBLE BUSINESS CONDUCT

Training and awareness activities related to a responsible approach to business are of paramount importance to building a culture of integrity. To this end, Leonardo invests in training and awareness of this issue across its value chain, with special attention to its employees and stakeholders. The values related to the integrity principle also form the basis of Leonardo's **ongoing monitoring** system. **Due diligence** investigations and the **whistleblowing** system ensure that a consistently responsible approach is applied to business.

Tools to strengthen business integrity

ONGOING MONITORING

TRAININIG

WHISTLEBLOWING

FOR EMPLOYEES

› 47,000 hours of training on conformity in commerce and enterprise for about 27,000 participants in 2021.

› 20,800 people trained in fighting corruption.

FOR THIRD PARTIES

› >200 hours of training provided to sales promoters and commercial advisors.

› Completion of online training is obligatory before a contract can be signed.

› >1.400 due diligence and reputational checks of counterparts and potential trade partners.

› Approximately 140 due diligence audits conducted on commercial promoters/ consultants, distributors and resellers.

› 53 reports received in 2021.

HUMAN RIGHTS IMPACT ASSESSMENT

To further implement the Group's Human Rights Policy and to take additional steps towards an increasingly solid compliance, Leonardo has integrated the Human Rights Impact Assessment (HRIA) into its supervision system. The HRIA is a **risk analysis tool focusing on human rights** and its potential impact on the Company's activities.

It was introduced into Leonardo's trade compliance system in two different ways:

› **by country:** to identify those countries that have been reported by national and international organisations (e.g. the UN and the EU) as guilty of human rights violations. The selected States are added to the list of Sensitive Countries, for which obligatory notification of all transactions is required;

› **by transaction**: in order to reinforce the risk management related to transactions involving countries that are part of the list of Sensitive Countries. The dedicated risk analysis integrates human rights compliance criteria. A risk level that is too high will require mitigation actions for the transaction.

SCIENTIFIC CITIZENSHIP, DIVERSITY & INCLUSION

Leonardo supports the promotion of '**scientific citizenship**' – the sharing of knowledge, technological skills and innovation within the communities served. The Company's commitment to fostering an **inclusive scientific culture** lies at the core of its long-term strategy. In addition, the Company strives to guarantee resources and skills via internal activities, such as employee upskilling and reskilling programmes.

Leonardo drives the dissemination of a scientific culture both inside and outside the Company through initiatives supporting **the STEM disciplines** (Science, Technology, Engineering and Mathematics). In this context, special attention is dedicated to opportunities for female students, with training projects and interventions in primary school, as well as at higher education levels, including universities and postgraduate research.

The Group sees the **promotion of diversity** as a key factor in its industrial competitiveness, attraction of talents and valorisation of people. This approach is reinforced through listening initiatives, mentorship and coaching, education in gender bias, and development programmes to disseminate inclusive leadership models. For example, Leonardo recently joined the **Target Equality Gender Accelerator** promoted by the United Nations Global Compact. The programme offers special trainings to member companies, both at global and national level to strengthen their capacity to take concrete action in combatting gender inequality in the workplace.

Moreover, the Company has introduced a **target for hiring women** with STEM profiles in its **remuneration policy**, particularly in its long-term incentives plan for the CEO and top management. This goal is also included in the ESG-linked Revolving Credit Facility and ESG-linked Term Loan underwritten in 2021.

The Company's commitment was acknowledged at an international level through its inclusion, for the second year in a row, in the **Bloomberg Gender-Equality Index** (GEI) 2022. It was awarded the highest score for transparency in the disclosure of the required information, ranking above the industry and global averages for fairness and equal pay and for policies for the prevention of sexual harassment. Leonardo's corporate branding was also recognised as being supportive of women.

62%
of employees hold a STEM qualification

54%
of new hires hold a STEM qualification

from 15.9% to 18%*
of total women managers and middle managers (+247 women managers employees)

Over 2,700
women hired from 2019 to 2021

*Baseline 2018

INITIATIVES SUPPORTING THE EDUCATIONAL SYSTEM

STEM LAB

It is **a free educational programme** (focusing on Artificial Intelligence, Big Data, and Additive Manufacturing) available on a digital platform **to teachers and students** in senior secondary schools, all over Italy. Lessons are hosted by Leonardo experts. In the 2021-22 academic year alone, more than 1,000 teachers registered for the STEMLab initiative, while 3,600 people attended Live Talks offered under the programme. In addition, a total of 2,508 classes participated in Italy's STEM Olympics challenge.

ELIS CONSORTIUM AND SCHOOL4LIFE

For many years, Leonardo has endorsed a school/enterprise programme promoted by the ELIS Consortium–a non-profit organisation that provides young people with educational and professional training opportunities. Under this programme, Leonardo and 11 other prominent Italian companies participate in the School4Life initiative, introduced to prevent students from abandoning secondary school, providing support for students, families and teachers all over the country. **School4Life is a two-year programme supplying orientation for young people at risk of abandoning school** and initiatives supporting teachers and families, with the aim of reaching a total of 15,000 students.

ITS FOUNDATIONS

Leonardo adheres to **school-work placement programmes** in its main organisational and business areas (Engineering, Manufacturing, Electronics) and participates in the ITS Foundations, 'special schools of technology' providing technical post-secondary education programmes with **instructors from Leonardo**. In 2021, Leonardo employees provided 1,400 hours of training in ITS technical high schools.

CYBER & SECURITY ACADEMY

Leonardo takes part in this high-level training centre created to provide institutions, critical infrastructures and companies with the skills and capabilities needed to **support the digital transition and cope with threats to national security**.

YOUNG CYBER AND SECURITY ACADEMY

Leonardo collaborates in this **digital education initiative targeting all Italian schools**. The project responds to the urgent need to discuss cyber security in schools to create conscientious internet users and potential future workers in the field.

BECOME DIGITAL CITIZEN

Established under an agreement between Leonardo, Fondazione Leonardo CdM and the General Command of the Carabinieri Corps, the project has **the objective to reduce the age-related digital divide in Italy** by encouraging access to new technologies among seniors.

PROJECTS FOR DIVERSITY AND INCLUSION

YOUNG WOMEN EMPOWERMENT PROGRAMME (YEP)

This is a programme for female students in southern Italy promoted by the Ortygia Business School Foundation and powered by Leonardo, to foster training focused on the skills of the future. It offers an inclusive **culture of gender equality**, while combatting stereotypes and inequalities in the education and professional field.

SCHOOL/BUSINESS SYSTEM PROJECT

Under this programme, Leonardo offers to junior and senior secondary students the testimony of **25 role models - female employees with a STEM background** - who have delivered 21-hour training programme, to guide students in the pursuit of their aspirations.

AVANCHAIR PROJECT

Leonardo's collaboration with **the startup Avanchair created an innovative electric wheelchair allowing disabled people to move sideways**, for instance from the chair to the bed, thus combining sustainable mobility with independent movement in line with SDG 10, reduction of inequality.

Corporate initiatives for inclusion

UPSKILLING / RESKILLING
Managing skills crucial for the future

› Delivered 1,6 million hours of training.
› 776 training course activities using a specific educational system.
› 54% of new hires hold a STEM qualification.

NEW WAYS OF WORKING
Flexible work model based on trust and mutual responsibility

› >27,800 employees used remote working in 2021.
› Signed an agreement on smart working with unions in Italy for 18,000 employees.
› Introduced a new hybrid and flexible work organisation model in the UK.

INCLUSIVE WORKPLACE
Focusing on diversity and inclusion

› 98% gender pay ratio.
› 19% new female hires with STEM degrees out of total hires with STEM degrees.
› "under 30" hires >40% of total hires.

For more information, see:
leonardo.com/en/sustainability

leonardo.com