Transizione Energetica e Digitale

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Federmanager
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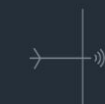
Electronics

Helicopters
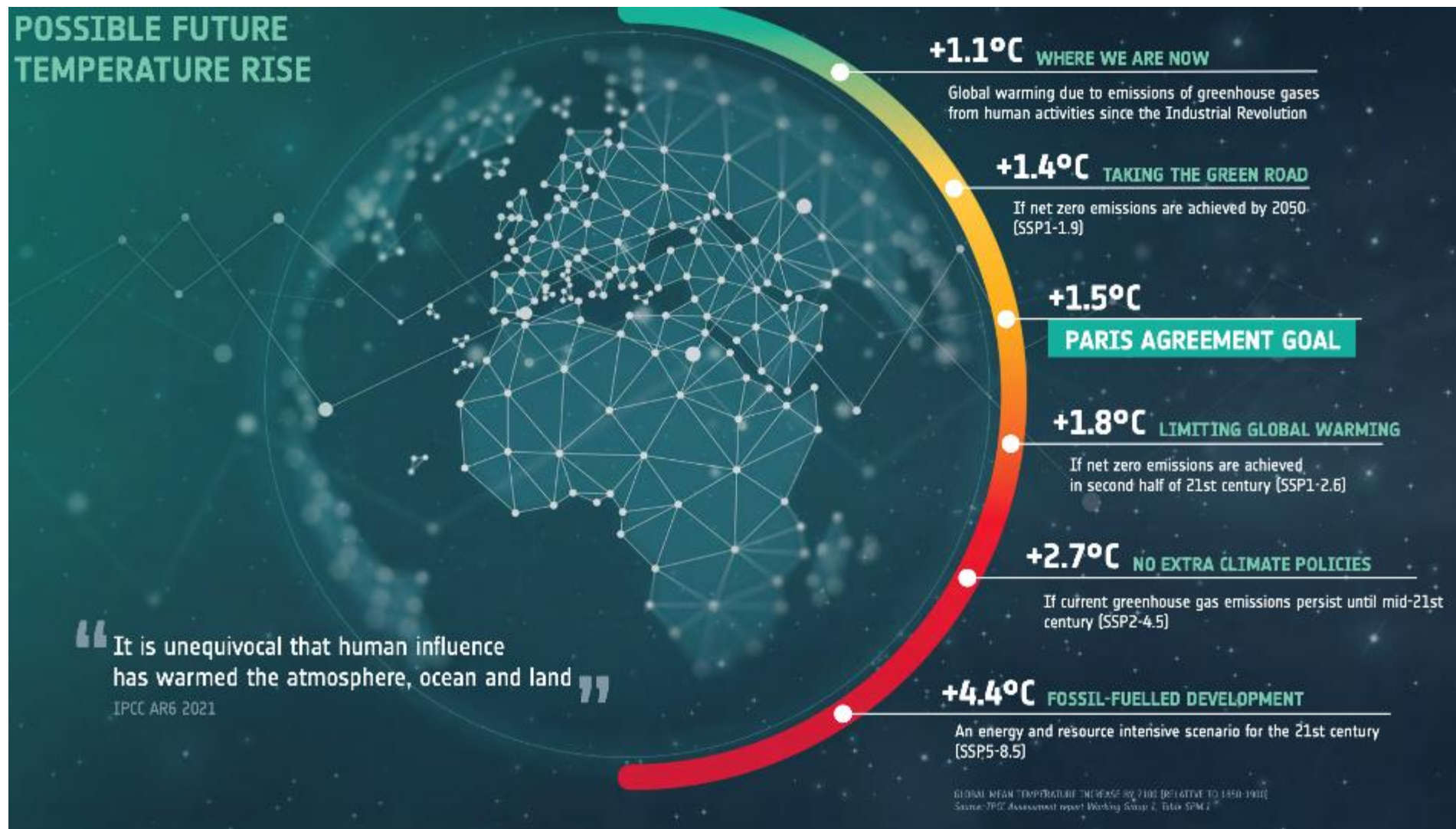
Aircraft

Cyber & Security

Space

Unmanned Systems

Aerostructures

Climate change is a fact

Not only decades of studies, but also EC/ESA Copernicus satellite images undoubtedly prove the effects of climate change

Company Internal

Our vision: a sustainable value creation

Leonardo aims to integrate sustainability along the entire value chain, leveraging technological innovation, digitalization and the integration of financial and non-financial information, in order to create value

How Sustainability leverage our business

The integration of **sustainability improves** the **performance**, **competitiveness** and **resilience** of Leonardo's business model. For this reason, our strategic vision is to create value by leveraging sustainability:
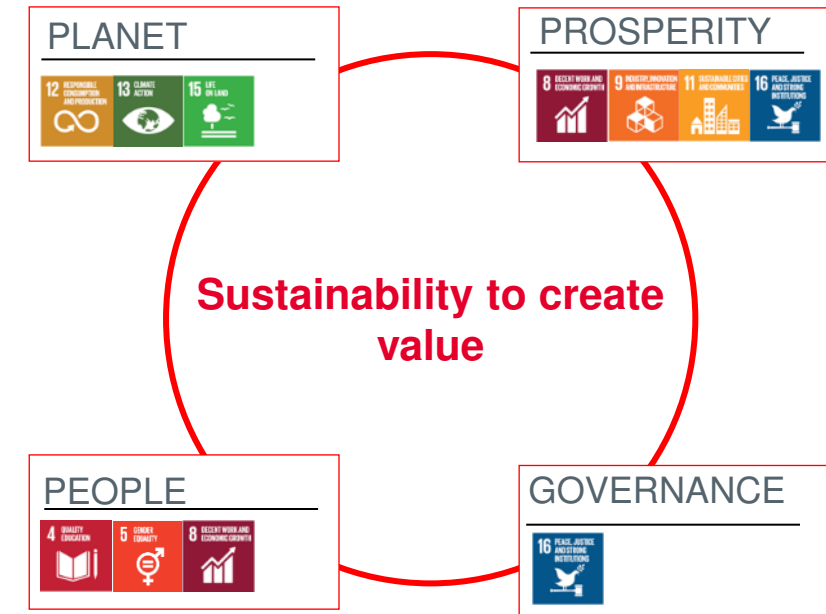
Performance

Sustainability allows the creation of **shared value**, improves **efficiency**, and ensures access to financial capital

Competitiveness

Sustainability increases the competitiveness, **creating new business opportunities** able to meet the new customers' needs as well as pushing for innovation

Risk management

Sustainability makes the company more resilient to external shocks, managing to **mitigate** simultaneously **environmental, social, governance and reputational risks**

PLANET

PROSPERITY

Sustainability to create value

PEOPLE

GOVERNANCE

Company Internal

Leonardo's Environmental targets

ESG Pillar	Material Topics	Description	Value	Year	Main SDGs
Planet	**CLIMATE CHANGE, ADAPTATION AND MITIGATION**	**Reduce electricity** consumption withdrawn from external grid (Int.)	-10%[3]	2025	
		Reduce CO_{2e} emissions Scope I+II Location Based (Int.)	-4%[3][8]	2025	
	ENVIRONMENTAL IMPACT OF MATERIALS USE	**Reduce water** withdrawals (Abs.)	-25%[4]	2030	
		Reduce waste produced (Abs.)	-25%[4]	2030	
		Reduce CO_{2e} emissions Scope I+II Market Based (Abs.)	-50%[5]	2030	

- ➢ In 2023 **environmental targets were revised with a major change**: a shift from intensity to absolute targets for water consumption and waste production
- ➢ **Scope I+II** emissions CO2 target **has been reinforced and shaped** to be aligned with SBTi
- ➢ **SBTi commitment was submitted in 2022** and we are now working on target setting

Company Internal

Key issue: our roadmap to achieve Science Based Targets

- **It is key to ensure the availability of all information and data required to set the targets for the submission of the targets to SBTi, expected by early July**

Reduce impact of own operations

Engage the supply chain

Cooperate with clients

Introduce less impacting technologies

- **Secure implementation of decarbonization initiatives** already **in Group Sustainability Plan**
- **Identify new additional initiatives**

- **Encourage suppliers to commit to decarbonization ambitions** and **support them throughout the deployment**

- **Provide** to **customers solutions that enables lower emissions** of existing products, and **engage them to encourage adoption**
  - **Certification to use SAF**
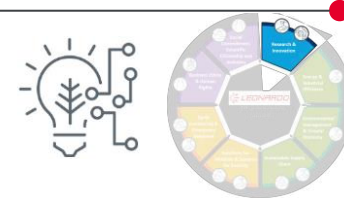 - **New training schemes** of product use
  - ...

- **Evolution of** Leonardo's portfolio mix **towards more efficient** / **less impacting solutions**
  - **AW09** for Helicopters
  - **EuroMale** for Aircraft
  - ...

Research and innovation underpin the sustainable development of Leonardo, which operates in a highly competitive and technological sector

Example of key R&I projects of the Sustainability Plan

SMART MAINTENANCE

GLOBAL MONITORING

C-27J FIREFIGHTING

NEXT GENERATION TILTROTOR

CARBON FIBER CIRCULARITY

SAF ADOPTION

Lines of the New Sustainability Research Area

Decarbonization of products and activities

Life Cycle and Circularity

Environmental Impact of Industrial Processes

Digital Technologies for Sustainability

Transformative projects (i.e. Clean Aviation, Simulation & Training - LAD, Digital Services - LHD) contribute also to explore future opportunities for improving business on sustainability.

Company Internal

Digitalization and sustainability

Digital transition and sustainability are deeply linked, especially in reference to the **green transition**

- Digitization is an enabler of sustainability, optimizing processes, mobility and the decisions of policy makers
- Sustainability drives digital transformation, integrating central elements to achieve shared goals (Agenda 2030)

How digitalization enables sustainability

Data sharing

Sharing data in trusted networks helps companies monitor and reduce carbon emissions from supply chains

Digital twins

Using the digital twin can reduce waste and emissions through effective simulations

Shared connectivity

Digitalization multiplies the availability of interconnected devices, with considerable and transversal advantages in many sectors

Energy transition and Electrification

The energy transition and the electrification of transport require digitalization for better management of the electricity grid and traffic

Digital skills

The development and dissemination of digital skills are enabling factors for sustainable and inclusive growth

Company Internal

To strengthen Leonardo's innovation on sustainability, a new dedicated Research Area was launched within the network of the Leonaordo Labs

The research area is focused **on 4 research lines** composed by specific streams. New research lines will support ongoing Leonardo's innovation activities to improve impact (in term of sustainability) for the company and the customers.

Decarbonization of products and activities

Main Activities:

- Electrification of vehicles scenarios
- **H_2** Evaluation of Hydrogen applications
- Green Computing &* green coding
- **SAF adoption* scenario & test**

Life Cycle and Circularity

Main Activities:

- **Life Cycle Assessment of products***
- Batteries end of life & recycling scenarios*
- Ecodesign for selected products / components
- **Circularity of materials* (e.g. composite materials)**

Environmental Impact of Industrial Processes

Main Activities:

- Evaluation of replacement processes for chromates*
- Evaluation of PFAS reduction and/or replacement

Digital Technologies for Sustainability

Main Activities:

- Impact of Digitalization activities
- **Digital twin application on LDO products**
- **Satellite data for water stress analysis***
- **Efficiency of public transportation***

The recruitment activities for open positions on specific streams* are ongoing

Company Internal

Research activities already started

DIGITALIZATON: DAVINCI-1 AND DIGITAL TWIN

Key levers in enabling dematerialization and decarbonization

DIGITAL TWIN

Process and elaborate data through algorithms, creating predictive models for any type of platform, process, system.

- Certification by simulation, **curtailing flight testing and** therefore GHG emission.
- Predictive maintenance extending product life

Supercomputing and cloud computing platform driving digital transformation

- ## A technology accelerator
Transversal to all business areas and the Leonardo Labs.

- ## A key asset for digital modelling
To reframe the design, manufacturing and management of products and services.

VIRTUALIZATION

Leonardo developed key innovative training system that simulate pilot flight training hours. Since 2018:

- **26000** hours of virtual training provided
- **-116000** tonnes of CO_2

How Selecting A Green Data Center Can Benefit Enterprise Sustainability

- **Reduced energy costs:** Green data centers are more energy-efficient than traditional facilities, leading to significant cost savings

- **Lower carbon footprint:** By sourcing renewable energy and using it efficiently, green data centers can help enterprises reduce their carbon footprint

- **Corporate sustainability:** A commitment to sustainability can help enterprises attract and retain talent and build trust with customers and other stakeholders

- **Thought leadership:** By selecting a green data center, enterprises can take a leadership role in promoting sustainability

From Brown…. To Grey…. To Green

Company Internal
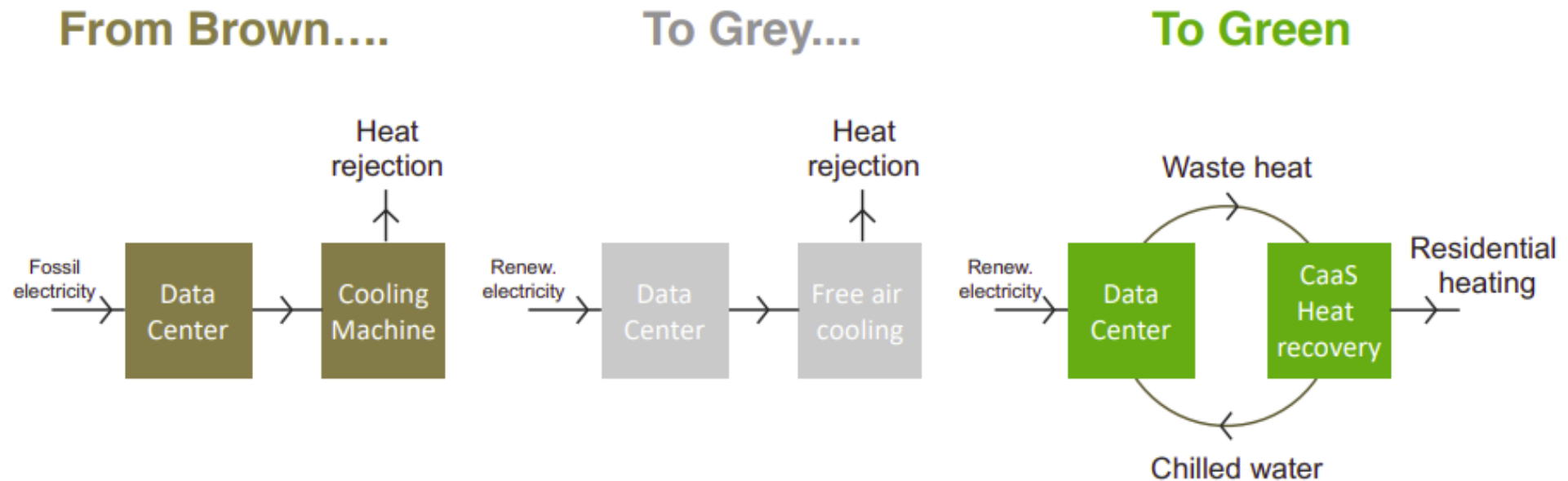
Green Computing and Green Coding

Leonardo's approach towards digitalisation is based on the synergy between skills and infrastructure; the HPC davinci-1 is the backbone of the activities of the Leonardo Labs, hubs dedicated to the research and development of leading edge and breakthrough technologies. **HPC, Cloud, Quantum Computing, Artificial Intelligence and Big Data** are among the main enabling technologies that Leonardo is implementing for the digital transformation of its production systems, with data the key to increasing efficiency, reducing development costs and offering end-users new secure, game changing services.

Data is the raw material for digitalisation and an endless source of new innovation and business. It is clear that to reap the benefits of the data expansion, there needs to be efficient enough capacity for processing data, and this is why it is essential to make sustainable long-term investments in HPC. In addition to hardware, we need to invest in software and computing environments.

Research activity

- **Powering HPC with renewable energy**
- **Energy measurements - PUE**
- **Liquid cooling solution for energy savings**
- **Reuse of dissipation heat** from large workstation in the surrounding building
- **Optimization of proprietary software code** using energy-efficient tools and practices

Expected benefits

- **Reducing energy consumption and CO$_2$ emissions** of computing & digitalization (for Leonardo and Costumers)
- **Reducing of Scope II emissions** and of electric energy efficiency improvement of digitalization infrastructure
- **Circular economy**: remote heating of facilities based on reuse of dissipation heat

Company Internal

![Leonardo logo]

THANK **YOU**
FOR YOUR ATTENTION

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