

Driving Decarbonization with Integrated Satellite-based Monitoring Solutions

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GWF 2023, Rotterdam

04/05/2023

Telespazio Belgium at a glance

Who are we?



+195

EMPLOYEES



~55M €

2022 REVENUES



+40

YEARS OF EXPERIENCE



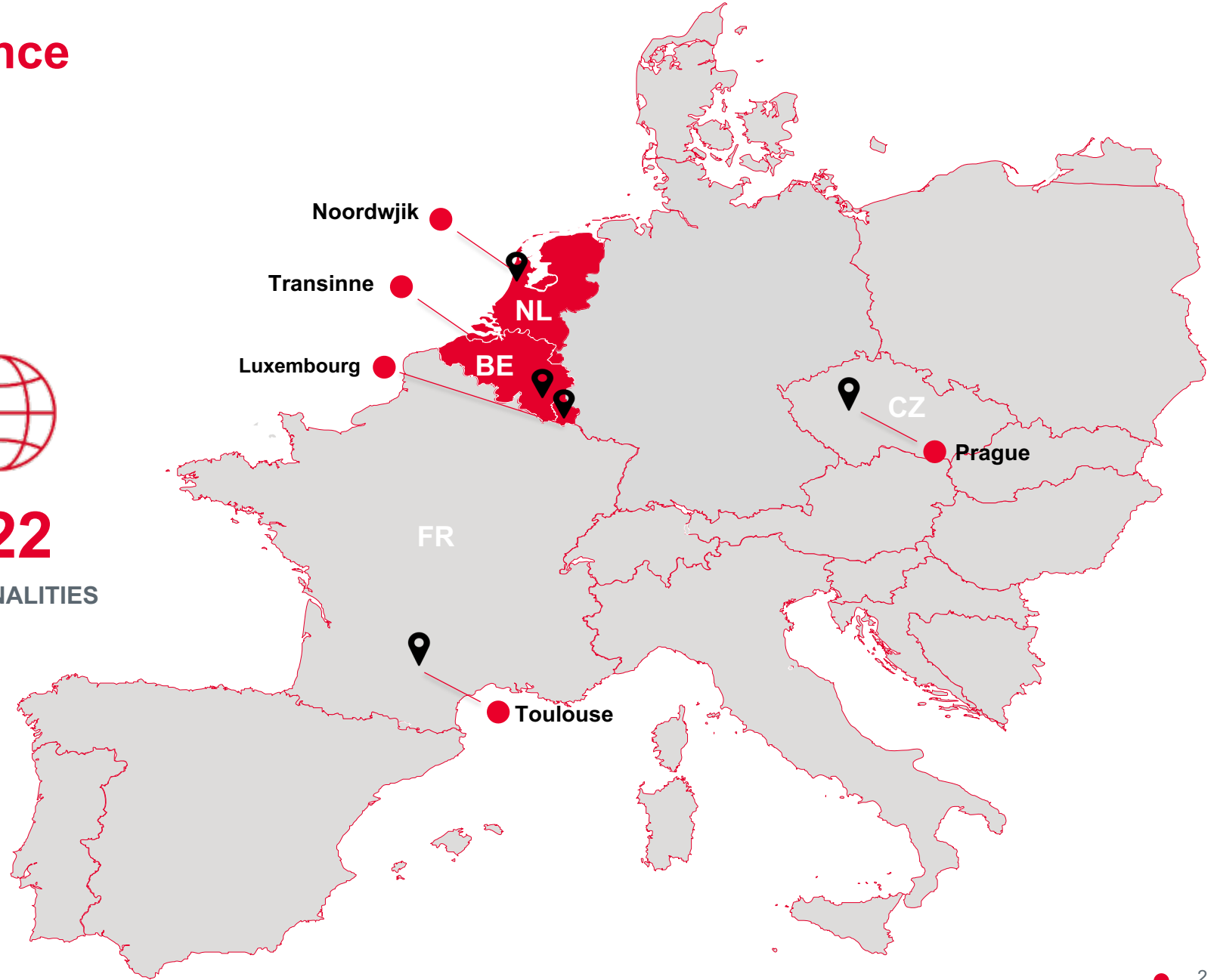
38

% of women in the company



+22

NATIONALITIES



Telespazio Belgium Sustainability Mission



Space is **open** for
business



Space has the power to
improve everyday life



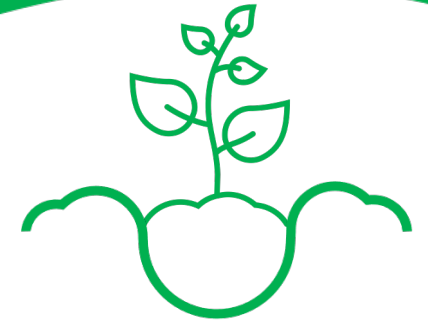
Objective



Find opportunities



Decarbonisation



Upstream

- Improved/new mission concept

Downstream

- Space-based products/services

Technical development

- AI, IoT, Digital Twins & SatEO



Create Roadmap



Decarbonization

The road to decarbonization crosses all industries and geographies!

Despite technological improvements and active regulations, the working paradigm is still not harmonized

*There urgent need of removing CO₂ from the atmosphere requires additional effort and a “**need-to-have**” approach*

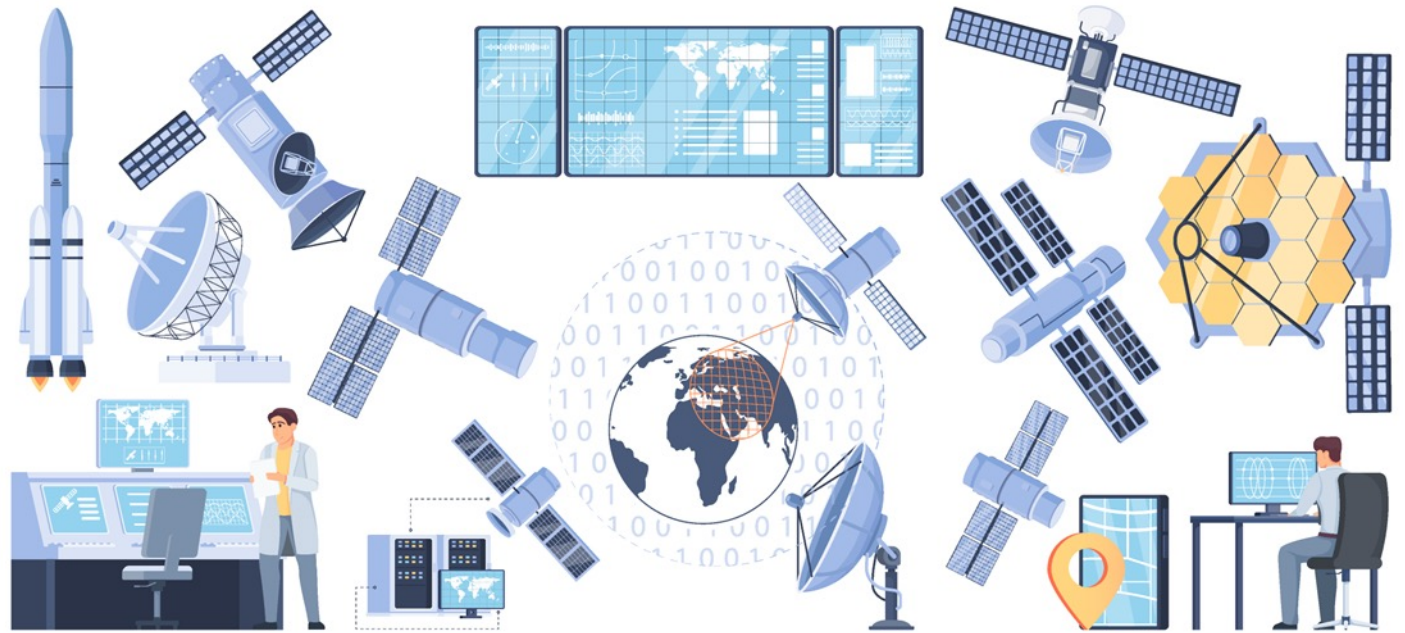
- Need Remove CO₂, reducing the ecological footprint of the human activities
- Need of Efficient Technologies to support the challenge
- Need of Standards and Regulations to have certified figures, improving the **industrial, financial, and social** sustainability of the human activities and business



The added value of satellite data

"The Space Sector holds the key to unlocking economic and environmental progress by filling the demand for data, integrating it into economic and environmental contexts, supporting development, and most importantly, paving the way for genuine decarbonisation efforts while avoiding the pitfall of greenwashing"

- Space Sector must **help** feeding the demand for data
- Space Sector must **integrate** data in economic and environmental contexts
- Space Sector must **support** development
- The space sector must help **avoid greenwashing** and support decarbonisation



Scope of Telespazio EO

Need

Need to achieve **green and inclusive** economic growth

Need to establish **space as key pillar** to contribute to decarbonisation.



Demonstrate space applications have **significant potential**

Help industries & society accelerate towards **zero net emissions**

Goal



Telespazio Belgium Decarbonisation

Supporting technology

- Studying and tailoring the **advantages** and **limitations** of satellite data use cases
- Define integration criteria of **satellite technologies** into the decarbonization context

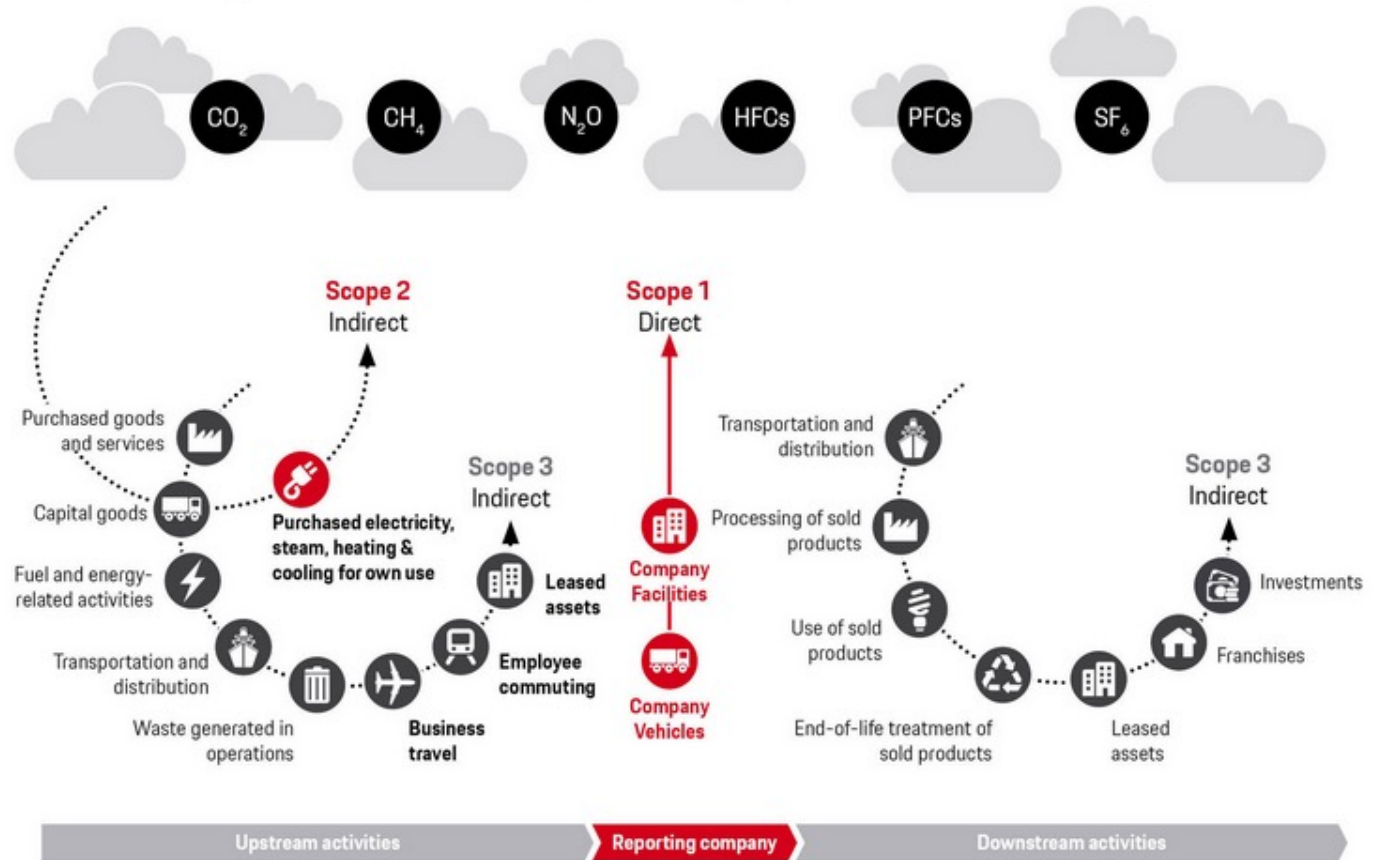
Supporting industry (carbon handprint)

- Analyzing the **industrial needs**
- Create a specific **decarbonization roadmap**

Supporting the decarb-ecosystem

- **Certifying** the zero-impact transaction

What are Scope 1, 2, and 3 emissions, and what proportion is accounted for by them?



Example

Average Scopes 1 & 2 vs. Scope 3, carbon emission intensity (in tCO₂/mUSD)



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State of the Art Satellite Technology

- Current possibilities
 - Soil moisture
 - Evapotranspiration
 - Crop classification
 - Fertilizer monitoring
 - Canopy monitoring
 - Dry matter productivity
 - Burn Area
 - Chlorophyll
 - Gross primary product
- Equipment
 - Multispectral imaging
 - Radar imaging



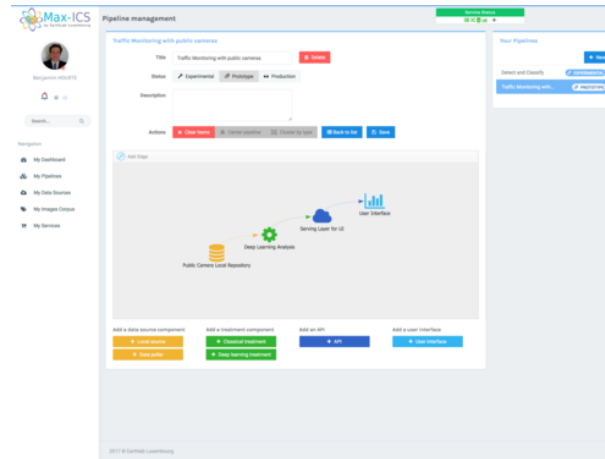
Technology on ground



Platform as a smart enabler for centralizing data, analytics and R&D under one single roof



Big Data Layer



A.I. Model Layer



Applications Layer



Future developments



Monitor Changes in
Soil Conditions



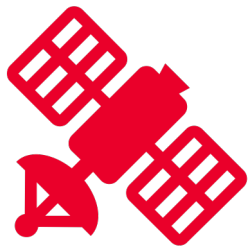
Produce Soil
Properties Maps



Produce Tool for Supporting
Decision Making

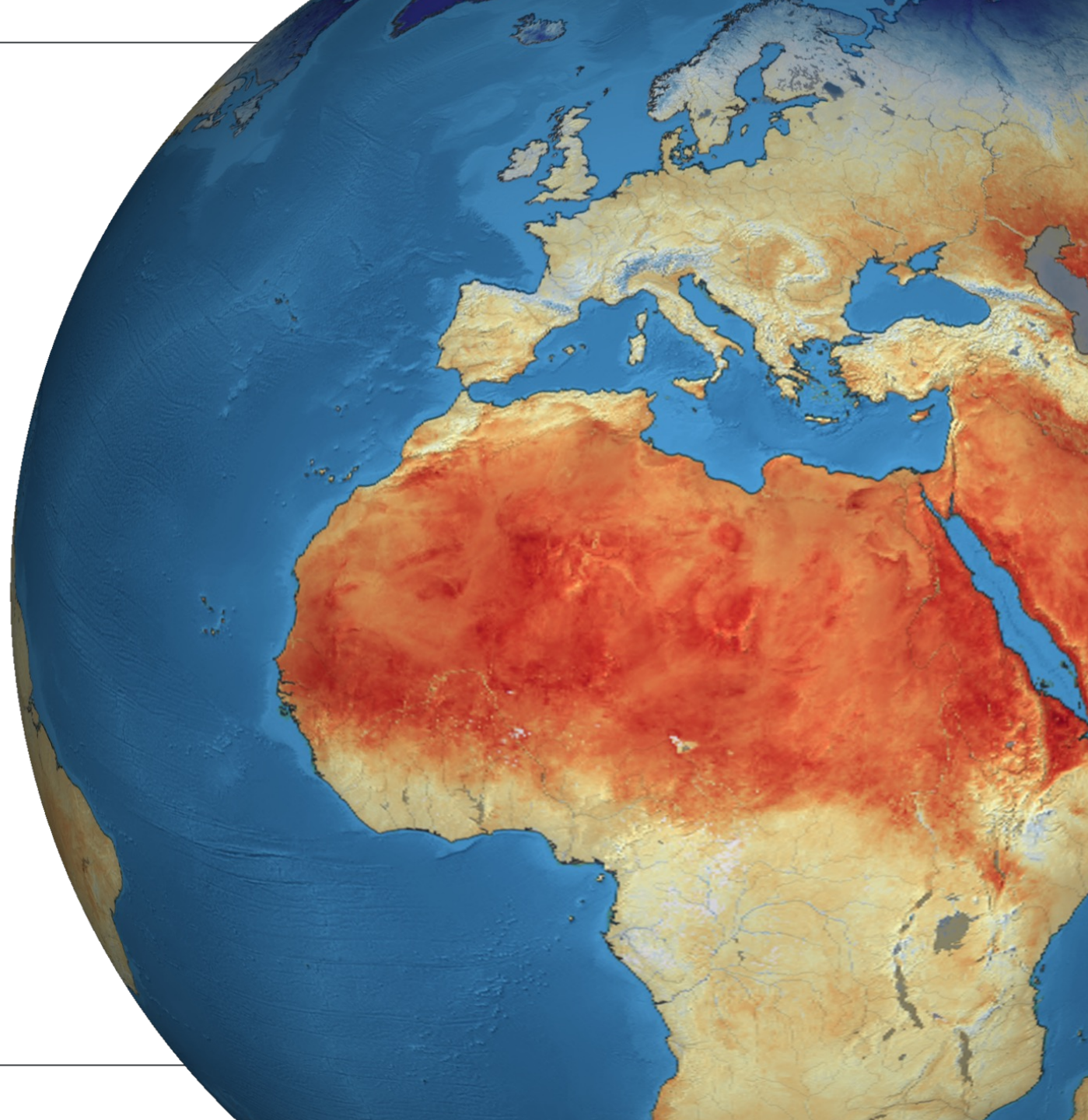


Tool for Supporting Decision Making



Conclusions

- **Telespazio Belgium** journey to decarbonisation has just started
- Goal is to **integrate satellite data** into existing ecosystems
- Create the means to make standard and regulations **enforceable**
- Support companies in decarbonising their supply chain



THANK YOU
FOR YOUR ATTENTION

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