



GEOSAT

EO Satellite Data as a contributor to SDGs 7 & 13

GEOSPATIAL WORLD FORUM 2023, ROTTERDAM | MAY 4th 2023

All information presented is confidential and may be legally privileged.



GEOSAT

FAST FACTS

European provider of **Very High Resolution imagery and services:**



End to End control of **2** satellites



165 customers
65 countries



1 of 2 European VHR optical data providers.
Offices in PT and SP



24/7 operations



Rapid tasking and delivery



12+ years of experience



6bn sqkm of imagery archive



SW development team for custom services

CURRENT SATELLITE MISSIONS



GEOSAT 1

625km swath @ 22m

3 bands: R,G, NIR

Revisit: 2-3 days



GEOSAT 2

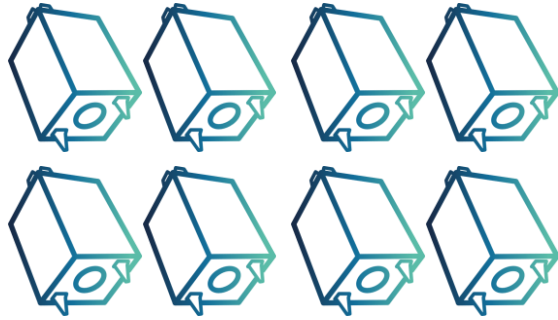
12km swath @ 40cm & 75cm

5 bands: PAN, RGB, NIR

Revisit: 2-3 days



FUTURE SATELLITE MISSIONS (EXPECTED 2025)



HR CONSTELLATION

8 satellites

Resolution: 1.5 – 2 m

Revisit: 6h – 12h

Bands: RGB, NIR, SWIR



VHR CONSTELLATION

3 satellites (polar / inclined orbits)

Resolution: < 50 cm

Revisit: Intraday

Bands: RGB, NIR

EARTH OBSERVATION 4 SDGs 7 & 13

13 CLIMATE ACTION

Take urgent action to combat climate change and its impacts.

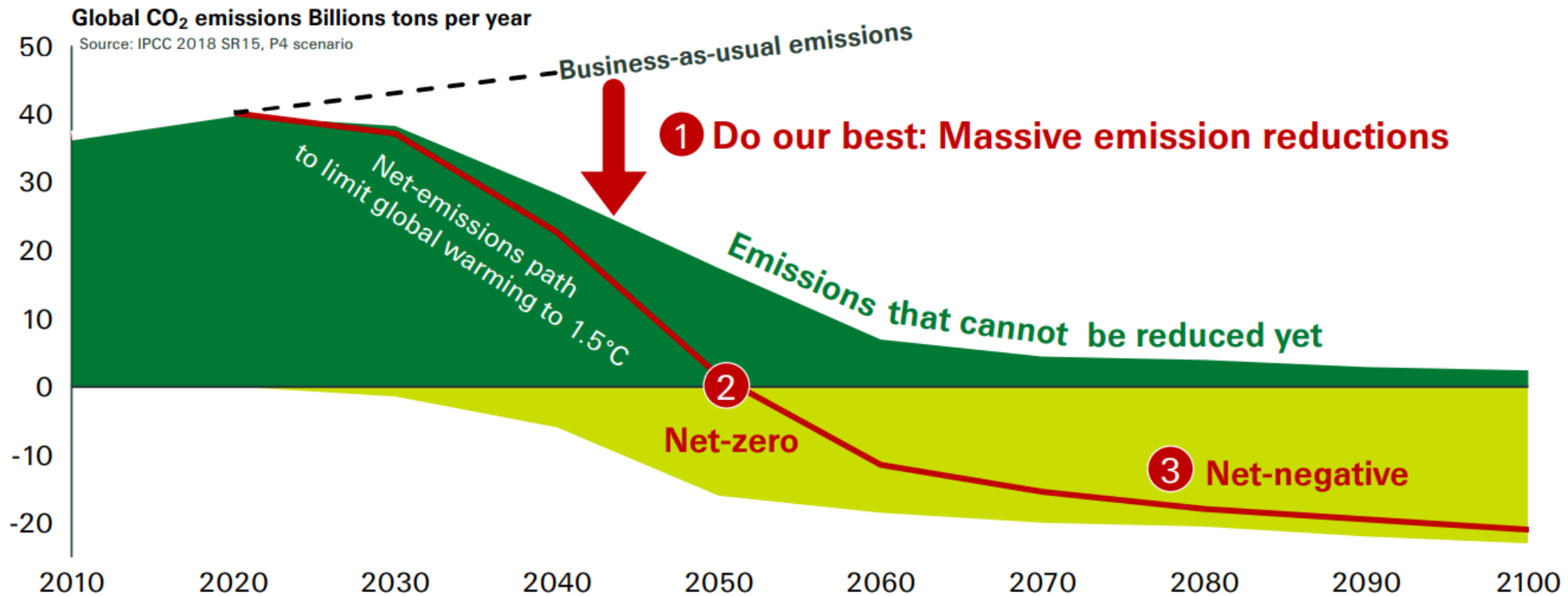
7 AFFORDABLE AND CLEAN ENERGY

Ensure access to affordable, reliable, sustainable and modern energy for all.

CLIMATE ACTION

To limit warming to safe levels in line with the Paris Agreement, we need three things:

- 1) halve emissions by 2030
- 2) net-zero emissions by 2050
- 3) net-negative emissions after 2050



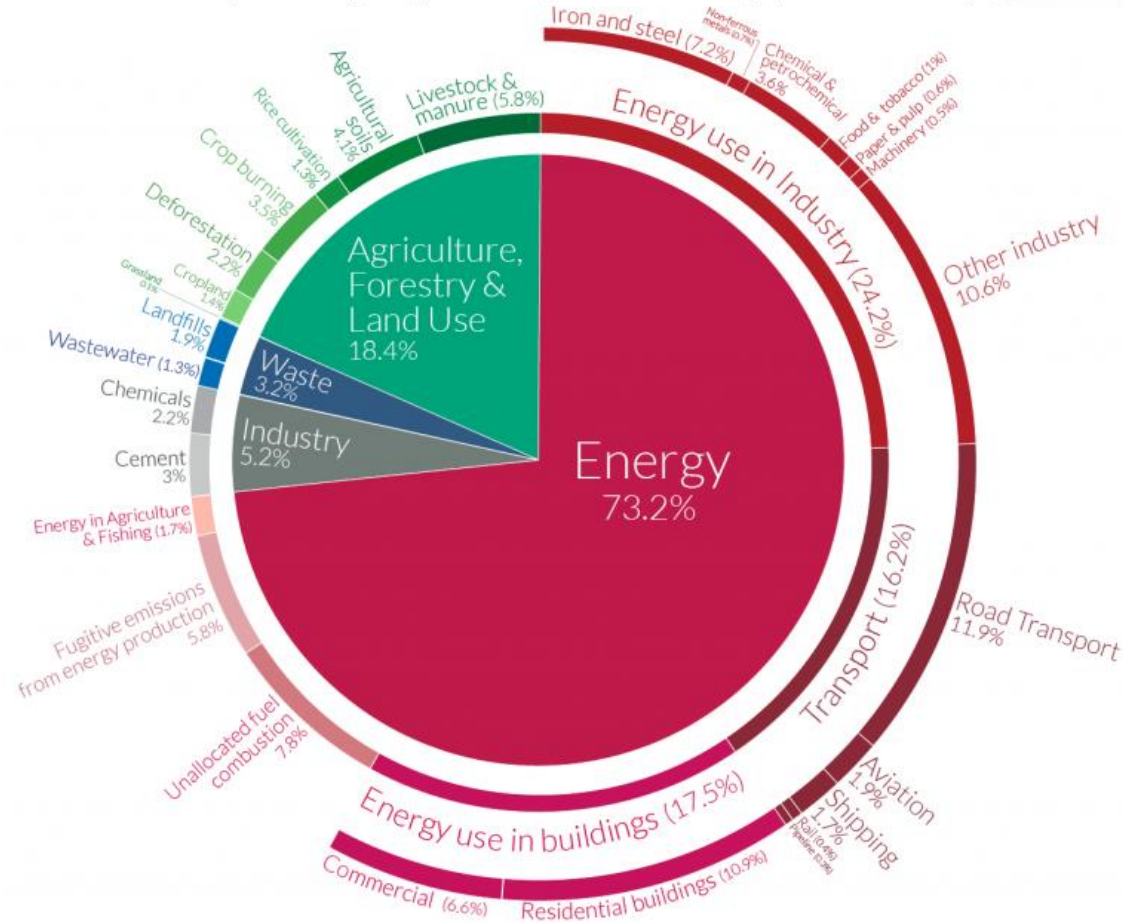
Source: Swiss Re

EMISSIONS REDUCTION REQUIRES AN ENERGY TRANSITION

Global greenhouse gas emissions by sector

Our World in Data

This is shown for the year 2016 – global greenhouse gas emissions were 49.4 billion tonnes CO₂eq.

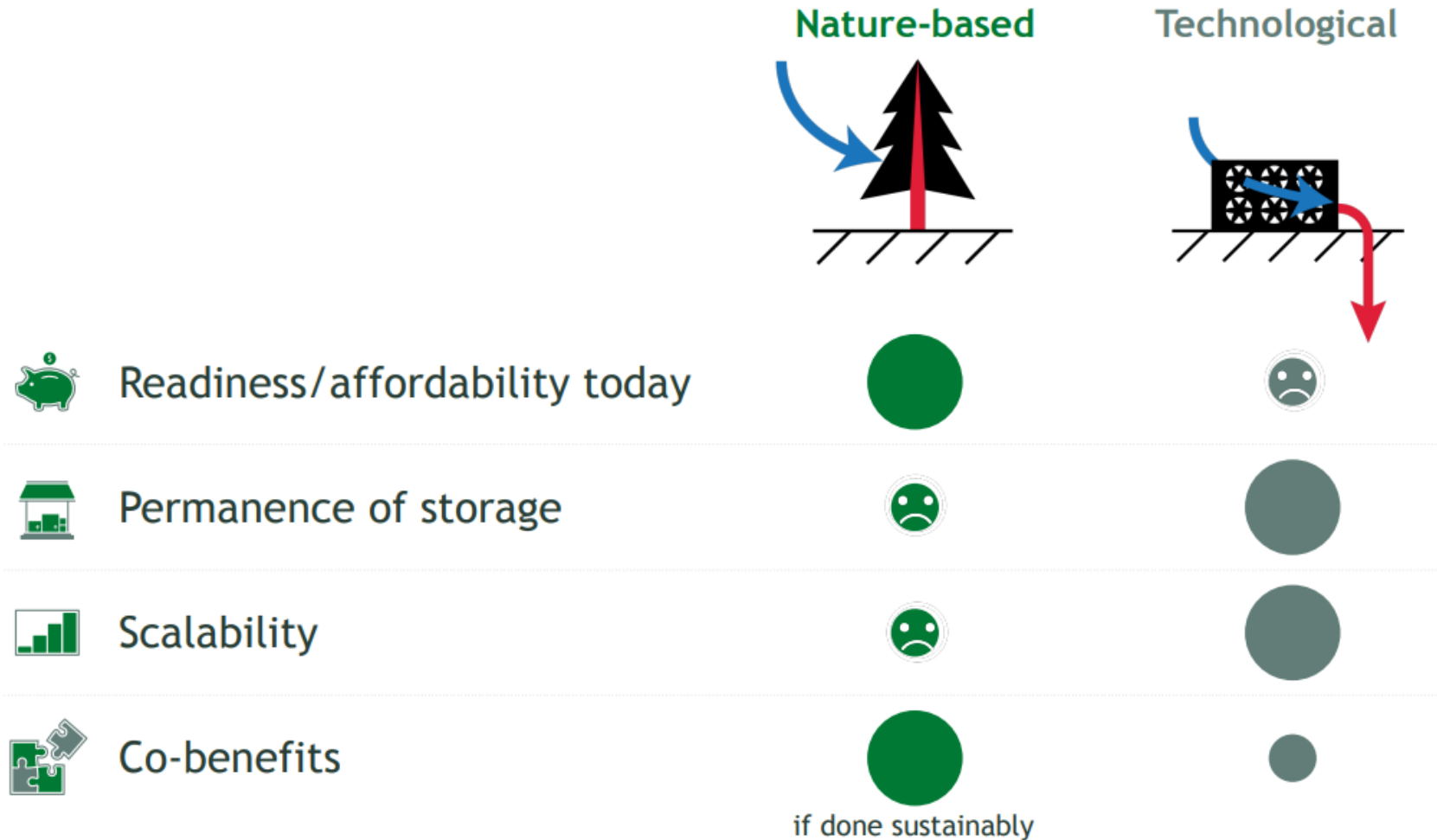


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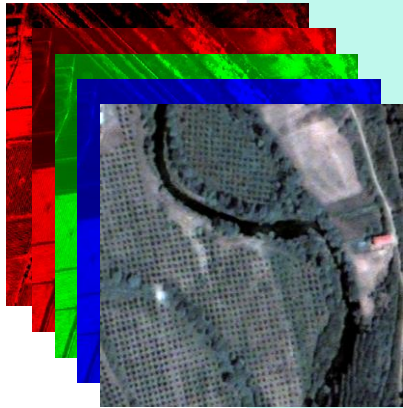
OurWorldinData.org – Research and data to make progress against the world's largest problems.
 Source: Climate Watch, the World Resources Institute (2020). Licensed under CC-BY by the author Hannah Ritchie (2020).

CARBON CAPTURE STRATEGIES



Source: Swiss Re

EO FOR BIOMASS MONITORING AND CARBON MAPPING



EO data
(GEOSAT 2)

- Forest Inventories: Species Georeferenced data
- Forest Maps: Land use, main tree species
- Land Use, Land-Use Change and Forestry (LULUCF)

In-Situ Measurements

Biomass maps (tn/ha)
CO2 maps (tn/ha)

In the context of the [European Green Deal](#) and the [Zero pollution Action Plan for 2050](#), satellite information is recognized as a crucial tool to measure, monitor and verify carbon storage.

Quantification and tracking of above-ground biomass and carbon sequestration based on earth observation and in-situ field measurements.

EO TO SUPPORT THE ENERGY TRANSITION

- Increased availability of cost-effective VHR EO data supports:
 - Site assessments
 - Topographic survey
 - Site monitoring
 - Environmental compliance
 - Natural resource assessments & inventories
 - Off-shore activities



Contacts

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