Space Traffic Management

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“the set of **technical and regulatory provisions for promoting safe access into outer space, operations in outer space and return from space to Earth free of physical or radio-frequency interference**” **[IAA Cosmic Study of 2006]**

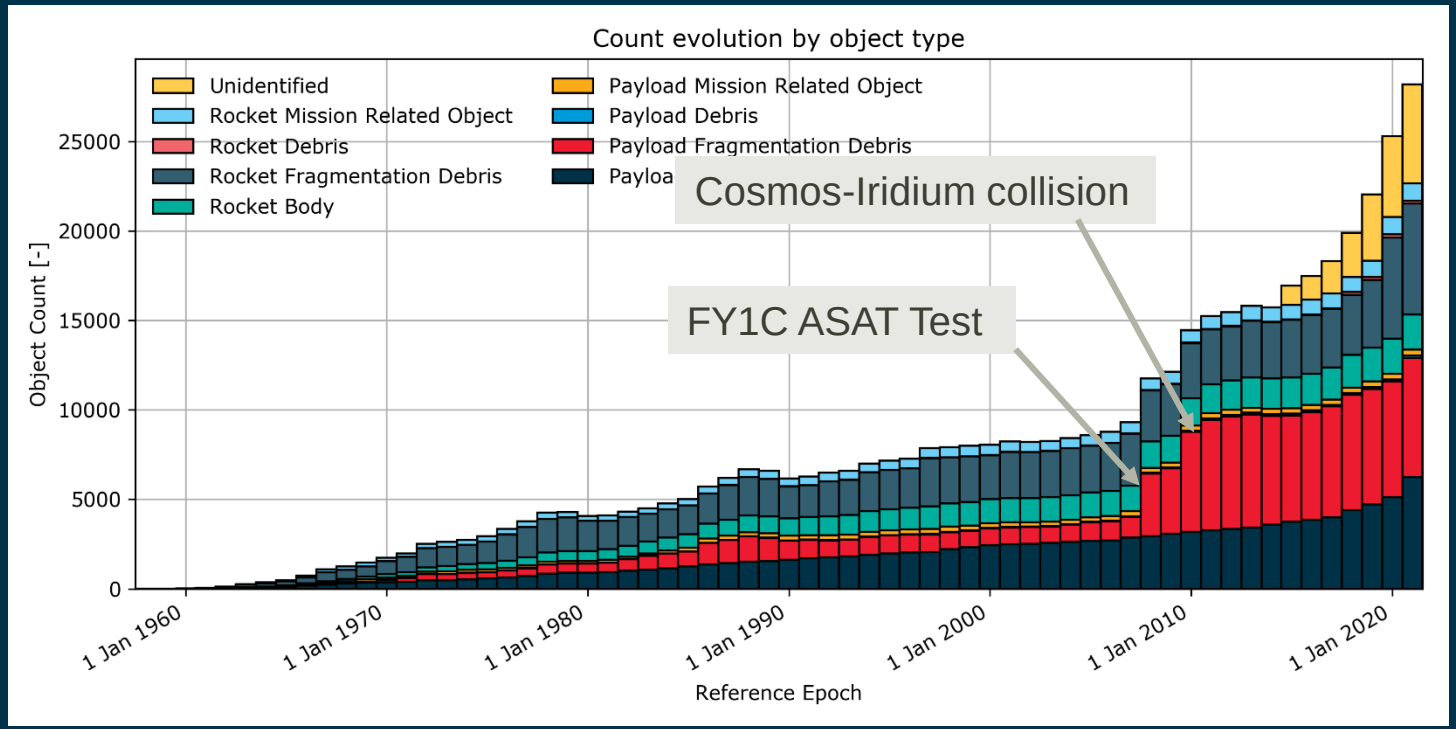
Tracked Population

Statistics on space debris at

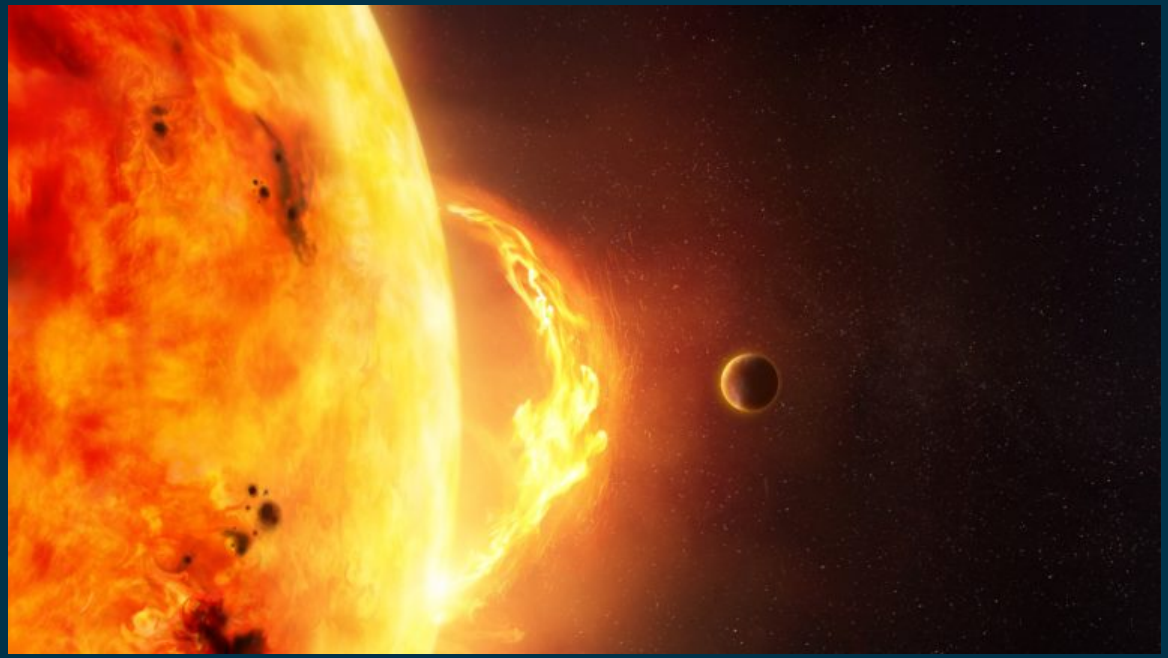
28,000

8,500t

88,000m²



Space Weather



NEW SOLAR CYCLE JUST STARTED!

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HOT TOPICS | MAY 10, 2021 | NEW TURTLE DISCOVERED FROM THE LATE CRETACEOUS OF MADAGASCAR

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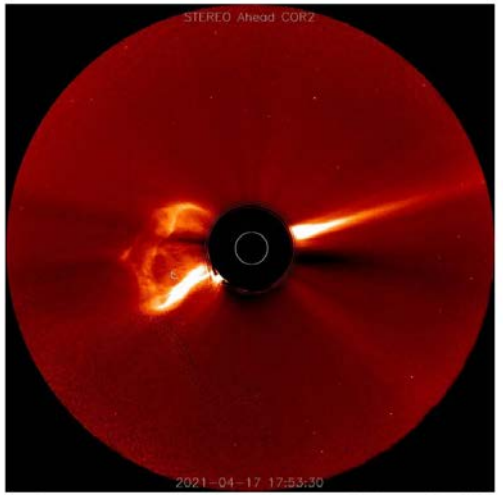
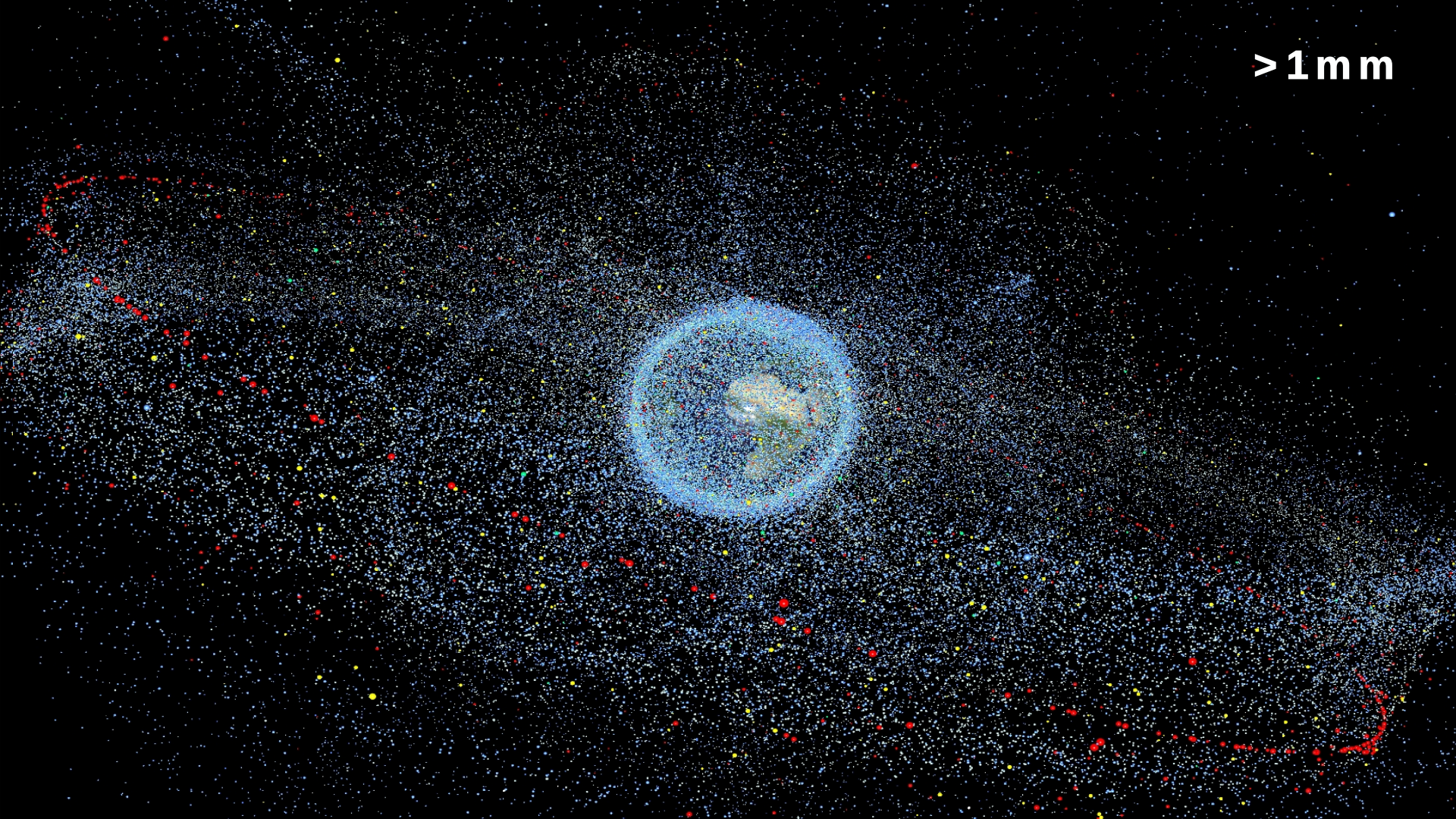
Mars-Directed Coronal Mass Ejection Erupts From the Sun

TOPICS: Astronomy | Mars | NASA | NASA Goddard Space Flight Center | SOHO | Sun

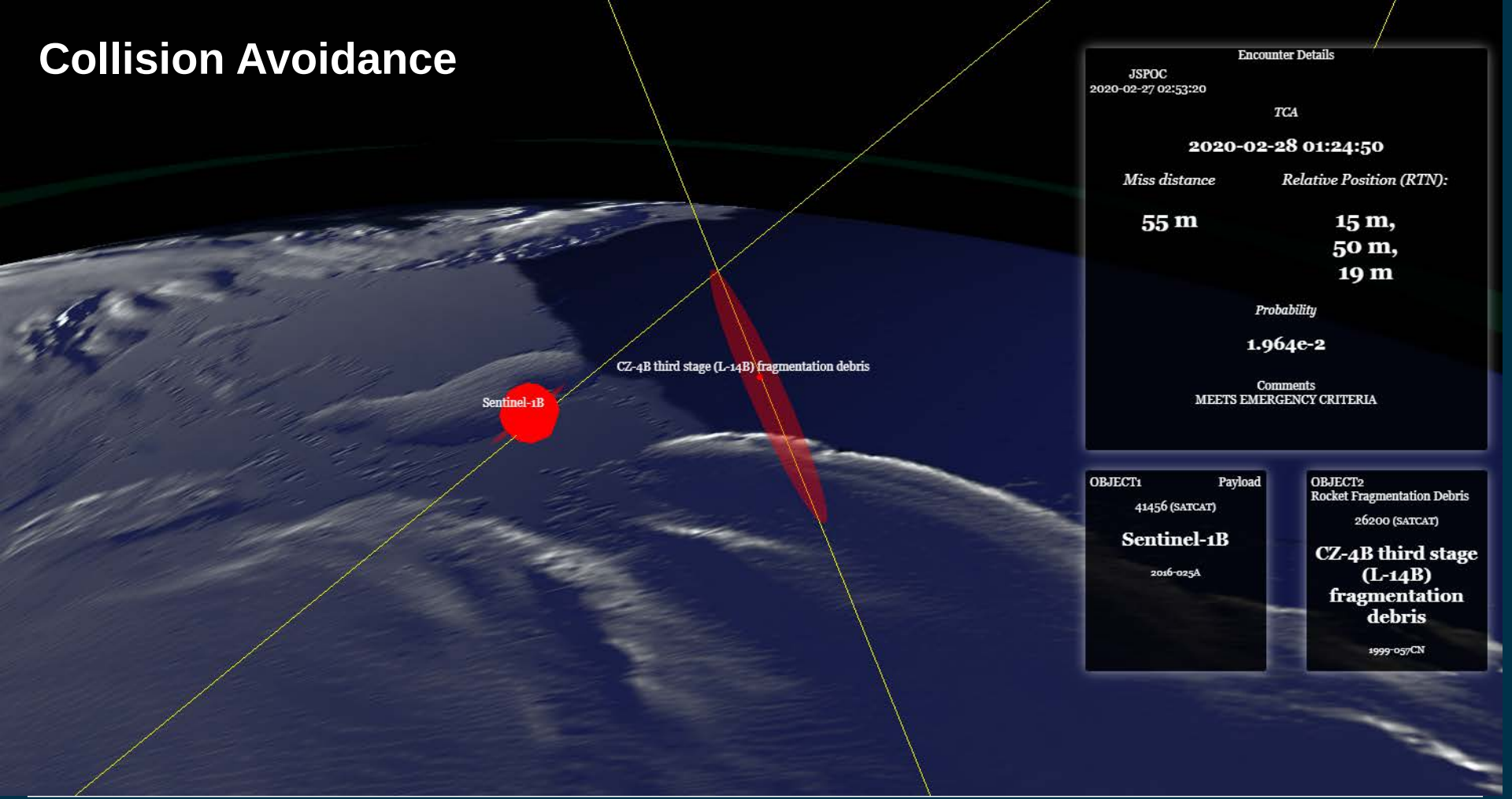
By NASA | APRIL 26, 2021



Imagery from NASA's STEREO-A spacecraft detected the CME erupting from the Sun's limb. This coronagraph image blocks the Sun's bright surface (black circle, center image) to reveal the Sun's corona, or outer atmosphere. Credit: NASA/STEREO-A/COR2


>1mm

Collision Avoidance



Encounter Details

JSPOC
2020-02-27 02:53:20

TCA

2020-02-28 01:24:50

Miss distance

55 m

Relative Position (RTN):

15 m,
50 m,
19 m

Probability

1.964e-2

Comments
MEETS EMERGENCY CRITERIA

OBJECT1 Payload

41456 (SATCAT)

Sentinel-1B

2016-025A

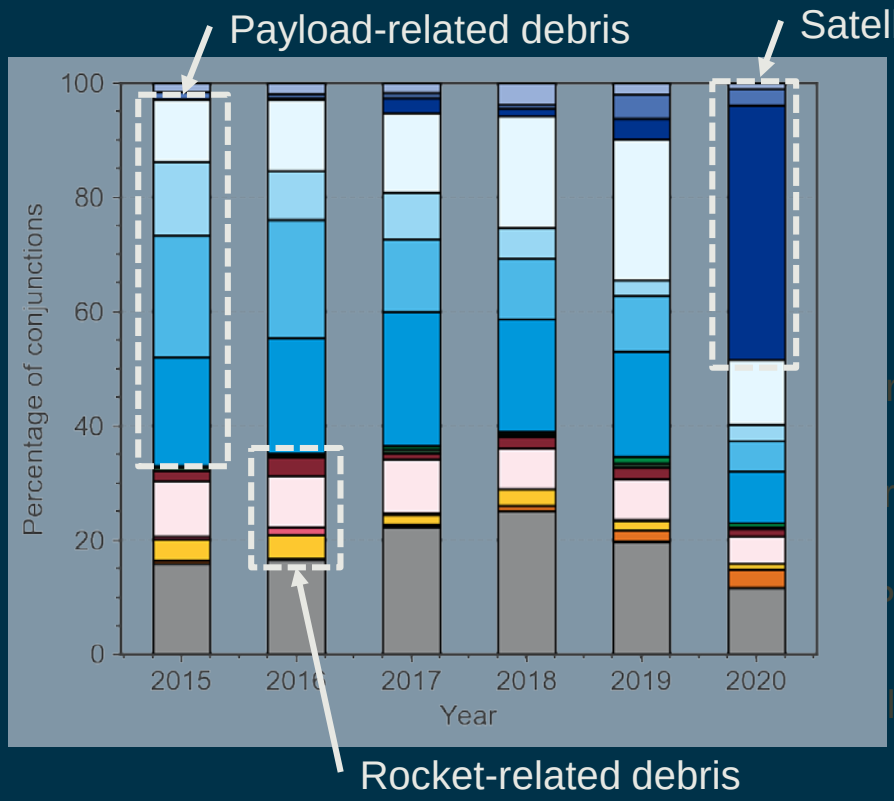
OBJECT2
Rocket Fragmentation Debris

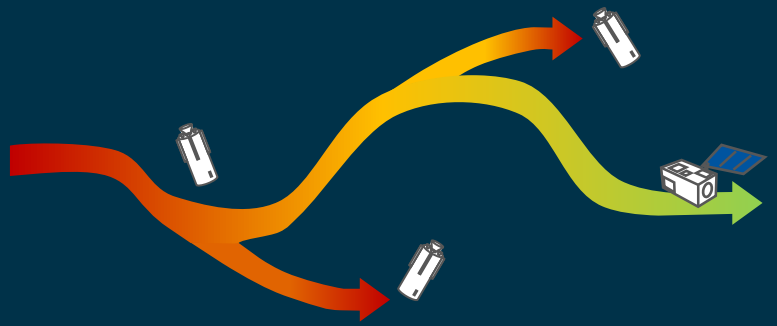
26200 (SATCAT)

CZ-4B third stage (L-14B) fragmentation debris

1999-057CN

Space Traffic Management Solutions





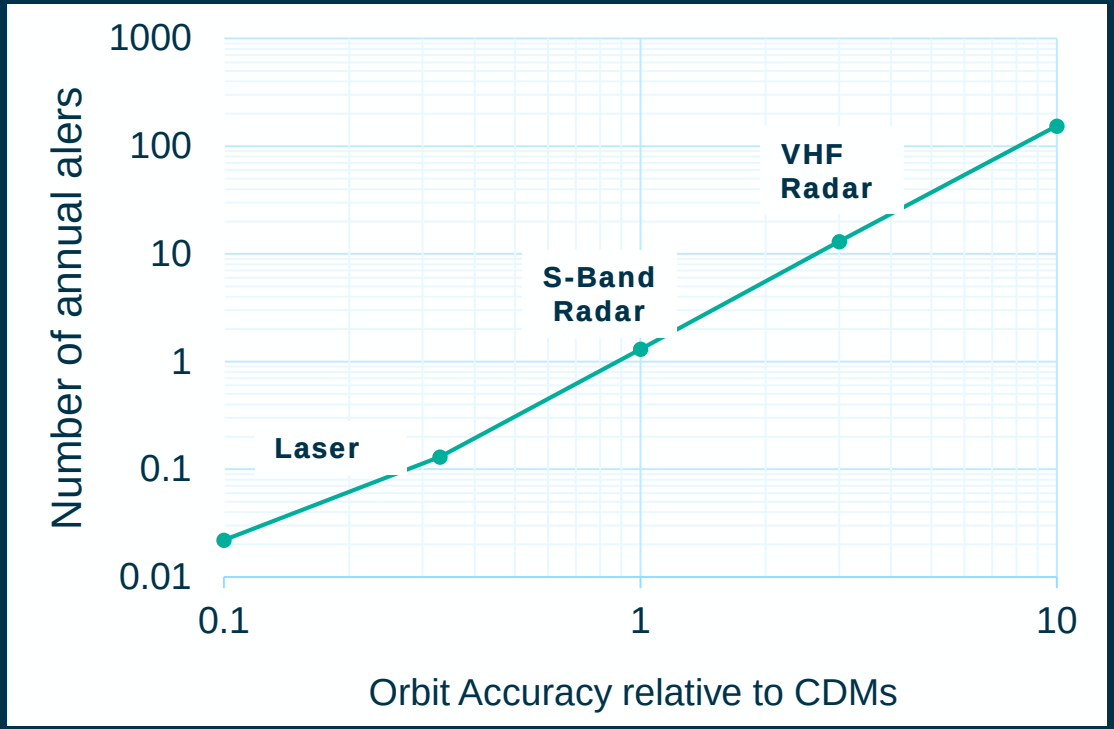
Surveillance Data

LeoLabs

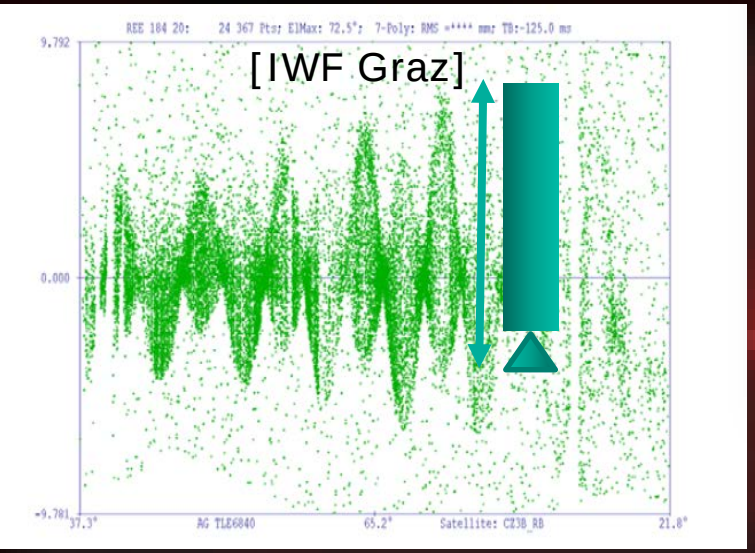
New US Space Fence

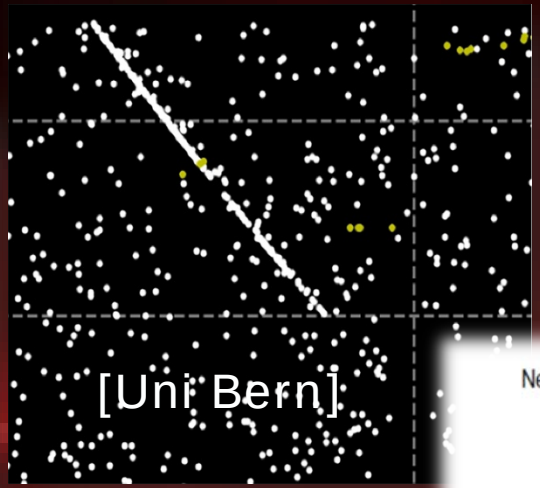
CobraDane

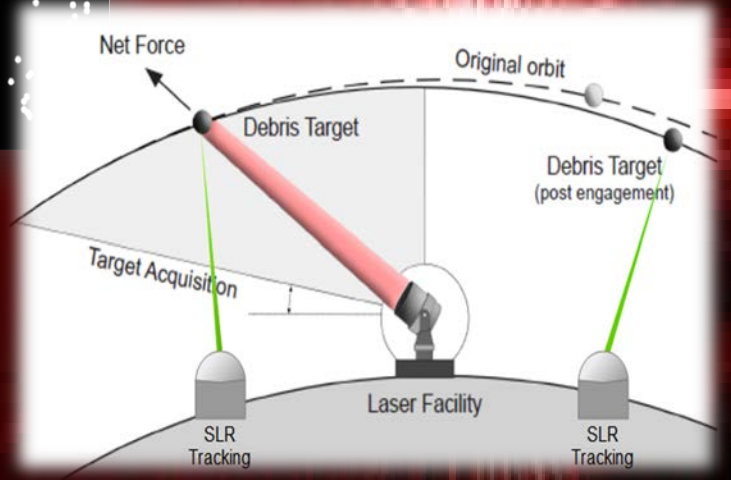
A New Aspect of SST



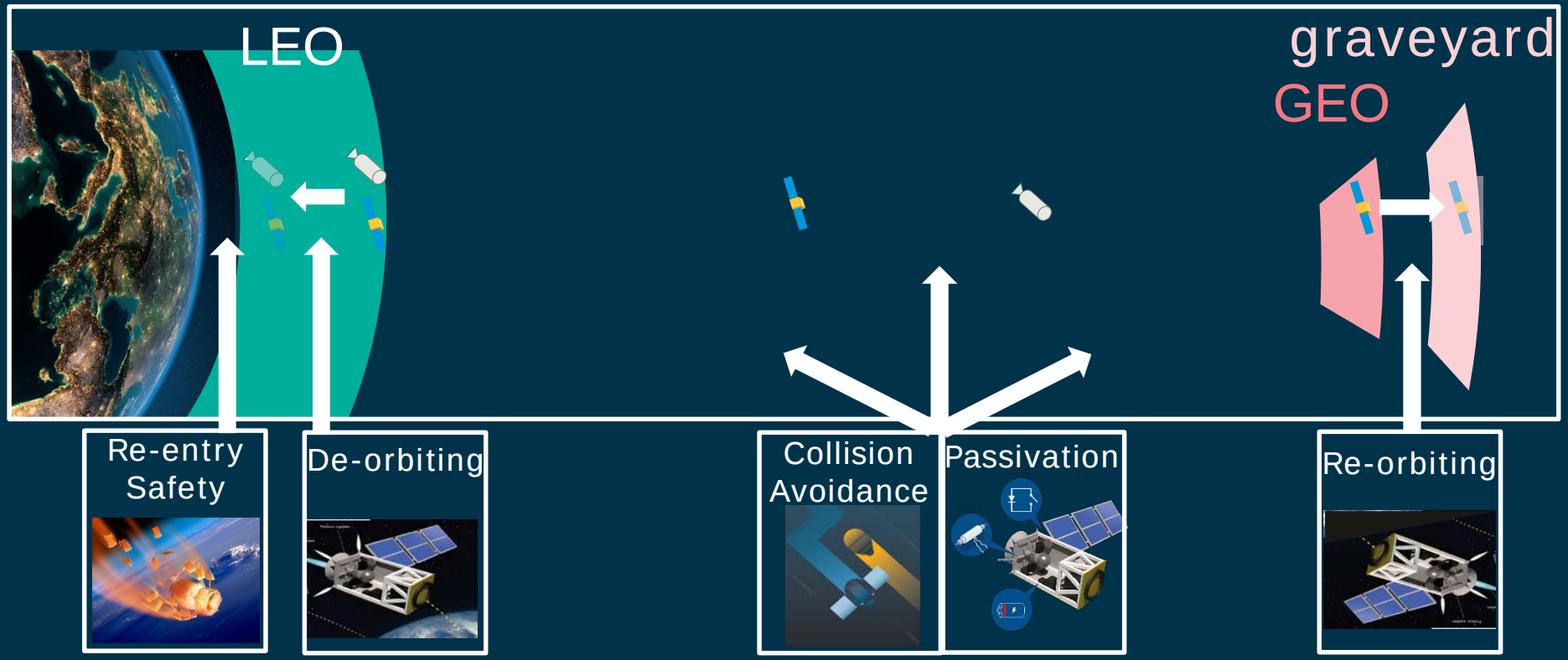
ESA's Laser Roadmap



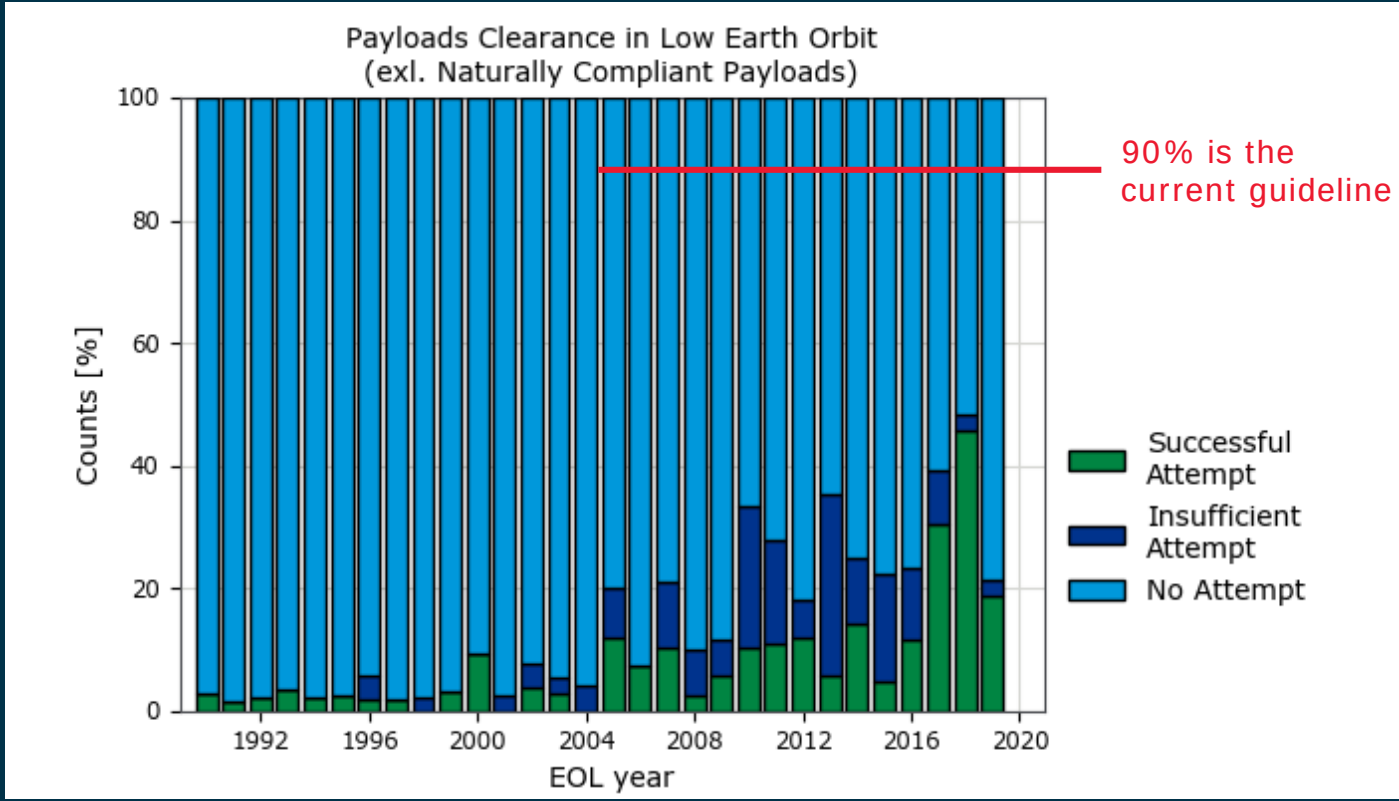




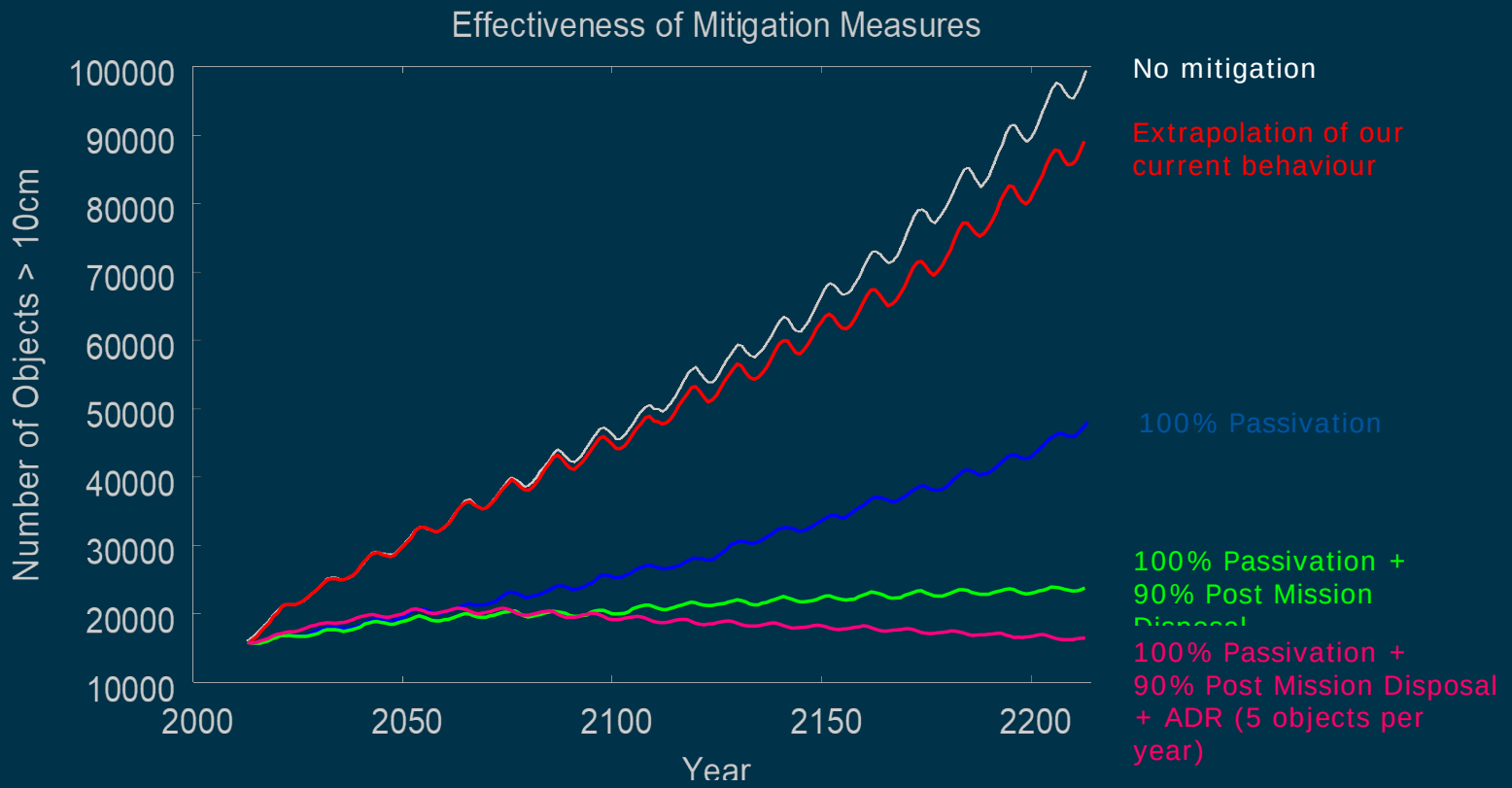
Mitigation of Space Debris



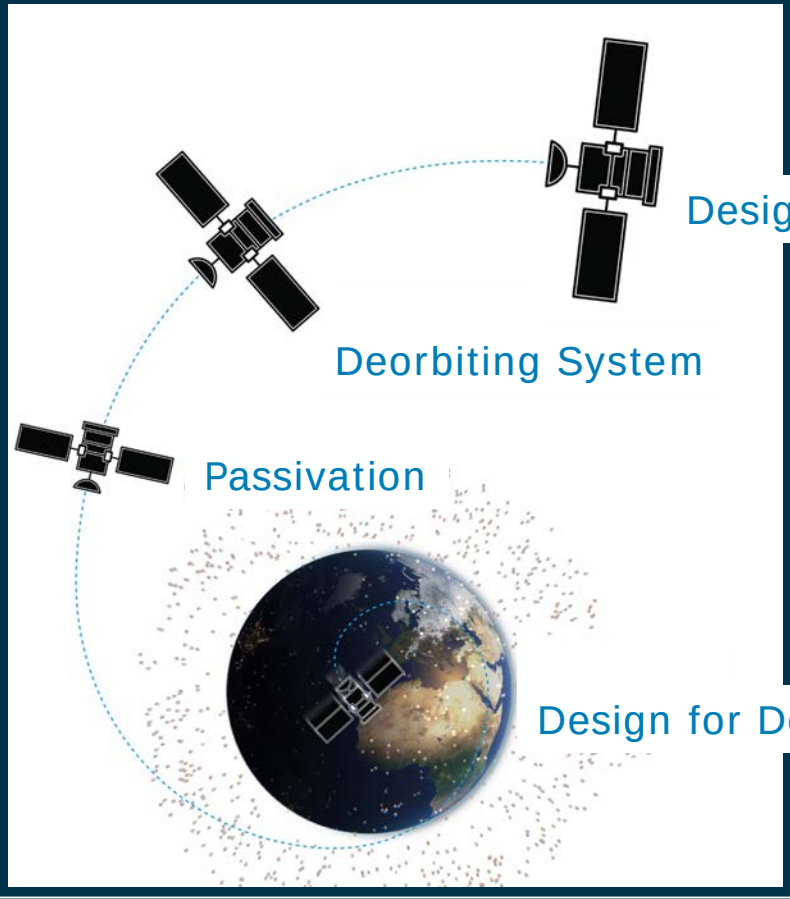
Post Mission Disposal Today

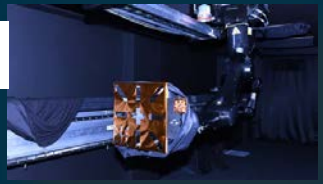


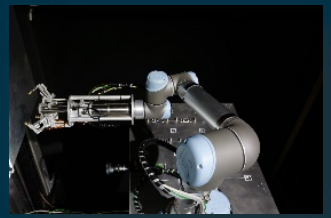
Effectivity of Measures



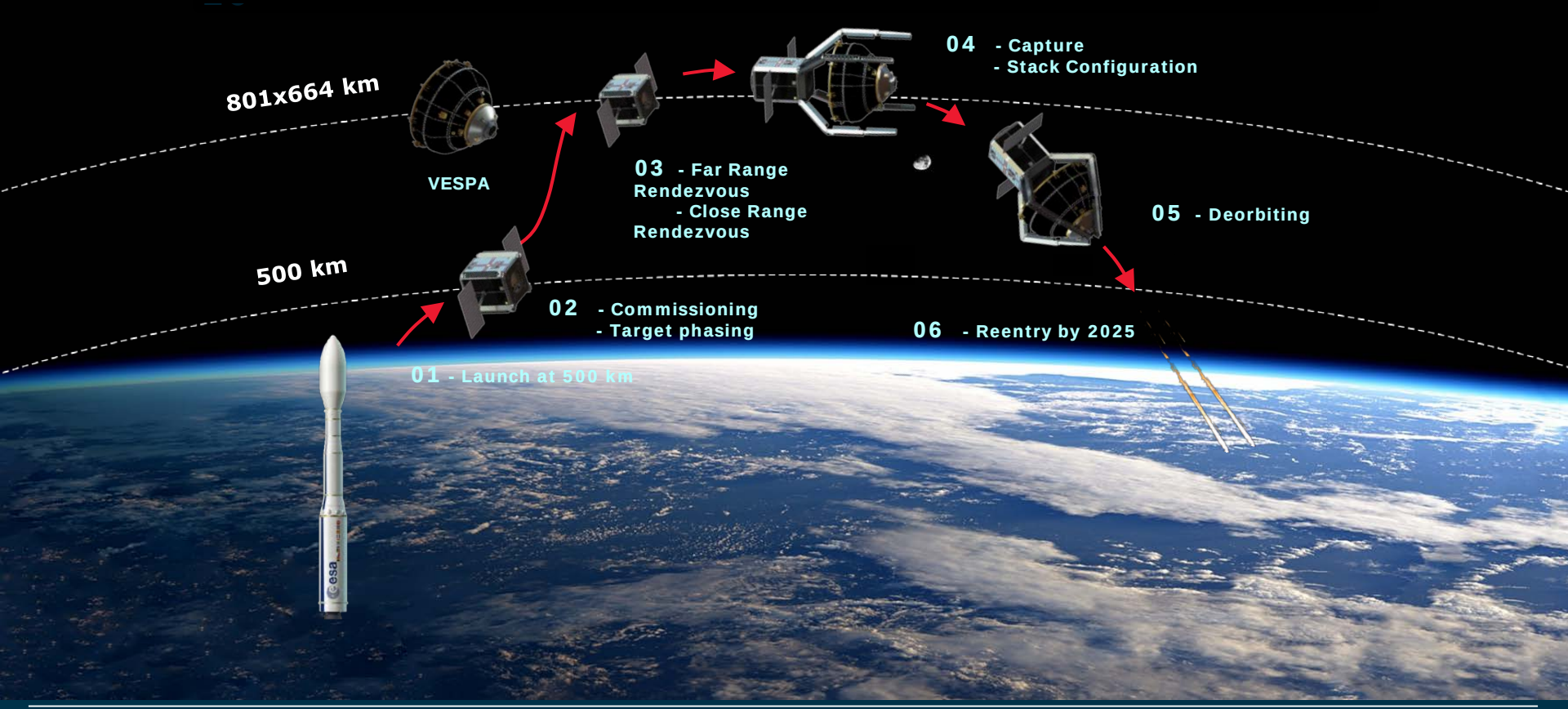
Cleanspace Mitigation Technology



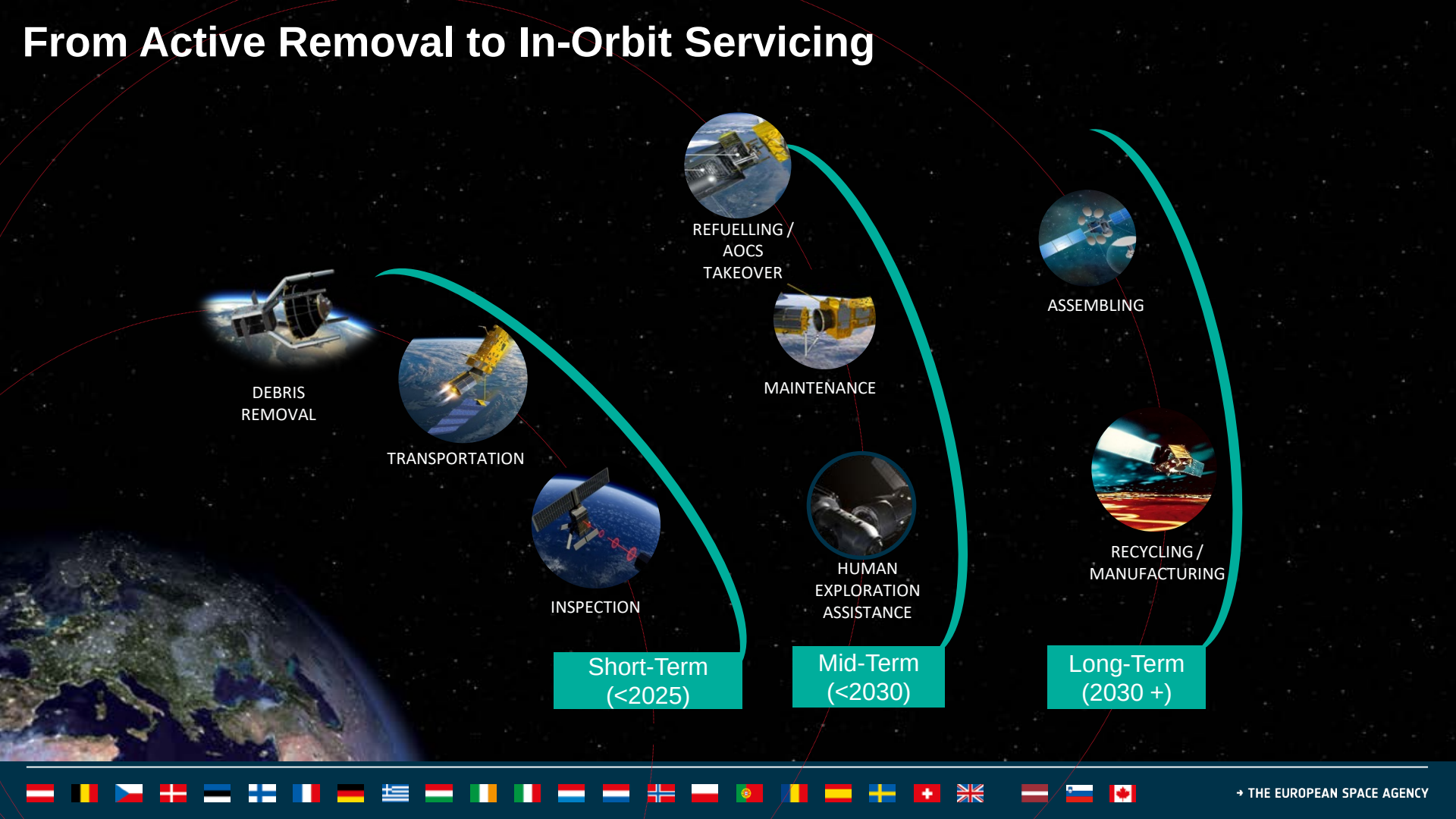




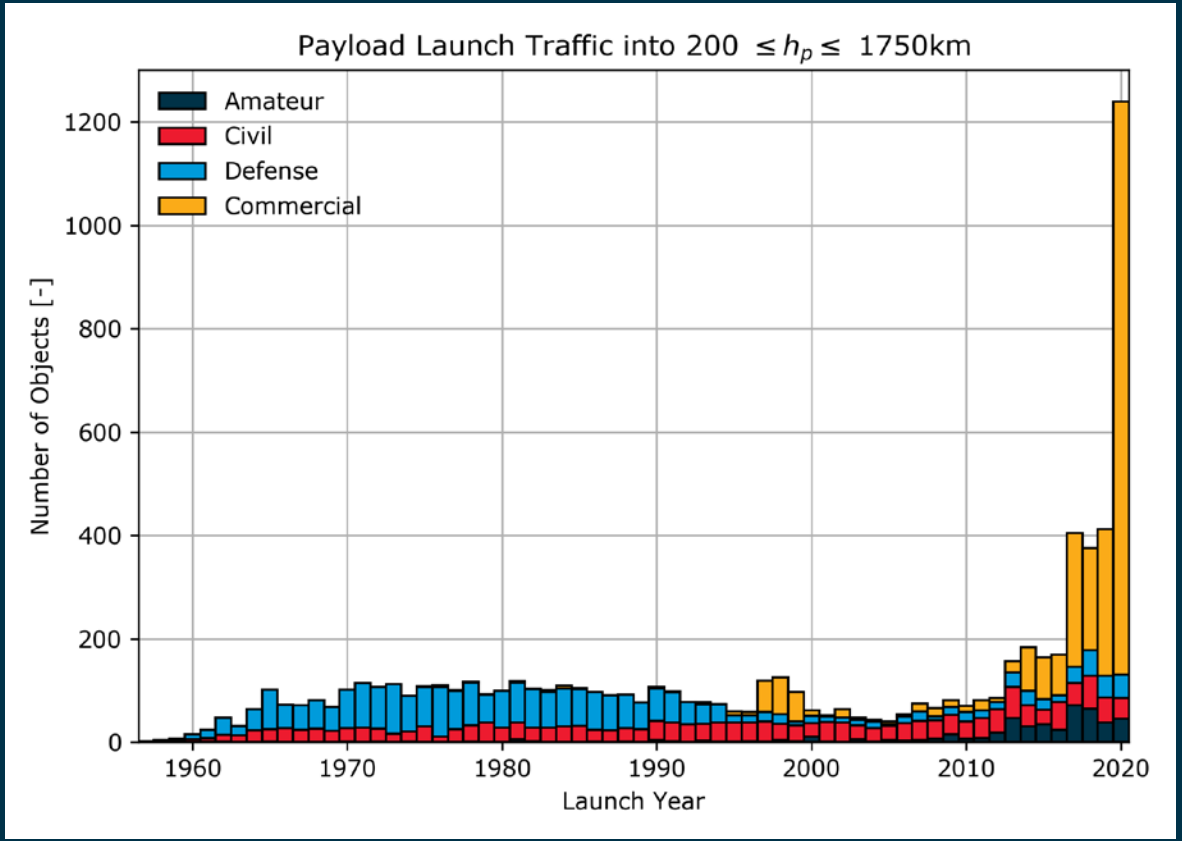
Clearspace-1



From Active Removal to In-Orbit Servicing

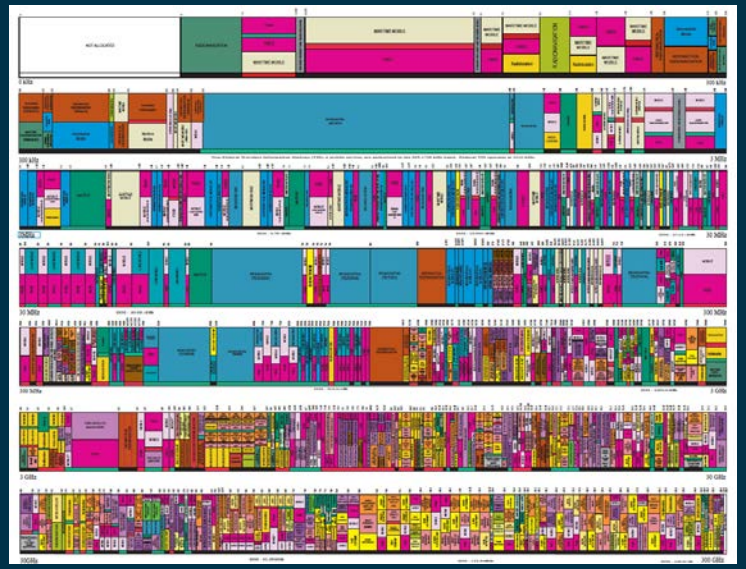


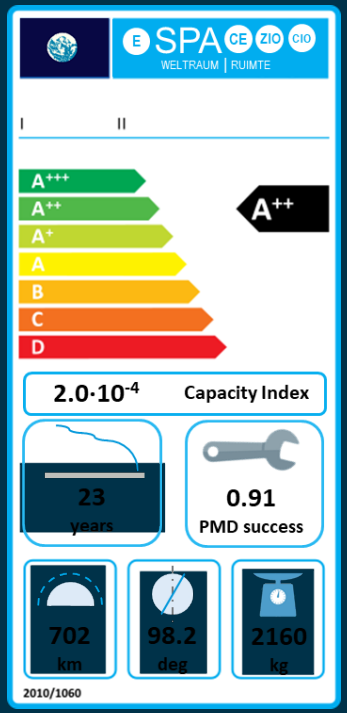
Space Traffic Trends



Space as a shared Resource

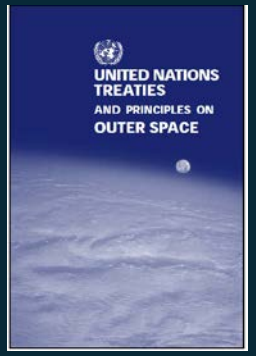
Capacity: typology & orbital regimes of artificial space objects compatible with a **stable evolution** of the environment





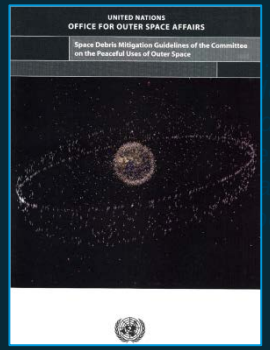
Current Legal Regime

UN Long-Term Sustainability Guidelines



Outer Space Treaty

UN and IADC Mitigation Guidelines



National Space Laws