



WRC-23

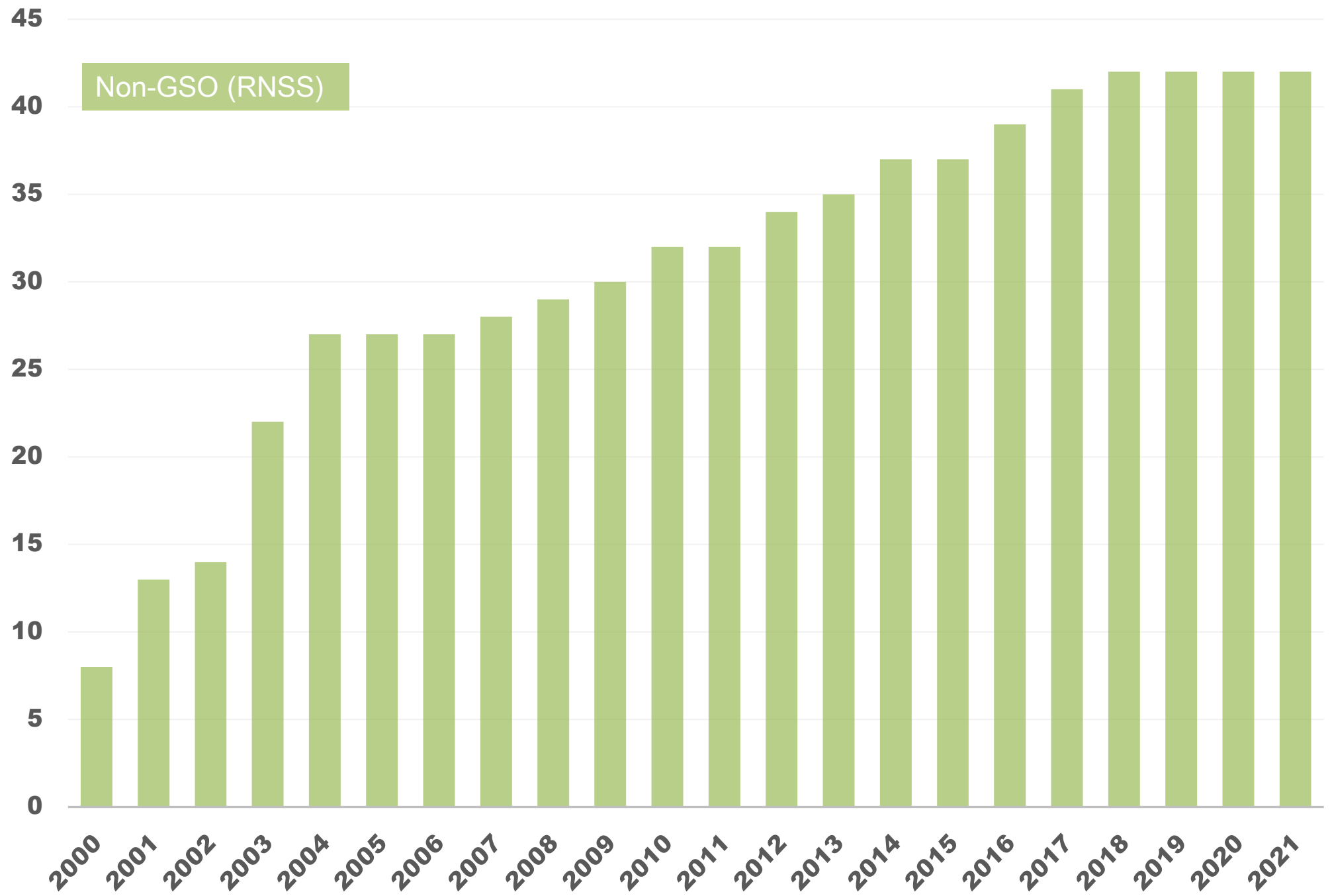
THE ROAD AHEAD

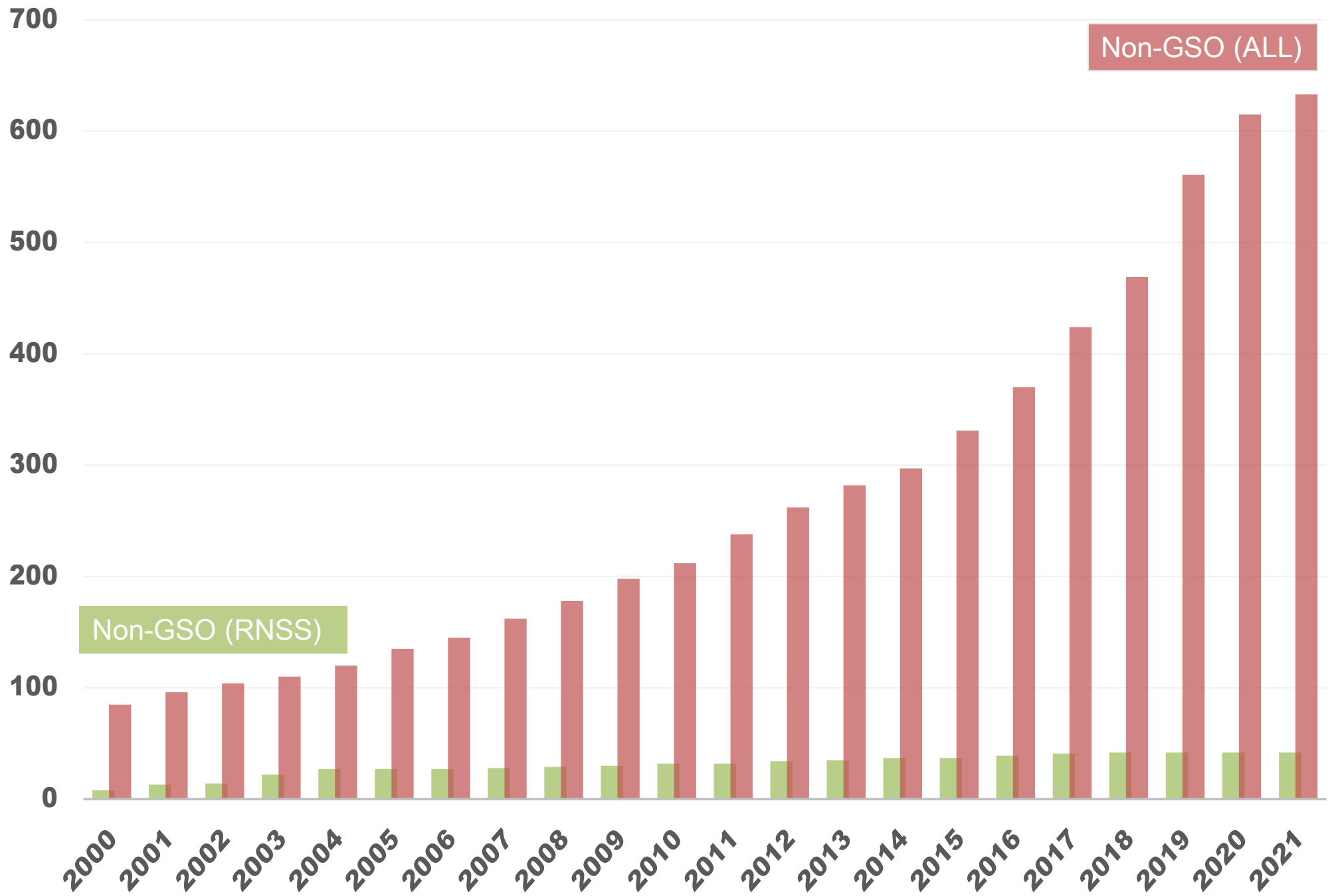


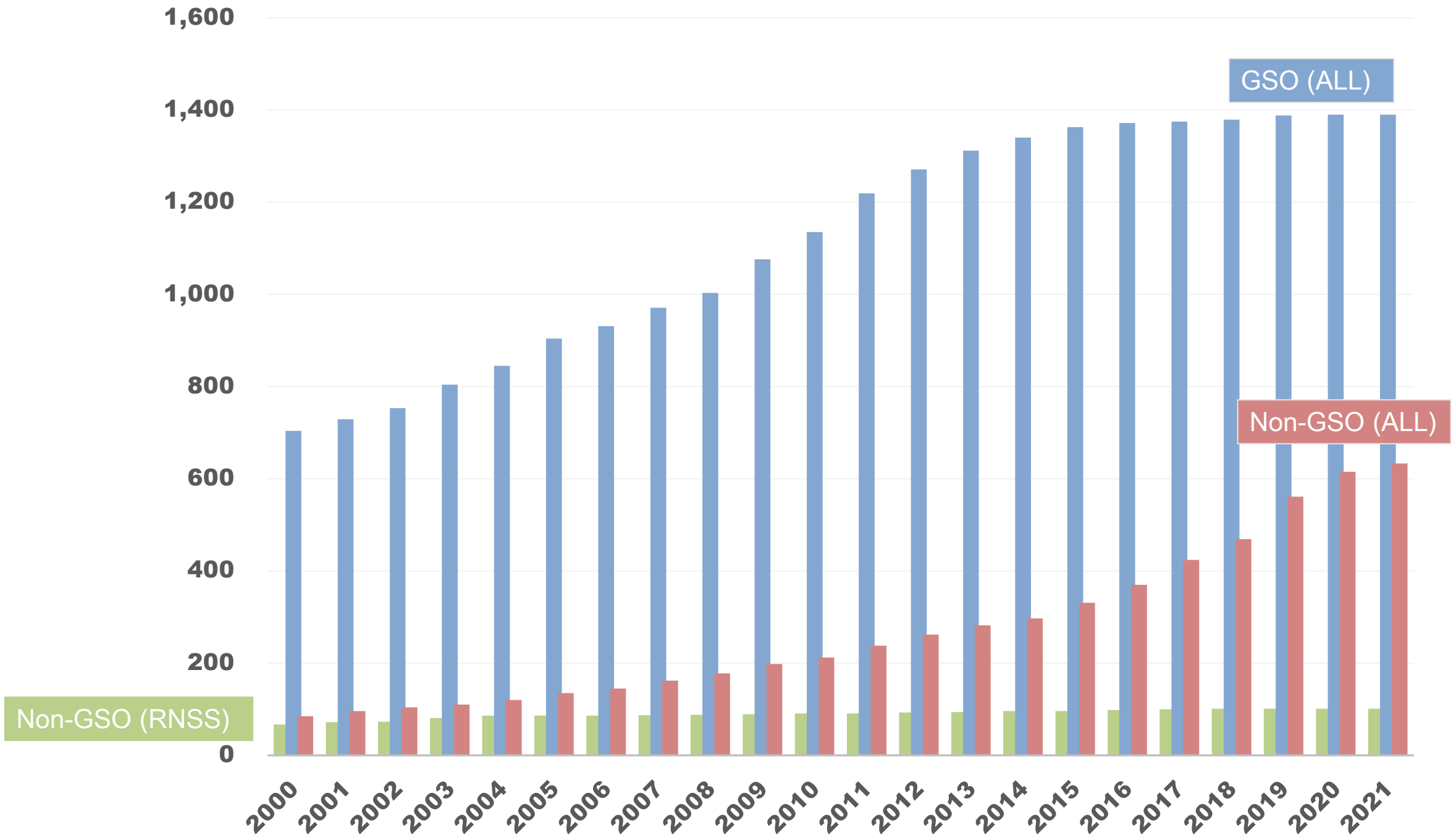
Hon Fai Ng (ng@itu.int)
International Telecommunication Union
ICG-15, 2021, Online/Vienna, Austria

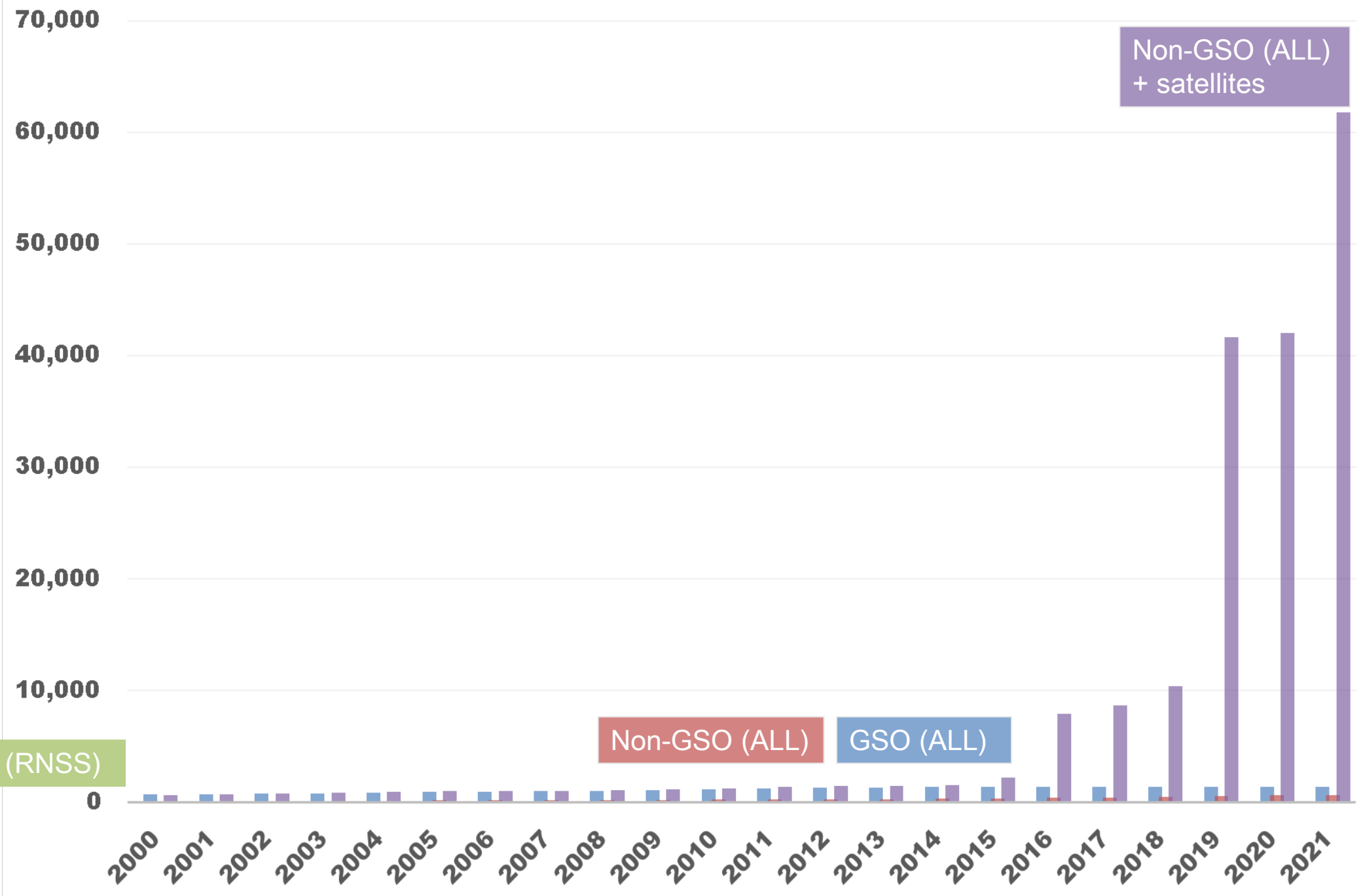
Today in the **ITU Master Register**









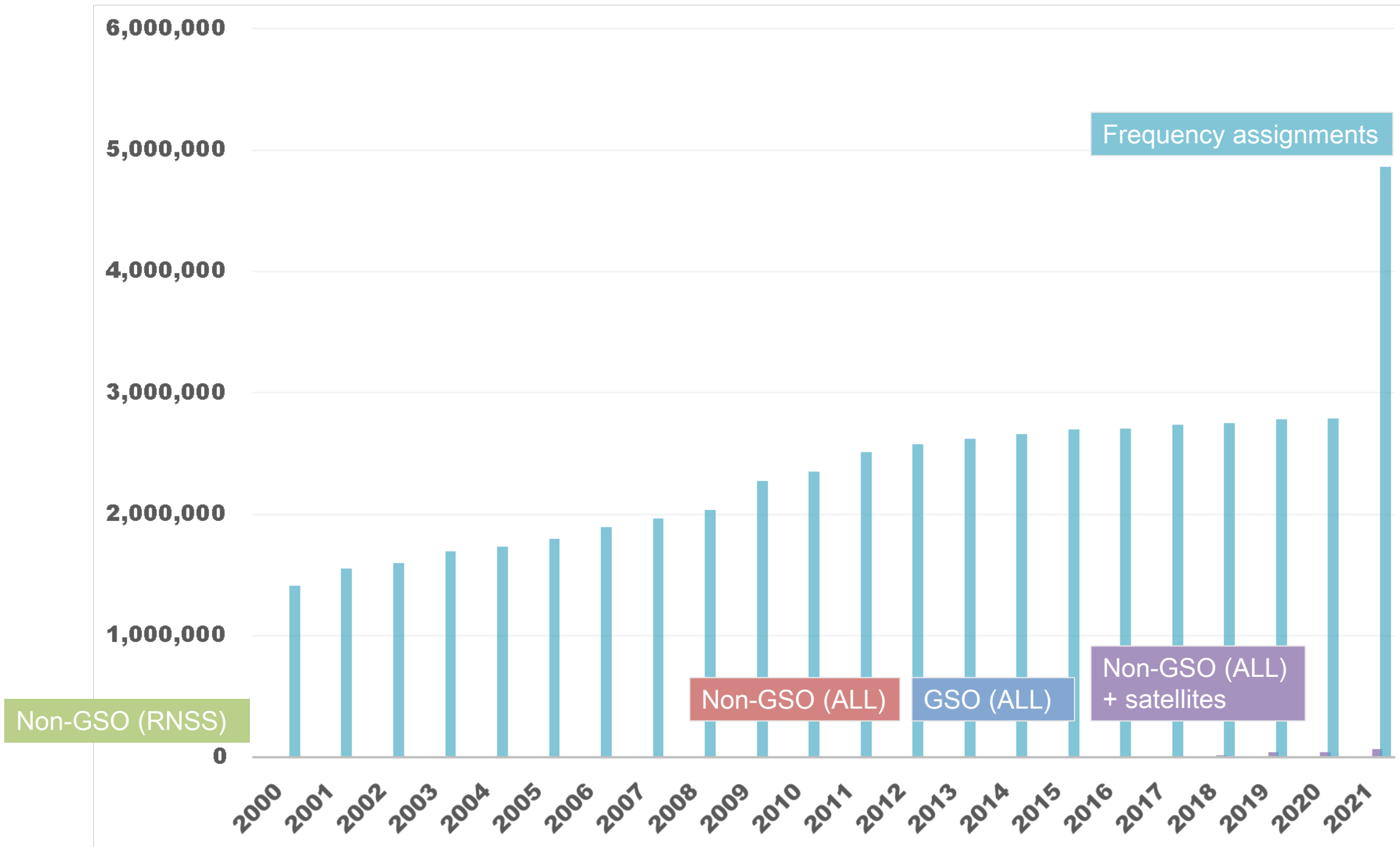


Non-GSO (RNSS)

Non-GSO (ALL)

GSO (ALL)

Non-GSO (ALL)
+ satellites



HARMFUL INTERFERENCE



RADIO REGULATIONS

- Since 1906
- Regulates use of radiofrequency to avoid harmful interference
- Modified by WRC

NEW

Radio Regulations

Articles

Edition of 2020



ALLOCATION

Frequency & services

Article 5

POWER LIMITS

PFD, EIRP, EIRP density, off-axis
EIRP, EPFD, min. antenna sizes

Articles 5, 21, 22

COORDINATION

between Administrations for
interference-free operations

Articles 9, 11

HARMFUL INTERFERENCE REPORTING

Just in case it happens

Article 15, Appendix 10

NEW

Radio Regulations

Articles

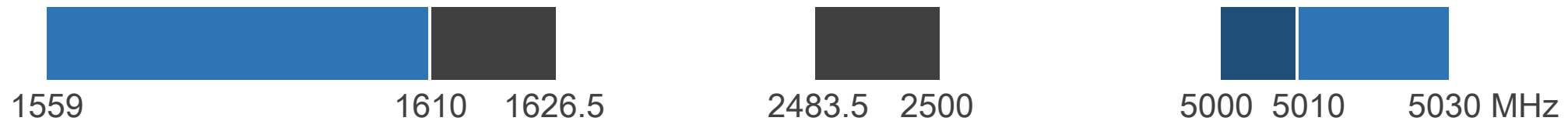
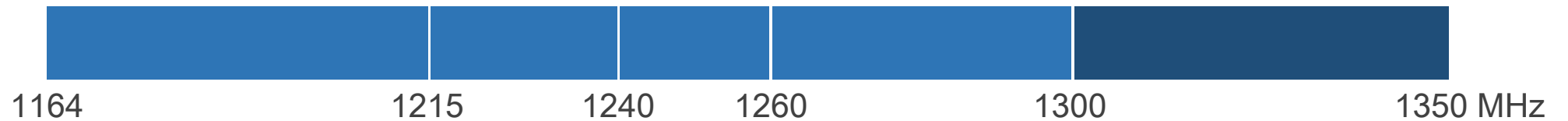
Edition of 2020






RADIO REGULATIONS NEED UPDATES

RNSS/RDSS ALLOCATION

Table of Frequency Allocation in Article 5 of Radio Regulations



-  Radionavigation-Satellite Service (RNSS)
-  Radionavigation-Satellite Service (Uplink)
-  Radiodetermination-Satellite Service (RDSS)

60 Starlink satellites
passing ITU, Geneva on
23 April 2020



NEXT UPDATE AT WRC-23

World Radiocommunication Conference 2023

[20 Nov - 15 Dec 2023]

[Abu Dhabi or Dubai, UAE]



WRC-23 Agenda Items

Mobile communications, etc.

MS/IMT (3.3-10.5 GHz): 1.1, 1.2, 1.3
High-altitude IMT (HIBS)(0.694-2.7 GHz): 1.4
MS, BS (470-960 MHz): 1.5

Transports

Sub-orbital vehicles: 1.6
AMS(R)S in VHF: 1.7
Unmanned Aircraft Systems (UAS): 1.8
Aviation safety-of-life: 1.9
AMS for non-safety (15.5/22 GHz): 1.10
GMDSS & e-navigation: 1.11

General

Recommendations: 2
Res/Rec: 4
Country footnotes: 8
Director's report: 9.1, 9.2
Resolution 80: 9.3
WRC-27 agenda: 10

Scientific

EESS(a) for radar sounders (45 MHz): 1.12
SRS (14.8-15.35 GHz): 1.13
EESS(p) remote sensing (231.5-252 GHz): 1.14

Satellites

Aero & Maritime-ESIM (12.75-13.25 GHz): 1.15
NGSO ESIM (Ka-band): 1.16
Inter-satellite links: 1.17
Narrowband MSS for IoT: 1.18
Ka-band FSS (R2): 1.19
Regulatory issues: 7

WRC-23 Agenda Items

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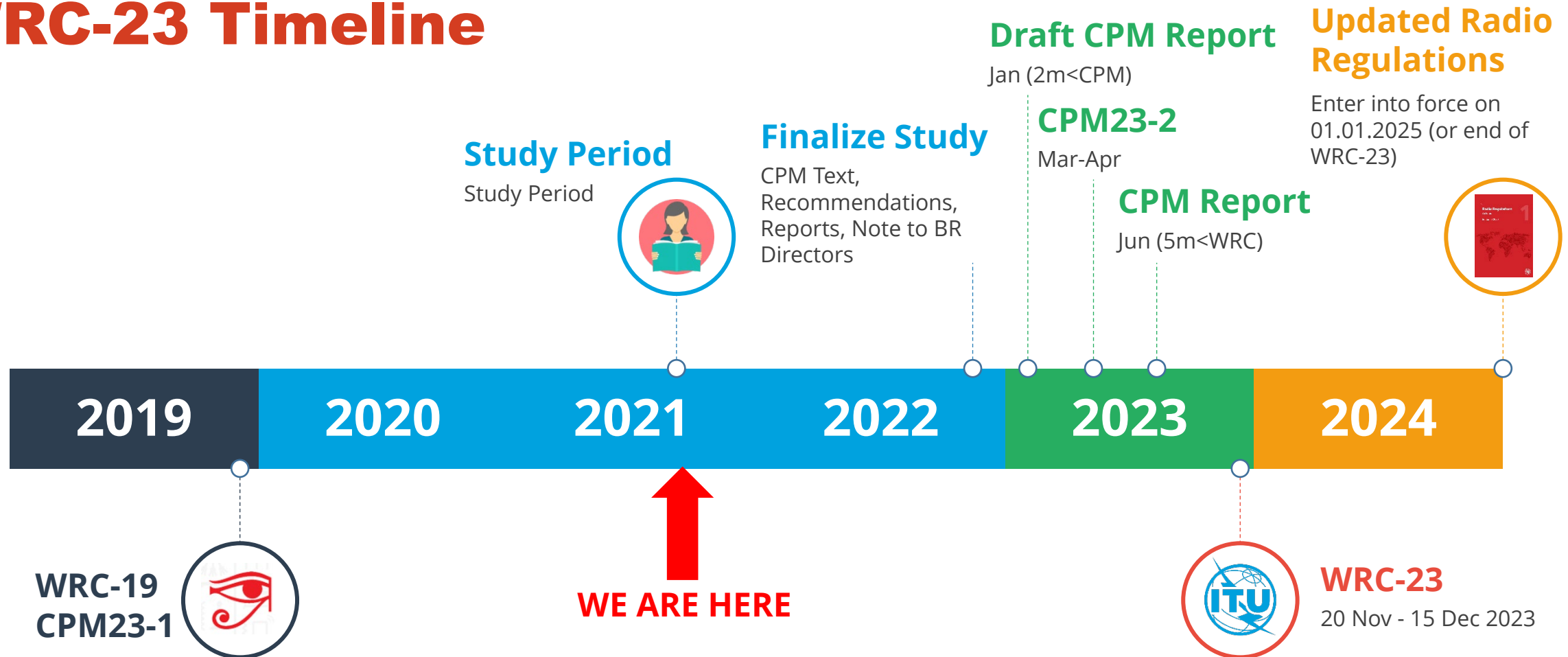
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9.1.a) Space weather sensors
9.1.b) RNSS vs Amateur & Amateur-satellite service

7A) NGSO orbital tolerances

WRC-23 Timeline



A photograph of two male sprinters in starting blocks on a blue track at sunrise. The sun is low in the sky, creating a strong lens flare and casting long shadows. The athletes are in a crouched starting position, ready to begin a race. The background shows a blurred stadium structure.

WHERE TO GO FROM HERE

1. Latest ITU-R studies & calendar

www.itu.int/go/rcpm-wrc-23-studies

www.itu.int/en/events/Pages/Calendar-Events.aspx?sector=ITU-R

2. Radio Regulations 2020

www.itu.int/pub/R-REG-RR/en

3. Online workshop on WRC-23

13-15 Dec 2021

www.itu.int/en/ITU-R/conferences/wrc/2023/irwsp/Pages/default.aspx

International Telecommunication Union



www.itu.int