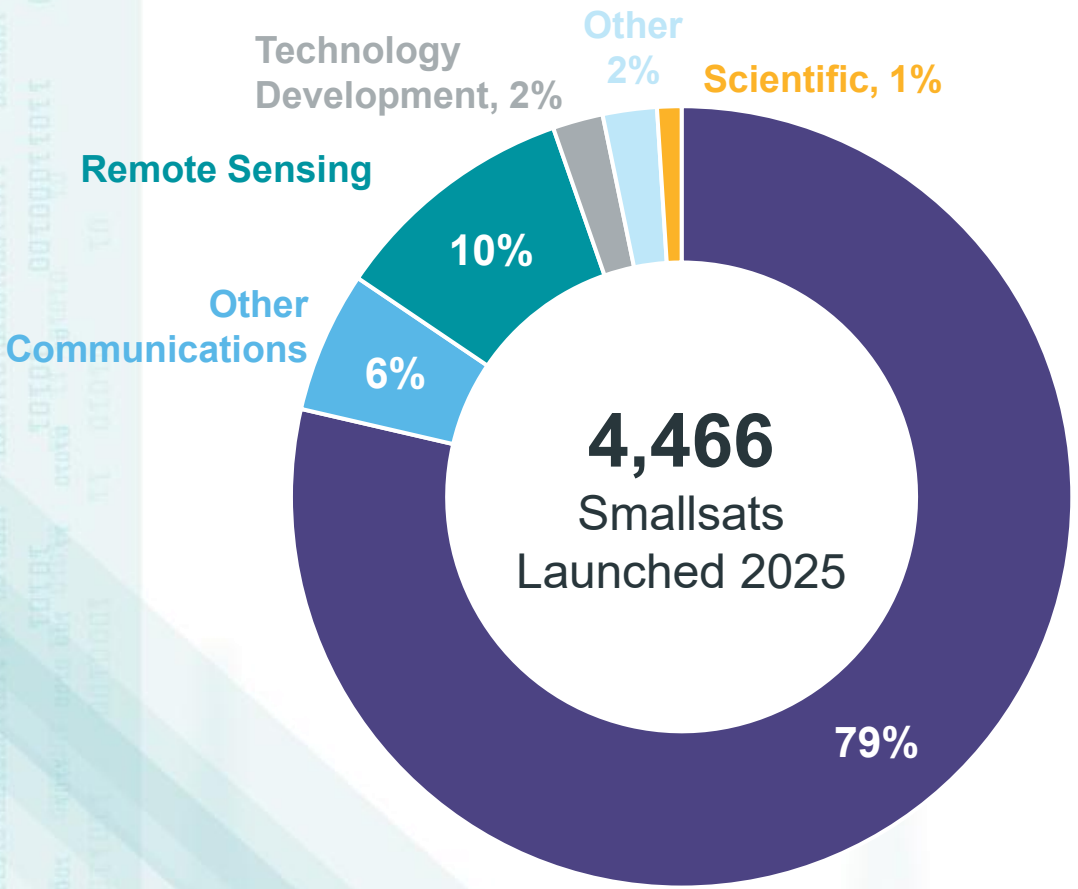
Smallsats by the Numbers 2026

July 2026

2025 Smallsat Highlights

Smallsats by Mission Type



LEO Broadband Megaconstellations
(Starlink, OneWeb, Amazon LEO, Qianfan, Guowang)

Smallsats Launched in 2025

Smallsats defined by having mass of ≤1,200 kg

98% of all spacecraft (2024: 97%)

85% of spacecraft upmass (2024: 82%)

259 of 325 orbital launches (2024: 201)
Launches with at least one smallsat

305 different operators (2024: 222)

4% launched on small or micro launch vehicles (2024: 6%)

Introduction

- Smaller satellites continue to transform in-space architectures
- Bryce's *Smallsats by the Numbers* presents historical information on smaller satellites launched 2016 – 2025
  - Definition of mass at launch of 1,200 kg and under reflects the six smallest mass classes defined by the FAA
  - Report includes all smallsats launched regardless of operational status
  - Due to the large quantity of LEO broadband telecommunications smallsats launched in 2025, this report provides data views that both include and exclude these systems
  - Views excluding LEO broadband telecommunications smallsat systems provide insight into trends in other types of systems

	Mass Class Name	Kilograms (kg)
Smallsats	Femto	0.01 – 0.09
	Pico	0.1 – 1
	Nano	1.1 – 10
	Micro	11 – 200
	Mini	201 – 600
	Small	601 – 1,200
	Medium	1,201 – 2,500
	Intermediate	2,501 – 4,200
	Large	4,201 – 5,400
	Heavy	5,401 – 7,000
	Extra Heavy	> 7,001

Adapted from FAA AST

Smallsats in Context

Operator and Mission Type Trends

Smallsat Mass Trends

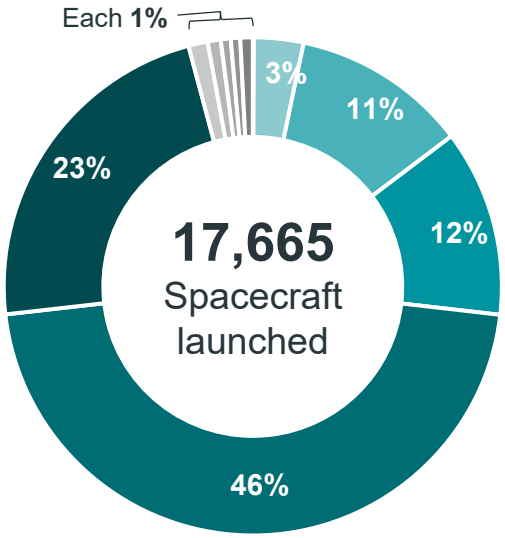
Smallsat Launch Trends

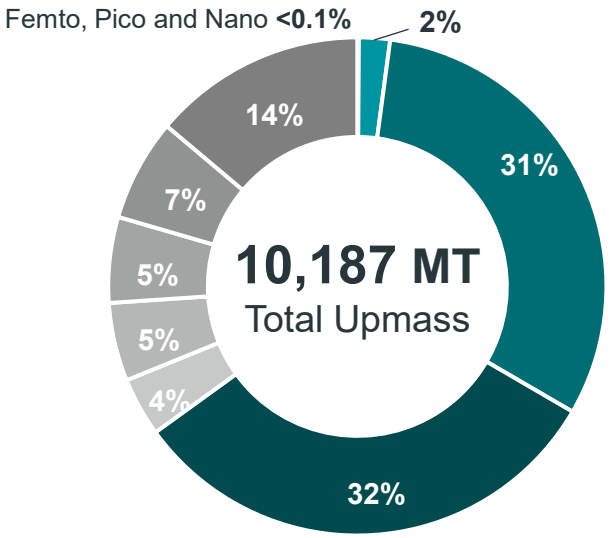
Looking Forward

Smallsats in Context

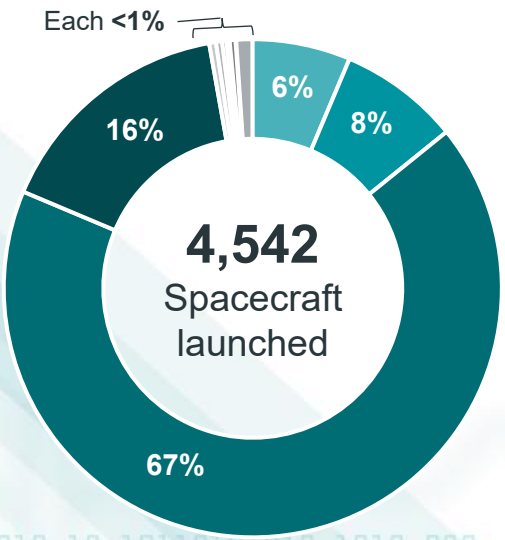
Spacecraft Launched and Total Spacecraft Upmass 2016 – 2025

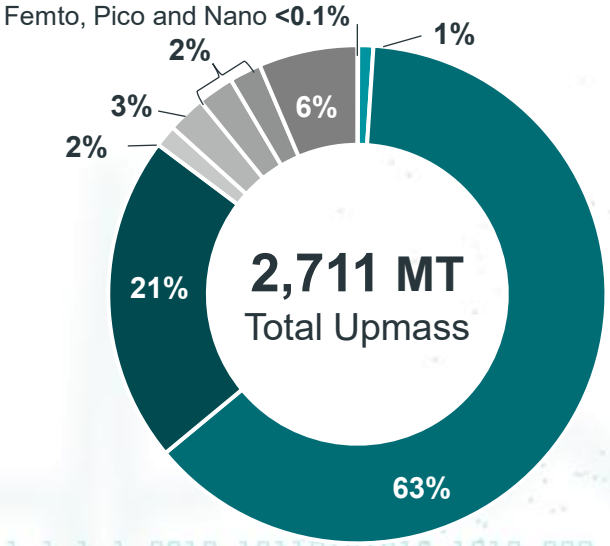
2016 – 2025





2025





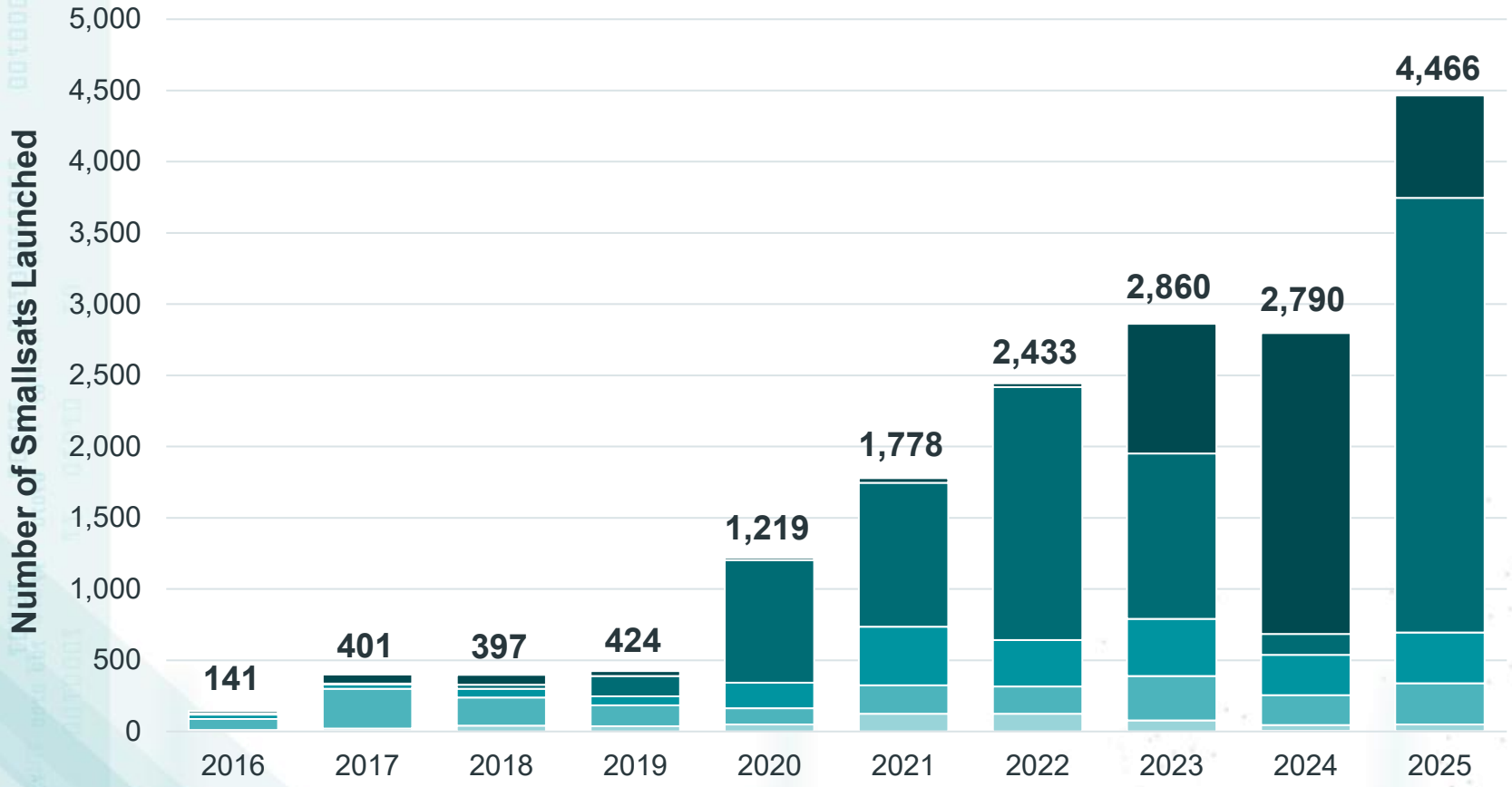
Smallsats represent

- *96% of spacecraft launched 2016 – 2025, 65% of total upmass*
- *98% of spacecraft launched in 2025, 85% of total upmass*

Mass Class Name	Kilograms (kg)
Femto	0.01 – 0.09
Pico	0.1 – 1
Nano	1.1 – 10
Micro	11 – 200
Mini	201 – 600
Small	601 – 1,200
Medium	1,201 – 2,500
Intermediate	2,501 – 4,200
Large	4,201 – 5,400
Heavy	5,401 – 7,000
Extra Heavy	> 7,001

Smallsats in Context

Smallsats 2016 – 2025, by Mass Class

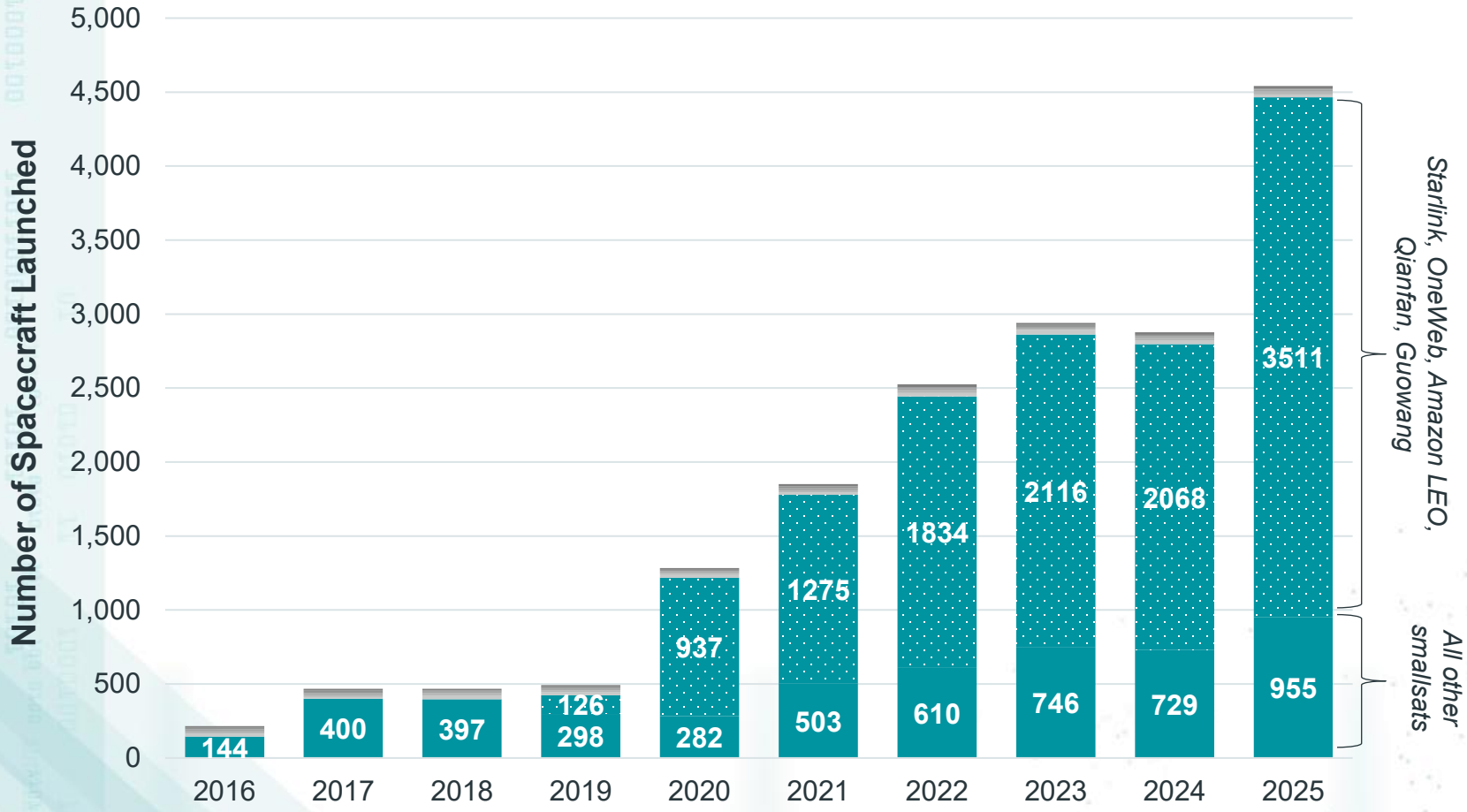


Mass Class Name	Kilograms (kg)
Small	601 – 1,200
Mini	201 – 600
Micro	11 – 200
Nano	1.1 – 10
Pico	0.1 – 1
Femto	0.01 – 0.09

Large share of mini and small class systems driven by LEO Broadband (BB) Megaconstellations. 2025 increase in mini mass class driven by Starlink shifting back to lower-mass satellites

Smallsats in Context

Spacecraft Launched 2016 – 2025, by Mass Class



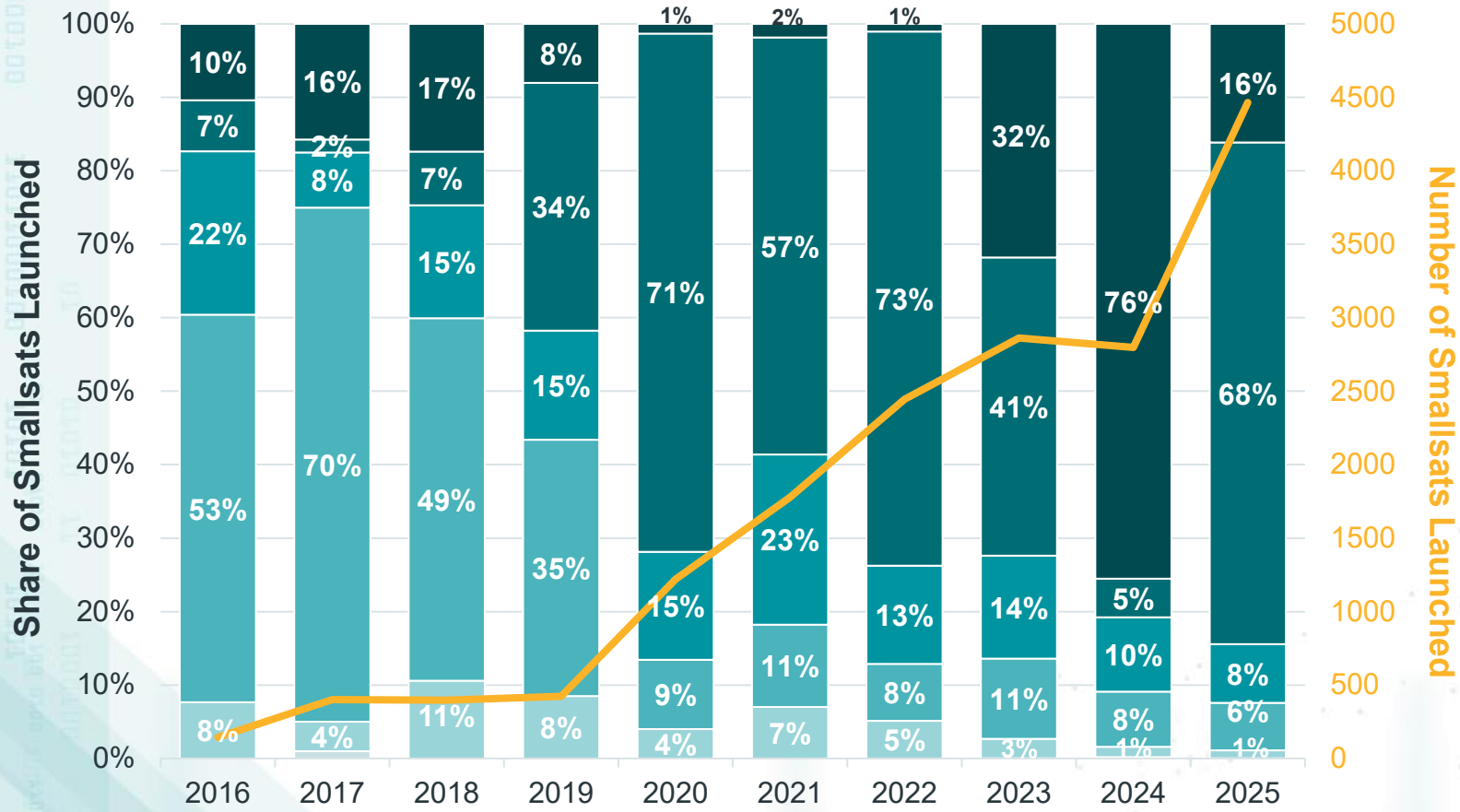
Mass Class Name	Kilograms (kg)
Extra Heavy	> 7,001
Heavy	5,401 – 7,000
Large	4,201 – 5,400
Intermediate	2,501 – 4,200
Medium	1,201 – 2,500
Smallsats	≤1200

LEO Broadband (Starlink, OneWeb, Amazon LEO, Qianfan, Guowang)

Broadband smallsats continue to drive the market, non-broadband applications like remote sensing, government communications and missile warning continue to expand

Smallsats in Context

Share of Smallsats 2016 – 2025, by Mass Class, Including LEO Broadband

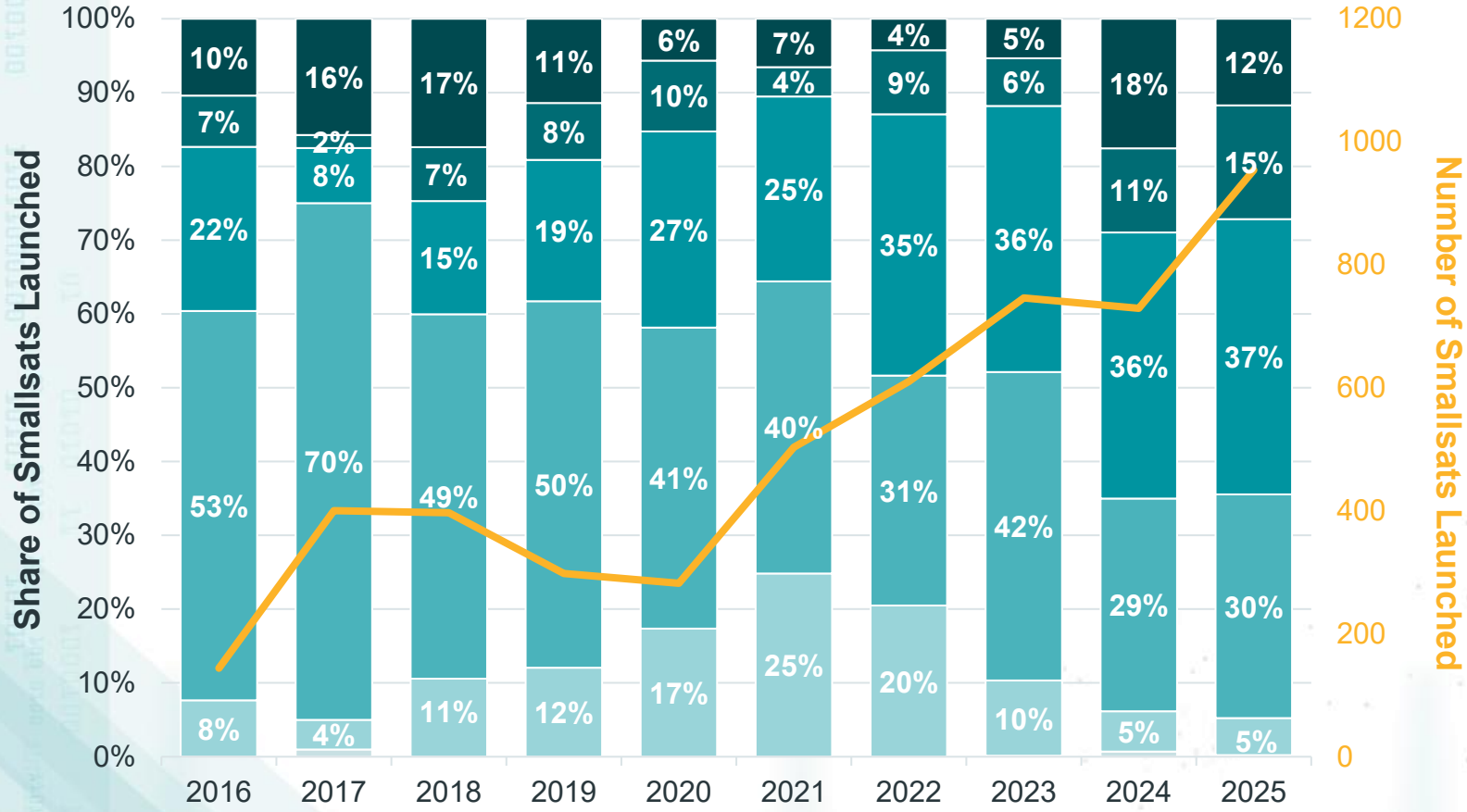


Mass Class Name	Kilograms (kg)
Small	601 – 1,200
Mini	201 – 600
Micro	11 – 200
Nano	1.1 – 10
Pico	0.1 – 1
Femto	0.01 – 0.09

Shift in small and mini mass class majority indicate operators finding balance between larger, more capable satellites and smaller, more rapidly deployable systems

Smallsats in Context

Share of Smallsats 2016 – 2025, by Mass Class, Excluding LEO Broadband



Mass Class Name	Kilograms (kg)
Small	601 – 1,200
Mini	201 – 600
Micro	11 – 200
Nano	1.1 – 10
Pico	0.1 – 1
Femto	0.01 – 0.09

2025 mass class shares distributed more evenly across non-broadband smallsats

Smallsats in Context

Operator and Mission Type Trends

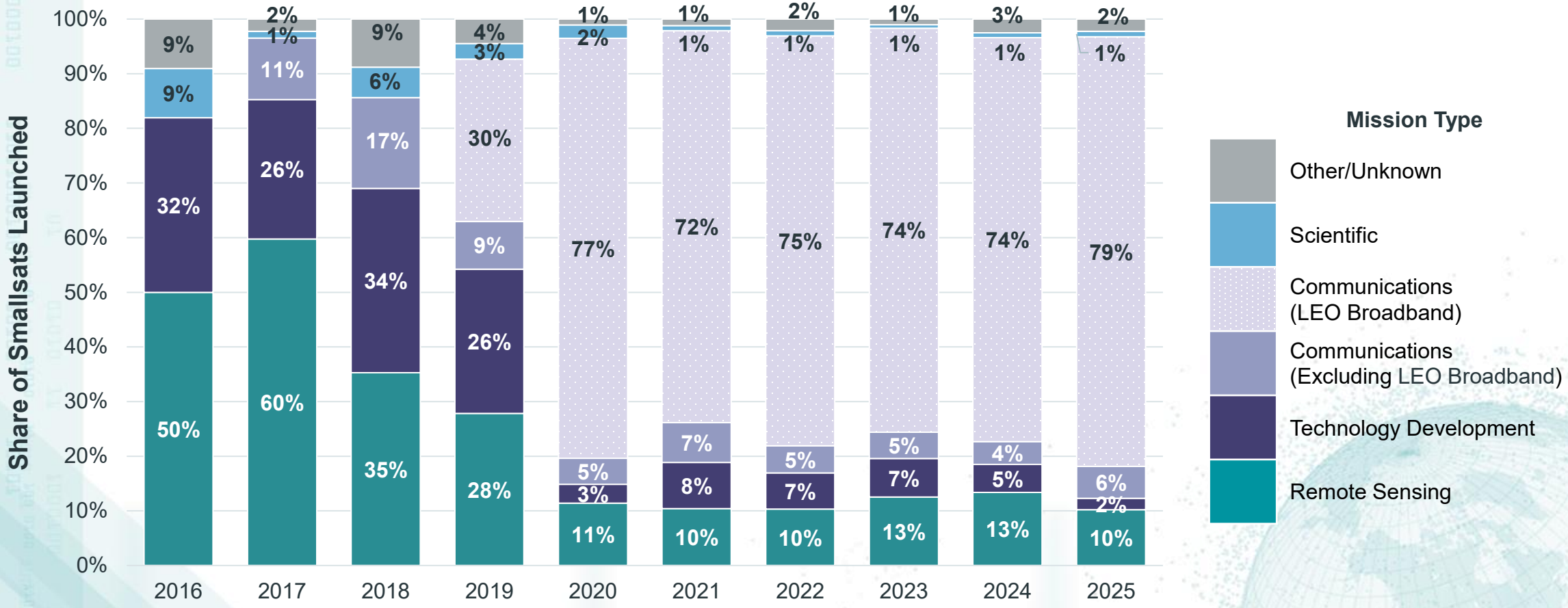
Smallsat Mass Trends

Smallsat Launch Trends

Looking Forward

Operator and Mission Type Trends

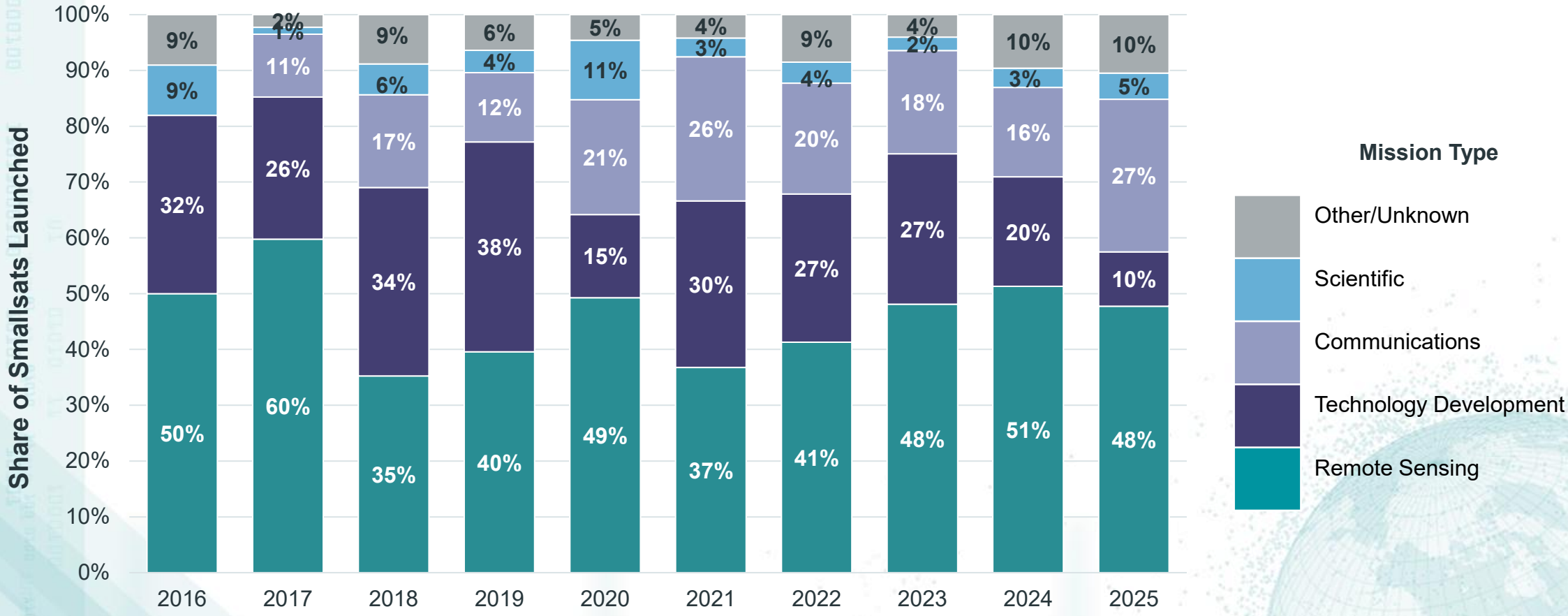
Smallsats 2016 – 2025, by Application, Including LEO Broadband



Since 2020, remote sensing share has remained below 14% as number of LEO BB dominated

Operator and Mission Type Trends

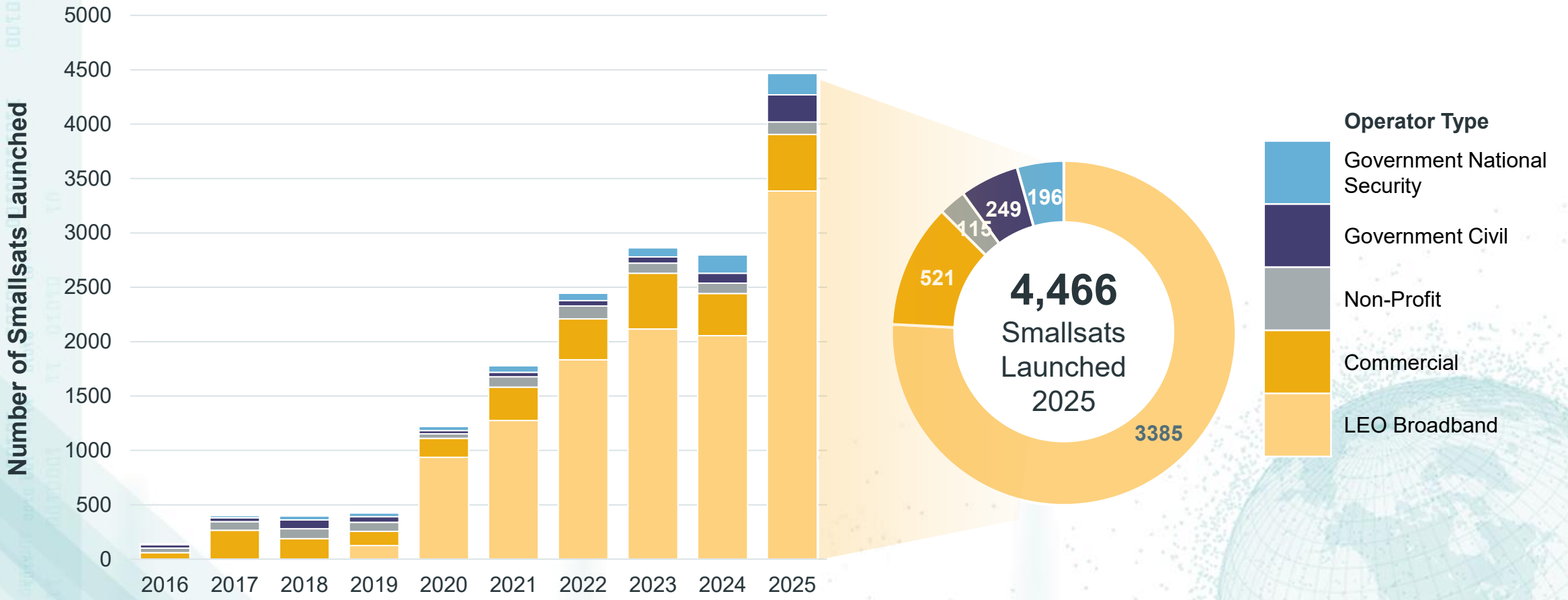
Smallsats 2016 – 2025, by Application, Excluding LEO Broadband



Since 2016, remote sensing smallsats constituted the largest share by application among non-broadband sats; emerging communications segment outside of LEO broadband

Operator and Mission Type Trends

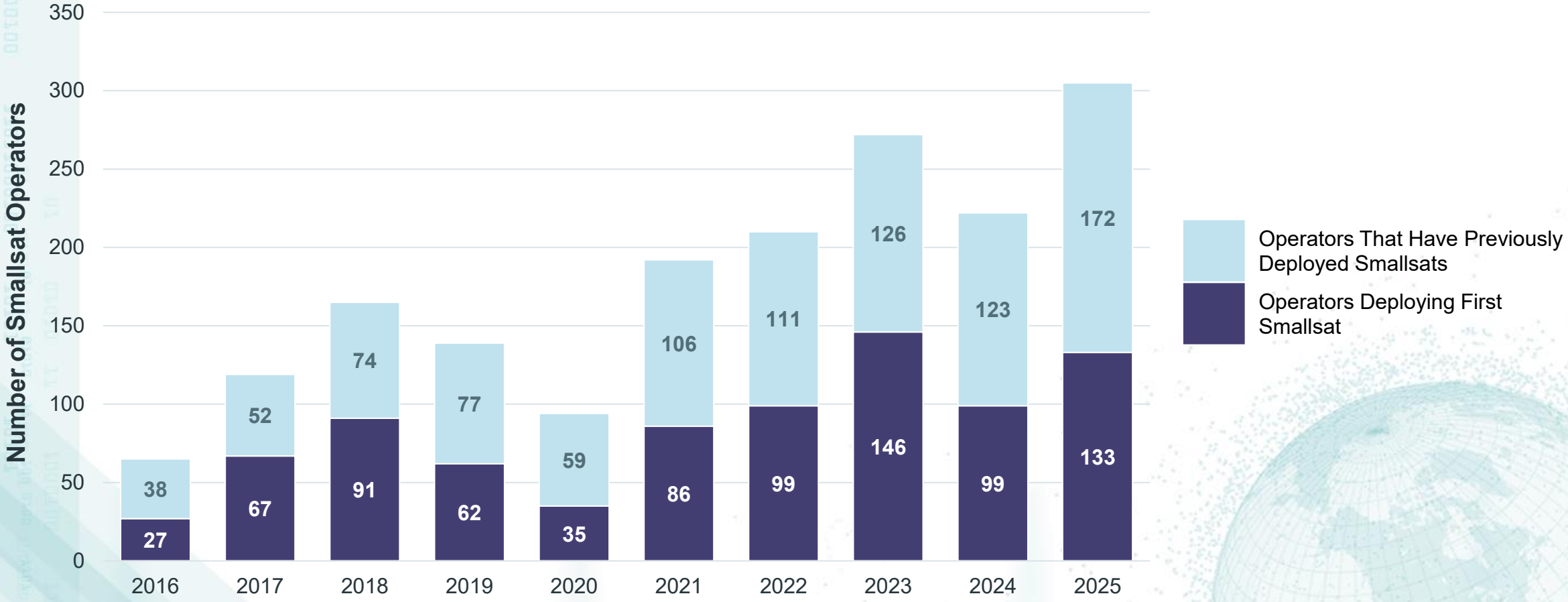
Number of Smallsats 2016 – 2025, by Operator Type



Largest growth seen by commercial operators, including LEO BB, followed by civil government

Operator and Mission Type Trends

Operators Deploying Smallsats 2016 – 2025

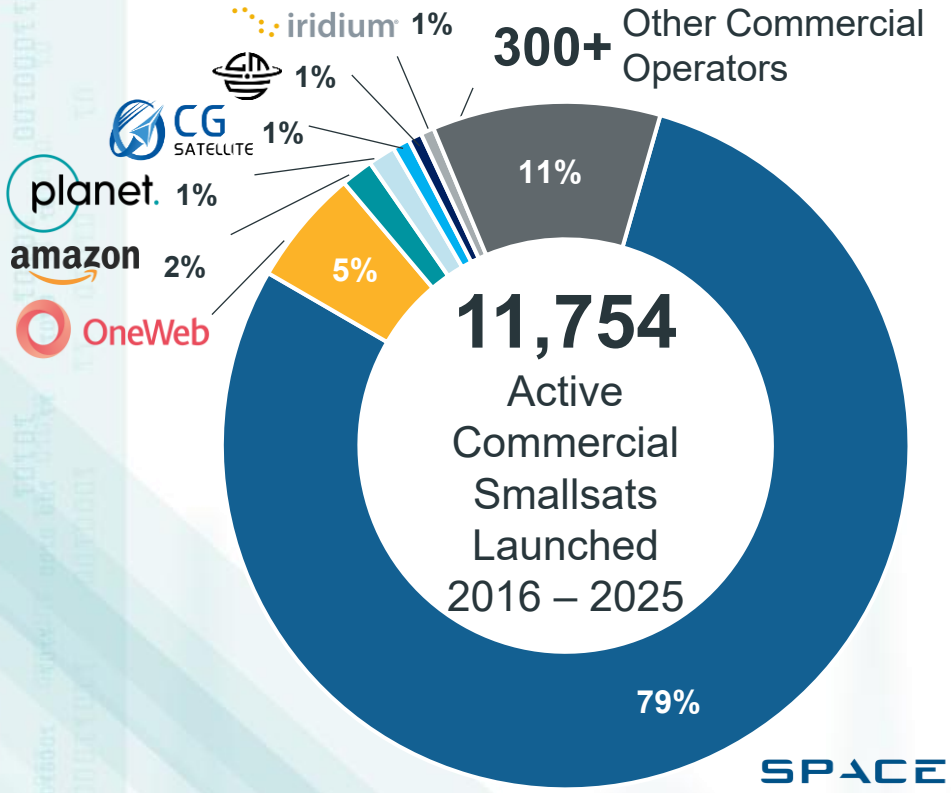


Increase in share of new operators since 2020 indicates sustained momentum

Operator and Mission Type Trends

Commercial Smallsat Operators 2016 – 2025

Over 80% of active commercial smallsats launched 2016 – 2025 are owned by 7 operators



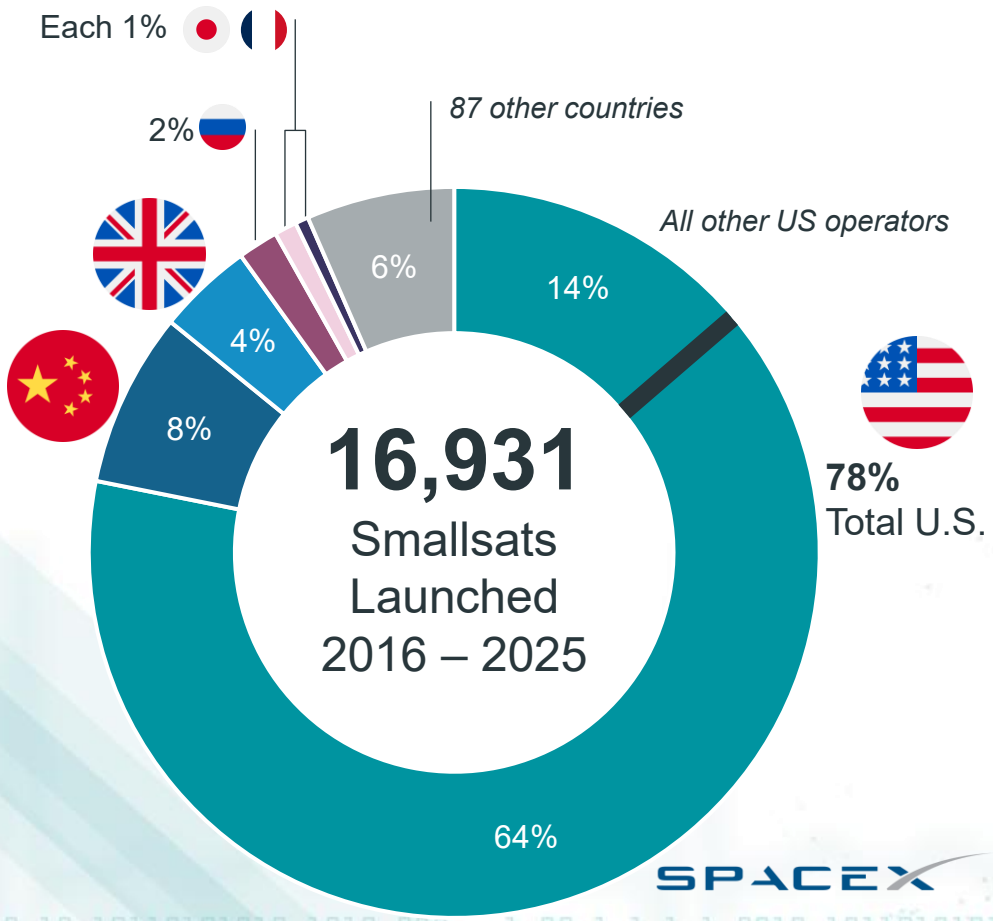
Commercial Operators with >30 active smallsats

Operator	# of Smallsats
SpaceX	9,380
Eutelsat (OneWeb)	652
Amazon	180
Planet	152
Chang Guang Satellite Technology Co. Ltd	96
Shanghai Spacecom Satellite Technology (SSST)	76
Iridium Satellite LLC	75
Geespace	63
Sitronics Group	51
Spire Global	43
ICEYE	39
Tianjin Yunyao Aerospace Technology Co., Ltd (Yunyao Aerospace)	32

Operator and Mission Type Trends

Smallsats 2016 - 2025, by Operator Country

U.S. operators account for over 75% of smallsats launched since 2016

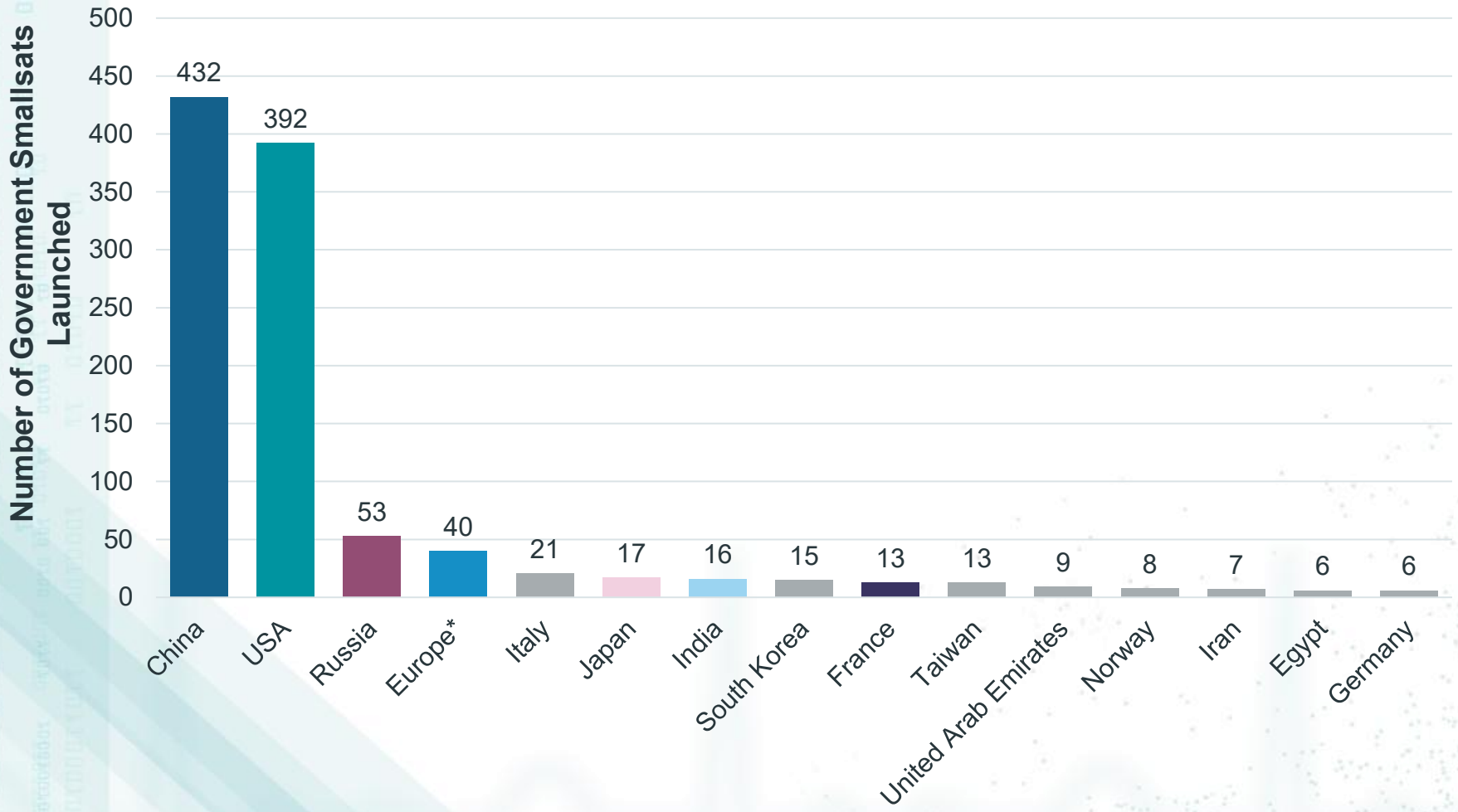


Operator Country	# of Smallsats (>60)
USA	13,143 (10,803 Starlink)
China	1,299
United Kingdom	709
Russia	301
Japan	166
France	99
Italy	85
Germany	74
Canada	74
Finland	67
Spain	66
Australia	64
South Korea	62

Operator and Mission Type Trends

Number of Active Government Smallsats 2016 – 2025, by Country

Countries with >5 Active Government Smallsats



Five or Fewer Active Government Smallsats	
Algeria	Australia
Bahrain	Brazil
Canada	Colombia
Czech Republic	Denmark
Greece	Indonesia
Israel	Kenya
Lithuania	Luxembourg
Morocco	North Korea
Pakistan	Peru
Poland	Saudi Arabia
Senegal	Singapore
Slovenia	Spain
Thailand	Turkey
United Kingdom	Venezuela
Zimbabwe	

*Operators assigned to Europe represent institutional missions from ESA, European Commission

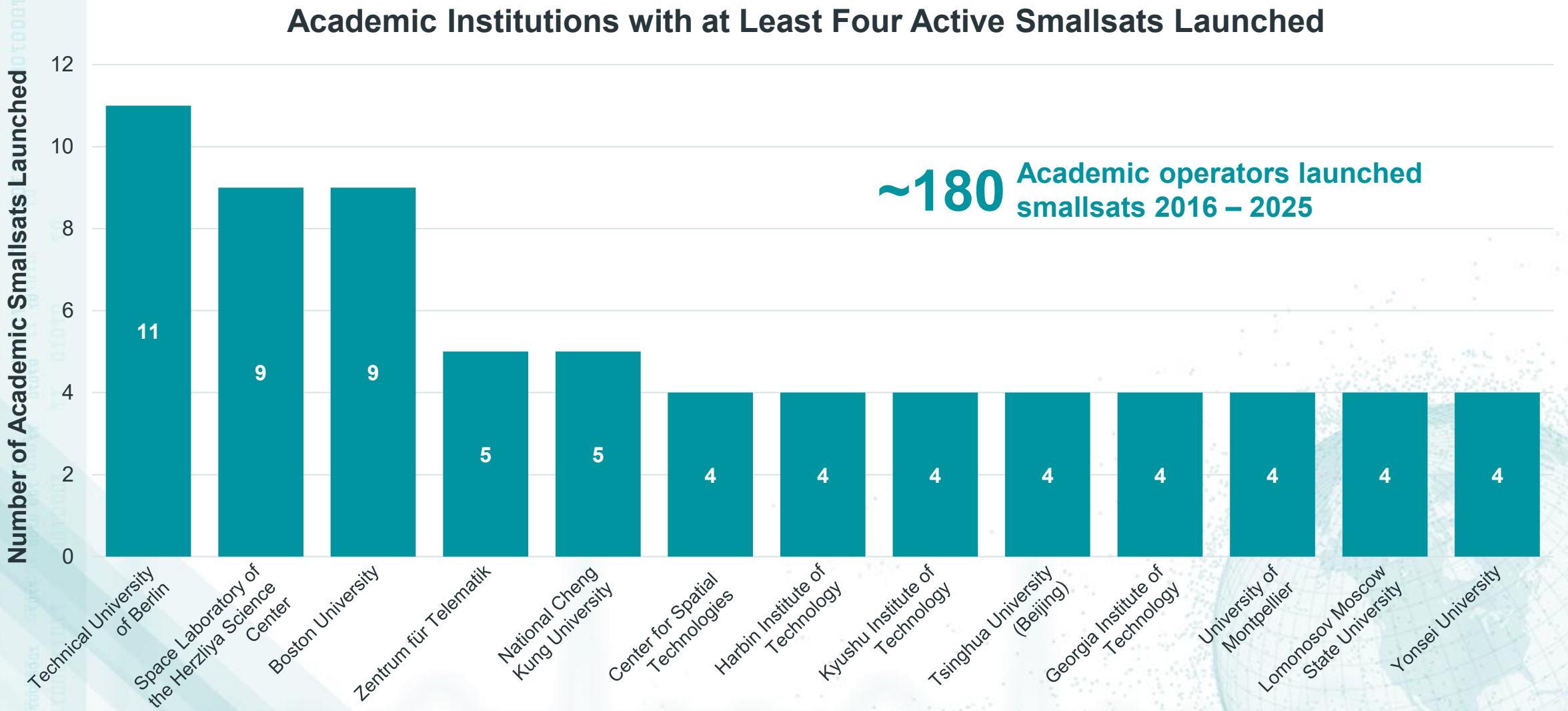
Operator and Mission Type Trends

>10 Active Smallsats, Government Smallsat Operators 2016 – 2025

Government Operators with >10 Active Smallsats	Country	# of Smallsats Launched
NRO	U.S.	216
China Satnet (China Satellite Network Group Co. Ltd)	China	149
People's Liberation Army (PLA)	China	115
Space Development Agency (SDA)	U.S.	69
Russian Ministry of Defense	Russia	28
Chinese Academy of Aerospace Navigation Technology	China	28
National Aeronautics and Space Administration (NASA)	U.S.	23
European Space Agency (ESA)	Europe	22
China Aerospace Science and Technology Corporation (CASC)	China	21
Agenzia Spaziale Italiana (ASI)	Europe	19
Shanghai Municipal People's Government	China	18
Spaceopal GmbH (for European Commission)	Europe	18
China Academy of Space Technology (CAST)	China	16
Indian Space Research Organisation (ISRO)	India	15
United States Space Force (USSF)	U.S.	14
Roscosmos (Russian Space Agency)	Russia	13
U.S. Air Force Research Laboratory (AFRL)	U.S.	11

Operator and Mission Type Trends

Number of Active Academic Smallsats 2016 – 2025, by Institution



Smallsats in Context

Operator and Mission Type Trends

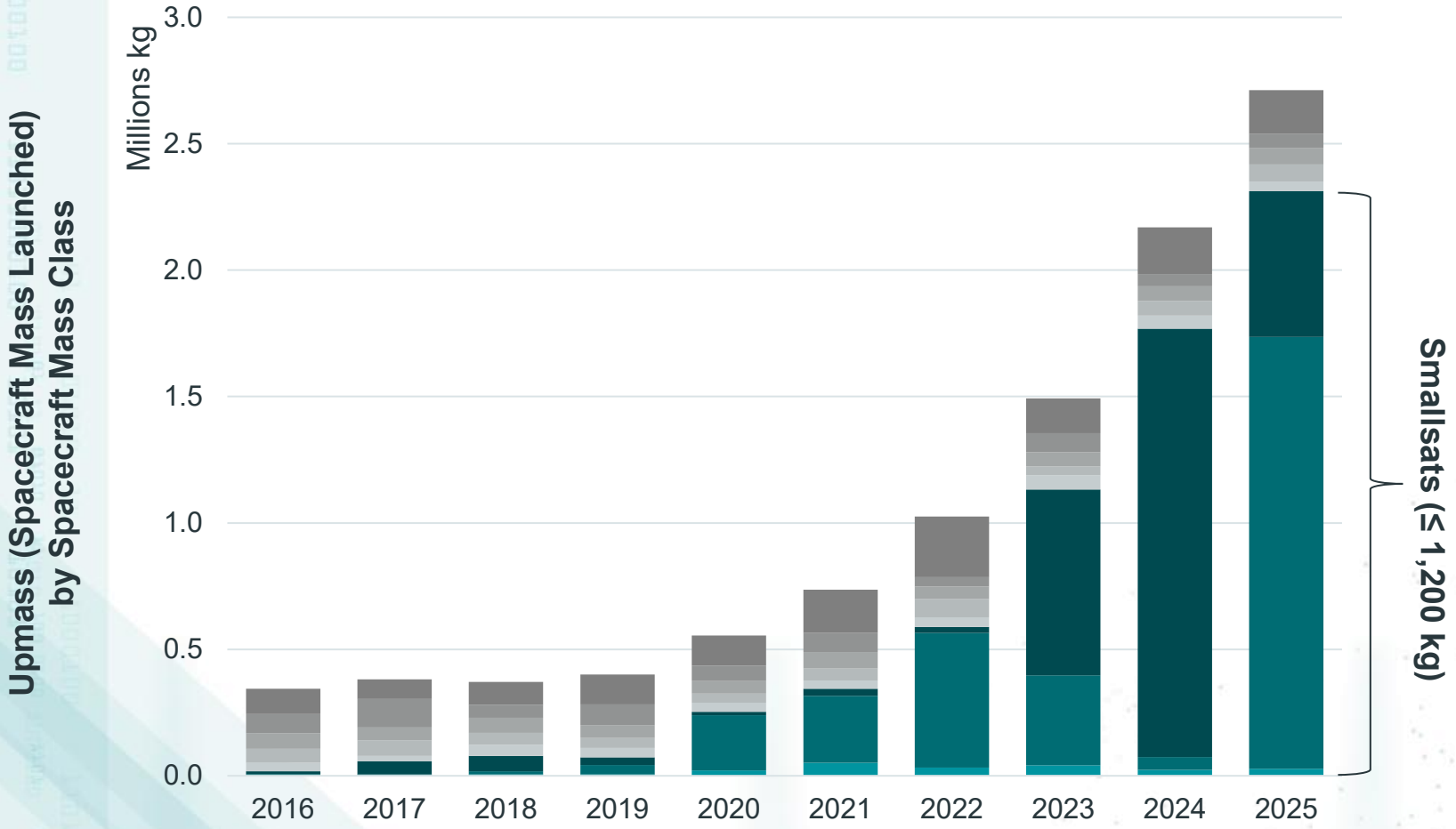
Smallsat Mass Trends

Smallsat Launch Trends

Looking Forward

Smallsat Mass Trends

Spacecraft Upmass 2016 – 2025, by Spacecraft Mass Class

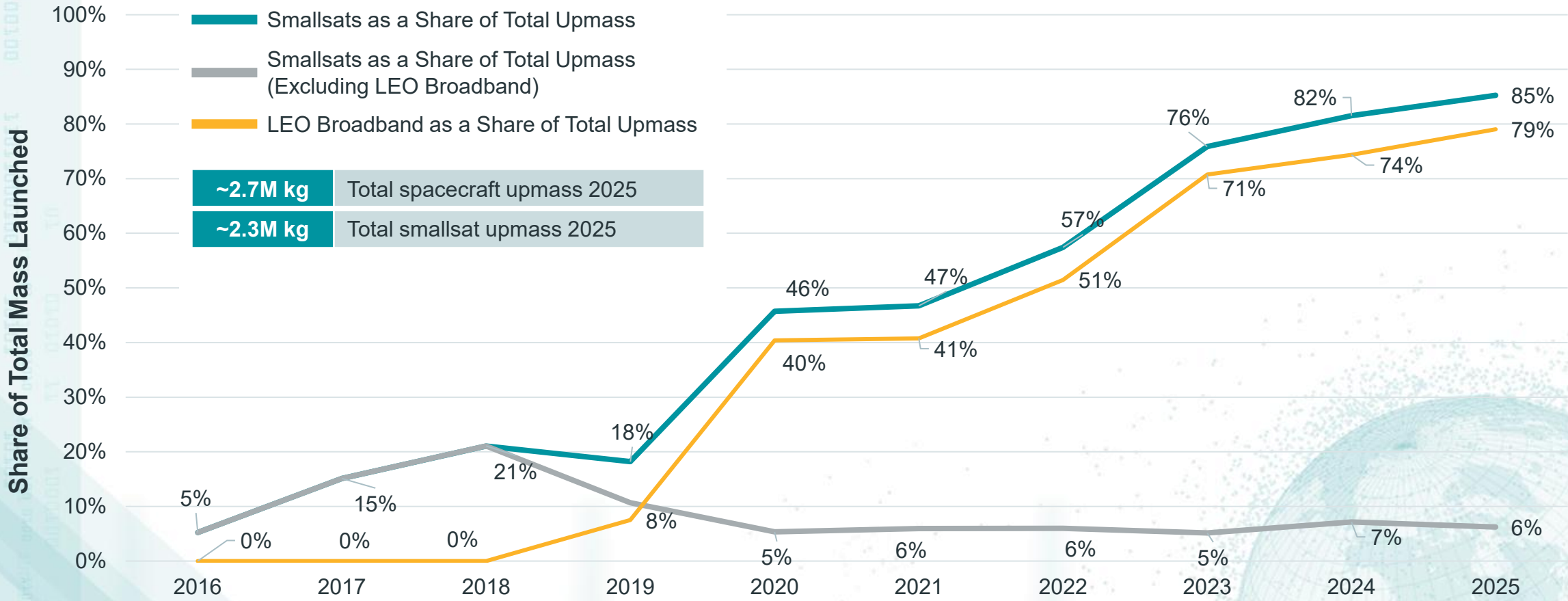


Mass Class Name	Kilograms (kg)
Extra Heavy	> 7,001
Heavy	5,401 – 7,000
Large	4,201 – 5,400
Intermediate	2,501 – 4,200
Medium	1,201 – 2,500
Small	601 – 1,200
Mini	201 – 600
Micro	11 – 200
Nano	1.1 – 10
Pico	0.1 – 1
Femto	0.01 – 0.09

32x growth (2024 – 2025) in mini mass class upmass due to Starlink shift to lower-mass satellites

Smallsat Mass Trends

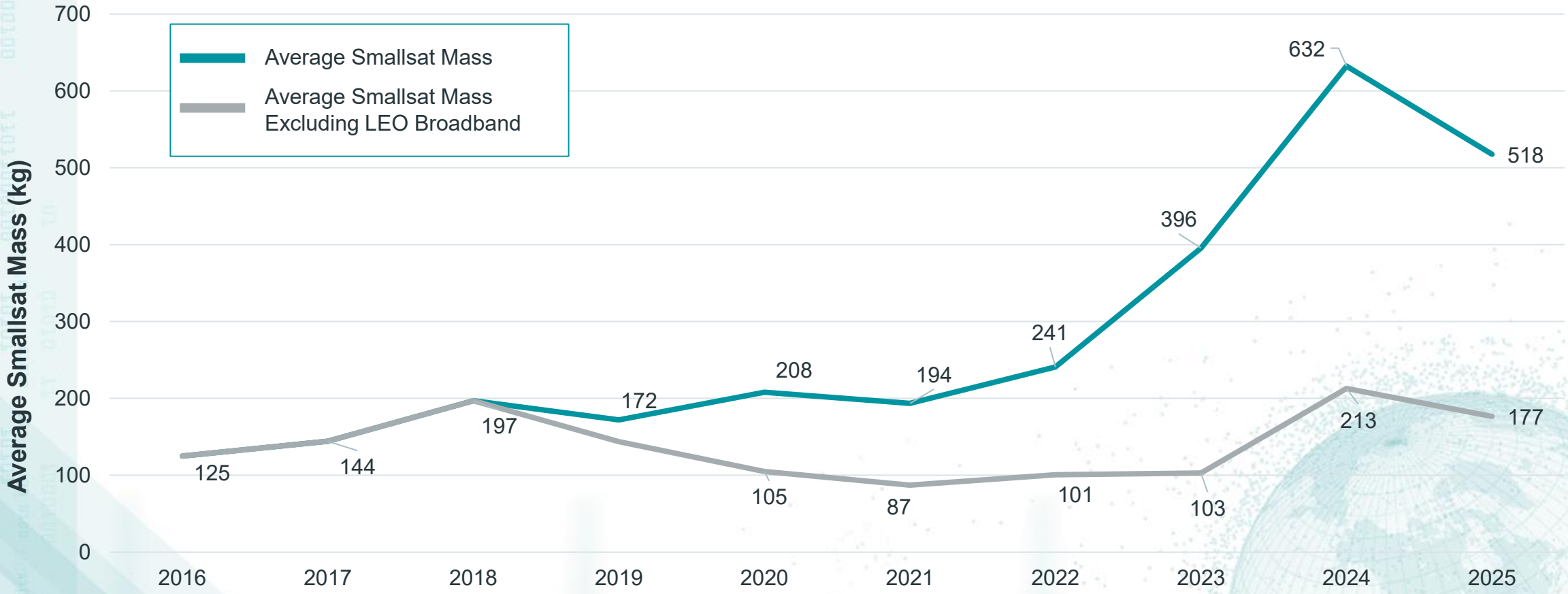
Smallsats as a Share of Total Upmass 2016 – 2025



Excluding LEO Broadband, smallsats have accounted for <10% of total upmass since 2019

Smallsat Mass Trends

Average Smallsat Mass 2016 – 2025



Average non-LEO broadband smallsat mass decreased slightly in 2025 due to increased number of rideshare missions, secondary payloads

Smallsats in Context

Operator and Mission Type Trends

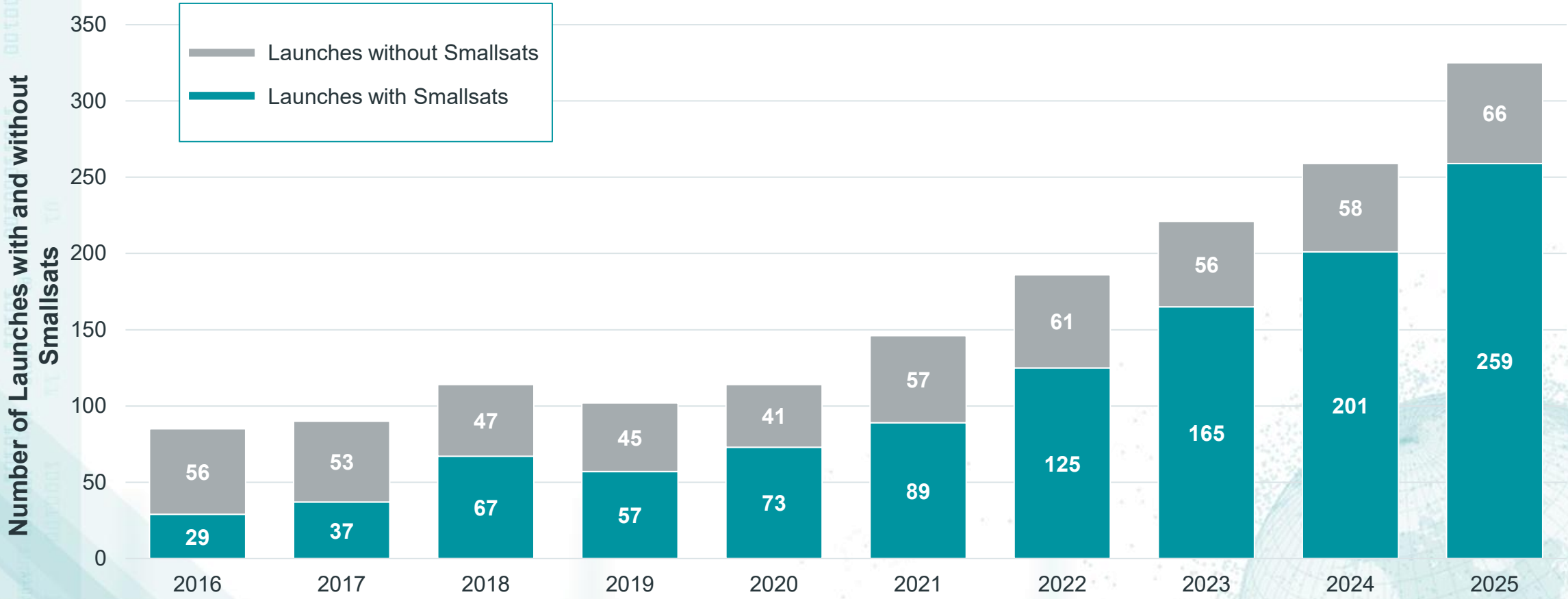
Smallsat Mass Trends

Smallsat Launch Trends

Looking Forward

Smallsat Launch Trends

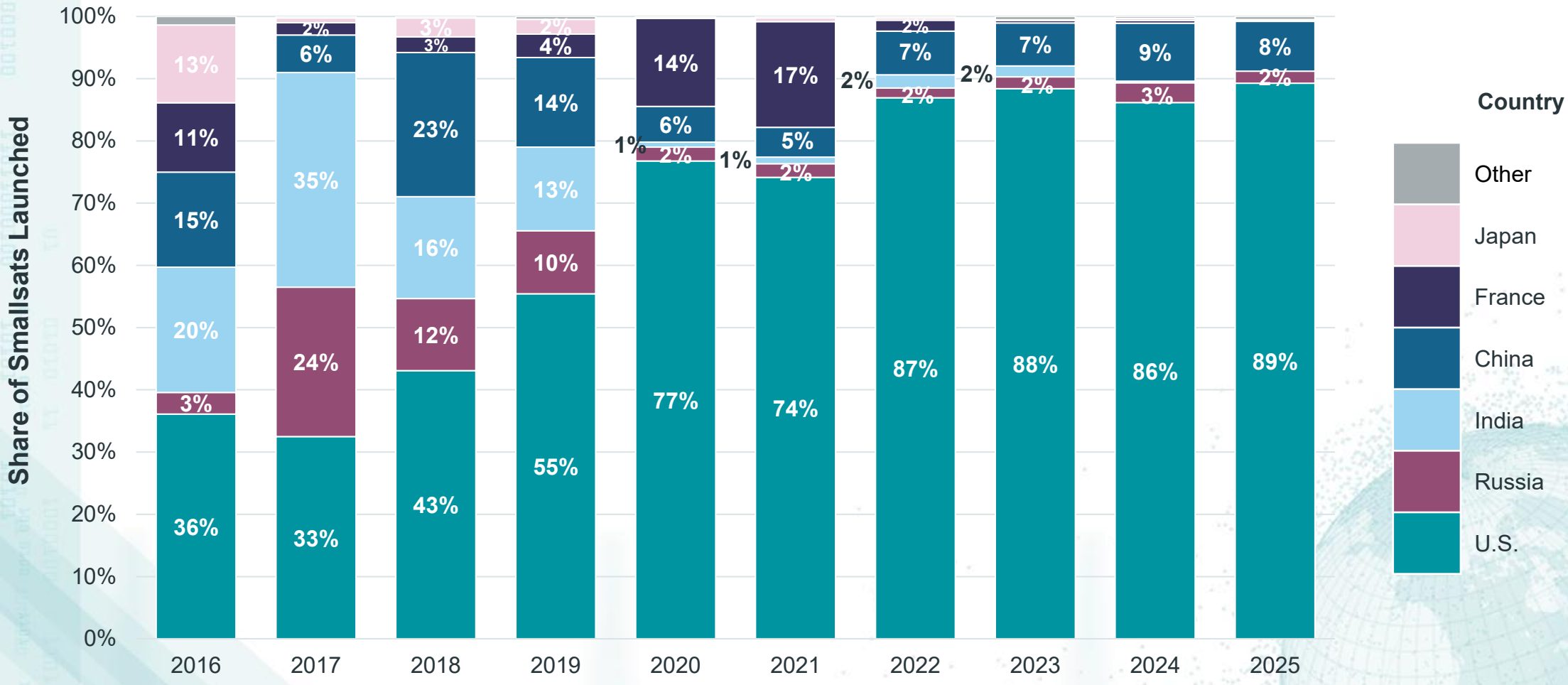
Number of Launches with Smallsats 2016 – 2025



As launch activity has increased, so has the number of launches carrying smallsats

Smallsat Launch Trends

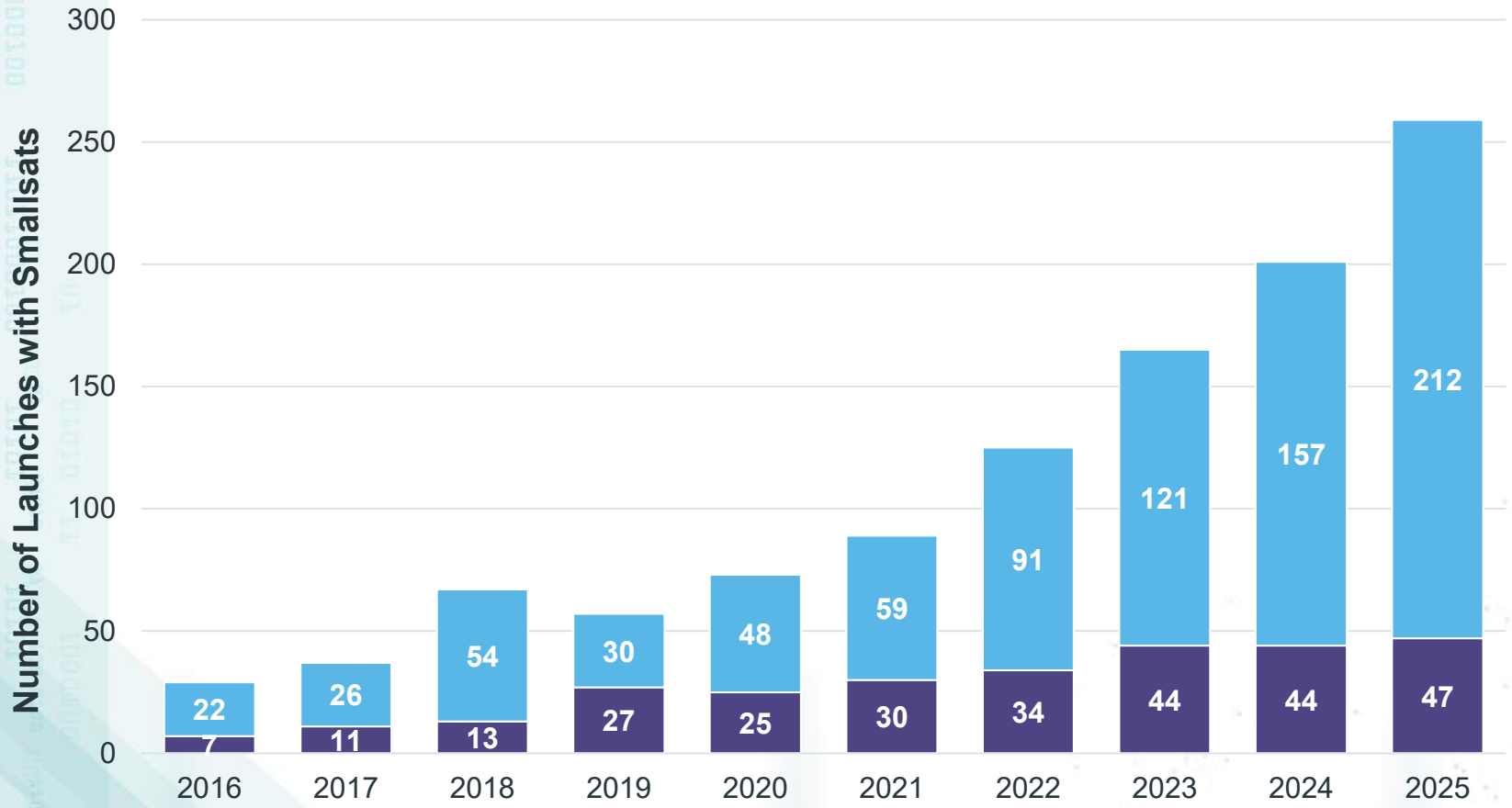
Smallsats 2016 – 2025, by Country of Launch Provider



Growth from international launch providers outpaced by increases in U.S. launch cadence

Smallsat Launch Trends

Number of Launches with Smallsats 2016 – 2025, by Launch Vehicle Category

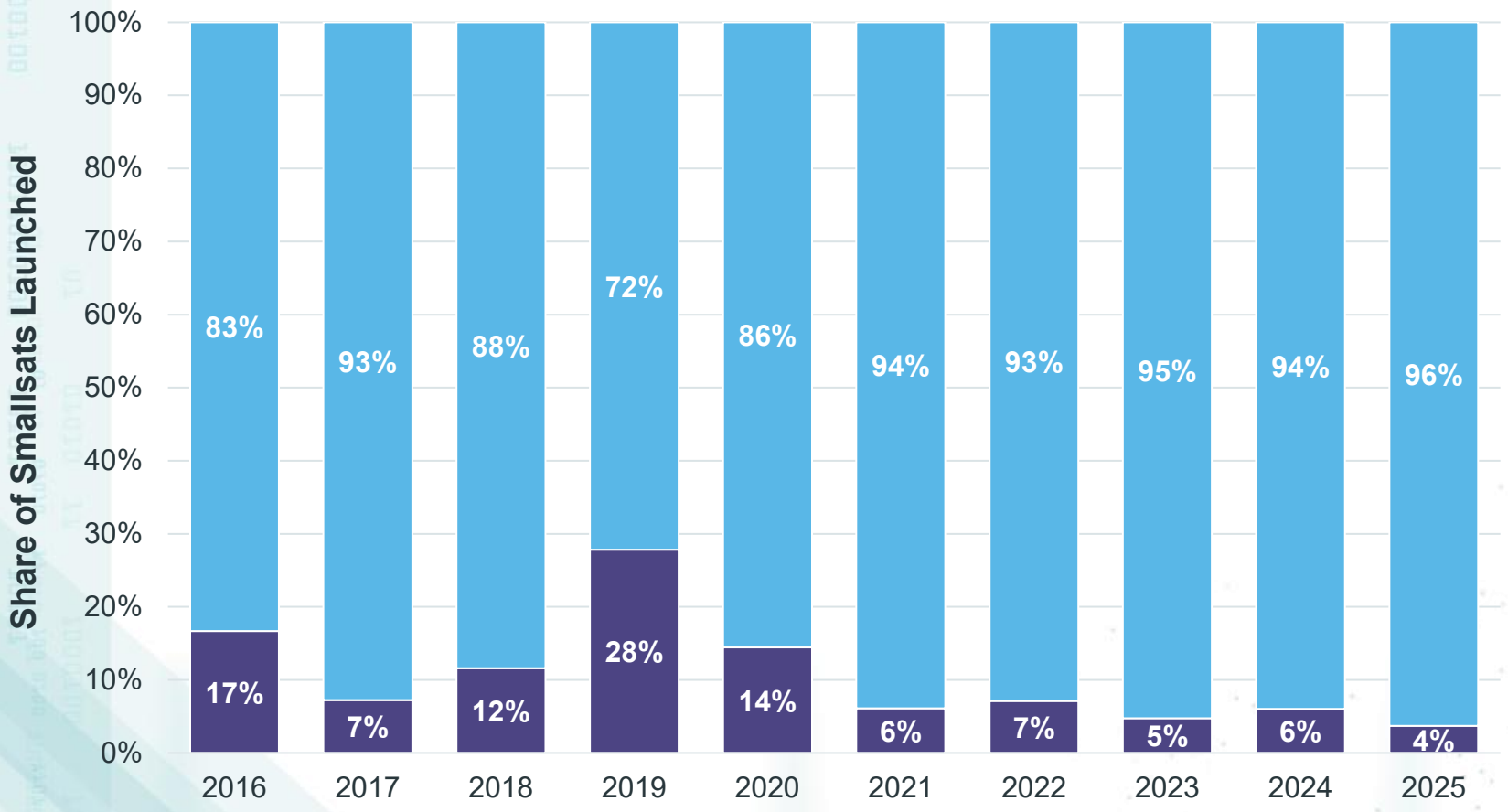


Launch Vehicle Category	Capacity (kg) to LEO
Micro	≤500
Small	500 – 2,268
Medium	2,269 – 5,443
Intermediate	5,444 – 11,340
Heavy	11,341 – 30,000
Super Heavy	>30,000

Increase in smallsat launches driven by medium-super heavy vehicles, both dedicated and rideshare

Smallsat Launch Trends

Share of Smallsats 2016 – 2025, by Launch Vehicle Category

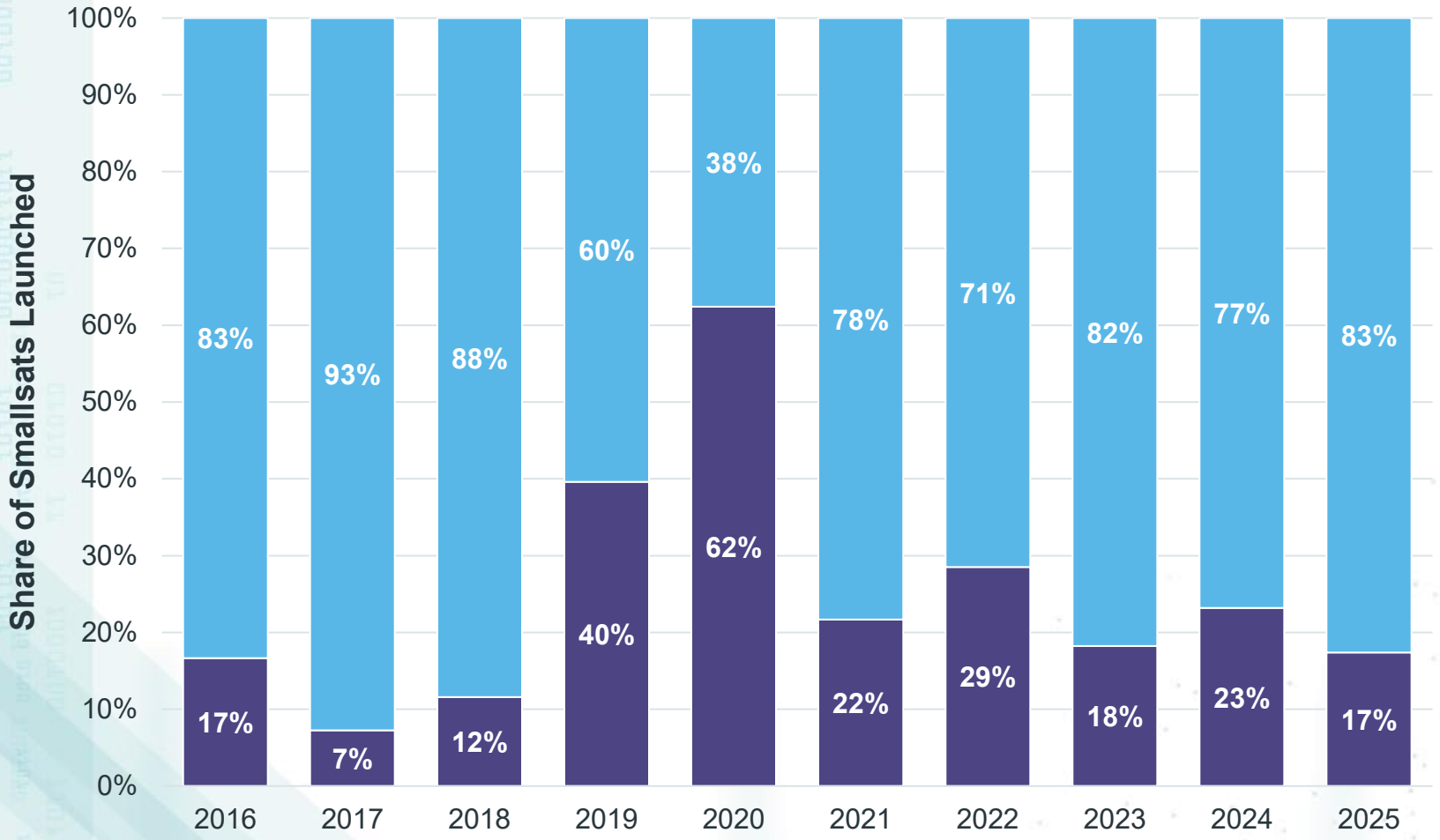


Launch Vehicle Category	Capacity (kg) to LEO
Micro	≤500
Small	500 – 2,268
Medium	2,269 – 5,443
Intermediate	5,444 – 11,340
Heavy	11,341 – 30,000
Super Heavy	>30,000

Share of smallsats launched on micro and small vehicles in 2025 remains low despite variety of new small launch vehicles

Smallsat Launch Trends

Smallsats 2016 – 2025, by Launch Vehicle Category, Excluding LEO Broadband

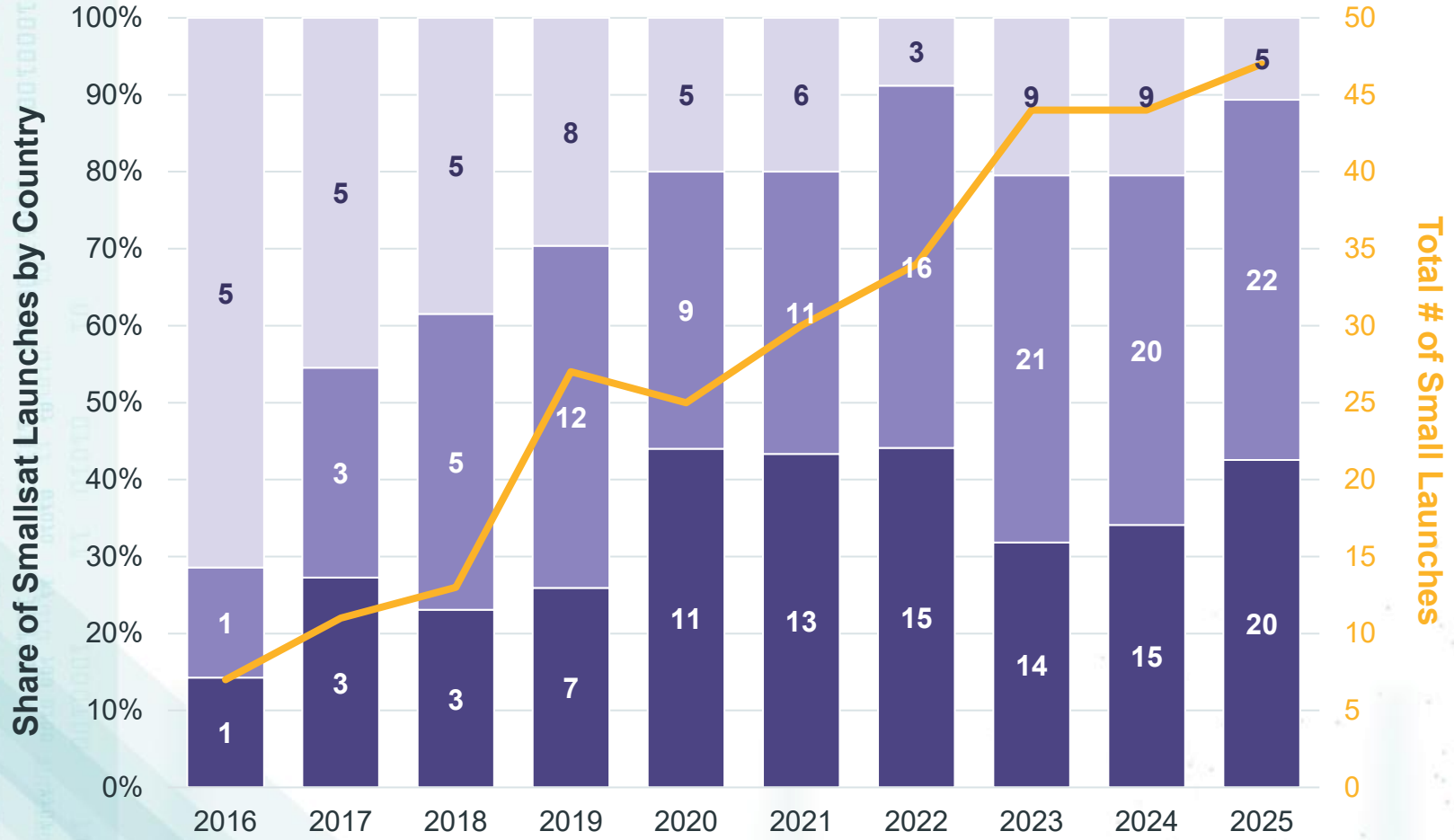


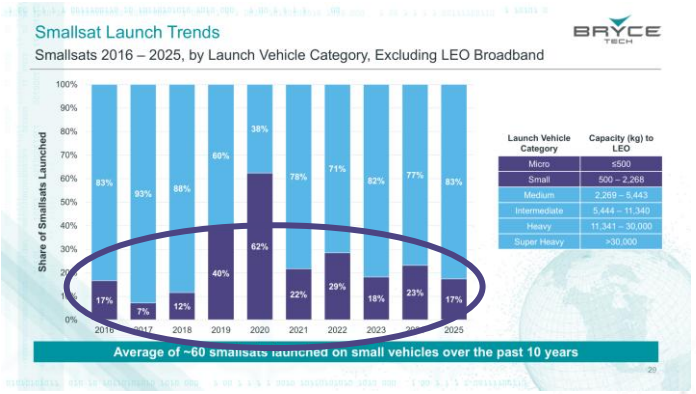
Launch Vehicle Category	Capacity (kg) to LEO
Micro	≤500
Small	500 – 2,268
Medium	2,269 – 5,443
Intermediate	5,444 – 11,340
Heavy	11,341 – 30,000
Super Heavy	>30,000

Average of ~60 smallsats launched on small vehicles annually over the past 10 years

Smallsat Launch Trends

Share of Small Launches by Launch Country 2016 - 2025

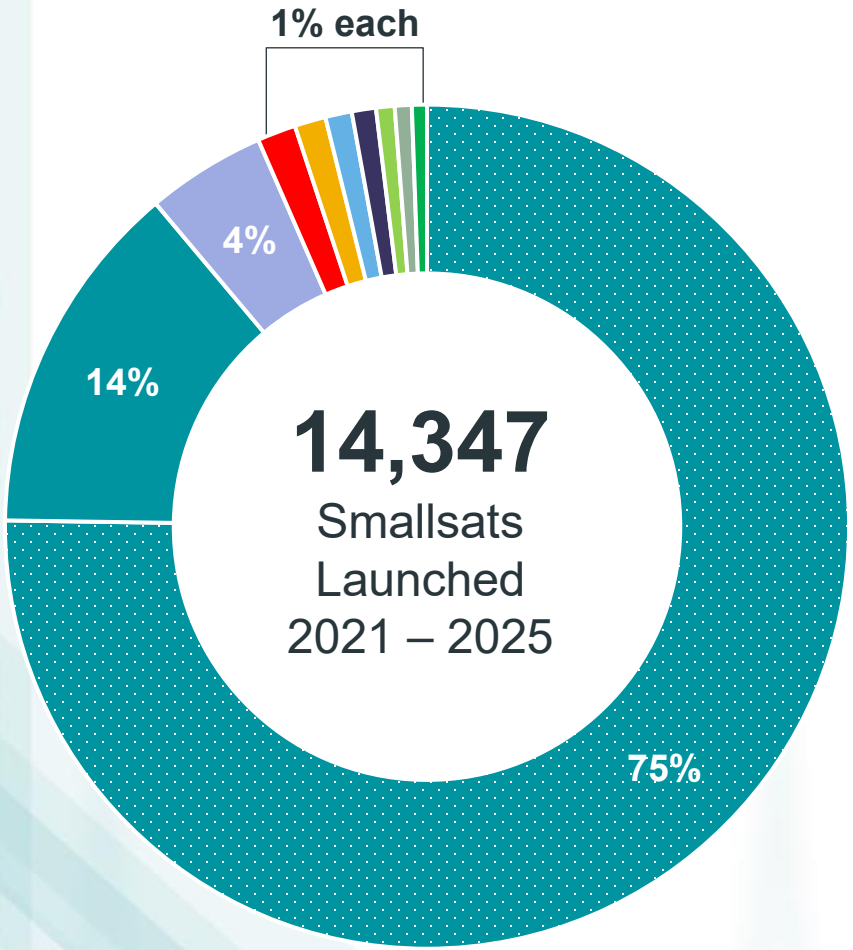




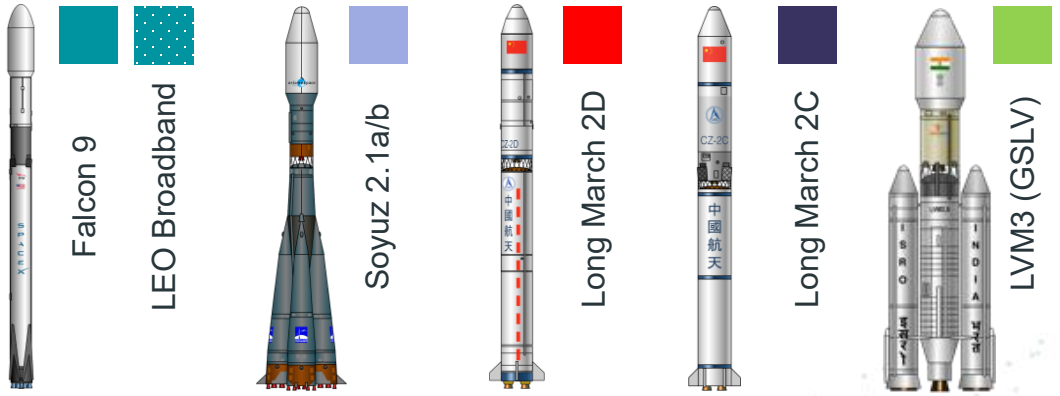
Chinese launch providers had the largest share of micro/small vehicle launches in 2025, U.S. growing on par with China

Smallsat Launch Trends

Smallsats 2021 – 2025, by Launch Vehicle



Medium – Super Heavy Launch Vehicles



Micro – Small Launch Vehicles

65 other vehicles (<60 smallsats each launched over period)

Launch vehicle diagrams not to scale.

Smallsats in Context

Operator and Mission Type Trends

Smallsat Mass Trends

Smallsat Launch Trends

Looking Forward

Looking Forward: Areas to Watch

Government Use of Smallsats

- Space Development Agency (SDA) and NRO continuing to launch proliferated constellations through 2029
- New national security constellations planned by U.S. and other governments
- Increasing government adoption of smallsats drives market growth

Launch Options

- Smallsat mass increasing and primarily deploying on medium to heavy launch vehicles
- Orbital transfer vehicles (OTV) and dispensers may further increase selection of medium to heavy launch vehicles
- Market share of small launch unclear and most likely to remain small as operators develop more medium to heavy vehicles

Constellation Deployments

- Continued smallsat telecommunications deployments in 2026 as operators complete initial constellations and begin expanding newly authorized systems
- Impact of international growth from anticipated smallsat constellations of various sizes from Europe, Japan, South Korea, and others
- Changes in smallsat mass may affect overall size of future constellations

BryceTech

1737 King Street, Suite 601
Alexandria, VA 22314

@BryceSpaceTech

linkedin.com/company/bryce-space-tech

703.647.8078

info@brycetech.com