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Space Skills in Europe

Trends, Educational Offers and Labour-Market Demand across EO, GNSS and SatCom

Preliminary results

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Europe’s space skills challenge

Connecting evolving technologies, talent and training

01

Evolving skills demand

Rapid technological change increases the importance of digital and interdisciplinary competencies.

02

Education-to-employment gap

Connecting educational pathways, early-career talent and employers’ requirements remains a challenge.

03

Recruitment difficulties

80% of surveyed EO companies reported hiring difficulties (EARSC, 2025).

How can skills intelligence help align training with evolving industry needs?

Sources: ESPI, Talent in the European Space Sector (2025); EARSC Industry Survey (2025).

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SpaceSUITE: From skills to training

How evidence informs flexible learning opportunities

01

Identify needs

Sector trends, technological change and emerging skills priorities

→

02

Analyse evidence

Educational offers and job advertisements across EO, GNSS and SatCom

→

03

Develop training

Translate findings into curricula, learning outcomes and training activities

→

04

Enable upskilling

Flexible learning pathways for students and professionals

SpaceSUITE combines skills analysis with proactive training development and sector cooperation.

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Three domains · three evidence sources

EO, GNSS and SatCom are analysed separately throughout

EO

Earth Observation

1,282 educational offers

926 / 194 jobs (2025 / 2026)

GNSS

Positioning, Navigation & Timing

246 educational offers

1,233 / 1,099 / 158 jobs (2024 / 2025 / 2026)

SatCom

Satellite Communications

346 educational offers

712 / 861 / 221 jobs (2024 / 2025 / 2026)

Also: >60 sector-trend documents. Job counts = vacancies with domain evidence. EO/GNSS/SatCom = preliminary for this talk.

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How the evidence was analysed

Three evidence types · separate methods · comparable skill categories

A Educational offers

EO: 1,282 · GNSS: 246 · SatCom: 346.

University sampling based on country population, Scopus data and relevant keywords

Manual review of university websites by SpaceSUITE partners

Collection of programmes, courses and modules

Extraction and classification of documented skills

B Job advertisements

EO: 926 / 194 jobs (2025 / 2026)

GNSS: 1,233 / 1,099 / 158 jobs (2024–26)

SatCom: 712 / 861 / 221 jobs (2024–26)

Collection from general and specialised job portals (Indeed-dominant 2024–25; Eurojobs-dominant 2026).

Data cleaning, domain-relevance filtering and deduplication

Extraction and categorisation of advertised skills

C Sector reports

66 documents (59 European + 7 Polish).

Review of policy, market and industry reports

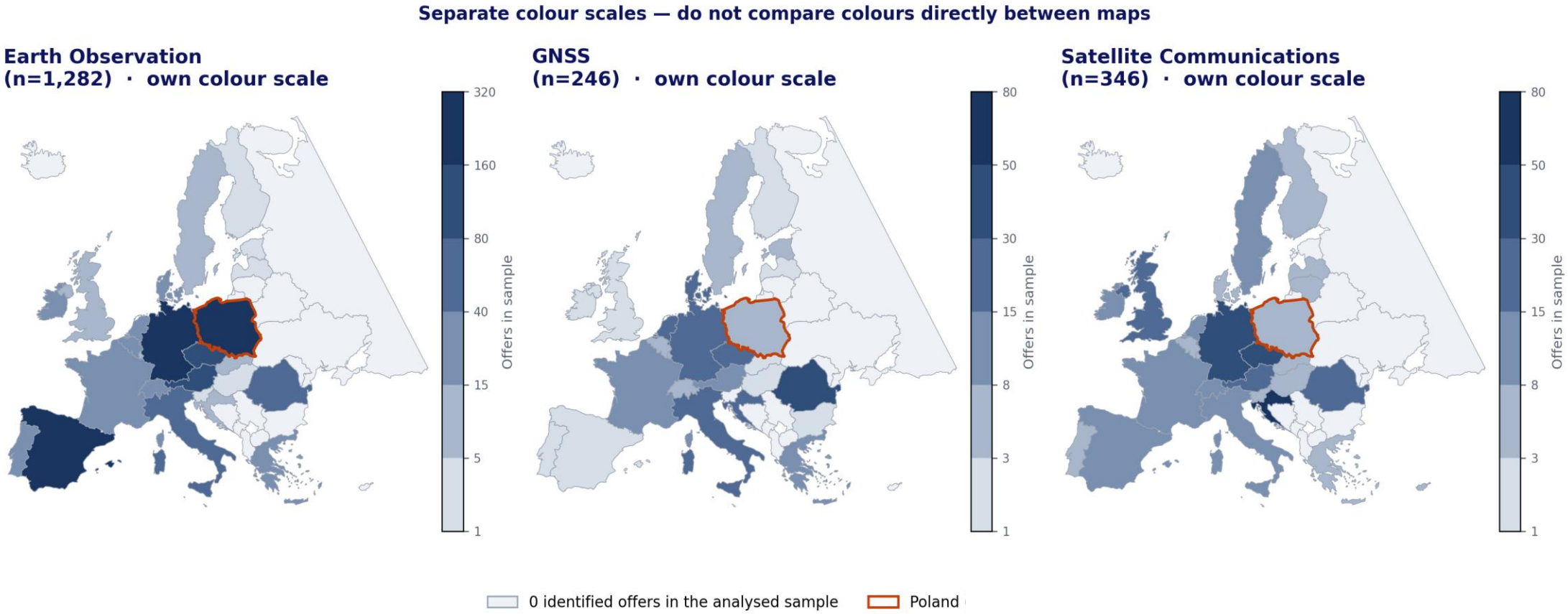
Qualitative identification and synthesis of technology, market and skills trends

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Geographical distribution of identified educational offers



SpaceSUITE educational-offer sample; country-level counts reflect structured sampling and partner review.

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A services- and data-driven downstream market

Technology directions differ by domain — skills pressure is shared

EO

≈ €7.9 bn by 2034

(from ≈ €3.5 bn in 2024)

Value-added services lead

EUSPA EU Space Market Report 2026

GNSS

≈ €580 bn by 2033

(from ≈ €260 bn in 2023)

Services ≈ 80% by 2034

EUSPA EO & GNSS Market Report 2024

Secure SatCom

EU capacity demand ×14

2025 → 2040 (FSS)

Crisis · surveillance · key infrastructure

EUSPA EU Space Market Report 2026

EO technology focus

AI-enabled analytics

Cloud-native geospatial processing

Applied EO services

GNSS technology focus

Next-generation / resilient PNT

Service integration in user sectors

Software-defined receivers

SatCom technology focus

Secure connectivity

Software-defined systems

Multi-orbit architectures

Secure SatCom ×14 = EU FSS capacity demand for crisis management, surveillance and key infrastructure (EUSPA 2026).

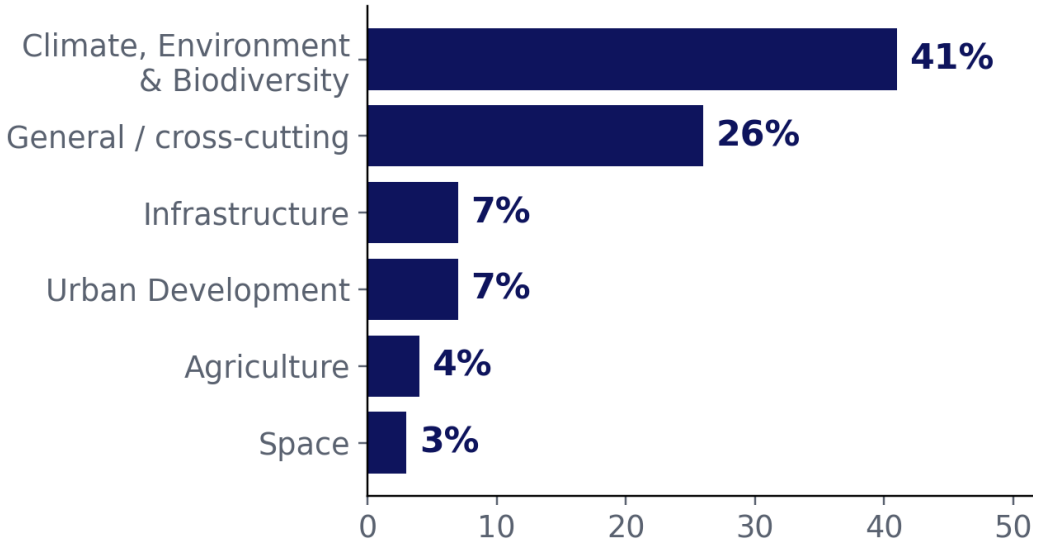
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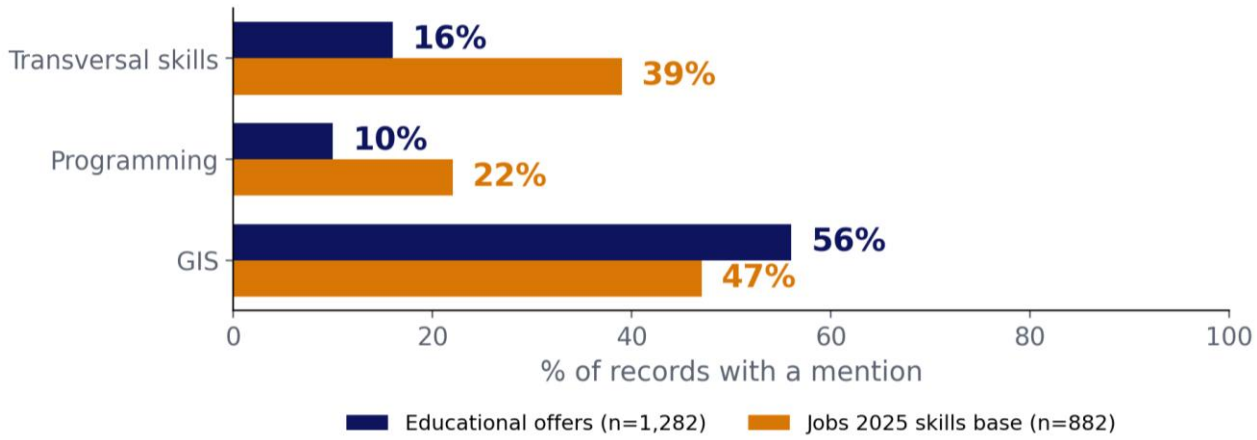
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Earth Observation

Educational offers n=1,282 · Jobs 2025 n=926 (skills n=882)





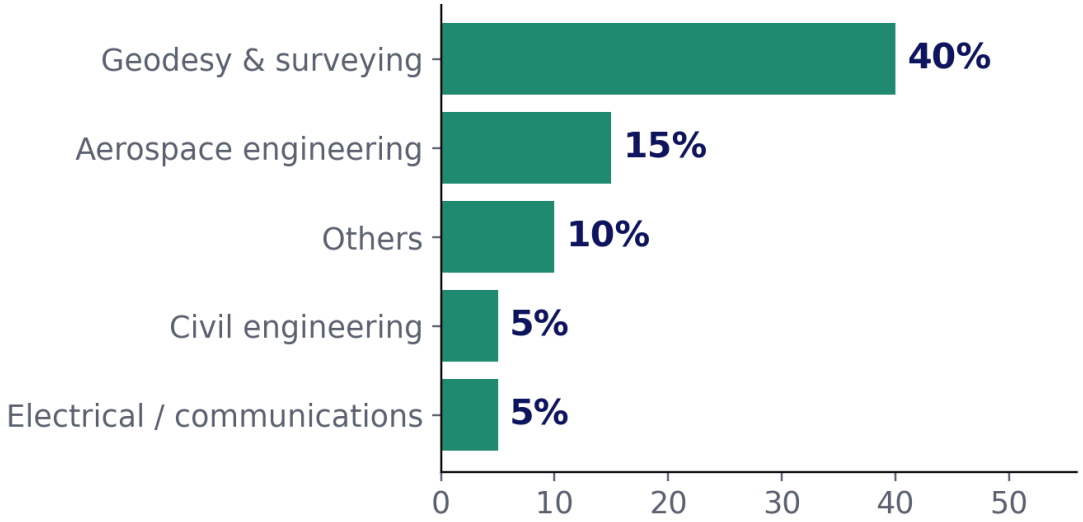
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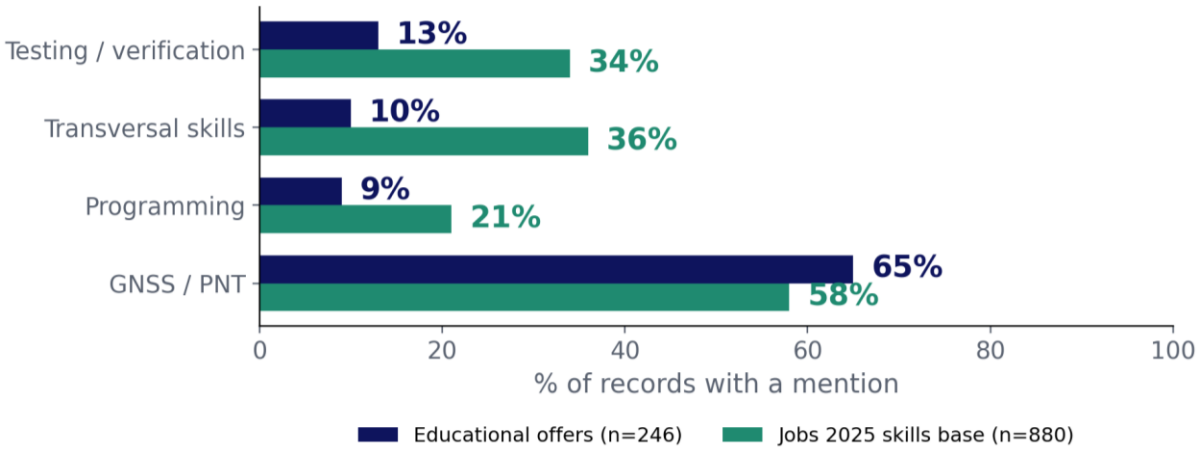
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GNSS — positioning, navigation and timing

Educational offers n=246 · Jobs 2024/25/26 = 1,233 / 1,099 / 158 · Skills 2025 n=880





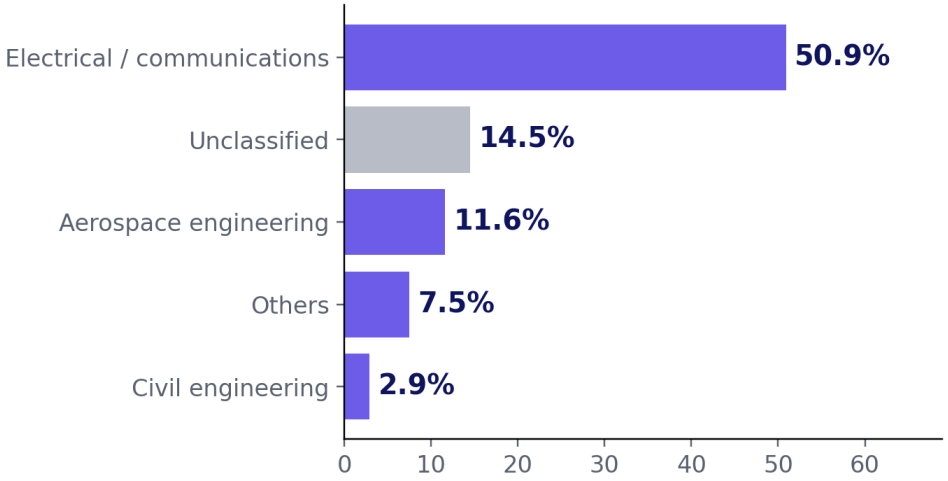
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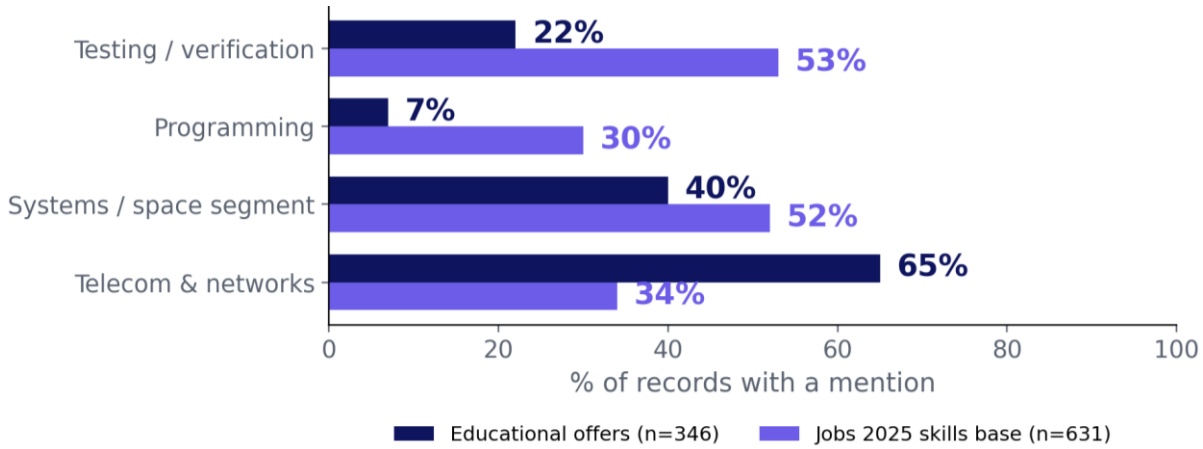
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SatCom — connectivity and communications

Educational offers n=346 · Jobs 2024/25/26 = 712 / 861 / 221 · Skills 2025 n=631 · Preliminary





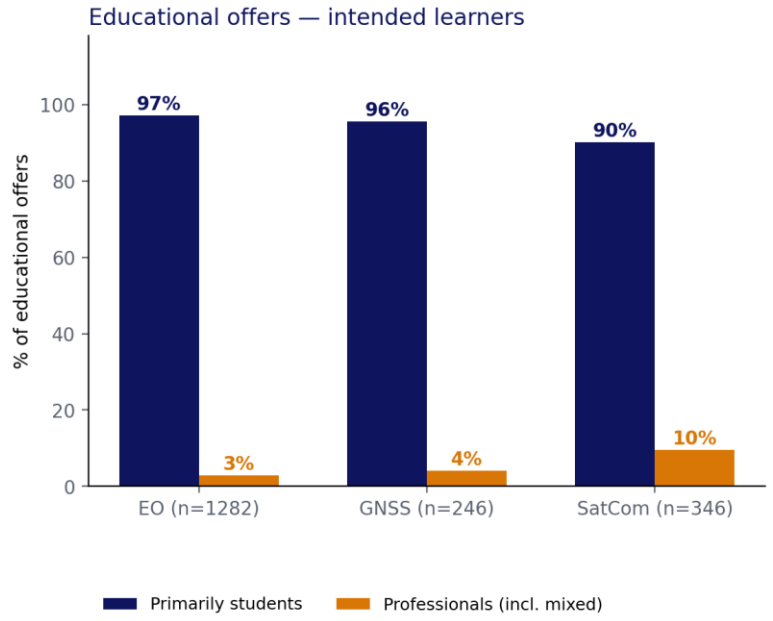
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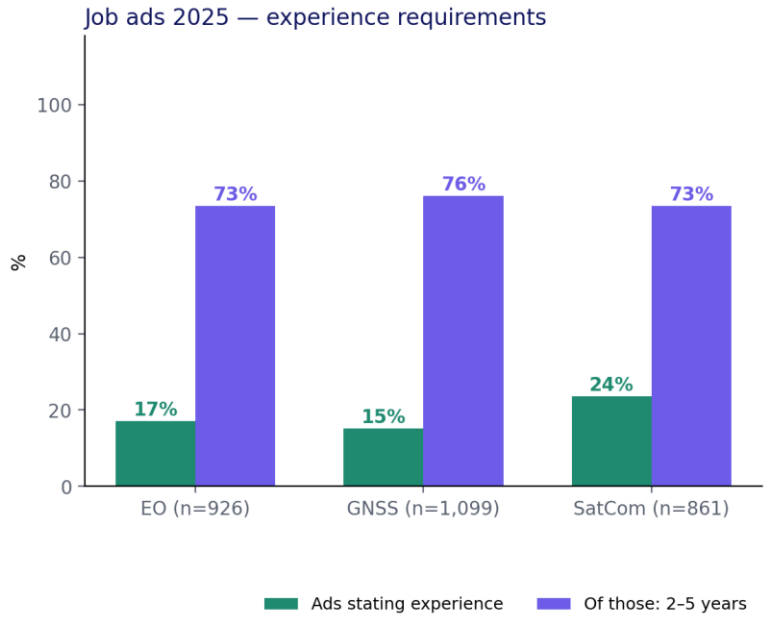
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Educational Pathways and Labour-Market Expectations

Most educational offers target students; where job ads state experience, mid-level experience is common. Complementary evidence supporting continuing professional development — not a skills-shortage proof.





Left: intended learners in educational offers (EO n=1,282; GNSS n=246; SatCom n=346).

Right: 2025 job

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Shared skills and domain technical cores

	Shared skills	Domain-specific technical focus
EO	Programming, digital and transversal skills	GIS, remote sensing, geospatial data analysis
GNSS	Programming, testing, transversal skills	Positioning, navigation, timing (PNT)
SatCom	Programming, testing, transversal skills	Telecommunications, satellite systems, connectivity

Training implication: Strengthen cross-cutting digital and professional competencies while maintaining specialised learning pathways for EO, GNSS and SatCom.

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Poland — connecting education with skills demand

Seven national documents + SpaceSUITE educational-offer sample

222 EO offers

17.3% of EO sample

7 GNSS offers

2.8% of GNSS sample

6 SatCom offers

1.7% of SatCom sample

Fragmented, but consolidating

POLSA emphasises connecting existing universities, research, industry and practical training pathways.

Training-level mismatch

PARP identifies recruitment pressure at technician level, alongside a university-oriented training landscape.

Coordination over course volume

Existing initiatives and a planned Sectoral Skills Council can improve links between education and employers.

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From skills evidence to SpaceSUITE training

Findings inform curricula · flexible pathways for professionals

Job ads
Programming, software, transversal & testing

Reports
Cloud, AI analytics, secure connectivity

Format gap
Student-oriented offers vs experience-seeking ads

Digital Agriculture
6 modules · 27 lectures

Climate Change & Extreme Events
6 modules · 32 lectures

Urban Resilience
5 modules · 26 lectures

Modern, Resilient & Secure PNT
3 modules · lectures TBC

Beyond core curricula

SpaceSUITE Club · Earth from Above · GPS in Action · Cryptography Workshop · Targeted EO workshops

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