

EU Node

The first two years

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An overview

Two years in two minutes



The EOSC EU Node identity

- **The first node of the EOSC Federation** commissioned by the EC as the Business Owner (DG CONNECT) and operated by the Managed Service Contractors
 - **European level multi-disciplinary and multi-national** scientific data/service portfolio for all research users and citizen scientists
 - Specified, provisioned, and operated leveraging **experience** and **outcome** gained from EOSC-related projects under a new **pragmatic, focused, and quality-assured** perspective
 - **Serves as a blueprint for other EOSC Nodes; architecture and open-source** software
 - **Provide federating** capabilities and **facilitate the build of the EOSC Federation**
- The EOSC EU Node serves
 - **researchers & groups** (across disciplines, under-served, last resort), **citizen scientists** (discover RO)
 - **Service Providers** (discover, access, order), **RIs** (compute/storage resources), **Nodes** (enrol)
- **Focal point** of the EOSC Federation, but it is only **one** EOSC Node



Our major innovations

New ways of doing things



User/researcher-centric

- The **researcher** is in focus and in power
 - **Autonomous and empowered:** log in, launch, scale and release resources from one User Space
 - **Regardless of where you come from**, or what your institution provides
 - **Direct relationship** with each researcher; no intermediaries or gatekeepers
 - **Groups** to collaborate and share resources and credits across institutions and borders



INNOVATION 1 OF 5

**In focus.
In power.**

One single European identity

- **One, single European identity** for researchers
 - **Federated login** through eduGAIN, EU Login and eIDAS
 - **Attributes drive access:** role and affiliation set the Access Policy (AP) level
 - **Foundation for the future:** ready for the European Digital Identity (**EUDI**) Wallets



INNOVATION 2 OF 5

**One researcher.
One identity.**

Automated access policies

- **Automated access policies**, beyond excellence-based and cost-recovery models
 - **Transparent**: published rules; users know what they get and why
 - **Fair**: same role, same rights, in every Member State & AC
 - **Flexible**: tuned in every release, based on usage and user feedback
 - Four AP levels: **Explorer** (AP-0), **Observer** (AP-A), **Collaborator** (AP-A1), **Investigator** (AP-B)



INNOVATION 3 OF 5

**Transparent.
Fair. Flexible.**

Credits

- **Virtual credits** for managing demand and supporting excellent research
 - **Effective demand management:** replenished every 90 days; idle resources are released
 - **Responsible users:** consumption is visible and planned
 - **Building block** for future direct revenue streams
 - Ensures **utilisation of FAIR and sovereign EU resources**



INNOVATION 4 OF 5

**Manage demand.
Support
excellence.**

Universal Service

- **Universal Service Provider** for EU researchers
 - **Inclusive and EU-wide**: same concept as with telecom and postal universal services
 - **One service always available**, whatever is provided locally
 - For **under-represented and under-served** researchers, communities, Member States and ACs



INNOVATION 5 OF 5

**Always there.
For everyone.**

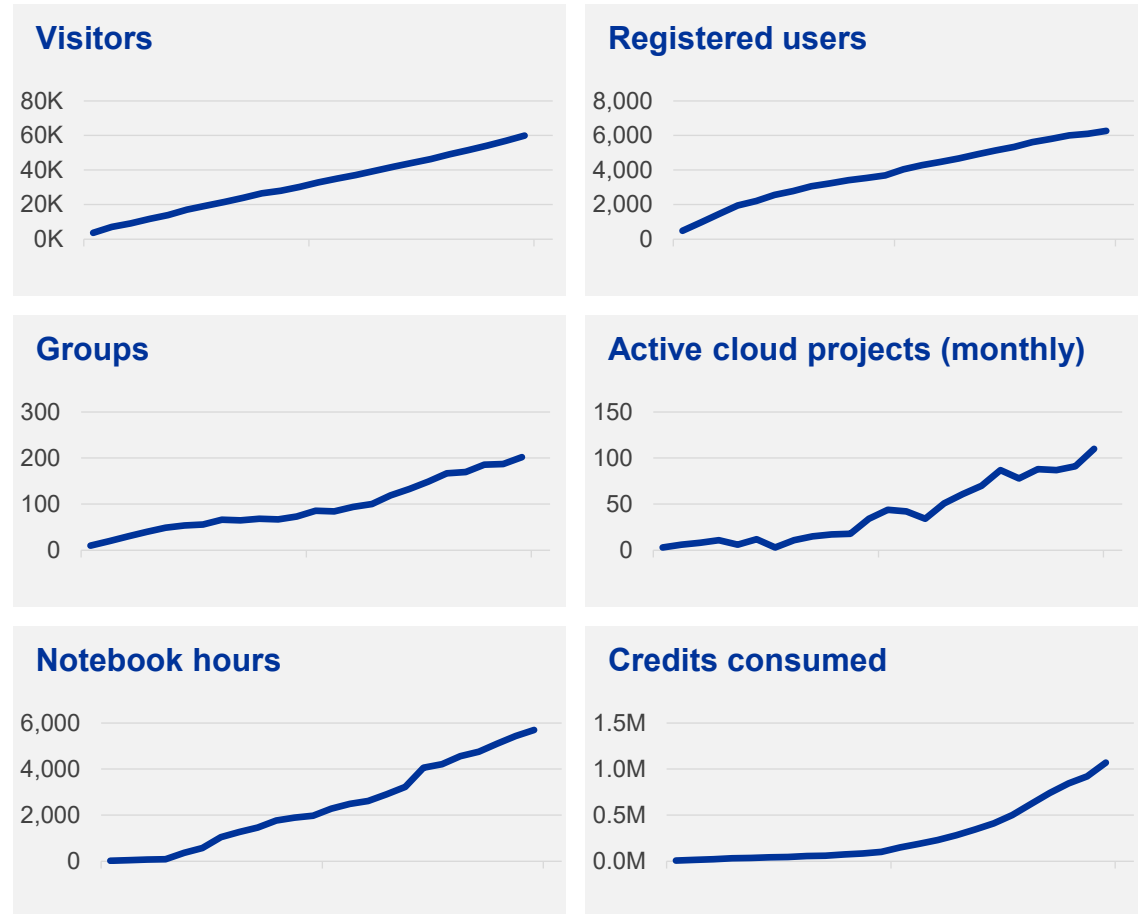
User uptake

Growing with every release



User uptake

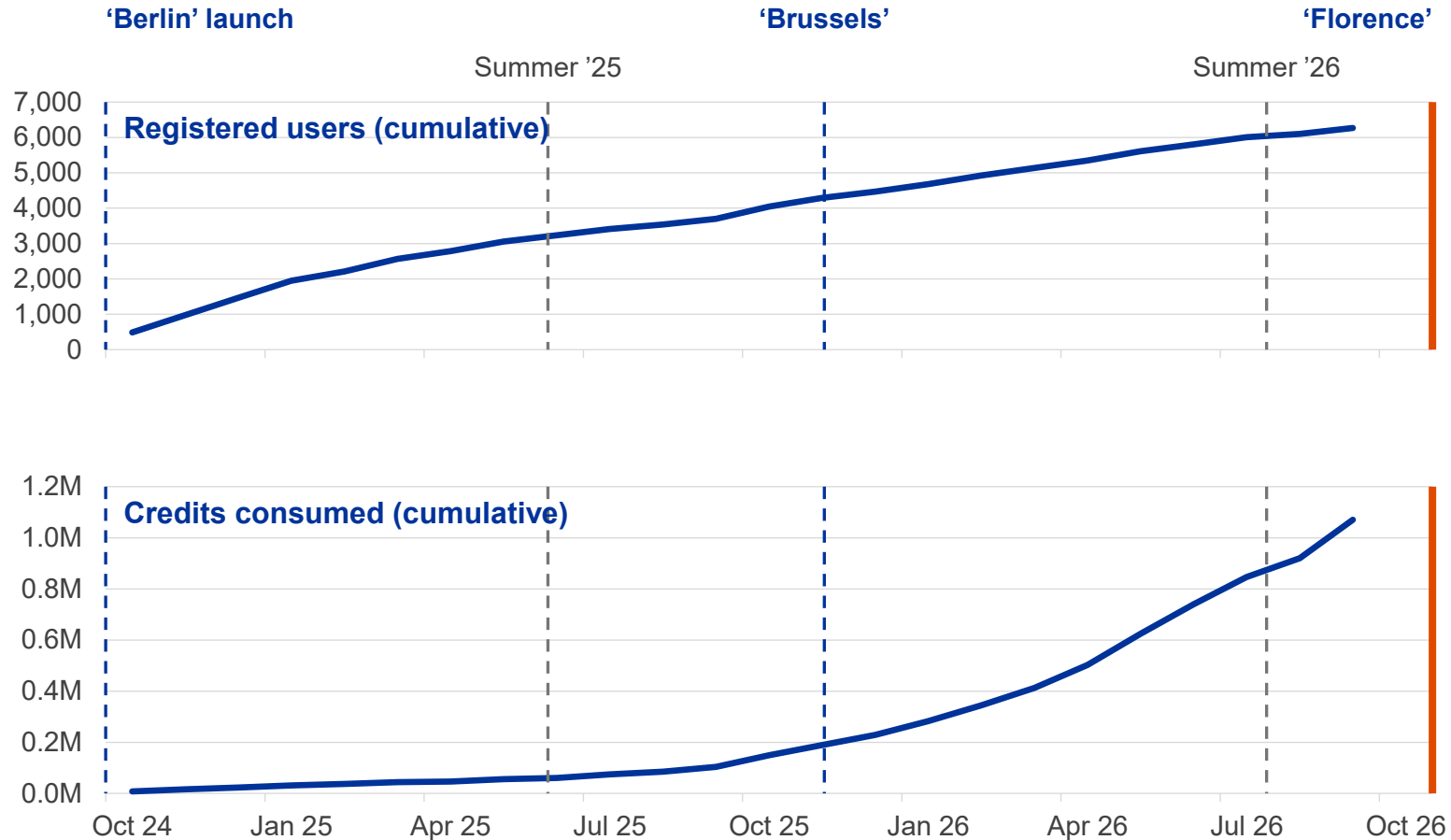
- **24 months of operation** serving researchers across Europe (*)
 - **~60K visitors** and **~6.3K registered users** tracking to **~70K** and **~8K**
 - **202 groups**; **110 active cloud projects** (VM/OKD) per month
 - **~5.7K notebook hours**; **~1.07M credits** consumed
 - **22 credit vouchers** for EC-funded projects
 - Uptime **99.5%**, **no security incidents**
- Continuous stream of **improvements** based on **user feedback**



(*) data as of October 2026



Uptake grows after every release



Since 'Brussels' (Nov 25 – Sep 26)

+46%

registered users

x2.4

groups

x2.6

active cloud projects (VM/OKD)

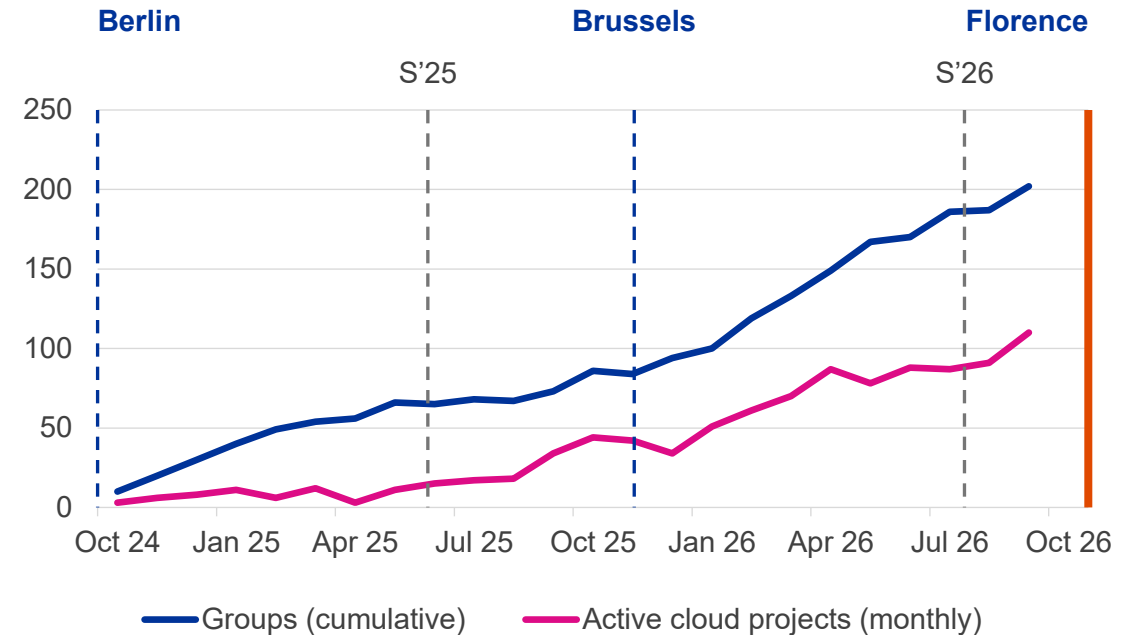
x5.7

credits consumed



'Florence' release

- The 'Florence' release (with the **Summer '26** release) widens services, removes barriers and opens the Node to **contributors**
 - **Large VMs**: 64 vCPU, 128GB RAM, 1 GPU; new **QTM**s: Kubernetes node, HA SQL cluster
 - **Group Spaces**: **500GB** shared storage for group projects
 - **Self-elevation** to Investigator (AP-B); explicit **MSCA** support
 - **Credit grants** requested and served in the **User Space**
 - **Contributors Dashboard**; Nodes in the **Resource Hub**



Early impact since the Summer '26 release (Jul – Sep 26)

+26%

credits consumed

+26%

active cloud projects

+12%

notebook hours

(*) data as of October 2026; cumulative, except active cloud projects (monthly)



What has changed

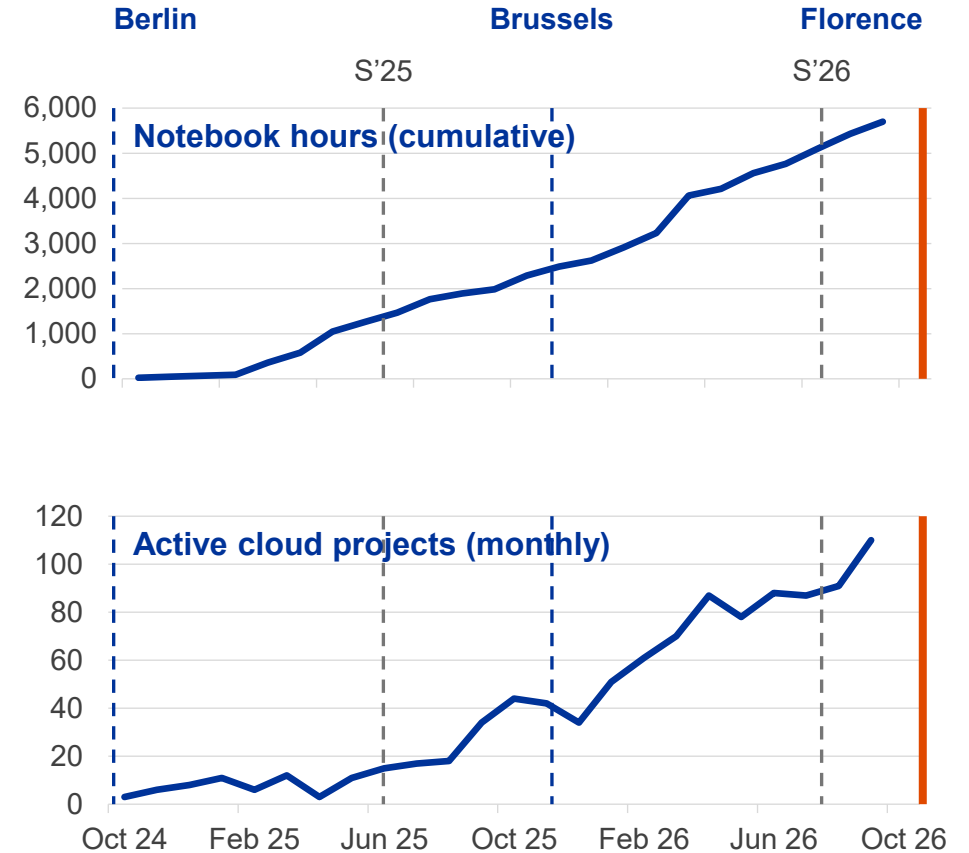
Aligned with user feedback and our own operational insights

What has changed since the start

Area	'Berlin' launch · Oct 24	'Brussels' · Nov 25	'Florence' · Oct 26
Services	Notebooks, VMs, containers (OKD), File Sync & Share	Medium VM/OKD at 16 vCPU; perpetual EFSS	Large VM with 64 vCPU/128GB RAM; HA SQL cluster; EFSS Group Spaces; Binder; token
Access policy	Baseline: AP-A1 Small only; Large sizes on request	AP-A1: VMs-OKD/Small and Notebooks/Medium; AP-B: no gatekeeping for Large; JRC as AP-B	Self-elevation to AP-B for AP-A1; Explicit MSCA support
Credits	100 · 500 · 1,000	1,000 · 2,000 · 6,000; 40K project grants	Grants in the User Space; multiple vouchers
Broader	Baseline: User Space, Resource Hub, Tools Hub	Redesigned UI/UX; simpler AP names; explainers	ECL v4; Contributors Dashboard; Nodes in Resource Hub

Services

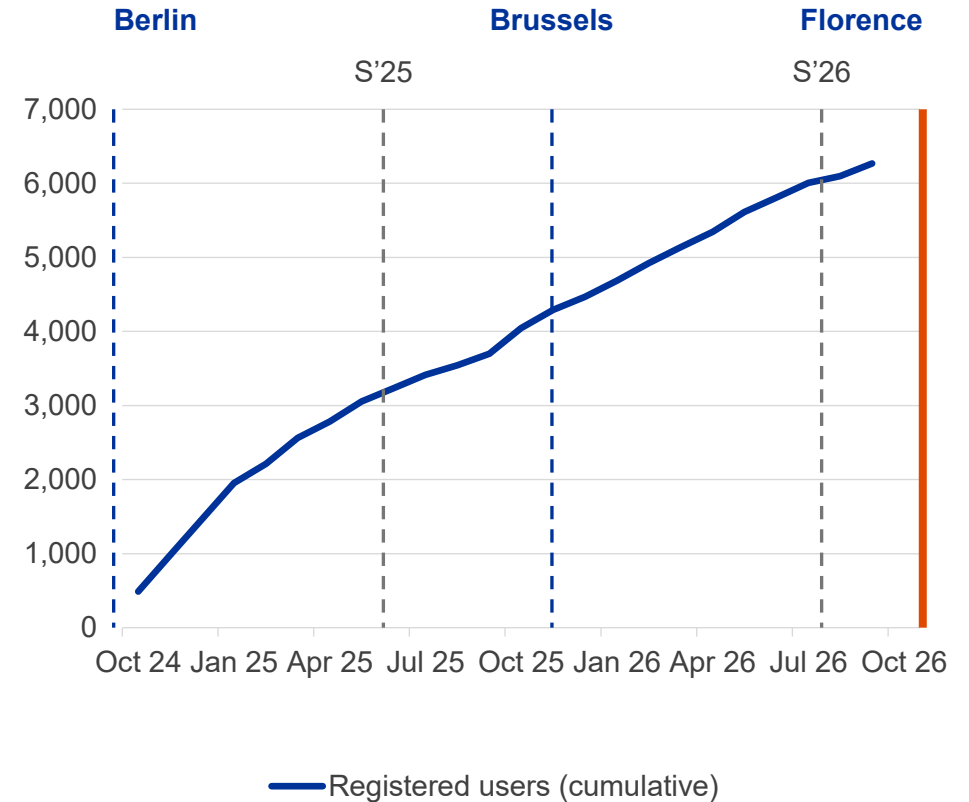
- **Expand and fine-tune the portfolio: more complementary services, more generous tiers, no gatekeeping** for scarce resources
 - **‘Brussels’**: VM/OKD **Medium** environments at **16 vCPU** (from 8); EFSS a **perpetual service** (subscribe once, renewed automatically)
 - **‘Florence’**: VM **Large**: **64 vCPU, 128GB RAM, 1 GPU** (from 8 vCPU, 32GB)
 - **‘Florence’**: HA SQL cluster
 - **‘Florence’**: EFSS **Group Spaces** for group projects (**500GB** vs. 50GB per user)
 - **‘Florence’**: Jupyter Notebooks with **Binder**, user-requested libraries, token acquirer



Driven by: frequent and reasonable requests for more resources, friction and insecurity for EFSS renewal (loss of data), more ready to use solutions

Access policy

- **Fewer barriers, faster access**, release after release
 - **Summer '25**: AP-A1 gain **Small VMs and OKD** (containers) and **Medium Notebooks**
 - **Summer '25**: **no gatekeeping** for AP-B: instant access to all **Large** environments (VM/OKD/Notebooks)
 - **'Brussels'**: JRC staff automatically **Investigators (AP-B)**
 - **'Florence'**: AP-A1 can **self-elevate** to AP-B (rewards sustained use; fixes misaligned AAI attributes)
 - **'Florence'**: explicit **MSCA** support: all MSCA recipients can request AP-B, **even via EU Login**



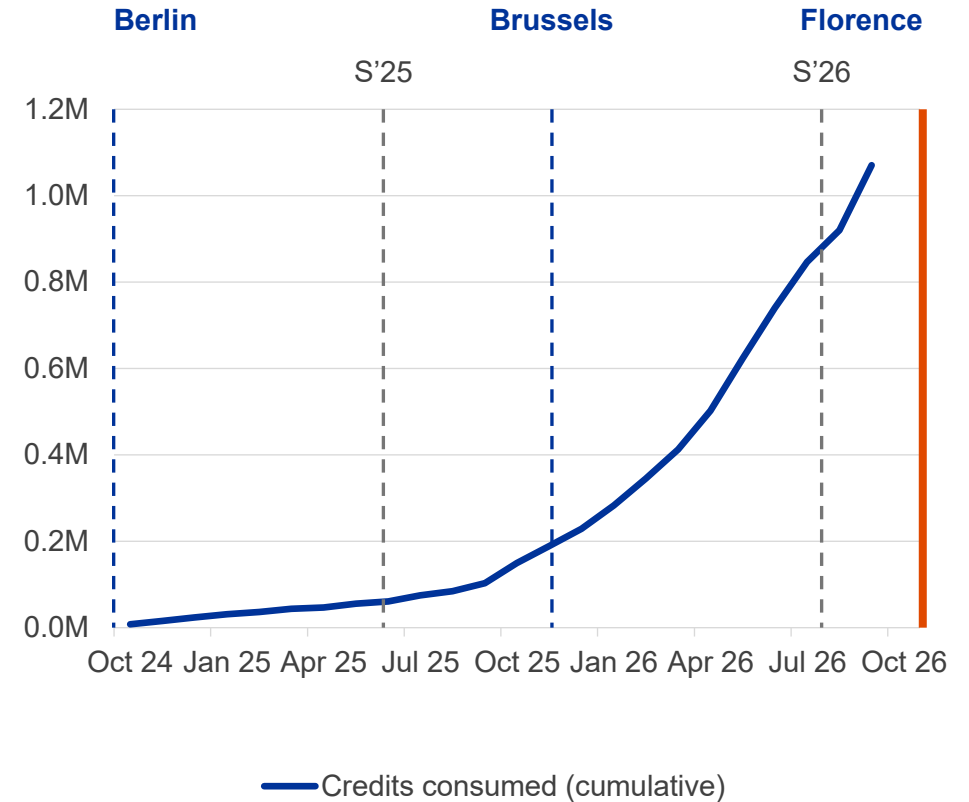
Driven by: reasonable requests for more resources, friction for scarce resource (effective demand management), address EC's internal audience/needs, misaligned user attributes, Helpdesk tickets/requests from Marie Curie fellows (also ERC, COST)

Credits

Start tentatively and conservatively, strike a balance and build on that

Per 90 days	Launch	Summer '25	'Brussels'	Change
Collaborator (AP-A1)	100	500	1,000	x10
Investigator (AP-B)	500	1,500	2,000	x4
Group	1,000	3,000	6,000	x6

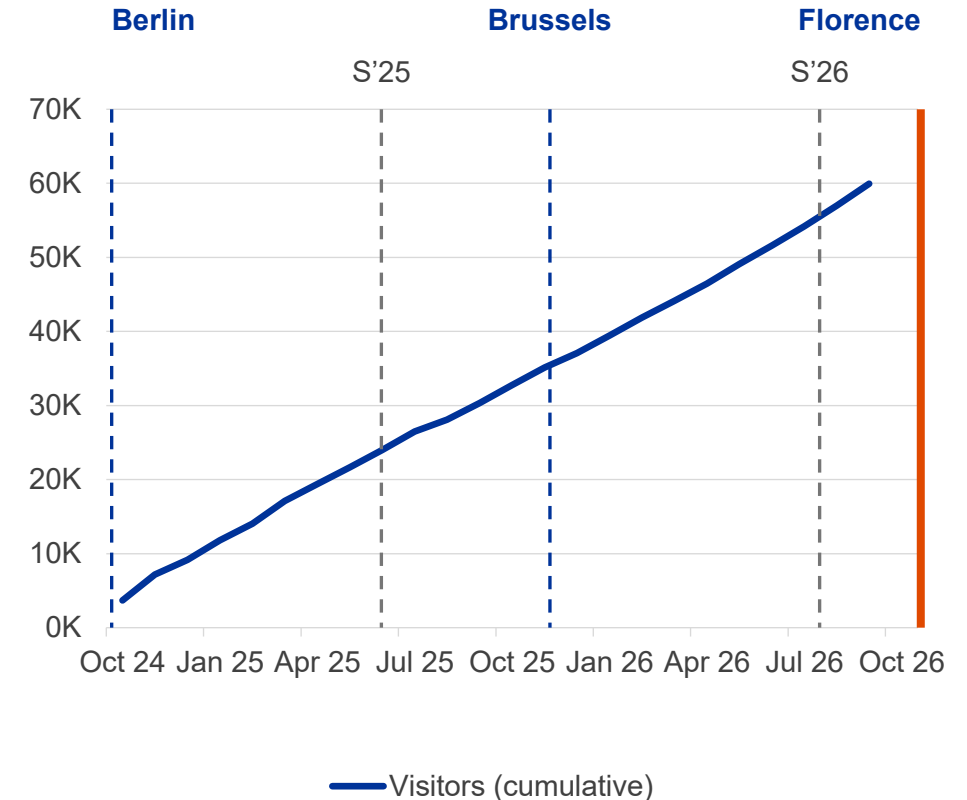
- **'Brussels': 40K credit grants** for EC-funded projects
- **'Florence': grant requests submitted and served in the User Space; multiple vouchers** per project (WP, lines of work, groups, individual MSCA recipients)



Driven by: user feedback (are credits enough, will they last me for a longer-term activity, unmet needs of EC projects, collaboration within broader groups)

Broader changes

- **‘Brussels’**
 - **Redesigned UI/UX** in the Front Office and across services: easier to find what you need, clearer language
 - **Simplified AP names:** Explorer, Observer, Collaborator, Investigator
 - Dedicated **Access Policy and Credits explainer**; training material and guides
- **‘Florence’**
 - **ECL v4:** alignment with EC branding
 - **Contributors Dashboard:** register Nodes and their resources; onboard resources and services
 - **Resource Hub:** dedicated sections for Nodes and their research products and services



Lessons learned



Open source and open standards

No vendor lock-in; we are always on the lookout



Industry standards over ad hoc

Industry-standard technologies, architectural patterns and operational processes; ad hoc, topic-specific solutions are less sustainable



'Federated' means serving users

A misunderstood (or misrepresented) term: the goal is to serve users across borders and disciplines

Thank you



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