

An initiative of
the



European
Commission |

Making Higher Education More Connected and Accessible

EUROPEAN
DIGITAL
EDUCATION
HUB



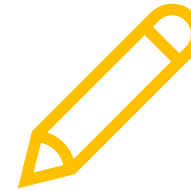
The Evolution of European Cooperation in HE



Erasmus starts
1987



Erasmus for staff
1997



Erasmus for work
2007



Sorbonne speech
2017

“Instead of lamenting the divisions between 17 our countries, let’s step up exchanges. In 2024, half of students in a given age group should have spent at least six months in another European country by the time they are 25, whether they are university students or learning a trade.”

The Evolution of European Cooperation in HE



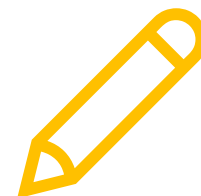
Erasmus starts
1987

Paper-based
processes



Erasmus for staff
1997

Internet



Erasmus for work
2007

Paper-based
processes

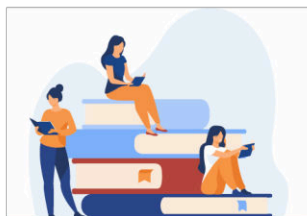


Sorbonne speech
2017

Modern tech &
data exchange?

USE CASE 1

Discover

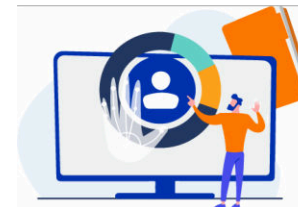


Enhancing the visibility and comparability of diverse learning and mobility opportunities across HEIs, emphasising the importance of machine-readable metadata for easy comparison and discovery.

CMS (Website) Course catalogue
Curriculum management

USE CASE 2

Apply and get recognition

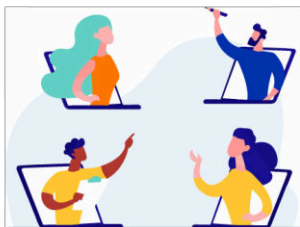


Simplifying credit recognition and cross-institutional enrolment, emphasising seamless data exchange to support all forms of learner mobility and academic continuity.

Admissions Recognition

USE CASE 3

Access tools

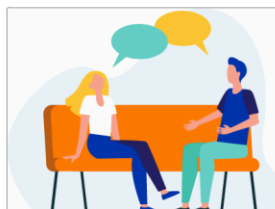


Streamlining the management and governance of shared resources among alliance members, covering both physical and virtual assets.

Laboratory access Library systems
Research tool registry

USE CASE 4

Manage educational resources

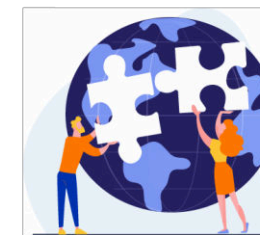


Promoting the accessibility and mobility of educational materials, fostering a collaborative and accessible educational environment.

Content generation Sharing
Use and re-use

USE CASE 5

Generate data



Establishing a standardised approach for the exchange of learners' activity data to ensure a seamless integration of various virtual learning environments.

Learning Analytics
Student Analytics

USE CASE 6

Earn a credential



The digital management of educational credentials (issuance, verification, revocation), affirming the achievements from diverse learning experiences.

Micro-credentials
Portable credentials

USE CASE 7

User identity

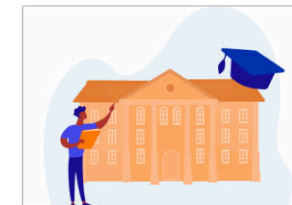


Achieving interoperability for user identities across educational transitions, ensuring consistent identification throughout their academic journey.

Access Federated identity
Student cards

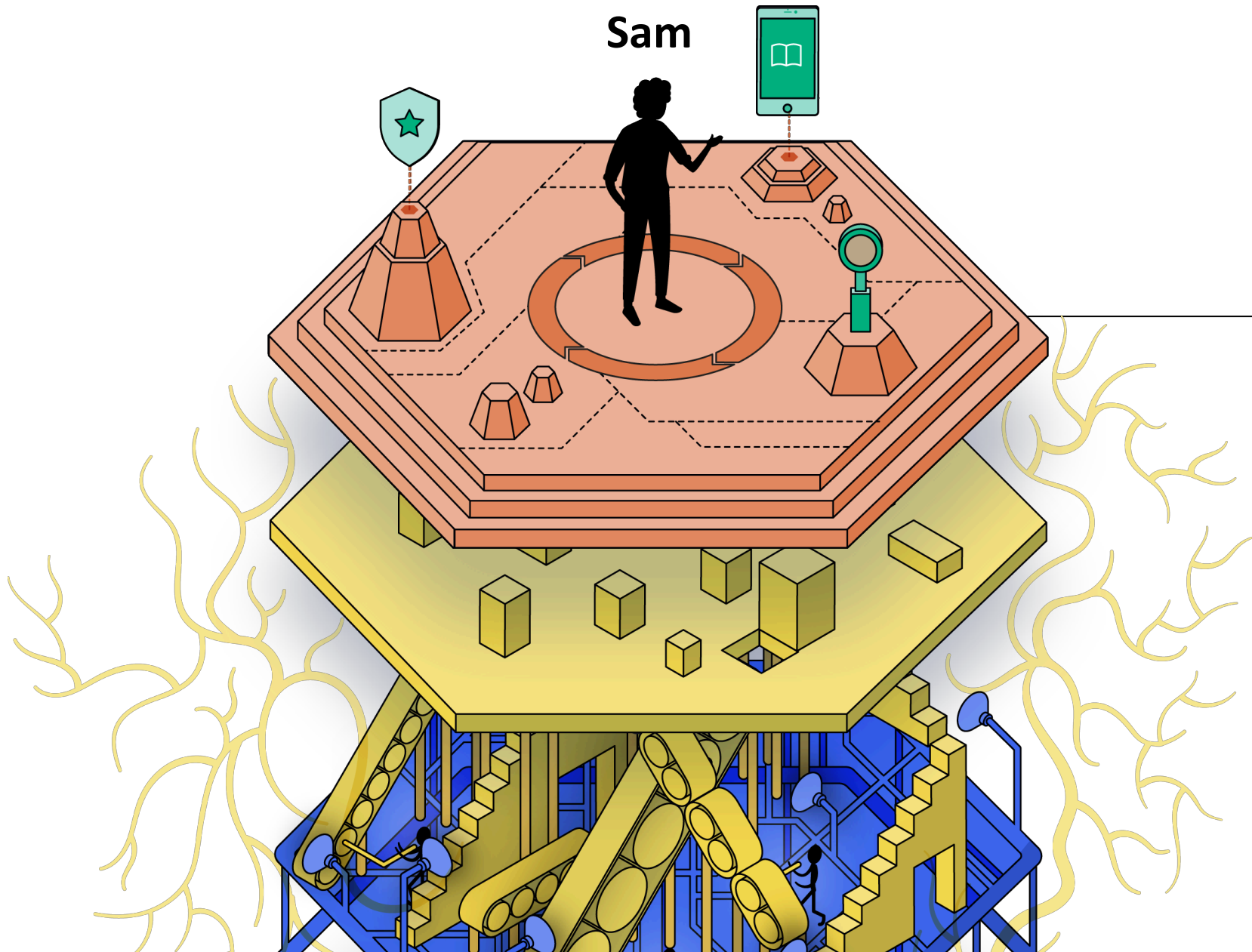
USE CASE 8

Institutional identity



Developing a cohesive framework for trusted institutional identities, facilitating smoother collaborations and exchanges between HEIs.

Accreditation Ranking



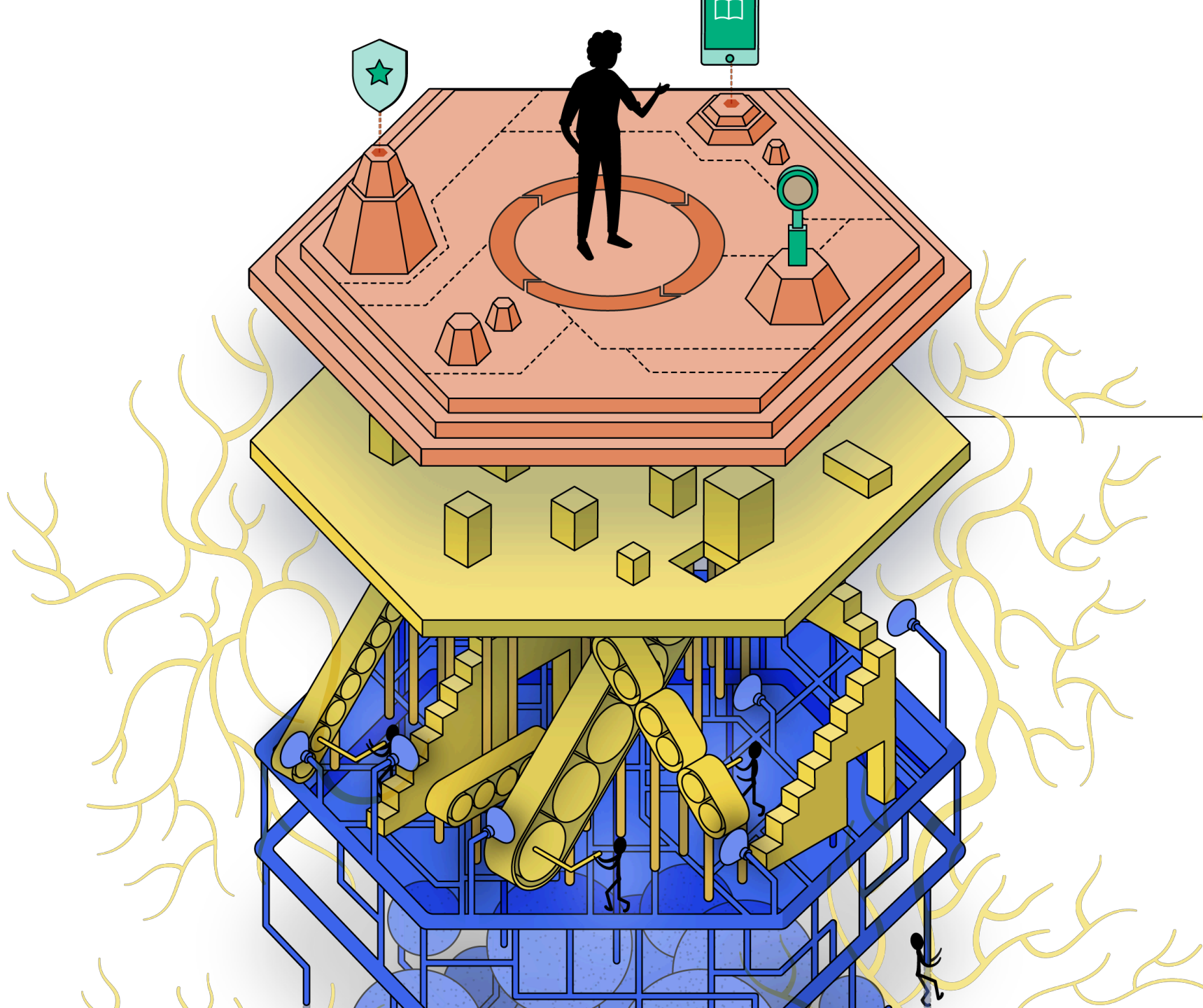
Sam

Users & Services

The top layer outlines the objectives of the users. Learner, teacher and staff want their needs to be fulfilled.

Examples:

- *The learner wants an education path that fits/satisfies their needs.*
- *The teacher can create courses that fit the learner's need and meet desired educational outcomes.*

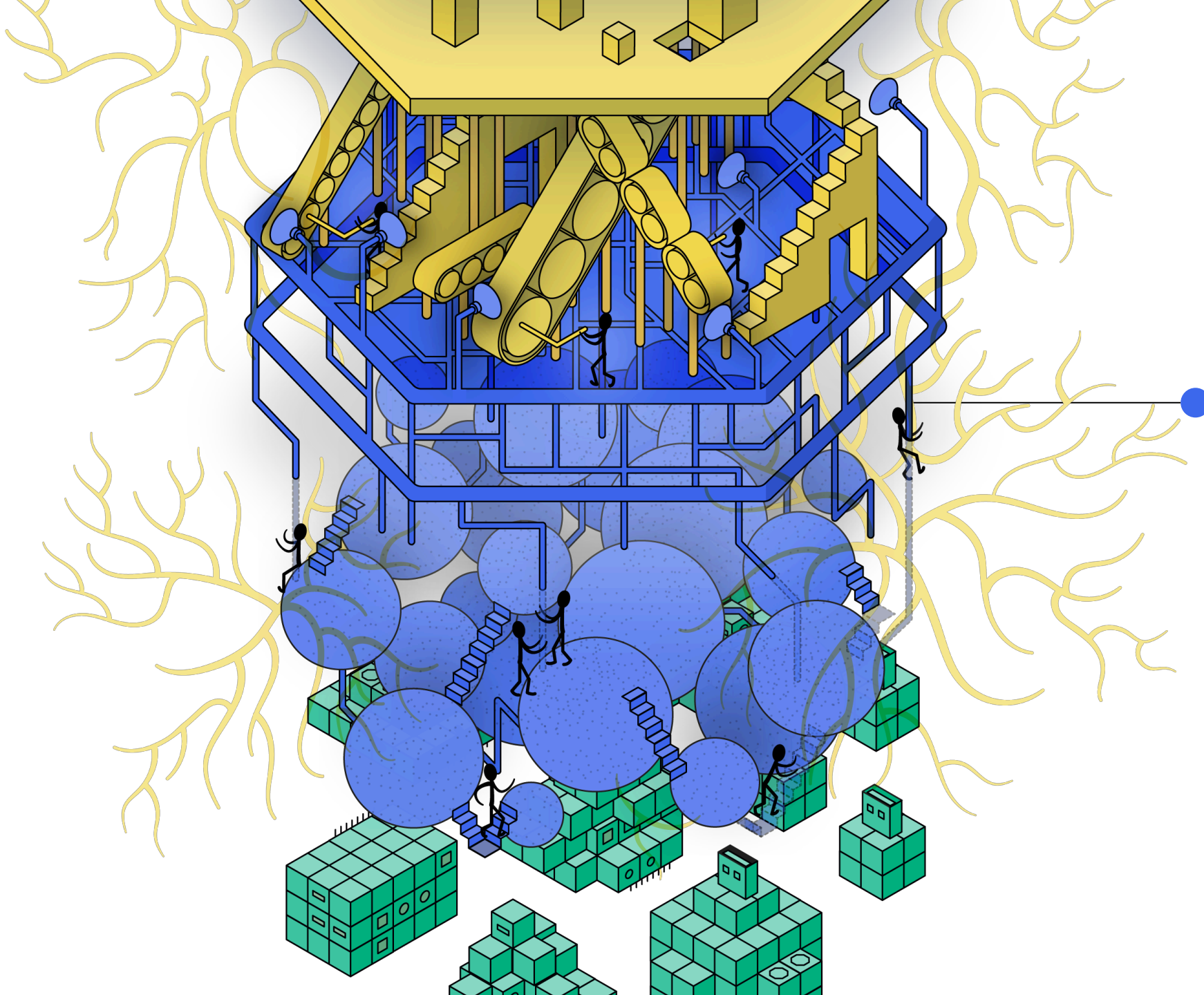


Organisation & Processes

Next, the 'business' layer is about designing and managing the education operations, to meet the goals set in the top layer. For example curriculum development, exam organisation or scheduling.

Examples:

- *The program director designs a program in collaboration with the teachers' team.*
- *The CIO, in collaboration with educational experts and IT teams, oversees the procurement and configuration of the most suitable LMS.*

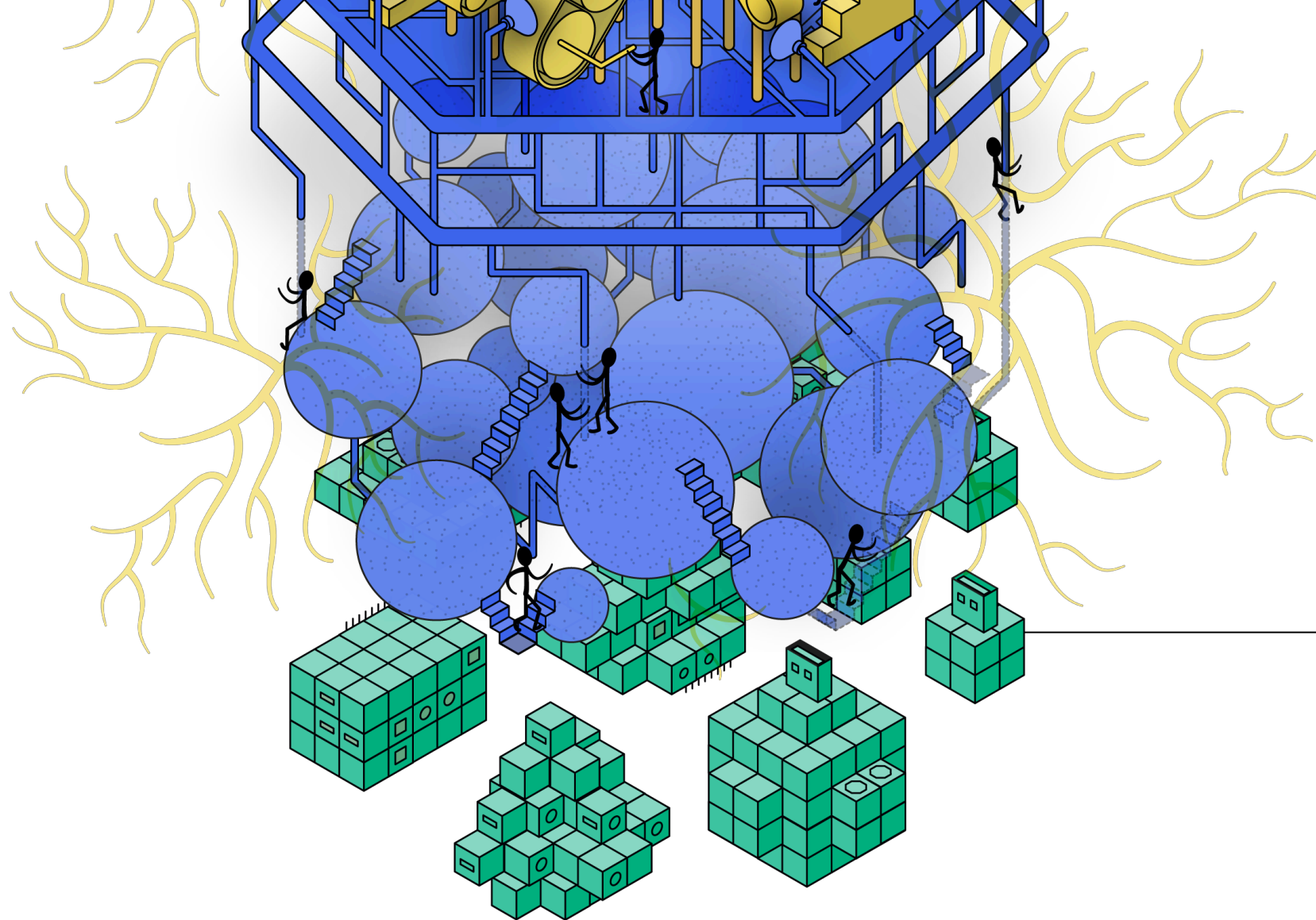


Applications & Information

This layer is about what IT should do.

Examples:

- *Functional application managers find solutions that meet user needs. They define how to execute these within an application, following business processes.*
- *The International Exchange Officer can access student data for current exchanges. This helps them keep information up-to-date to manage and support international programs well.*

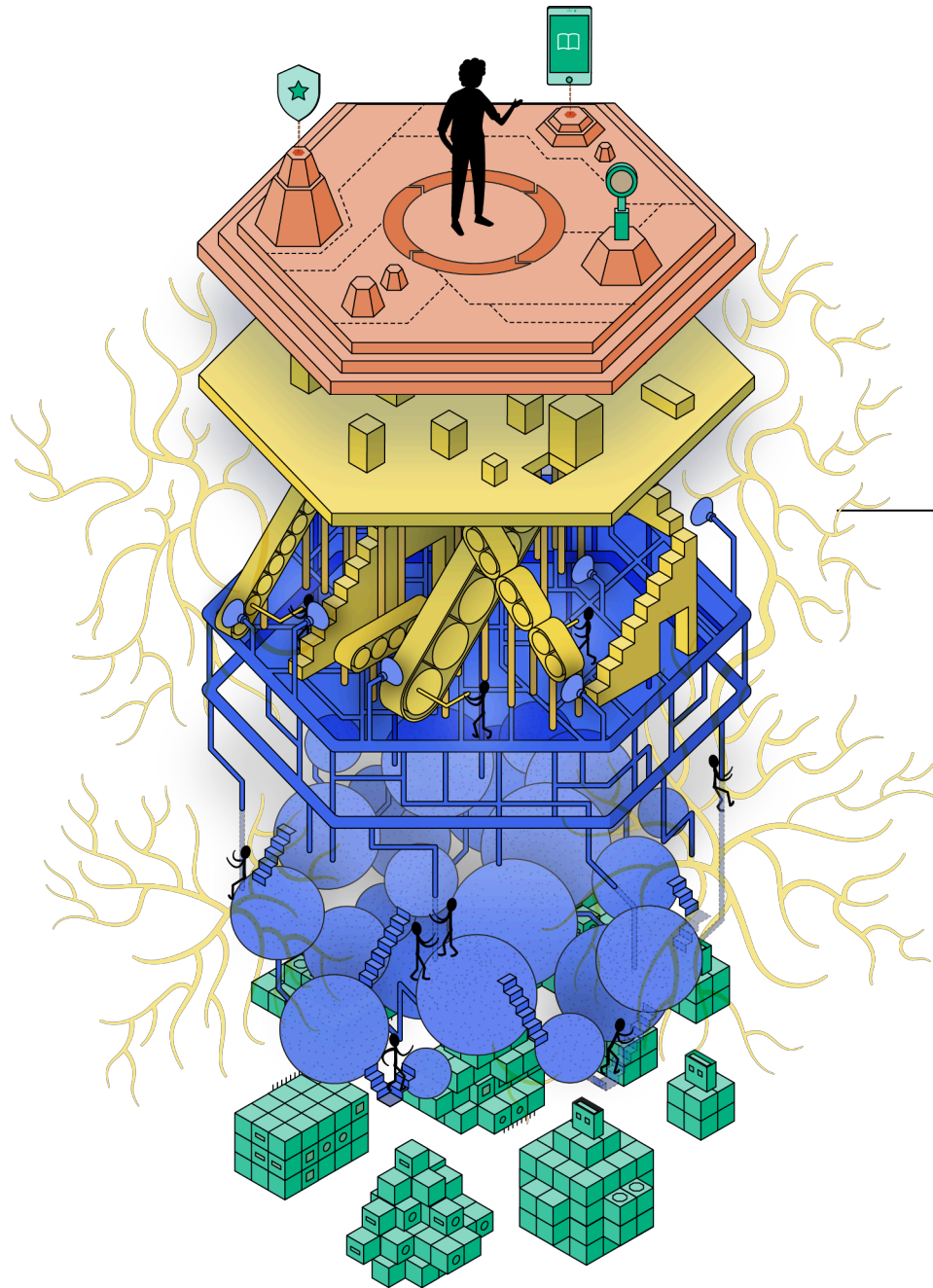


Technology

While this layer is about how IT is managed. IT staff handle identities, access and databases.

Examples:

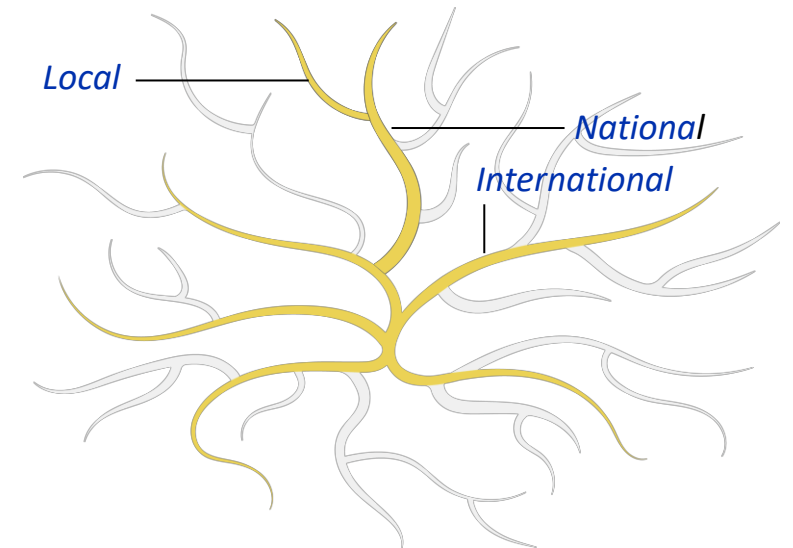
- *IT managers and NRENs like SURF ensure secure connections and data exchanges between institutions.*
- *Integration specialists ensure standards for information exchange and storage are agreed upon and implemented (e.g. APIs).*



Policy & Legislation

● Legislation is produced and implemented on different scopes:

For example, GDPR is European legislation that has a global impact. It is translated into national legislation and fuels the local privacy policy of an institution.



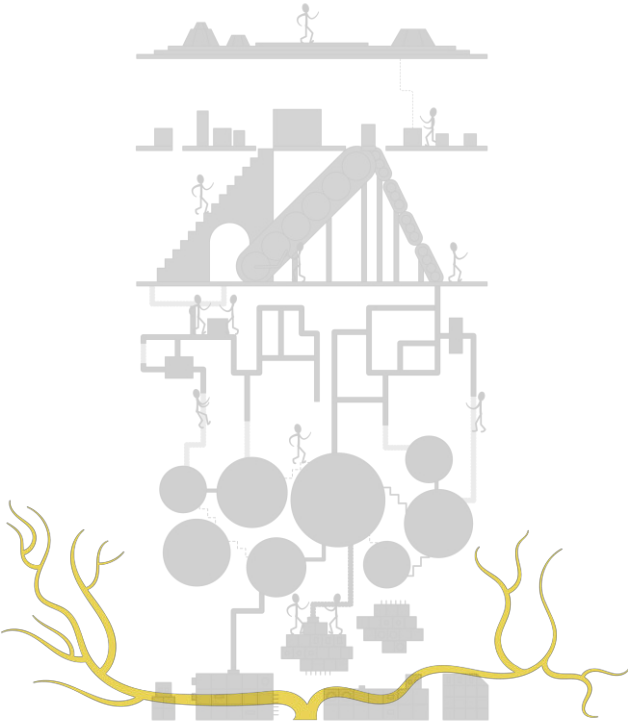
Policy & Legislation

Legislation can:

Support the ecosystem,

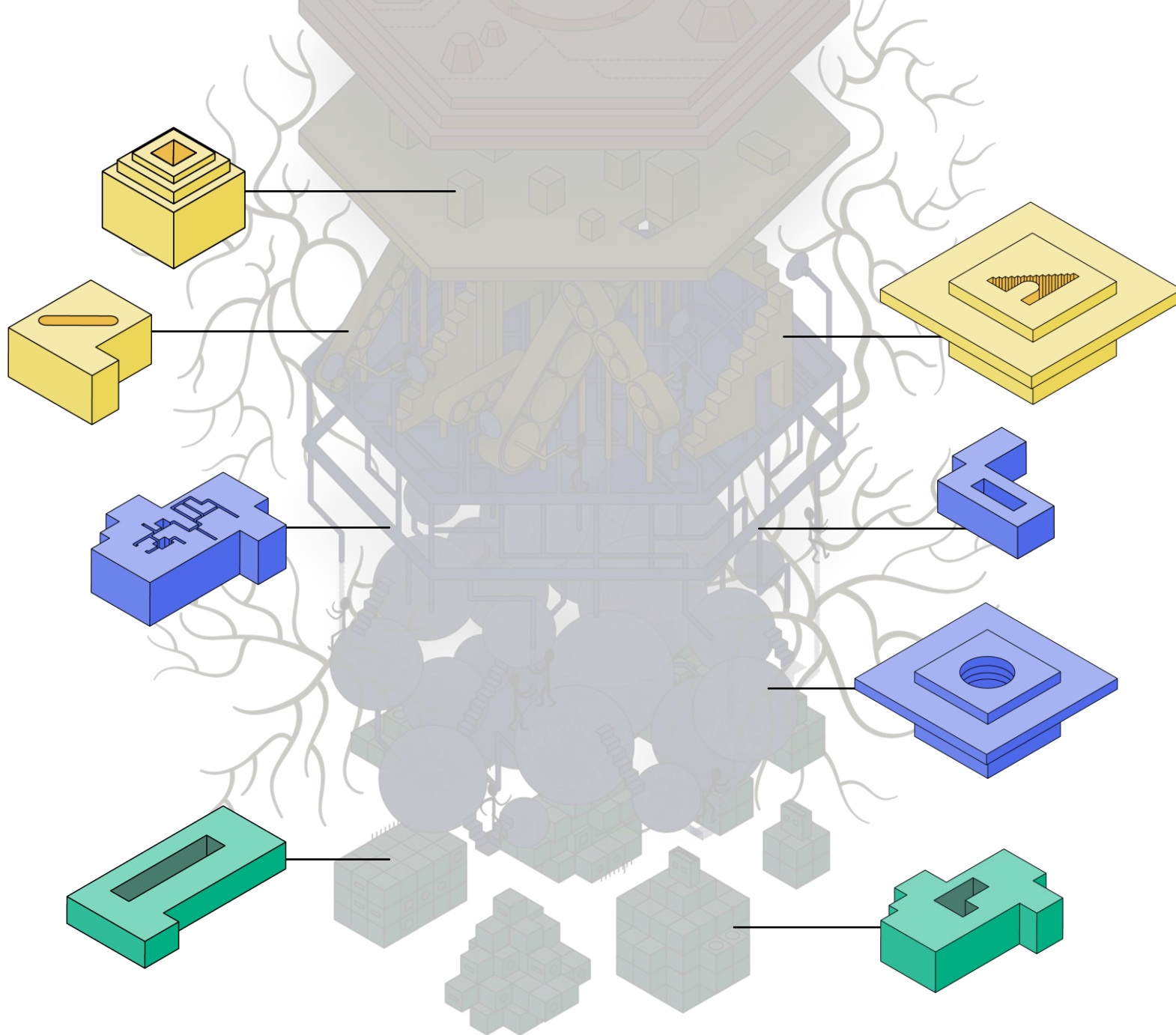


not support it,



it may even undermine it.





Standards

A standard is an agreement on information or a process, which can have various perspectives for consistent digitalisation and data exchange:

Examples:

- *Semantic standards: defining terms like 'diploma' or 'teacher'.*
- *Metadata standards: enabling data to be placed in the right context.*
- *Standard processes, such as conducting a privacy impact assessment when making decisions about the collection and use of personal data.*
- *Technical standards, such as IPv6 for network communication.*

You and your colleagues look at this ecosystem from **different perspectives..**

Interoperability is the ability of various systems or components to exchange and interpret data or perform functions in a coordinated manner, even if they are developed by different Higher Education Institutions or operate on different platforms

Interoperability challenges: refer to difficulties encountered when different systems, devices, or components need to work together smoothly and effectively.



Graphics: Bakker, N., Janse, D., Renders, E.A., (2024) Educational interoperability. Utrecht: Npuls. www.interopvisual.eu



What is the European Digital Education Hub

A **project of the European Commission**, funded by the Erasmus+ programme (2021-2027) and operated by a **consortium of 7 organisations** under a framework contract with the **European Education and Culture Executive Agency (EACEA)**

- Cooperation, exchange and peer-learning
- All sectors and levels of education and training
- **Open, inclusive, supportive and practice-oriented** community for digital education stakeholders
- **Aim:** increase cooperation and exchange in digital education at EU level

Key features

- Officially launched in June 2022
- Part of the [Digital Education Action Plan](#)
- Cross-sectoral coverage and regional diversity across Europe and beyond

Register: https://ec.europa.eu/eusurvey/runner/EDEH_registration



Roadmap HE Interoperability Framework

Framework Development

2023 - 2024

- Establishing a core working group of 20 experts and community members
- Drafting of reference architecture & use cases

Framework Launch

2025 (Jan – June)

- Launch of Coordination Group (10 HEIs and alliances + EC) and Task Forces
- EU Publications Office Reports and Guides
- Collaboration with Early Adopters

Framework Implementation

2025 (June – Dec)

- 29-30. Sep: Coordination Group and Task Forces implementation workshop
- 27 Nov: Online Community Conference
- Peer-learning webinars for early adopters
- Launch of training modules

250+ workgroup members from 34 countries (45+ European Universities alliances; European Commission; Student Organisations; EdTech/Standards organisations; Local, national and European organisations and associations; Higher Education Institutions (HEIs))

Vision 	Manifesto	All stakeholders	The Manifesto is at the heart of the development of a European Higher Education Interoperability Framework. It guides the higher education interoperability working group in the European Digital Education Hub.
Governance 	Proposal for a Multi-Stakeholder Coordination Group on European Higher Education Interoperability	Policy and decision-makers, umbrella organisations	Proposes a transparent, inclusive and sustainable way to coordinate work on the European Higher Education Interoperability Framework.
Implementation 	Implementation resources	HEI and EU-As leadership, task leaders, ICT staff	The resources offer a modular and flexible kit with elements that can be adapted and shaped at the level of HEIs and EU-As to fit their individual realities and needs.
Analysis, inventory, recommendations    	<p>European Higher Education Interoperability Framework</p> <ul style="list-style-type: none"> An analysis of the state of interoperability across Higher Education systems in Europe (Synthesis report) An inventory of standards, processes, and ICT systems accross Higher Education (Mapping report) Glossary 	<p>HEI and alliances leadership, ICT staff</p> <p>Decision makers, HEI and EU-As leadership</p> <p>HEI and EU-As leadership, ICT staff</p> <p>All framework users</p>	<p>Combines key elements from different reports. Includes descriptions of the reference architecture, high-level business flow diagrams, and helpful recommendations to find concrete solutions to address identified gaps.</p> <p>Analyses data from over 40 EU-As, generating insights for future decision- and policy making.</p> <p>An inventory of standards and solutions currently in use at EU-As.</p> <p>Glossary of terms and concepts.</p>
Reference architecture 	Blueprint reference architecture and ArchiMate models	ICT staff	Describes the technical aspects of the reference architecture as built in the open architecture modelling language ArchiMate. Presents three complementary views for each of the eight priority use cases identified: organisational, semantic, and technical.



Training Sessions on HE Interoperability after February 2026

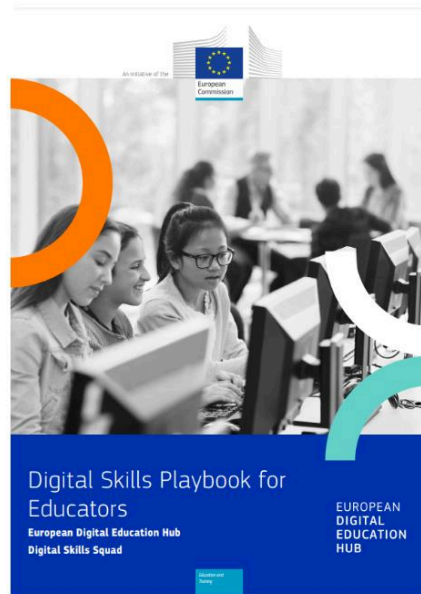


Modular, challenge-based, self-guided learning activity

Planned topics:

- Strategies for Interoperability within European University alliances
- Tools for Interoperability (HEIF reference architecture and similar tools)
- How to Create Joint Catalogues of Learning Opportunities (Use Case 1)
- Setting up Joint Systems for Application and Recognition (Use Case 2)
- Getting Started with Digital Credentials (Use Case 6)
- Making User Identities Interoperable (Use Case 7)

Hub Reports at the EU Publications Office



European Digital Education Hub Interoperability



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• commit at least one hour a week

About focus topics

Improving quality

Teachers, trainers and school leaders

Digital education

Digital Education Action Plan 2021-2027

Digital Education Hub

About the Hub

Workshops and working groups

Webinars

Funding opportunities

Reading corner

News and events

Tools for schools and educators

STEM

Green education

EEA in the world

Hub squads and working groups run on a voluntary basis and participation is unpaid.

Spotlight: Higher education interoperability working group

Alongside the short-term squads, the Hub is home to a long-term working group focused on higher education interoperability.

In this group, experts work towards a future where systems across Europe can connect and work together seamlessly.



[Read about the higher education interoperability group and its mission](#)



[Learn more about the European higher education interoperability framework](#)



Join the Hub and shape the future

If you haven't registered yet, it's simple and completely free. You will receive the Hub membership within 5 working days.

[Register to join the Hub](#)

On behalf of the consortium members for the Interoperability Workgroup & its Subcontractors



 Channa van der Brug
Channa.vanderBrug@Stifterverband.de

 Alfred Pallarca
pallarca@daad.de