

ESMO: eIDAS-enabled **Student Mobility**

Νέες τεχνολογικές δυνατότητες για τη
διαχείριση της κινητικότητας των
φοιτητών προς την Ελλάδα:
το έργο ESMO και η συνέχεια του



3η Συνάντηση Τεχνικών GUnet, Αθήνα 20.06.2019



www.ESMO-project.eu



I4m Lab



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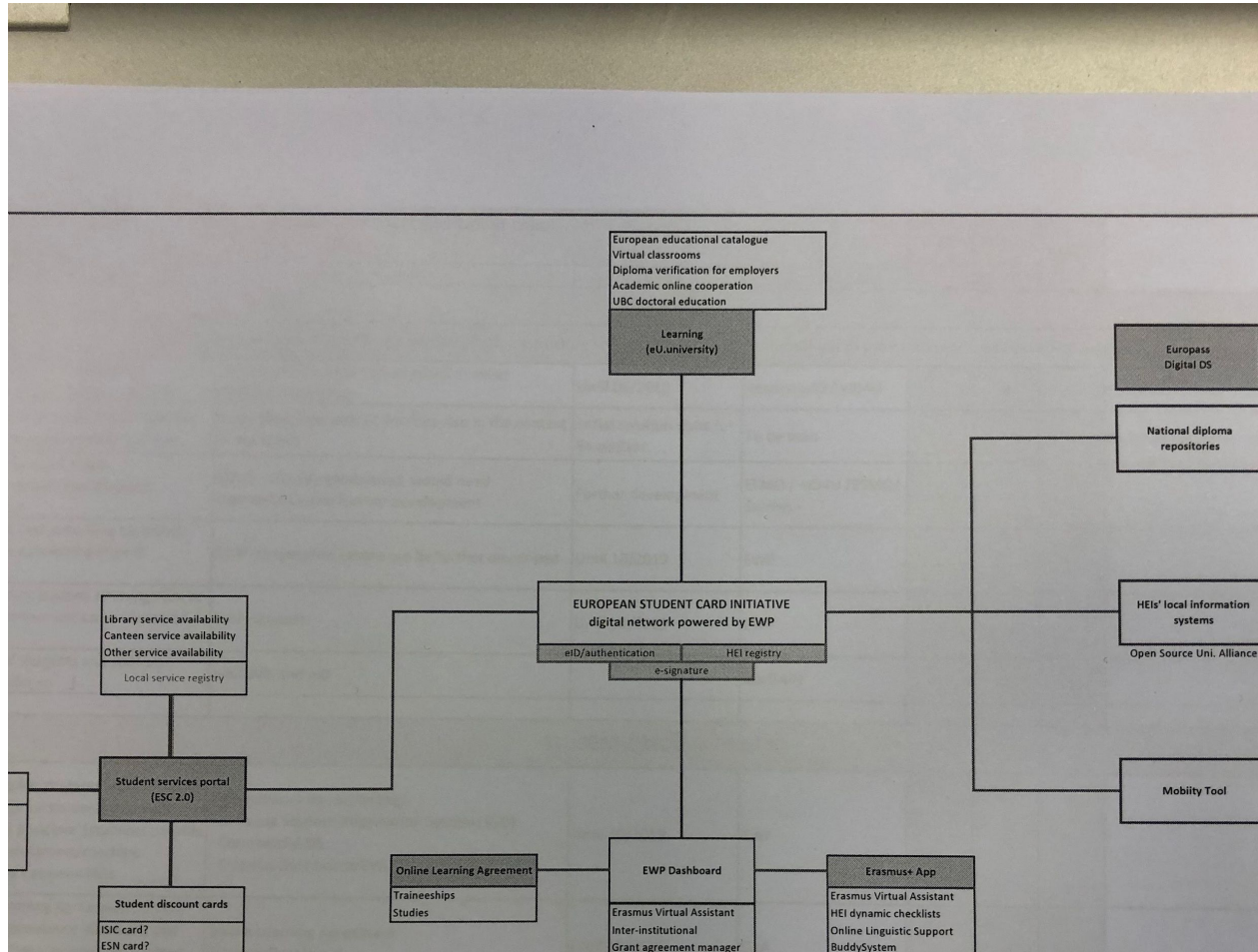
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GRANT AGREEMENT UNDER THE CONNECTING EUROPE FACILITY
(CEF) - TELECOMMUNICATIONS SECTOR
AGREEMENT No INEA/CEF/ICT/A2017/1451951

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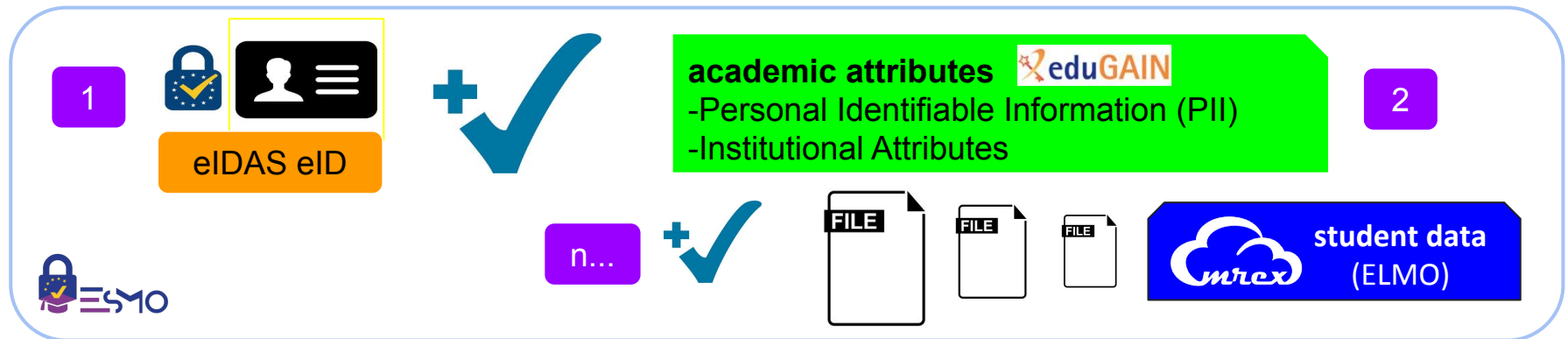
The perspective of European Digital University



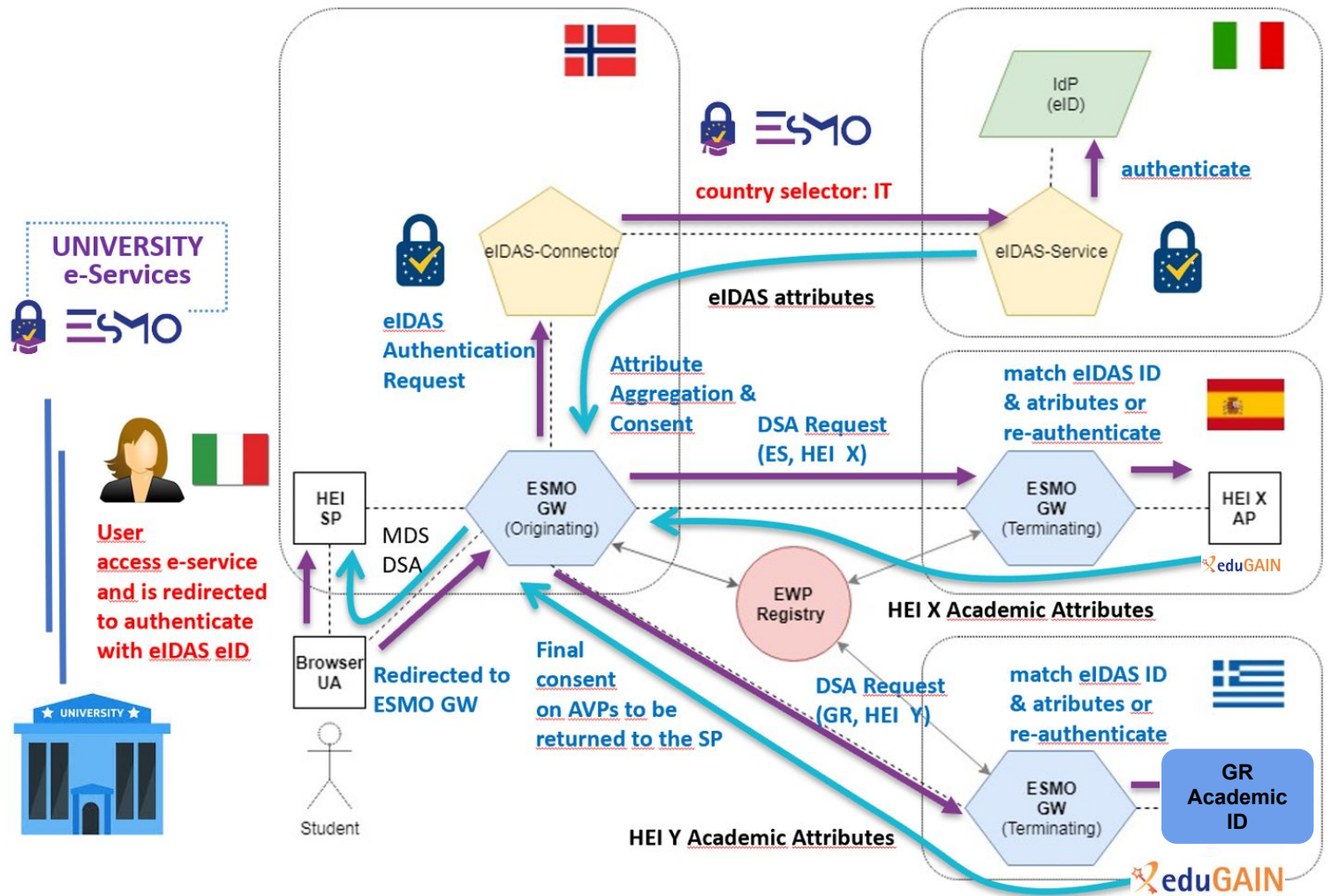
ESMO is a platform for civil and academic attribute aggregation



- “Inside” and “outside” of the eIDAS Network
 - Completes the functionality of the eIDAS Network
- Extends the eIDAS Network to include **Service Nodes** that form something larger, a short of **eIDAS ecosystem**
 - Services Nodes: ESMO Gateways (GWs)
 - Service Nodes provide “bundled” authentication, attribute transfer functionality and more!
 - **Aggregate an eIDAS authentication response (eIDAS Network) with attributes obtained from authoritative academic resources (eduGAIN)**
 - **Aggregate more: other forms of academic content obtained from other networks (for example EMREX for student academic data transfer - <https://emrex.eu/>)**



ESMO: Architecture and functionality



ESMO: Transfer academic attributes across EU Higher Education Institutions | cross border



What does ESMO **offer** to HEIs?



1. A “ready-to-use” infrastructure for massive cross-border academic attribute transfer
 - a. Transfer of a large set of academic attributes
 - b. Complementing an eIDAS identification request
2. A GW to access ESMO and eIDAS infrastructure (i.e ESMO GW)
 - a. OIDC interface
 - b. An HEI can
 - i. Deploy its own ESMO GW
 - ✓ ii. **or (preferably) connect to an existing GW (Athens ESMI GW)**
 - Athens ESMO GW (with augmented functionality) already serves Universities from Norway (we work in close co-operation with UNIT)
3. A possibility to use the same “connector facility” (ESMO GW) to connect to other networks (EMREX for student records - EWP, in the future, for mobility related papers, such Learning Agreements etc...)

ESMO GW detailed architecture: the augmented version (Athens ESMO GW)



ac/Service Provider (ac/SP)

eIDAS Node

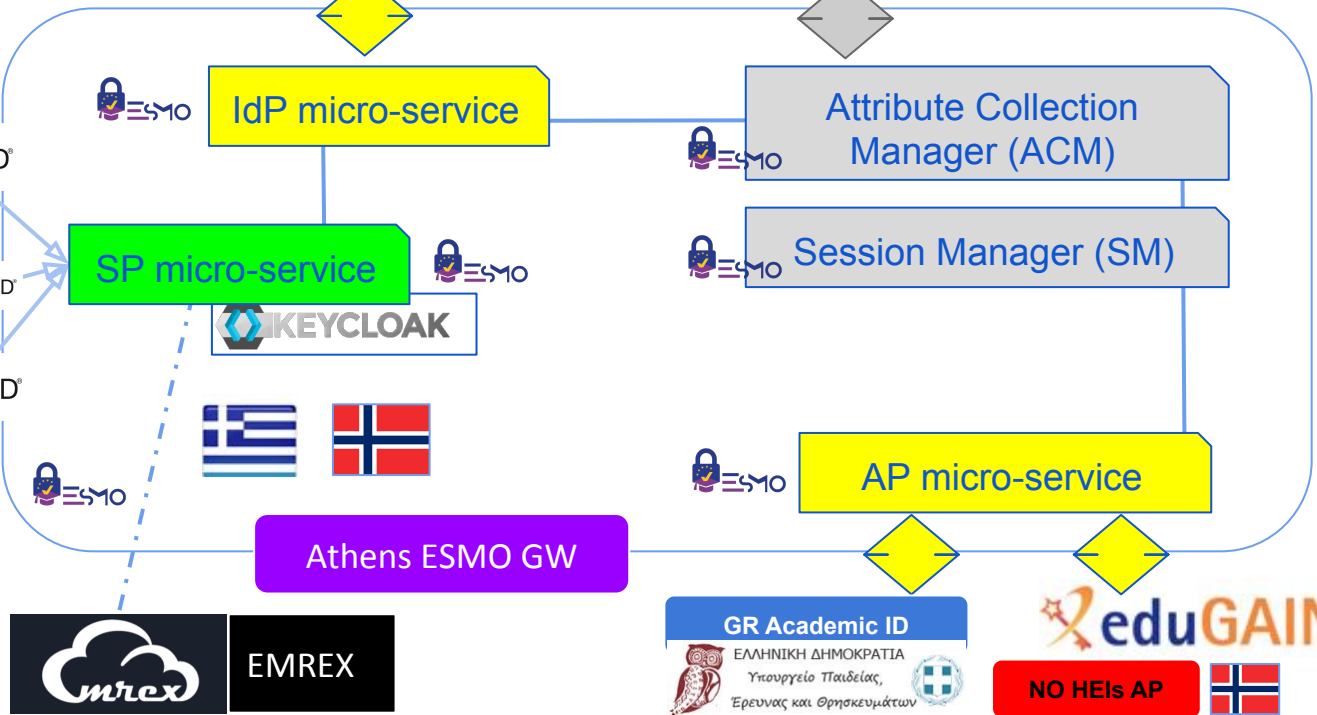
ES ESMO GW

Søknadsweb

GU net ΑΚΑΔΗΜΑΪΚΟ ΔΙΑΔΙΚΤΥΟ

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KEYCLOAK mobility IAM



EMREX

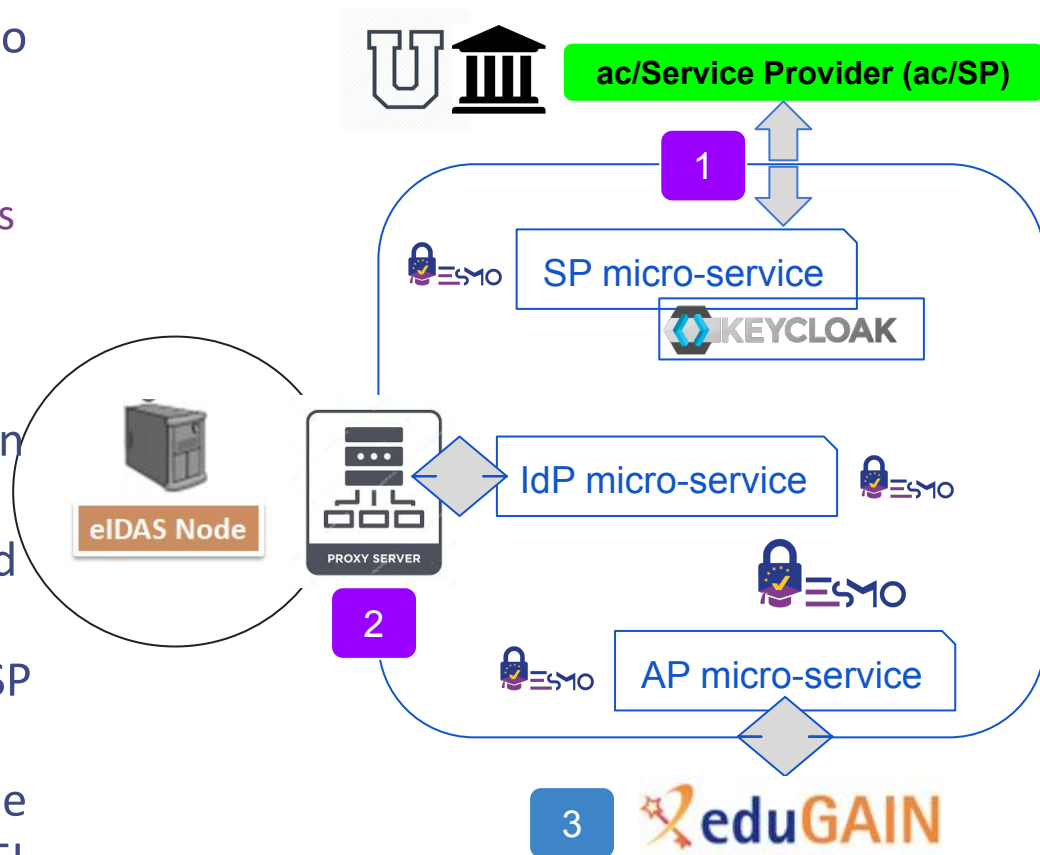
GR Academic ID ΕΛΛΗΝΙΚΗ ΔΗΜΟΚΡΑΤΙΑ Υπουργείο Παιδείας, Έρευνας και Θρησκευμάτων

eduGAIN NO HEIs AP

How a HEI can connect to an **existing ESMO GW**? (the case of the “augmented” Athens ESMO GW)



- Task 1:** Connect its Online Services to ESMO GW (augmented version) SP micro-service
 - Generate and consume OIDC claims
 - Keycloak
(<https://www.keycloak.org/>)
- Task 2** (non-GR HEIs): Create a local proxy that establishes a link between an eIDAS Network Node and ESMO GW - IdP micro-service (*augmented version: Athens ESMO GW)
- Task 3** (non-technical): Activate an SP presence in the “eduGAIN space” to attract Attribute Providers that agree to collaborate with the requester HEI (i.e. accept to provide attributes)



More: How can we **effecintly organize the service provided** by ESMO? **GUnet and UAegean collaboration**



- ESMO provides
 - aggregated PII data (eIDAS eID plus academic attributes)
 - student data (academic records, etc.)

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Home Erasmus+ Sign in

Welcome to UAegean ERASMUS+ Application and Admission Service!

Get Started: [Apply Here](#) | Select your application

STUDYING
AT THE UNIVERSITY OF THE AEGEAN

CARRYING OUT A TRAINEESHIP PROJECT
AT THE UNIVERSITY OF THE AEGEAN

EU AND EEA HEI PERSONNEL
(ACADEMIC AND ADMINISTRATIVE STAFF)

Version for Visually Impaired Users

Version for Visually Impaired Users

Version for Visually Impaired Users

Important: Use your eIDAS eID and your academic credentials to automatically complete the application forms

- We can use ESMO offerings to support the needs of local applications and online academic services that are related to inward mobility projects; examples:
 - **Automatic completion of electronic forms in the Application and Admission processes (we start now! coordination GUnet/support from GR Ministry of Education)**
 - Use of specific attributes to provide instant access to physical campus services (library and classes - IoT, objects in sales - only for students etc.) and eventually to a University's suppliers services (a user can easily prove easily critical personal attributes, such as “I am student”, “I am over 18” etc.)

A common for all GR Universities ERASMUS+ Application and Admission Application



- **Application and Admission for**

- For EU/EEA **students**

- Studying at a GR University
 - Carrying at a GR University
 - Progressively covering also GR business that welcome foreign students

- Version: Visually Impaired Users

- For EU/EEA **HEI personnel** moving to a GR University

- Academic staff - Administrative staff

- Version: Visually Impaired Users

- In all cases, an **automated admission acceptance process** applies!

- Internal application part to manage the ERASMUS+ students flow

(*) ESMO **offer** in detail

(Athens ESMO GW)



- We provide ESMO OIDC Connectivity in two flavors:
 1. ESMO SP kit for HEIs
 - a. Registration to ESMO SP micro-service
 - b. “Pure” OIDC connection
 2. ESMO SP kit plus
 - a. mobility IAM (Keycloak) with OIDC to Athens ESMO GW (and to GR eIDAS Node)
 - b. Automated management of external Users (ERASMUS students, visitors etc.)
 - c. Straightforward integration of existing applications to ESMO and eIDAS Network
 - d. Ready to use apps
 - i. ERASMUS+ Application and Admission app (with a DB selection option)
 - ii. ERASMUS e-Wallet