

# EUNIS 2020

## MyAcademicID: Building bridges with a European Student eID Scheme for Higher Education

1<sup>st</sup> Jeroen van Lent<sup>1</sup>, 2<sup>nd</sup> Victor Aguilar<sup>2</sup>, 3<sup>rd</sup> Joachim Wyssling<sup>3</sup>.

<sup>1</sup> European University Foundation; 16C rue de Canach, 5353 Oetrange, Luxembourg; Rue Joseph II, 120, 1000 Bruxelles, Belgium; [jeroen.vanlent@uni-foundation.eu](mailto:jeroen.vanlent@uni-foundation.eu).

<sup>2</sup> European University Foundation; 16C rue de Canach, 5353 Oetrange, Luxembourg; Rue Joseph II, 120, 1000 Bruxelles, Belgium; [victor.aguilar@uni-foundation.eu](mailto:victor.aguilar@uni-foundation.eu).

<sup>3</sup> European University Foundation; 16C rue de Canach, 5353 Oetrange, Luxembourg; [joachim.wyssling@uni-foundation.eu](mailto:joachim.wyssling@uni-foundation.eu).

### Keywords

eID, student mobility, higher education, e-services, identity providers, service providers, digital infrastructure, authentication, digitisation.

### 1. Summary

With a new, simpler and more digitised Erasmus Programme around the corner, various initiatives to support education in Europe have been launched by the European Commission. Most notably, the European Student Card Initiative aims to enable students to identify and register themselves electronically at higher education institutions within Europe when moving abroad for studies, eliminating the need to complete onsite registration procedures or paperwork (European Commission, 2019).

As a key supporter of this initiative, the MyAcademicID project is close to releasing an important building block in the form of a unique Student eID Scheme for Higher Education. This key piece of digital infrastructure will be the result of the integration of eduGAIN and a newly developed European Student Identifier. Furthermore, digital bridges with the eIDAS interoperability framework are being rolled out to further expand the opportunities for online student authentication.

Developed by a consortium of 13 partners with the support of the Connecting Europe Facility, MyAcademicID presents a single-sign-on OpenID Connect provider for authentication of students, a specification and implementation of a European Student Identifier, a bridge with the eIDAS interoperability framework, and corresponding technical blueprints and specifications for all services. Moreover, the project seeks to have four e-services integrate this scheme: the Online Learning Agreement, the Erasmus Dashboard, the Erasmus+ Mobile App and the PhD Hub Platform, showcasing how this scheme can benefit student mobility under the Erasmus programme.

The scalability of the project and the potential for integration of the European Student eID with a myriad of other student services (both online and offline), not only pave the way for seamless student mobility and a stronger, reinforced European student status throughout Europe, but make MyAcademicID a key component of the European Student Card Initiative spearheaded by the European Commission.

## 2. Extended abstract

In 2017 alone, more than 300,000 higher education students went abroad on exchange under the Erasmus+ Programme (European Commission, 2018, p. 24). Since its inception three decades ago, the programme has undergone a monumental expansion: from 11 participating countries and a mere over 3,000 students going abroad in 1987, to 33 participating countries and more than 9 million people having benefited from mobility under Erasmus+ by 2017) (European Commission, 2017). The future programme (2021-2027) is set to have its budget tripled and send an additional 12 million Europeans abroad in addition to various new initiatives to increase the amount of students studying abroad.

Despite this resounding success, the basic procedures that allow European higher education institutions (HEIs) to exchange data related to student mobility have changed very little and remain largely paper-based, making students dependent on using a number of accounts and documents to identify themselves, authenticate their student status, apply for mobility and access e-services at their host institution. As more students go abroad, these procedures become more cumbersome for both administrative staff at HEIs and students, slowing down mobility flows. This is at odds with a growingly interconnected world where most transactions are already digital. It also represents an important obstacle to the ambitions of a fully functioning Digital Single Market and the European leaders' vision of a European Education Area by 2025 where there are no borders to student mobility.

MyAcademicID (MyAID), a transnational project running from January 2019 until June 2020, may provide an answer to this problem. Co-funded by the Connecting Europe Facility of the European Commission, MyAID is building a European student eID scheme for higher education that will allow students to consistently and reliably authenticate themselves across institutions and borders to access online services when going abroad on exchange.

Rather than building digital infrastructure from scratch, the project partners have worked on a federated approach that relies on the integration of eduGAIN, the European Student Card Project (ESC) and the eIDAS interoperability framework. The goal is to enable federated access to tools that HEIs and students will use as of 2021 to manage the mobility cycle under the new Erasmus programme: the Online Learning Agreement, the Erasmus Dashboard and the Erasmus+ Mobile App. This allows students to access them all from their institutional accounts via a single sign-on; in the future, the connection between eduGAIN and eIDAS will allow students to authenticate and register at their HEI using their national eIDs. Related to this aspect, the project is working on rolling out an inter-operable European Student Identifier (ESI) that will be integrated by the digital Erasmus tools mentioned above to univocally identify users across different services and institutions.

A key challenge in providing persistent, cross-service student authentication using eduGAIN is the current lack of a globally unique European Student Identifier. Some properties within eduGAIN could be leveraged for this purpose, but a more permanent solution and roll out in all federations would take a couple more years. Given the timeline and the importance of these tools, the MyAcademicID project is close to releasing a single-sign-on multi-protocol service provider proxy which will allow the services to use the OpenID Connect protocol in order to authenticate users in eduGAIN. This proxy will allow to add a persistent and globally unique student identifier on top of the federated authentication mechanism provided by eduGAIN, until the European Student Identifier is widely rolled out by Higher Education Institutions.

Since MyAID was initially presented at EUNIS in Trondheim last year, the project partners have implemented a proof-of-concept bridge with the eIDAS interoperability framework using the Swedish node. This second proxy will allow students to authenticate and enroll at their universities using their national eID, linking it to their institutional accounts, leveraging the national eID scheme proposed by the European Union, and opening doors to smoother integration with the academic world.

A third important outcome of the MyAcademicID project is the specification and implementation of a European Student Identifier. In order to properly authenticate students across different platforms and services, the consultation and technical work carried out throughout the project determined that said identifier must be not only globally unique and persistent, but also protocol-neutral (work with both SAML and OAuth2), non-targeted, and data-transport-neutral to allow a wider usage in back-office applications such as transcripts of records. An initial version of the proposed identifier will be issued by the OpenID Connect Proxy, but is later foreseen to be issued by Higher Education Institutions directly.

Piloting the European Student eID scheme for Higher Education within the Erasmus+ mobility scheme provides the ideal testing environment that can later be enlarged to include other scenarios non-specific student mobility; a range of services, both online and offline, public or private; and geographical boundaries beyond the European Union and the Erasmus+ Programme.

The scalability of the project and the potential for integration of the European Student eID scheme with a myriad of other student services, not only pave the way for seamless student mobility and a stronger, reinforced European student status throughout Europe, but make MyAcademicID a key component of the European Student Card Initiative spearheaded by the European Commission.

#### **Project partners**

European University Foundation (EUF); Géant Association (GÉANT); Swedish Research Council (SUNET); Centre national des œuvres universitaires et scolaires (CNOUS); Humboldt-Universität zu Berlin (UBER); University of Malaga (UMA); Réseau national de communications électroniques pour la technologie, l'enseignement et la recherche (RENATER); Direção-Geral do Ensino Superior (DGES); Fondazione ENDISU; Aristotle University of Thessaloniki (AUTH); Deutsches Studentenwerk (DSW); Ente per il Diritto allo studio Universitario dell'Università Cattolica (EDUCATT); Direction Interministérielle du Numérique et des Systèmes d'Information et de Communication de l'état (DINSIC).

#### **References**

European Commission. (2017). *The 30<sup>th</sup> Anniversary and You*. Retrieved February 7, 2019, from: <http://ec.europa.eu/programmes/erasmus-plus/anniversary/30th-anniversary-and-you-en>.

European Commission. (2018). *Erasmus+ Annual Report 2017*. Retrieved February 7, 2019, from: <https://publications.europa.eu/en/publication-detail/-/publication/4e5c3e1c-1f0b-11e9-8d04-01aa75ed71a1>.

European Commission. (2019). *European Student Card Initiative*. Retrieved February 22, 2020, from: [https://ec.europa.eu/education/education-in-the-eu/european-student-card-initiative\\_en](https://ec.europa.eu/education/education-in-the-eu/european-student-card-initiative_en).

### 3. Authors' biographies



**Jeroen van Lent** completed a double degree Master's degree in Computer Science at KTH Royal Institute of Technology in Stockholm and the Technical University in Berlin. He has worked for various industry leading companies and NGOs on different projects involving digital transformation and became a supporter of International Student Mobility as a member of the Board of the Erasmus Student Network. At the EUF, Jeroen aims to streamline all the digital initiatives around Erasmus and work on digital transformation of the Higher Education sector, through projects such as the Online Learning Agreement, the Erasmus+ App, the Erasmus Dashboard and MyAcademicID.

[LinkedIn reference.](#)



**Victor Aguilar** holds a BA in Psychology from the National Autonomous University of Mexico (UNAM) and a Master's in Public Policy and Administration from the Centre for Research and Teaching in Economics (CIDE). He has worked as a consultant and applied researcher in both the public and the private sector in Mexico. After his Blue Book traineeship at the Executive Agency for Small and Medium-sized Enterprises (EASME), Victor worked as a Policy Officer in the field of Higher Education at the Directorate-General for Education, Youth, Sport and Culture (DG EAC) of the European Commission. He joined the European University Foundation (EUF) in 2018, where he now coordinates MyAcademicID.

[LinkedIn reference.](#)



**Joachim Wyssling** completed his Master's degree in EU studies at the University de Franche-Comté. During his studies, he actively volunteered in student NGOs welcoming and integrating international students in local communities. After serving as Vice-President of ESN International, he joined the EUF in 2011. His current mission as Project Manager involves the incubation of innovative project proposals for member universities and the identification of development opportunities within the European Higher Education Area, notably in the field of digitisation of HE with the Online Learning Agreement, Erasmus+ mobile App and Erasmus Without Paper; more recently in the field of doctoral education with the European PhD Hub; and in the field of social inclusion and recognition of informal learning experiences with SocialErasmus+.

[LinkedIn reference.](#)