Annex 1: Q&A on the digitalisation timeline

Inter-Institutional Agreements (IIAs)

What options do I have when setting up a <u>new</u> IIA before the end of 2022?

It is strongly encouraged that new IIAs should be concluded via the EWP network. If not possible, email exchanges or paper agreements can still be used to secure mobility spots.

What options do I have to set up a <u>new</u> IIA after the end of 2022?

After 31st December 2022, all systems are expected to be fit for purpose. This means your HEI is expected to be connected to the EWP (via inhouse system, third-party software or using the Erasmus Dashboard), and able to exchange IIAs and LAs via the EWP Network. All new bilateral IIAs and LAs are expected to be concluded via the Erasmus Without Paper Network.

What if an existing IIA needs to be renewed after the end of 2022?

Same as above - from that point onwards your HEI and all your partners are expected to be able to connect to the EWP network (via inhouse system, third-party software or using the Erasmus Dashboard) and ready to exchange data on IIAs and LAs.

Is there a deadline to convert IIA established before the end of 2022 into EWP-compatible IIAs?

Not for the moment - the target will be agreed upon through the ESCI governance bodies.

Learning Agreements (LAs)

What options do I have when setting up a <u>new</u> LA before the end of 2022?

It is strongly encouraged that new LAs should be concluded digitally via EWP. If not possible, paper agreements can still be used to secure mobility spots. For mobilities starting as of 1 January 2023, LAs can still be exchanged on paper if partners are not ready to exchange them in a digital manner.

What options do I have to set up a new LA after the end of 2022?

For mobilities in the academic year 2022-2023 that start as of 1 January 2023, there are two different scenarios:

• Paper-based LA signed by three parties before 1 January 2023 remains valid. Also latter versions of the LA that need to be signed, can be processed on paper and are not needed not be digitized afterwards.

• LAs to be signed as of 1 January 2023: digital version is expected to be the only option if both partners can exchange digitally via the EWP Network.

Do LAs for the academic year 2022/2023 that were not concluded via EWP need to be converted into EWP-compatible formats?

No. Non-digital LAs for the second half of the 2022/2023 academic year are valid if they were initiated before 1 January 2023. Possible changes during the mobility (tables A2/B2)

are to be made in the same format as the original LA (cf. next question). As of 1 January 2023, all new LAs need to be created via EWP.

Do we need to convert LAs signed on paper before 1 January 2023 into a digital format when a new version of that LA needs to be signed in 2023?

No. If the first version of the LA was signed by three partiers before 1 January 2023, you can continue using the paper version.

Transcripts of Records (ToRs) and applications/nominations processes

What is the timeline for digitalisation of Transcripts of Records and applications/nominations processes?

There is currently no obligation to digitalise further processes such as issuing ToRs or digitally exchanging nominations. However, there is work ongoing on preparing the ground for these processes to go digital and we encourage HEI to be prepared for digitising those important processes based on the EWP APIs. The progress will be discussed within the ESCI governance bodies before any eventual targets are agreed on.

Annex 2: European Student Identifier factsheet

What is the European Student Identifier (ESI)?

It is a digital identifier enabling students to uniquely identify themselves when they access student mobility services online and for their student status to be automatically verified. It supports and eases international student mobility and trans-national cooperation of higher education institutions. Using ESI is crucial for all sending HEIs to be able to provide mobile students with an identification that will be used during the mobility journey to identify the student.

The Communication for a European Strategy for Universities endorsed the gradual deployment of the European Student Identifier stating that it will be "available to all mobile students in 2022 and to all students in universities in Europe by mid-2024." It is higher education institutions participating in the Erasmus+ programme that must implement this vision.

The ESI was developed through the MyAcademicID EDSSI projects. By connecting the relevant European networks of identity providers –such as eIDAS and eduGAIN– and implementing a unique European Student Identifier, the project enables students to use either the credentials issued by their home university or their national citizen eID to access different student electronic services when going on mobility abroad, without needing to create new accounts or share their information more than once.

What is it for? What are the benefits now and in the future?

The ESI is crucial to allow the smooth transfer of student data during Erasmus+ mobilities, and it is an essential component to identify the student status through the different Erasmus+ digital tools, including the Erasmus+ App. ESI is the gateway to make the European Student Card available to students through the Erasmus+ App. Currently the digital European Student Card is generated through the ESI which confirms the student status.

The ESI is of paramount importance to build a robust student authentication system, in that it plays a key role in ensuring electronic systems correctly identify students and grant access rights accordingly. This is even more relevant for whitelisted HEIs, as currently they have no alternative ways to release academic attributes.

The ESI being a key element used for student identification means that it is being "carried" as an element of the various EWP APIs to ensure consistent identification of a student at any point of the mobility journey - if it was missing, it would hamper the data exchange chain. ESI is being used as a means of student identification in all systems that have been built for the digital Erasmus+ infrastructure, including the Erasmus+ User Management System and its Beneficiary Module.

The ESI is generated electronically and maintained and stored by the higher education institution, in its student registration system. For universities on the whitelist, the MyAcademicID platform will store this number. Students (or IROs) do not need access to this number, since this is a technical code that is being carried within the network when the student uses MyAcademicID for logging into any Erasmus+ mobility service systems (like the Online Learning Agreement or the Erasmus+ App).

What does the ESI look like?

The European Student Identifier is globally unique, persistent, non-targeted, technically independent and GDPR compliant:

- Globally Unique: Each student should be uniquely identified across organizational and national boundaries
- Persistent: The identifier should follow the student while he/she is on student mobility
- Non-targeted: The identifier should be the same for all services involved in the student mobility processes
- Technically Independent: The identifier is not impacted by the different technologies used by the systems involved during the mobility
- GDPR Compliant: No sensitive data from the student is exposed during the mobility.

The European Student Identifier can take on one of two forms, depending on the qualifiers needed to make a given student code globally unique:

- ESI with nation-wide (or region-wide) scope student code: urn:schac:personalUniqueCode:int:esi:<country-code>:<code>

- ESI with HEI-wide scope student code : urn:schac:personalUniqueCode:int:esi:<sHO>:<code>

How is ESI issued and by whom?

The optimal issuing process, for institutions which are part of eduGAIN federation, is as follows:

1. The process is initiated by the International Relations Office (or any unit that works with student mobility) at the institutional level by finding the right unit that works with identity management and by providing the necessary instruction for the correct deployment of the ESI.

2. The technical task – the publication of the necessary parameters towards the eduGAIN federation – is done by the IT department.

3. The International Relations Office shares the news with the stakeholders (students, coordinators, student organisations or any other relevant unit at the university).

- For institutions that are not part of eduGAIN and do not have national Identity Providers (IdPs): An alternative technical solution has been developed called the "Identity provider of last resort" (or "IdP of last resort"), which is required to ensure no entities and students are left out. Erasmus+ National Agencies provided the European Commission with a "whitelist" per each country associated to the Erasmus+ programme. There are around 500 institutions on the whitelist across the Erasmus+ programme countries. See more information here

- In practice, this means Erasmus+ students from the whitelisted institutions will be invited by IROs to register on the same platform, where their identity will be validated by the IRO. The MyAcademicID Operator will subsequently generate a European Student Identifier for this student and store it directly in the MyAcademicID platform. This will enable those Erasmus+ students to have access to the Erasmus+ student-facing digital infrastructure. After the application of the student is approved by an IRO, when they log in using Google or their national eID, they will be automatically recognised, and their ESI will be retrieved from the MyAcademicID platform and made available to the relevant service (e.g., Online Learning Agreement).

What is the state of play of issuing ESI?

There is a steady increase of identity providers releasing ESI in the last months with approximately 2216 HEIs releasing the ESI by September 2022.

Where do institutions find support?

Institutions can find information and support on the ESI deployment at the Wiki pages hosted by Géant and EUF and through the FAQ provided by MyAcademicID.

Sources

- About - MyAcademicID - European University Foundation (uni-foundation.eu)
- Webinar: European Student Identifier - MyAcademicID - European University Foundation (uni-foundation.eu)
- MyAcademicID Identity and Access Management Service - Student Mobility - GÉANT federated confluence (geant.org)
- European Student Identifier - MyAcademicID - European University Foundation (uni-foundation.eu)

Annex 3: Interoperability Action plan

INTRODUCTION

The seamless exchange of data among IT systems that support Erasmus+ student mobility, is a long-held dream among most International Relations Officers. It is also an integral part of the European Student Card Initiative (ESCI).

As the first targets for switching to fully digital inter-institutional agreements (IIAs) and learning agreements (LAs) are approaching, further progress is needed to put an end to the considerable difficulties experienced by many end-users. As a result of the new framework contract, the matter has been the object of a technical analysis in the first quarter of 2022 and the organisation of two webinars with thousands of participants in early April also allowed for powerful insights into this situation.

This new Interoperability Reinforcement Plan (or Action Plan), elaborated at the request of the European Commission, sets out the full IIA and LA interoperability (which means the ability of computer systems or software to exchange machine-readable data among themselves) as the highest priority.

The target is to achieve, as of 1 January 2023, a level of interoperability that enables higher education institutions to seamlessly conclude new inter-institutional agreements and learning agreements directly in digital form for the purpose of intra-European student mobility for studies (KA131)..

THE WAY FORWARD

Making it possible that IT systems exchange context-sensitive data in a seamless manner is a formidable challenge, in that it requires an entire community of diverse technical stakeholders and IROs to perform in close concert. It is important to acknowledge that huge progress has been made thanks to the outstanding efforts of many colleagues, commercial providers included. And yet there's an emerging consensus that vanquishing the challenges ahead will require a transversal change and transitioning into a more closely regulated environment. Here's an overview of the key steps the interoperability reinforcement plan comprises.

1.1. A more regulated environment

Problem to be tackled: A key issue currently affecting interoperability has to do with the fact that the EWP specifications are not always implemented in full, with some key nodes deploying only a subset of the envisaged functionalities (e.g. only cooperation conditions and not the default IIA data which are part of the IIA API and the official IIA template). Many IIAs on the Network are initiated but not completed (e.g. over 19000 IIA have been initiated on the Dashboard, but just under 2000 signed up until June 2022), with users quoting lengthy negotiation procedures and glitches in the systems as causes.

Actions to remediate the problem:

Action	Actor	Start-End
Definition of mandatory business requirements for the IIA and LA processes which set out in clear terms what the baseline EWP implementation scenarios are.	Ghent University will take the lead to set up the requirements based on input from International Relations Officers. DG EAC will validate them.	M1 – M2
The EWP technical team (in particular the Dashboard team in charge of the reference implementation) will proactively investigate errors affecting data exchanges processes, identify solutions and liaise with the affected nodes to accelerate their resolution. The information on where the "debugging" is needed will come from helpdesk tickets, statistical reports and eventually a centralised error logging system.	Aristotle University of Thessaloniki.	M1 – M6
Preparation of the enhancement of the testing protocols to reflect the full breath of the mandatory business requirements (defined under step 1) and specifications for IIAs and LAs. In addition to more detailed tests among technical teams, the process will be extended to include readiness confirmation by business practitioners (international relations officers). Once the testing plan is established, all nodes will have to undergo conformance testing in the future.	IBM for conformance validation; Ghent University and relevant governance organs for involvement of business practitioners. All nodes to implement.	M1 – M6 (local implementation is out of scope)
Preparation of technical tools to automatically log all communication errors in the EWP Network, allowing for a constant and detailed oversight of troublesome nodes and situations.	EWP+ Architecture Office, all nodes to implement.	M2 – M5 (local implementation is out of scope)

Actions number 1, 2, 3, and 4 outlined above are structural in nature and will become part of the operational fabric of EWP.

Complementarity with ongoing activities

Recognising the urgency of improving the interoperability issues currently affecting universities, we will reinforce the ability of the EWP technical team to proactively investigate errors affecting data exchanges processes, identify solutions and liaise with the affected nodes to accelerate their resolution. Such debugging of EWP nodes will intensify already from the start of the Interoperability Reinforcement Plan and take place in parallel of further work on EWP Dashboard and Network enhancements, while actions such as the logging of errors will benefit from work that is already planned and underway as part of EWP+ Track 1.

1.2. No end users left behind

Problem to be tackled: The results of the EWP survey ran among 700 respondents in April 2022 by EWP+ consortium showed that the biggest obstacle to implementing EWP requirements was the perceived lack of support to end users.

Actions to remediate the problem

While the Erasmus Goes Digital webinars in April 2022 marked the launch of a new and expanded EWP Service Desk, we are hereby committing to sweeping changes in the manner in which support is made available to all EWP users. The aim is for the EWP consortium to have a better insight into all interoperability problems during the exchange of Erasmus+ data which are affecting end users and to allow monitoring of the situation as well as redressing the errors or notifying the affected system administrators and working together on possible solutions. This will help avoid that interoperability tickets are not adequately followed-up.

Action	Actor	Timing
Expansion of the ESCI Service Desk to all EWP users experiencing interoperability issues. The resolution of such tickets will then be escalated to the relevant service provider as required, and they will be asked to report when the said tickets are successfully closed.	EWORX, ESCI Service Desk agents at the Aristotle University of Thessaloniki and at the diverse EWP implementations.	M1 – M6 (including refactoring)
New Town Hall format meetings with end-users, complementing the webinars and trainings foreseen for 2022, with a view to allow more regular communication with IROs and stakeholders. The Town Hall meetings will follow a Q&A style, where participants can ask questions.	Ghent University will organise the Town Hall meetings.	M1 – M6 One Town Hall meeting at the start of Summer on the topic of the "EWP Interoperability Reinforcement Action Plan" One Town Hall meeting in autumn focussing on a hot topic of that moment.
The establishment of system-specific business user groups (i.e. grouped by type of provider), aiming to facilitate the exchange of information and discussion about issues affecting them. These user groups will become part of the new ESCI governance structure.	Ghent University will facilitate the user groups.	M1 – M6
The publication of an EWP assessment report which will consider: - Service Desk aggregated feedback - Business process owners' feedback - Statistical data points available to the EWP team regarding cross-system data exchange This report will help bring to the fore known issues HEIs may still be facing when exchanging Erasmus+ student data via EWP, informing the collective understanding of the state of play of the universities in the EWP ecosystem to move to completely digital IIA and LA processes, public discussion and enhancing transparency towards end users.	Ghent University.	M1-M4 Foreseen report publication date: September 2022.
Ongoing updates and improvements of the support material. Such updates will be based on the feedback from the end-users collected in focus groups. More information will be	Ghent University, Aristotle University of Thessaloniki.	M1 – M6 M1: focus groups

communicated via the social media channels and the Competence Centre.		M2-M3: updates based on focus group feedback
		M4-M6: updates based on tickets received at the Service Desk

Complementarity with ongoing activities

Improving the support provided to the end- users, the sharing of information and increased levels of transparency are all key tenets of the steps outlined above. Several EWP+ actions will enhance this further still, notably the systematic collection of statistics from 2022/2023 onwards, that would require all nodes on the EWP Network to provide regular statistical information to a central statistical portal of the EWP.

In addition to the business user groups, the European Commission is setting up an EWP governance structure that will enable representatives of different user groups to provide regular feedback to the Commission on the European Student Card Initiative. The consultative bodies that will be set up in this context will bring together Erasmus+ National Agencies, university networks representatives, IT specialists from universities, international relations officers, students, European University Alliances, and technical experts.

In addition, more granular information about the ESI deployment is also being planned to be published to increase transparency in the ecosystem.

1.3. An enhanced cooperation framework with third-party providers

Problem to be tackled: It is essential to recognise the importance of third-party providers and in-house system operators in achieving the seamless exchange of electronic data in EWP. Current challenges cannot be overcome without their active involvement, so this is an endeavour at which we must succeed together. In practice this means considerably more resources will be made available to support and improve the EWP implementation of these actors.

Actions to remediate the problem

This action plan recognises that a stringent quality assurance framework regarding the viability of all key network nodes must be accompanied by extra measures to provide guidance and support to vital network nodes, and the following actions are envisaged in this respect:

Open the EWP Service Desk to queries from third-party providers and in house systems, complementing the work and exchanges already being carried out through the Infrastructure Forum and EWP GitHub.	Service Desk team	M1 – M6
Organise two technical workshops for developers responsible for API and client implementation for IIAs and LAs where the implementation of specific	University of Warsaw.	Timing to be discussed with the target group in order to maximise participation.

functionalities and business processes is jointly reviewed and validated. Such workshops would also be offered in a physical format.		
Create a relationship manager role focused on enhancing cooperation with and compliance of the third-party providers and in-house systems.	European University Foundation and University of Warsaw.	M1 – M12 Goal to complete recruitment of first RM by M4

Complementarity with ongoing activities

The ESCI governance structures such as Infrastructure Forum will facilitate the co-working with the diverse nodes of the Network and allow for fruitful information exchange to further enhance the user experience for all the nodes.
Opening the EWP Service Desk to queries from third-party providers, complementing the work and exchanges already being carried out through the Infrastructure Forum and EWP GitHub.

Conclusion

In order to benefit from the extra support outlined above, third-party providers and in-house system operators will be asked for a concrete commitment to support the actions described in the other chapters of this action plan through an amendment of the EWP Memorandum of Understanding. We are confident that, taken together, all these actions will provide an effective and impactful enhanced cooperation framework that will serve the higher education community for years to come.

Annex 4: EWP statistical data collection

The first set of statistics gathered from all HEIs in the production EWP Network give the accurate overview of the state of the digitalization of exchanges related to inter-institutional agreements and learning agreements. They have been thoroughly discussed with the mobility software providers at the Infrastructure Forum meetings and with Business Process Owners. Finally they have been approved by DG EAC.

The following statistics are being gathered:

A. Business level statistics – Inter-institutional agreements (IIAs)
https://github.com/erasmus-without-paper/ewp-specs-api-iias/issues/82

1. Number of IIAs created in the local system which can be fetched by the partner HEI.
2. Number of IIAs created in the local system which have been approved by the partner HEI but the matching copies of the partner have not been approved by the local HEI.
3. Number of IIAs created in the local system which have not been approved by the partner HEI but the matching copies of the partner have been approved by the local HEI.
4. Number of IIAs created in the local system which have been approved by the partner HEI and the matching copies of the partner have been approved by the local HEI.

B. Business level statistics – Learning Agreements (LAs) for outgoing (sending HEI)
https://github.com/erasmus-without-paper/ewp-specs-api-omobility-las/issues/37

All statistics grouped and ordered by the academic year

1. Number of LAs.
2. (only before the mobility) Number of LAs with one version approved by the receiving HEI which has not been followed by any other version.
3. (before and during the mobility) Number of LAs with at least one version approved by the receiving HEI and with some versions after the approved one.
4. Number of LAs with the latest version approved by the receiving HEI.
5. Number of LAs with the latest version rejected by the receiving HEI.
6. Number of LAs with the latest version awaiting receiving HEI's approval

C. Business level statistics – LAs for incoming (receiving HEI)
https://github.com/erasmus-without-paper/ewp-specs-api-omobility-las/issues/37

All statistics grouped and ordered by the academic year

1. Number of LAs.
2. Number of LAs with at least one version approved by the receiving HEI.
3. Number of LAs with the latest version approved by the partner HEI.
4. Number of LAs with the latest version rejected by the receiving HEI.
5. Number of LAs in with the latest version awaiting receiving HEI's approval.

The timeline and the method of delivery:

- 30.07.2022: Statistics delivered manually to ewp-tech@lists.erasmuswithoutpaper.eu.
- 30.08.2022: Statistics delivered manually to ewp-tech@lists.erasmuswithoutpaper.eu.
- 30.09.2022: Statistics fetched automatically by the EWP Stats Portal via the dedicated API.

More statistics may be designed and gathered in the future.