

EUROPEAN
STUDENT
CARD
INITIATIVE

 erasmus
without paper

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EWP

assessment report



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Content

- 1. Introduction - 1 -
- 2. How does EWP work?..... - 2 -
- 3. Data sources that informed this report..... - 4 -
 - Quantitative data - 4 -
 - Qualitative data..... - 5 -
- 4. State of play of EWP interoperability - 7 -
 - Quantitative findings - 7 -
 - Qualitative findings - 9 -
 - Upcoming data sources and relevant activities..... - 13 -
- 5. EWP digitalisation timeline..... - 14 -
 - Current commitments and monitoring - 14 -
 - The time is now!..... - 15 -
- 6. Lessons learnt and the way forward - 17 -
 - Interoperability Reinforcement Plan Key Actions - 17 -
 - Radical Transparency..... - 18 -
 - Setting timelines and Targets - 19 -
 - EWP Governance..... - 19 -
- 7. Conclusion - 20 -
 - Status Quo - What Works? - 20 -
 - Next Steps - 21 -
 - Summary - 22 -



1. INTRODUCTION

The Erasmus Without Paper (EWP) assessment report is part of the [Interoperability Reinforcement Plan](#) (or Action Plan for short) that was elaborated at the request of the European Commission in the summer of 2022. The plan sets out steps to reach full interoperability (which means the ability of computer systems to exchange machine-readable data among themselves) for inter-institutional agreements (IIAs) and learning agreements (LAs) as the highest priority. The aim of this assessment report is to help bring to the fore the successes as well as the known issues some higher education institutions (HEIs) are still facing when exchanging Erasmus+ student data via the EWP. The report is expected to improve the collective understanding of the state of play of the HEIs in the EWP ecosystem to move to completely digital IIA and LA processes. It should also lead to public discussion and greater transparency towards end users.

This assessment is linked to the end-of-2022 targets set out by the European Commission and will be taken into account when considering the next steps in the digitalisation roadmap in consultation with stakeholders, in particular through the [EWP governance structure](#) representing different stakeholder groups.

The second section of the report explains very briefly how EWP works. The third section presents the data sources that have informed the analysis presented in the fourth section, where the state of play of the EWP interoperability is discussed. The state of play presentation aims to give readers an accurate sense of what works and what does not yet. This section also elaborates on the actions and instruments that are being implemented to allow for a more effective real-time monitoring of data exchanges in EWP. The next part of the report is devoted to dealing with the digitalisation timeline, and provides practical advice to international relations officers (IROs) who may be worried about meeting them, highlighting how to proceed depending on the situation. In the 'lessons learned' and 'the way forward' section a proposal for a future approach on change management will be reflected on. The final section will conclude with the findings of the EWP assessment report.



2. HOW DOES EWP WORK?

The main principle behind EWP is that, as a higher education institution, you maintain your existing system for managing student mobility and connect this to the EWP Network. In doing so, there are three options to participate in data exchanges via the EWP: via a third-party software provider, via in-house software or via the EWP Dashboard, a free-to-use tool providing users with the basic functionality needed to manage the processes of Erasmus+ student mobilities. This tool is mainly intended for institutions that are currently not using any digital solution.

EWP's key goal is to optimise mobility related processes and reduce manual administrative work significantly by allowing IT systems to exchange data with one another. This machine-to-machine communication is mediated by application programming interfaces, or APIs for short. Those who have never heard of this concept before, don't worry - a working understanding of the APIs belongs firmly on the technical hemisphere of the EWP.

Since December 2018, EWP supports electronic data exchanges between HEIs for several processes vital to Erasmus+ mobilities, the most important being:

- **Inter-institutional agreements (IIA)**
- **Application/nomination**
- **Learning agreements (LA)**
- **Transcripts of Records (ToR)**

In March 2019, the European Commission published an indicative timeline for higher education institutions awarded with an Erasmus Charter for Higher Education (ECHE) to transition to digital management of these key steps of Erasmus+ mobilities. The purpose of the timeline is to allow the sector to jointly and gradually implement the digital processes and provide user feedback on the system. The digitalisation timeline has since its publication been revised to accommodate the impact of the pandemic on implementation targets following stakeholder feedback.

In 2021, a new seven-year Erasmus+ programme was launched by the European Commission that included a range of novelties and updates to key Erasmus+ KA131



templates. This meant that the original APIs were updated to comply with the requirements of the new programme.

The revision of the inter-institutional agreements and learning agreement APIs went beyond merely updating necessary data points as a result of the new templates. The EWP+ consortium and the European Commission took into account the feedback of technical colleagues operating EWP network nodes, as well as the crucial input and expertise from IROs. This joint effort was vital to make sure the renewed APIs would better support the business process of setting up said agreements rather than merely sending information between systems. For this reason, the new versions of the APIs are also more complex than older versions, since they incorporate technical solutions to support the business processes related to setting up new agreements, and the approval of all parties involved. In 2022, updates to the APIs supporting Nominations and Transcripts of Records were carried out; the 'Nominations API' was updated along the lines described above for IIA and LA data exchange.

For the benefit of a non-technical audience it might be useful to add that:

- The IIA APIs are the most complex in nature, owing to a master-master architectural logic. What this means is that one single IIA is replicated across the system of the two universities involved in it, which are not bound by any hierarchical relations. This puts a premium on ensuring their correct identification and synchronisation (which, perhaps unsurprisingly, is at the heart of some of the issues discussed later in this report).
- The APIs for LA and Nominations are less complex but still require a careful implementation by the respective development teams. Evidence available at present suggests LA implementation is going relatively well, with only few critical issues to be reported.
- The Transcript of Records (ToR) API is by far the simplest to implement since it does not need to support a specific business process but simply transports ToR data from one system to another.

More information about the EWP Network can be found [here](#); technical colleagues are invited to refer to the [EWP Developers Hub](#) to engage with the EWP specifications in full.



3. DATA SOURCES THAT INFORMED THIS REPORT

Quantitative data

In order to assess the state of play of EWP interoperability, several data sources are taken into account. On the one hand, there is information from the [EWP registry](#) about **the number of connections**, an important indicator for assessing how wide EWP standards have been adopted by institutions both for IIAs and LAs. On the other hand, software providers were asked to share **statistics** about the usage and process completion by clients from their systems.

The following data points about IIAs are requested from the software providers:

- number of IIAs that can be fetched by partners via EWP;
- number of IIAs approved only locally;
- number of IIAs approved only by the partner;
- number of IIAs approved by both partners.

For the outgoing learning agreements, the following statistics are gathered:

- total number of LAs shared via the network
- number of LAs not modified after approval
- number of LAs modified after approval
- number of LAs with the latest version approved
- number of LAs with the latest version rejected
- number of LAs with the latest version awaiting for approval/rejection by the receiving institution

For incoming learning agreements, the following statistics are gathered:

- total number of LAs shared via the network
- number of LAs that have some version approved
- number of LAs that have the latest version approved
- number of LAs with the latest version rejected



- number of LAs with the latest version awaiting for an action by the sending institution

All these statistics are publicly available on the [EWP Stats Portal](#) and can be consulted per provider, per country or at the level of an individual HEI. Providers are invited to share such data and the accuracy of such statistical indicators is the sole responsibility of the parties providing such information.

From September 2022 onwards, the statistics indicated above have been gathered on a monthly basis. Ultimately, this will provide long term insights into trends and evolutions of the completion rate of both IIAs and LAs. However, it should be noted that not all providers are yet providing complete statistical data sets, meaning statistics are available only for some clients in some cases. This limits how much this report can rely on statistical data from all connected providers to draw a global picture of the current state of play.

Qualitative data

The state of play of EWP was discussed on the 11th of October 2022 at the [Business Process Owners Standing Expert Group \(BPO-SEG\)](#), a new EWP governance body consisting of IRO representatives managing EWP implementation on a daily basis. While this was the first official meeting of this new EWP+ governance body, a similar expert body set up under the [EDSSI project](#) had already discussed EWP on several occasions earlier in the year. This made it possible to track how interoperability has evolved since late 2020 by continuously exchanging with IROs connected to EWP in different ways (in-house systems, third party providers and EWP dashboard).

In addition to input from the EWP governance bodies, feedback from the [ESCI service desk](#) agents was also taken into account. A structural analysis of student and non-student issues was made, which pointed towards the main problems users have in coping with the online procedures for IIAs and LAs and the involved IT systems. The **ESCI Service Desk agents** who try to solve the questions users face on a daily basis, are well-placed to shed light on the most important issues users are confronted with and which nodes in the network are more problematic in terms of interoperability.



Another important source of information comes from the IT team of the Aristotle University of Thessaloniki, which is responsible for managing the EWP Dashboard on behalf of the EWP+ consortium. The EWP Dashboard is the EWP reference implementation and represents by far the largest number of users in the EWP Network. In doing so it exchanges data with the vast majority of other nodes in the network and is well-placed to identify critical issues in other implementations. As part of the [Interoperability Reinforcement Plan](#), this team has also been carrying out **proactive debugging**, where issues affecting data exchange with major nodes are investigated and documented. This effort allowed for important insights into current interoperability issues, all of which have been shared with the concerned parties - the node operator, the European Commission and the Relationship Managers established as part of the Action Plan. The proactive debugging reports contain overviews of the said issues, their severity and recommended actions on how to address them.

A final source of information that has helped inform this report are the **technical workshops** held in Warsaw on 6-7 and 20-21 September 2022. These workshops provided a crucial opportunity to share the findings of the proactive debugging with the development teams, replicate errors found and bring technical teams side by side with a view to unblock issues, some of which are long-standing. The EWP Dashboard team took part in this testing on-site, and collaborative efforts have been continued in the weeks after the workshops were held. Testing with the EWP Dashboard is an important benchmark as it is the reference implementation in the network. In addition, testing results from the University of Warsaw, which is responsible for the EWP Network infrastructure and also runs its own software solution, provides the EWP+ Consortium an additional benchmark to evaluate if implementations are indeed compliant with the EWP specifications.



4. STATE OF PLAY OF EWP INTEROPERABILITY

Quantitative findings

The following quantitative findings help paint a picture of whether the current target dates for digitalisation are on track to be met by the community of HEIs that are implementing student mobility for studies projects in the Erasmus+ programme. As of 24/10/2022, the overall connection status is as follows for the 2 680 target HEIs (defined by the European Commission as ECHE holding HEIs implementing student mobility):

	Number of HEIs	% of target HEI population
Connected to EWP	2 667	99.5%
Implemented IIAs API	2 562	95.6%
Implemented LA API	2 333	87.1%
That release ESI	2 448	91.3%

Table 1: EWP connections

It's noteworthy that as the end of 2022 implementation target approaches, nearly all of the target HEIs are connected to EWP, with almost 96% having taken steps to exchange electronic IIA data and nearly 90% to exchange LA data. The vast majority of HEIs connected are thus in principle able to exchange data electronically. This demonstrates the great effort of HEIs to comply with the ECHE requirements. It's also useful to remark that there has been a significant acceleration in the number of HEIs activating EWP Network connections in Q3 and Q4 2022 as compared to Q1 and Q2, implying that the number of non-connected HEIs is still decreasing at the time of writing this report. This is positive and encouraging, although the goal of being able to reach all HEIs electronically will still require careful and effective monitoring to ensure that no institution



falls behind. Further improvements to the granularity of monitoring and support are under discussion.

In order to have a better sense of how the connections to EWP are being used currently, the following table contains a breakdown per provider (mid-October 2022):

Provider	#of HEIs connected for IIAs	#of HEIs connected for LAs
Overall	2 562	2 333
EWP Dashboard	1 946	1 884
Mobility-Online	240	179
MoveOn	181	125
KION	39	11
USOS	33	31
SoleMove	29	29
Cineca	19	18
SIGMA	12	11
ErasmusJET	11	11
Osiris	10	6
BeSmart	6	2
UMove	5	4
ISOIS	4	4
XWS	3	3



IS/STAG	3	11
Digitalis	3	0
Cantieri	0	0
In-house providers	18	4

Table 2: EWP connections per provider

Based on the **statistics** available mid-October 2022, there were almost 106 000 inter-institutional agreements already shared via the EWP Network. At the same time, about 200 000 LAs have been shared over the network, 113 200 for academic year 2021/22 and about 85 800 for the academic year 2022/23. The total number of digitally concluded inter-institutional agreements approved by both partners has gone up from 2 000 agreements in June this year to almost 20 000 in October. The total number of digital learning agreements successfully completed for the new academic year 2022-2023, 22 114 agreements, has already exceeded the total number of agreements for the entire last academic year. There is more granularity in these statistics, which can be openly consulted via the [EWP Stats Portal](#).

Further analysis to be carried out in the future will be able to draw more conclusions from this dataset as more information about all nodes becomes available.

Qualitative findings

The quantitative data in Table 1 shows that the overwhelming majority of targeted HEIs are already connected to the EWP. Table 2 shows that the EWP Dashboard is by far representing the most HEIs in the network at present. At the same time, in-house solutions which in most cases are rolled out for one specific institution, and third-party software systems, which are typically used by many HEIs, represent a significant share of all connections.

Since the EWP implementation by third-party providers and in-house systems has a multiplying effect on interoperability, the following qualitative section assesses to which extent connections allow for seamless electronic data exchanges via EWP, particularly as far as third-party providers are concerned. This question has dominated public



discussions since the start of the new Erasmus+ programme in 2021, and presented the EWP team with very complex challenges when maintenance and further development activities resumed in January 2022.

January - April 2022 - first key steps

- Address technical debt which had been accrued throughout 2020 and 2021. Chief among these are the [maintenance and enhancements](#) of the **EWP Dashboard**, which are still underway and will culminate in the release of a thoroughly enhanced user interface in early 2023. This work directly affects around 80% of the HEIs using EWP currently, strengthening the interoperability of a very large number of EWP users.
- Activate central elements of the new **EWP Governance** infrastructure, particularly with regards to the establishment of regular meetings among the members of the technical community and business process owners (IROs), providing an essential venue to discuss problems, jointly agree on solutions and co-create the evolution of the EWP.
- Put in place an effective **Service Desk**, with agents dedicated to supporting the members of the community during an objectively difficult digital transition period.
- Intensify **technical testing** which, despite several important limitations that will be addressed in the future, has proved essential to better understand the readiness of a large number of providers.

From May to July 2022 - IIA and LA data exchanges

The combined impact of the activities and instruments noted above allowed the EWP team to comb quickly and effectively through a backlog of issues spanning more than twelve months. In addition, discussions with the European Commission started on the Interoperability Reinforcement Plan. The Action Plan marks an essential shift in the centre of gravity of the EWP activities, bringing to the fore a much greater emphasis on quality assurance across all EWP nodes.

The work carried out over the first four months of 2022 informed the first important qualitative finding: while IIA data exchanges were indeed creating problems for many users, LA data exchanges are affected by comparatively minor and much less frequent issues.



The LA data have a higher technical testing success rate and amount to a small portion of tickets received in the service desk. While the former is also a function of the activity and focus of the work of the international relations officers, this finding was also corroborated by the EWP governance bodies. The main challenges when it comes to LAs seem to be related to finalising the LAs that are exchanged in the network where low completion rates can be observed; technical problems do not account for these low completion rates.

Between April and June the work of the service desk agents also started providing important insights to the EWP+ consortium. Even though the service desk has not been formally extended yet to better cater to interoperability related issues (which will happen from November 2022 onwards) a number of interoperability tickets concerning IIAs have been submitted by HEIs. The reports pertain so far to eight providers which collectively represent a significant number of HEIs. Further analysis concluded that two of the providers did in reality exchange IIA data with the EWP reference implementation without significant issues despite the reports received. Five of the providers had indeed encountered a number of problems with their EWP implementation and some have been addressed since. For the eighth remaining provider, more work will be carried out to achieve a well-functioning exchange of data for users of the system.

From August 2022 to present - Interoperability Reinforcement Plan and current findings

All of the above was taken into consideration when designing the Interoperability Reinforcement Plan, which was announced and formally approved over the summer. The Action Plan has set in motion the proactive debugging and the technical workshops, whose central focus was on the interoperability of the IIA and LA data. At the time of writing this report this has allowed the consortium to map several remaining critical issues, all related to IIA-exchanges, across four key network nodes whose status is as follows:



Provider	Open issues	Solved issues
A	6	1
B	4	-
C	2	-
D	-	1

Table 3: status of critical issues

When all data sources mentioned above are considered together one can conclude with reasonable certainty that 11 out of 16 providers pass the IIA readiness assessment. In the coming weeks, this number is expected to increase to 12 providers, given the progress being made by one of the nodes whose technical team is working intensively with the EWP technical colleagues.

These findings are consistent with parallel assessments of how well data exchanges worked in the EWP throughout 2022. The meeting of the **BPO-SEG** on the 11th of October was clearly more positive about the EWP exchanges than was the case at earlier occasions throughout 2022, especially when it comes to IIAs, confirming some important improvements have been made throughout 2022. The fact that important issues are being addressed, shows the Interoperability Reinforcement Plan is delivering on its promise, promoting a solution-oriented and pragmatic cooperation with providers whenever possible.

While it's positive to note that 87,5% of the HEIs who have taken steps to exchange digital IIAs are essentially ready to do so, decisive action is nonetheless needed regarding the 320 HEIs that are connected to EWP via providers who cannot ensure an adequate exchange of IIA data at the time of the publication of this report. All details about the findings above are shared with the EWP+ Relationship Managers who will monitor progress of third-party providers that are not yet compliant with EWP requirements on behalf of the team at the European Commission and the EWP+ Consortium and provide support to solve remaining issues. Once robust monitoring is in

place transparency towards end users regarding problematic nodes can also be established.

Additional points:

- The population of 16 examined providers includes all the providers that have HEIs in the EWP production network.
- Testing and debugging have also been extended to in-house systems; these nodes typically have higher testing success rate, when compared with technical testing involving third-party providers.
- Monitoring of the nodes which have met the assessment criteria will be continued, not least to allow the EWP team to update these results if necessary.

Upcoming data sources and relevant activities

As part of the Interoperability Reinforcement Plan more instruments are being deployed that will allow the EWP team to log errors and carry out robust testing. Combined with the current set of statistics, this will eventually allow for an effective real-time monitoring of data exchanges in EWP once all tools are implemented by all the EWP network nodes.

The first action that will allow better monitoring of the state of play is the expansion of the ESCI service desk foreseen in the beginning of November 2022. It will allow users to issue tickets about data exchanges that are not functioning, regardless of the system they are using. In setting up this service desk feature, the possibility to **map** the systems involved in these **interoperability issues** will lead to more complete information coming from the ESCI Service Desk to grasp what is going on at each of the nodes of the EWP Network and determine what actions need to be taken in case of critical issues.

A second source of information that will become available from the end of 2022 onwards is the **automatic error logging**. It will centrally log communication errors in the EWP Network allowing for constant monitoring and identification of troublesome nodes and situations. While the technical specifications for this error logging will be ready by the end of the year, this data will only become available in an actionable manner once the API has been implemented by the 3rd party and in-house providers.



The final data source starting to be deployed under the Interoperability Reinforcement Plan is the **conformance testing**. Enhanced testing protocols will take into account both the mandatory business requirements and the technical EWP-specifications, allowing for more in-depth testing and re-testing of the nodes in the network at a systemic level. The reports of this testing will provide an additional layer of information to assess the state of play about the EWP. **In the future, the successful completion of such testing will also be a requirement for deploying new functionality via the EWP Network, so as to avoid situations where incorrectly implemented nodes hamper the smooth exchange of data among connected institutions.** The groundwork for the enhanced testing will be completed in the coming months but it will take time before it becomes fully operational.

The combination of the data points discussed above will play a central role in providing a clearer picture of the EWP state of play at each of the network nodes moving forward.

5. EWP DIGITALISATION TIMELINE

The section on the state of play makes clear that creating digital IIAs and LAs via EWP generally works but that full interoperability leading to seamless data exchanges is not yet a reality for all, particularly as far as IIAs are concerned. While work is underway to address identified issues, HEIs are at the same time confronted with the pressure to conclude processes online. On the one hand there is the digitalisation roadmap of the European Commission with the end of the year target date for digital exchanges of IIAs and LAs, on the other hand there is the pressure coming from student mobility processes and institutions themselves.

Current commitments and monitoring

As far as the target dates for digitalisation are concerned, **the European Commission has endorsed the finding of the EWP community that even if the vast majority of the HEIs are successfully connected to the EWP, still many issues occur for a considerable number of HEIs when exchanging data via EWP.** As a consequence, the Interoperability Reinforcement Plan was worked out with the aim of solving those issues and its impact is already being felt. Institutions are highly encouraged to use the tools



provided by the EWP, but if technical or interoperability issues prevent them from exchanging the documents in a digital manner, there should be alternative options in order not to compromise mobilities and good cooperation with partners. **This topic is addressed in a formal Note on the State of Play of the European Student Card Initiative that has been sent by the European Commission to the Directors of the Erasmus+ National Agencies on the 24th of October.**

There is also pressure to conclude IIAs as a result of the business process itself. In the autumn HEIs are already preparing the call for outgoing mobilities for the academic year 2023/24, meaning mobility spots in the agreements need to be secured before the internal calls for student applications open. In the absence of a formally approved inter-institutional agreement between the partners in the EWP, pending agreements and email confirmations need to guarantee the available spots for students, leading to a certain level of uncertainty and discomfort amongst mobility officers. The fact that HEIs went through a similar process in autumn 2021, where the lack of formal agreements did not compromise the large majority of planned mobilities, should ease the level of discomfort when being confronted with the same situation as one year ago. Nevertheless, this is an urgent situation which needs to be collectively overcome. With the actions taken during 2022, informal agreements that cannot be approved in EWP are expected to become a rare exception in 2023 and as before, not to have a negative spill-over effect on students.

The time is now!

While there are many external factors that HEIs face when setting up IIAs, it is the responsibility of each HEI to try and avoid being in the same situation of relying on pending agreements and email confirmations in the autumn of 2023. Therefore, during the months to come they should focus on what works in trying to process as many IIAs as possible. **Feedback gathered for the state of play of EWP interoperability indicates that, for the vast majority of institutions connected to the EWP network, it should be possible to at least exchange with several nodes in the network i.e. many of their partner HEIs.** For example, considering the high number of HEIs currently using the EWP Dashboard, there should also be a very high number of IIAs that can be completed already by IROs. It seems that general complaints about “EWP not working” are to a



large extent an indictment of a few problematic IT solutions in the system. This may have spilled over to colleagues who do rely on a working connection by leading them to postpone their work due to inability to sign agreements with a subset of their partners. The newly developed [EWP stats portal](#) can be used to identify the system in use by a partner and enable the work to be done with partners with whom there have been no difficulties in electronic data exchanges. It is also important to acknowledge that the significant amount of work that goes into the digital renewal of IIAs was also present when establishing paper/PDF agreements in the beginning of earlier Erasmus+ programme periods.

When looking at switching to online workflows for learning agreements there are already many institutions that require their incoming and/or outgoing students to use an online learning agreement and successfully complete such agreements. Although occasional issues come up when exchanging LAs between IT systems, in the majority of cases the data exchanges happen without issue. Here, it is more a matter of internal follow-up and adapting internal workflows in order to finalise the learning agreement in time that can cause problems rather than interoperability issues blocking their completion. Nevertheless, in general, it seems that the reluctance to start supporting online learning agreements is less noticeable than for IIAs, and colleagues at IROs are more likely to initiate and also finalise the digital LA rather than postponing this step.

One of the conclusions of the current assessment is that the relatively small number of HEIs (10-15%) not being able to smoothly exchange data electronically has a devastating effect on how smoothly the entire programme can operate. Furthermore, delays in the implementation of EWP are causing confusion amongst students who are instructed to complete the learning agreement process online, compounding the need for urgent action by some third party providers and in-house systems.



6. LESSONS LEARNT AND THE WAY FORWARD

As illustrated in the previous sections, a lot has been achieved already and the work by colleagues across Europe has borne fruit, leading to a majority of HEIs being able to exchange data seamlessly. Yet, as a full interoperability framework between systems is still to be fully achieved, especially when it comes to IIAs, the end of the year targets for digitalisation have caused a lot of stress in the International Relations Offices across Europe. On the one hand, IROs need to secure their places for the new mobility calls, on the other hand, a lot of efforts went into trying to exchange agreements, leading to mixed results. Experience with bringing the first steps of the digitalisation roadmap into focus, showed that a more regulated environment was needed. **The change of paradigm from an EWP network that is dependent on the trust between its fellow nodes towards much more strict rules and quality assurance procedures is at the heart of the Interoperability Reinforcement Plan. This lays the foundations for extending the technical API specifications with the mandatory business requirements and enhanced conformance testing.** Therefore, this report also marks the start of a discussion on how the EWP community can better approach the further digitalisation of the administrative steps of the Erasmus+ mobilities, and that will be discussed extensively with the European Commission and the EWP+ governance bodies.

Interoperability Reinforcement Plan Key Actions

First of all, this assessment report makes clear that the transition to a rule-based EWP Network has only just started, which entails that only a fragmented view of the functioning of EWP in all its aspects is presently available. The work that has been started under the Action Plan already led to some visible progress and more positive results are to be expected from here until its completion. The data sources discussed in section 4 that are currently being developed will be important to further complement future assessments of EWP.



The last few months have shown how important it is to change and improve the way EWP is deployed by developers who may lack the support of business expertise in their immediate teams. Clear business requirements complementing technical specifications for each of the APIs are a prerequisite and should inform the design of a robust compliance testing. Passing these enhanced testing frameworks, including the business side, will provide an entry barrier to access the network and make new APIs available therein. This must be complemented with the centralised error logging and a structured approach to interoperability issues in the Service Desk, providing Relationship Managers with tangible facts to monitor and work with the EWP nodes to ensure the highest levels of compliance and performance.

The Erasmus Goes Digital webinar for in-house/third-party users that took place on the 6th of April 2022 made clear that users from third-party software felt lost when interoperability issues occurred with providers, because providers often ended up pointing to each other as the source of the issue. But users also felt powerless when trying to force their software provider to make the data exchanges work. Several actions from the Interoperability Reinforcement Plan were elaborated based on this feedback: **The Relationship Managers' role to liaise with and support the critical Network nodes, the solution-specific user groups, opening the ESCI Service Desk to interoperability issues, and central error logging next to more enhanced testing frameworks.**

Radical Transparency

When moving forward, more transparency for EWP users should be established by making all the information about the functioning of the EWP Network and its use available to the community, aiming for full transparency with a clear indication of issues encountered for each of the nodes in the EWP Network. Combined with the work on data portability (which aims to make it easy to transfer all information exchanged via EWP when switching from one system to another) that is expected to start in the beginning of 2023, this would give HEIs the opportunity to make informed decisions and act on them regarding their choice of system for connecting to EWP. Although switching systems is not a decision to be taken overnight, making information about the EWP readiness of each system available in combination with data portability across all nodes of the EWP-network, would on the one hand facilitate making such a decision, and on



the other hand guarantee that each third-party provider has strong incentives to make their implementation 100% compliant with the needs of their clients and the rules of the Network.

Full transparency of the state of play for each of the EWP-nodes would finally allow users to focus on exchanges that do work and identify and make the best decisions on solutions that correspond to their needs.

Setting timelines and Targets

Finally, lessons should also be learned from the countdown to the 2022 targets. The last 2 years have proved incredibly frustrating for many IROs, who have been waiting for EWP to become a reality for a very long time. There would be merit to consider whether **deadlines should first be imposed on providers, and only after they are met by a clear majority of operators be reflected in requirements towards the universities.**

Furthermore, in some cases deadlines per se may not need to be the focal point of a successful digital transition; it is noteworthy that the number of HEIs that have deployed the European Student Identifier (ESI) is higher than those who have been able to exchange digital LAs. The deployment of the ESI was conducted in a largely bottom-up manner, combining effective communication with strong support from NRENs, who played a central role in ensuring information reached the relevant stakeholders. In contrast, the LA was the object of a more formal deadline for implementation in the ESCI roadmap. This suggests that a bottom-up approach combining efficient communication and support may be more successful than a rather more normative approach to achieve the desired outcomes.

EWP Governance

The new [EWP governance bodies](#) are best-placed to give advice on the maturity of each of not only the APIs (involving the Infrastructure Forum and Business Process Owners), but also the operational side of adapting the business logic and system implementations towards a new digital reality (Infrastructure Forum and Business Process Owners), the peaks in terms of workload for each of the business processes (Business Process Owners, Digital Officers) and the maturity of the community to switch to a digital workflow (Business Process Owners, Digital Officers Forum, University and Students



Forum). This **broad feedback from stakeholders combined with a transparent assessment of what is going on in the EWP Network would allow the European Commission to make informed decisions about setting future targets for processes that would be going digital.**

7. CONCLUSION

Status Quo - What Works?

The year 2022 marked an important milestone in the wide adoption of EWP standards for IIAs and LAs. The broad feedback from a variety of sources taken into account for this assessment report indicates that EWP works, but some critical nodes do not. Almost 115 000 IIAs have been shared in a digital manner while more than 210 500 LAs are circulating via the EWP network. While these numbers represent only a small proportion of the total volume of agreements needed to support the total numbers of Erasmus+ mobile students, it is reassuring to see that **EWP does already allow for the finalisation of IIAs and LAs in a digital form for the majority of the target HEIs. With the further improvements underway to support those that are still working towards a smooth connection to EWP and adherence to its standards, all of the target HEI should in the months to come be able to conclude IIAs and LAs with their partners. This is of course dependent on the continued cooperation of the concerned parties where problems persist to overcome them as soon as possible.**

Until all nodes behave appropriately, even users who are connected through a well-functioning system will encounter issues with some partners; it is inherently unfair that one partner's readiness can still be hampered by another's failure to comply, but this is unavoidable in a networked environment. **This assessment has been able to establish that there are now a small but well-identified number of third-party providers that do not allow yet for a full and smooth implementation of EWP as far as IIA exchanges are concerned.**

Given that there are three pathways to join the EWP Network, namely via the EWP Dashboard, a third-party solution or an in-house system, the success of the latter is more difficult to analyse at present, yet also key to mention. The in-house solution



providers have put a lot of effort into making EWP data exchanges work and although many of the data points discussed are lacking, **from HEIs using an in-house solution, no glaring issues have been reported - or negative effect on the Network observed -** , comparable to the issues when providers servicing many HEIs are not compliant with the EWP standards.

Next Steps

If exchanges do not happen seamlessly, IROs cannot fully trust that the data they make available to their partners is well-consumed on the other side, and it destroys trust and breeds uncertainty. As illustrated under upcoming data sources and relevant activities, as part of the section about the State of play of EWP interoperability, **work is underway to further weed out the structural interoperability issues.** Moreover, once the data exchanges prove to be working, IROs need time to get the work done, especially when it comes to creating/renewing their IIAs in a digital manner. Therefore the current approach towards **the targets for digitalisation as communicated in the NA note on 24/10/2022 is a reasonable way forward.**

The pressure on international relations offices is somewhat relieved given that for the large numbers of IIAs that now exist via email renewal or paper agreements, more time is given to convert them into digital EWP-approved agreements while at the same time the bulk of new IIAs will come into focus in autumn 2023 preparing the call for mobilities in 2024/25. However, there is no reason to wait until the 2023 autumn when partners are already reachable via well-functioning EWP nodes - **the best thing to do is to focus on exchanging the agreements with the nodes that have already proved to work.**

Moreover, on the side of LAs, the data indicate a brighter picture in terms of achieved interoperability. Although issues exist, they seem to be less structural and a very high number of learning agreements is already circulating in a digital manner. Here again the note circulated to NA directors on 24/10/2022 reduced some of the pressure by singling out that only newly created learning agreements in 2023 will need to be supported digital whenever possible, postponing the very high numbers for the next academic year, 2023/24 while at the same time safeguarding duplicate work for LAs that have been completed on paper before the end of the year target.



The EWP+ consortium, with the support of the European Commission, will continue working on achieving full interoperability and an enhanced EWP user experience. Therefore, **a renewed emphasis on assuring that the implementation by software providers meets standards and specifications will be central to the future work.** Issues identified in this report will be taken up by the Relationship Managers with the said providers aiming to further improve interoperability. The EWP Dashboard users will be happy to hear that their user experience will improve as well when, at the onset of the new year, an enhanced user interface will be rolled out.

While work on addressing interoperability issues will be carried on as per the Interoperability Action Plan, the overall EWP user experience is affected by a variety of factors, all of which are deserving of attention. To name but a few, the quality of user interfaces can significantly impact flows, processes might need to be adjusted and optimised, support needs to be widely available to the community and new topics such as data portability will become an important part of the EWP work already in 2023. All of these will remain important issues for continued improvement, perhaps even more so once interoperability issues become a thing of the past.

Summary

To summarise one can conclude that EWP works but that full interoperability is not yet a reality for all:

- With regards to IIAs it is noted that 11 of the 16 providers analysed seem to have established adequate levels of data exchange with the reference implementation, and this number is expected to soon increase to 12 out of 16. The impact of some of the third-party systems failing to achieve full compliance with the EWP specifications is the biggest challenge standing in the way of a smooth roll out of EWP to all universities.
- Many HEIs that use in-house solutions have put a lot of effort into making EWP data exchanges work; although many of the data points discussed in this report are lacking for this group of network nodes it seems that, based on the limited information available, many of them have achieved to successfully implement EWP.



- EWP works better for the exchange of LA data, where relatively few issues have been observed. Although there is considerably less user feedback than for IIAs this assertion is confirmed by the monitoring of the BPO-SEG, combined with a relatively small portion of LA-tickets received in the service desk and higher technical testing success rates.
- It is clear that some HEIs are locked out of accessing EWP functionality because their providers have not yet achieved full compliance. These HEIs should not be penalised, and a considerable amount of effort is being put in providing all support possible to ensure critical nodes start to function as expected as soon as possible. A clearer picture of the outcomes of the Interoperability Reinforcement Plan ought to be available when its implementation is concluded, at which point a very transparent overview of the state of play of known systems should be shared with the whole community.