

# Introduction to technical aspects

Erasmus Without Paper allows Higher Education Institutions with their own in-house developed IT systems or [3rd party mobility software providers](#) to connect to the **Erasmus Without Paper Network**.

The **Erasmus Without Paper Network** consists of:

- A registry, which is available on the EWP server and can be understood as an address book of all the partners involved in the EWP Network and a list of the mobility services they support.
- A [set of services](#) (APIs) for different steps of the Erasmus+ mobility process. Each institution/organisation can decide to implement different services, depending on which data they want to exchange.

For an institution/organisation to start exchanging data with others, it will need to create and publish a manifest file on your institution/organisation's server. This file will describe which data you want to exchange.

The goal behind this architecture is to give you as an institution/organisation the flexibility to implement EWP in your software solution for managing Erasmus+ mobilities as you see fit, while at the same time making it compatible with all other software systems.

To implement a connection with the Erasmus Without Paper Network, you will need to:

1. Get familiar with the **technical documentation** and the mobility business processes – We have created elaborate technical documentation for your IT team. To start implementing the connectors at your institution/organisation, please go to the developer portal of Erasmus Without Paper: <https://developers.erasmuswithoutpaper.eu/>
2. **Implement** the Echo and Discovery APIs – these are the most basic APIs that will allow you to be visible in the EWP Network and to communicate with other parties. Test your solutions with the tools referred to below.
3. Provide us with the **URL where you are hosting your discovery manifest** – this will allow us to add you to the Development registry to start communicating with other organisations/institutions. You can test freely there as the data are not real.
4. You will have to agree to the provisions of the [Terms of Use agreement as an HE Institution](#) (or the one for [a third party provider](#)) and sign it. You can [send it to us](#) (email to: [Valere Meus](mailto:Valere.Meus)) as **a signed PDF**. On the EWP side, Joao Bacelar will sign it as the legal representative of the EWP consortium.
5. Once you have implemented the basic APIs and have tested them, you can ask to be connected to the **Production environment**. It is there that real data are exchanged.

More info is available on the [Entry Procedure Overview](#).

## Overview of material & tools

a) Guide for developers: <http://developers.erasmuswithoutpaper.eu/>

b) [Erasmus Without Paper GitHub repository](#) (external link)

c) EWP API Validator

Start from this page <https://dev-registry.erasmuswithoutpaper.eu/status>, choose the manifest file (location of the node in the EWP Network), choose validate button. On the next page there is a list of APIs available at this location, with all versions supported. For each you can run a set of tests, according to the supported security protocols, for the client and the server. Each option has a validate button. Click 'validate' to run the suite of tests for that particular API, version and security protocols. After a while the 'validate' link will change into 'show results'. The results are shown on a separate page. You can show /hide details of each single test or all of them.

The list of tests will be gradually extended.

d) [XML Schema Validator](#) (external link)

e) [EWP DEMO in Poland](#)

## Technical presentations

Presentation held at European University Information Systems (EUNIS) conference 2019 (by Janina Mincer-Daszkiwicz):



eunis2019-slides.pdf

Presentation held at European University Information Systems (EUNIS) conference 2018 (by Janina Mincer-Daszkiewicz):



eunis2018-presentation-jmd.pdf

### **Technical papers**

Paper presented at European University Information Systems (EUNIS) conference 2019:



eunis2019-paper.pdf

Paper presented at European University Information Systems (EUNIS) [conference 2018](#):



eunis2018-jmd.pdf

Paper presented at European University Information Systems (EUNIS) conference 2017:



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Paper presented at European University Information Systems (EUNIS) conference 2016:



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