



Mobility scenarios supported by the Erasmus Without Paper Network

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erasmuswithoutpaper.eu



Agenda

- Erasmus Without Paper Project 2.0.
- State of development of the EWP Network.
- Examples of mobility scenarios supported by the EWP Network
 - Starting mobility with a new partner.
 - Interinstitutional Agreement.
 - Nominations.
 - Transcripts of Records.
- How to join the EWP community.
- Summary.

Erasmus Without Paper Project 2.0

- Funded by the Erasmus+ Programme, Key Action 3, years 2018-2019.
- Basing on the results of EWP 1.0, aims at building the sustainable infrastructure for digitized exchange of mobility data.
- Various pieces of the puzzle:
 - The EWP Network.
 - Connectors for SISs developed at home, by national consortia, by commercial providers.
 - The HUB (Dashboard) for the others.
 - Competence Center to help with dissemination and development.
 - Open source University Alliance to share code.

EWP Network

- Fully designed and specified.
- Specification publicly available in Github.
- Developers Guide.
- Supporting tools for developers.
- Reference connector.
- Two stable DEMO environments for independent testing.
- DEV Registry and PROD Registry.
- EWP Network up and running in development environment.
- Launch in production environment planned for December 2018.

Developers Guide

<http://developers.erasmuswithoutpaper.eu>



Specifications, Validators and Tools

Who should be reading this?

The following chapters and tools are written **by developers and for developers**. If you're a project manager, then please assign developer(s) from your team to keep track of the changes in these specifications.

Developers chosen by the partners SHOULD:

- Understand **Git** and be able to work with it fluently, in order to **continually** keep track and review all the changes to the specifications.
- Have significant experience with **XML namespaces**, and **XML Schema** language.

+ Chapter 1. Working with EWP Technical Documentation v1.2.0

- Chapter 2. Introduction to EWP Network

+ Chapter 2.1. Architecture and Common Datatypes v1.10.0

+ Chapter 2.2. Authentication and Security v2.0.2

- Chapter 2.3. Client Authentication Methods

+ Chapter 2.3.1. Handling Anonymous Clients v1.1.0

+ Chapter 2.3.2. Authenticating Clients with TLS Certificate v1.1.0

+ Chapter 2.3.3. Authenticating Clients with HTTP Signature v1.0.1

- Chapter 2.4. Server Authentication Methods

+ Chapter 2.4.1. Authenticating Servers with TLS Certificate v1.1.0

+ Chapter 2.4.2. Authenticating Servers with HTTP Signature v1.0.1

Validation result: **NOTICE**

Basic information

- URL of the Echo API being tested: `https://ewp.demo.usos.edu.pl/ewp/echo`
- Datetime validation started: `2018-06-03T11:56:57.751Z`
- Datetime client keys regenerated: `2018-05-09T06:30:52.232Z` (2179565 seconds before validation)

Tests performed

1. Check if our client credentials have been served long enough. SUCCESS
2. Verifying the format of the URL. Expecting a valid HTTPS-scheme URL.
3. Verifying if the URL is properly registered.
4. Querying for supported security methods. Validating http-security inte

Security
ECHO API Validator
(performs thousands of tests)

111. Trying Combination[PHHTT] POST request with a list of echo values [a, b, a], plus an additional GET echo=c&echo=c parameters. Expecting the GET parameters to be ignored. (It's a POST request, so all parameters are passed via POST body.) SUCCESS

[Details \(click me\)](#)

112. Trying Combination[PHHTT] with additional "gzip" added in Accept-Encoding. Expecting the same response, but preferably gzipped. NOTICE

The client explicitly accepted gzip, but the server didn't compress its response. That's not an error, but it might be useful to support gzip encoding to save bandwidth.

[Details \(click me\)](#)

[Try again](#)

Schema Validator

</> XML Schema Validator

This tool will help you with writing EWP XML documents. For example, you can paste the contents of your [Manifest file](#) here before you upload it onto your production site. You should be able to validate any XML document described in all **RELEASED**, **DEPRECATED** and **OBSOLETE** specifications above (plus, perhaps, some of the **DRAFT** ones).

Note, that this tool will validate **against the schema only!** Even if such validation succeeds, your file **may still be invalid** (if, for example, you didn't adhere to the guidelines described in `<xs:documentation>` elements included in the XSD files).

Paste your XML document below and press

```
<courses-response
  xmlns="https://github.com/erasmus-without-paper/ewp-specs-api-courses/tree/stable-v1"
  xmlns:trm="https://github.com/erasmus-without-paper/ewp-specs-types-academic-term/tree/stable-v1"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="
    https://github.com/erasmus-without-paper/ewp-specs-api-courses
    https://raw.githubusercontent.com/erasmus-without-paper/ewp-sp
"
>
<!--
IMPORTANT: Please see the response.xsd file for detailed requirements
descriptions of all the elements. You MUST NOT base your implementation
solely on the example file.
```

Validation result: **PASSED**

Recognized element

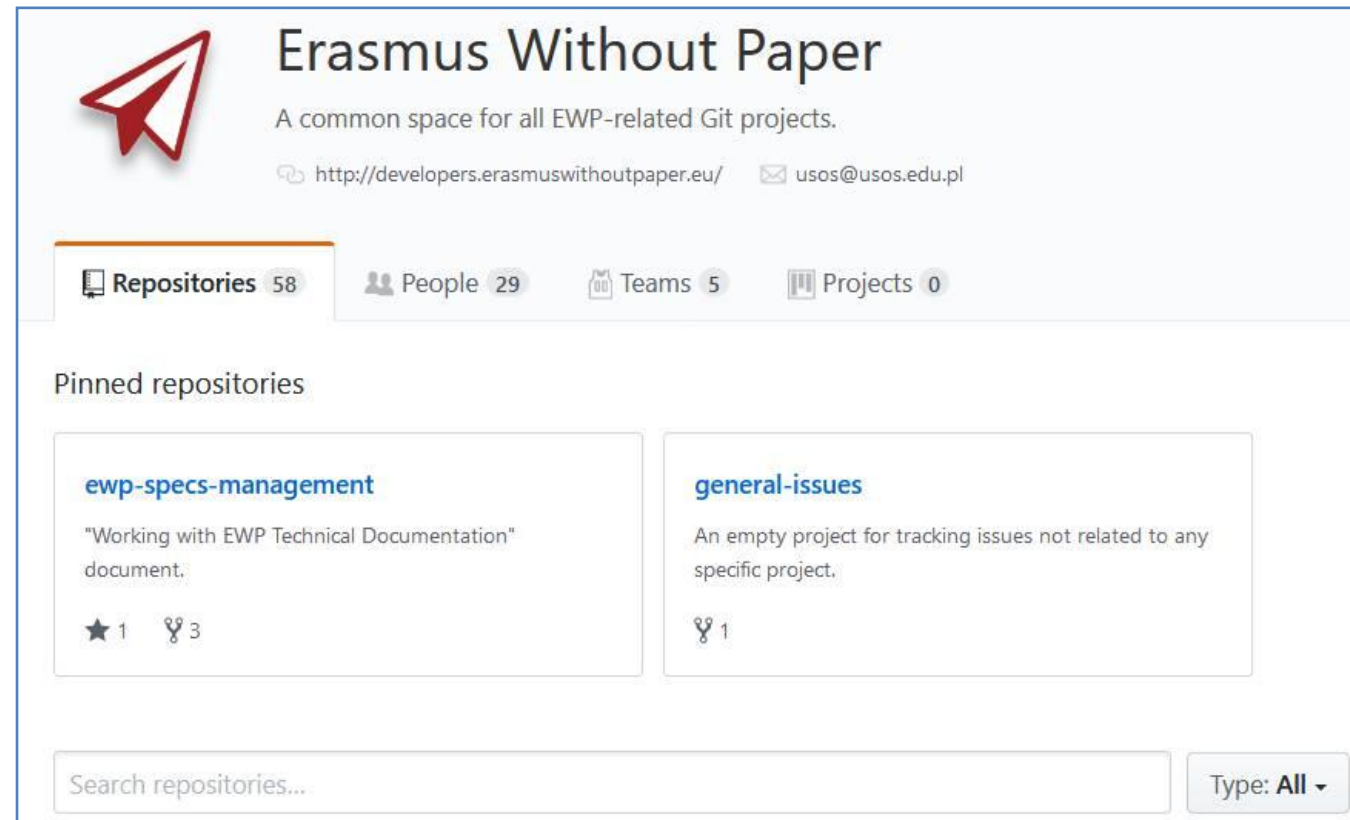
This seems to be a valid `courses-response` element (from `https://github.com/erasmus-without-paper/ewp-specs-api-courses/tree/stable-v1` namespace).

[Try again](#)

GitHub

<https://github.com/erasmus-without-paper>

- Specifications
- Common data types
- Communication protocols
- XSD schemas
- Examples of requests and responses in XML
- Libraries of code



The screenshot shows the GitHub profile page for "Erasmus Without Paper". At the top left is a red paper airplane icon. To its right, the name "Erasmus Without Paper" is displayed in a large font, followed by the description "A common space for all EWP-related Git projects." Below this, there are links for the website "http://developers.erasmuswithoutpaper.eu/" and an email address "usos@usos.edu.pl".

Below the profile information, there are four statistics: "Repositories 58", "People 29", "Teams 5", and "Projects 0".

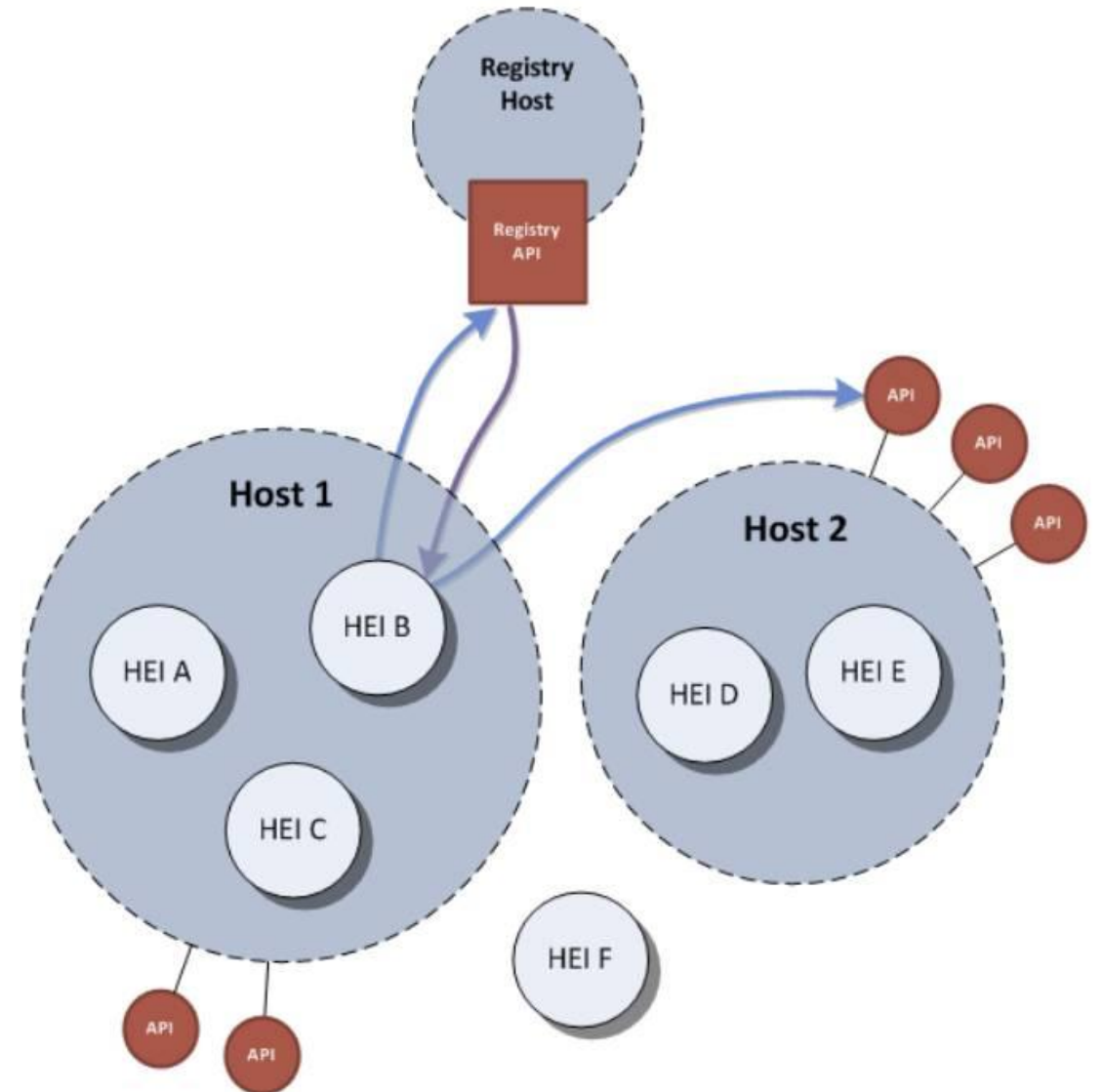
The "Pinned repositories" section contains two items:

- ewp-specs-management**: "Working with EWP Technical Documentation" document. It has 1 star and 3 forks.
- general-issues**: "An empty project for tracking issues not related to any specific project." It has 1 fork.

At the bottom of the page, there is a search bar labeled "Search repositories..." and a dropdown menu labeled "Type: All".

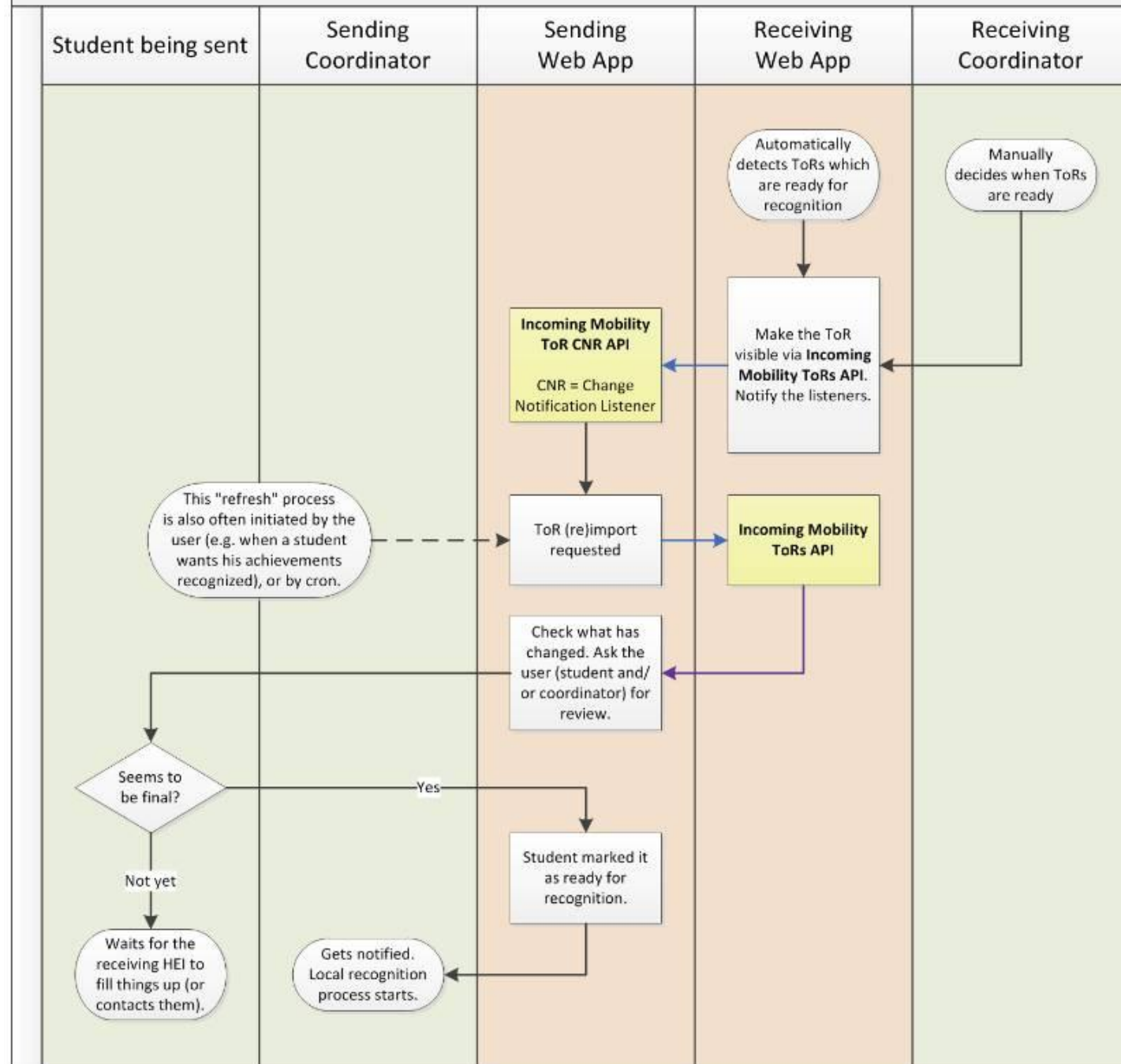
GitHub EWP Network Architecture

- APIs with various endpoints
 - Get
 - Index
 - Update
- CNR APIs
- Data masters



GitHub Mobility process explained on flowcharts

Exchanging ToRs (Transcripts of Records) after the mobility





DEV Registry Service

*An alternative instance of the EWP Registry Service intended to be used for development
See „Development environment“ chapter in the Architecture document*

At the following URL you will find the XML catalogue which describes all the institutions and APIs exposed by them:

```
https://dev-registry.erasmuswithoutpaper.eu/catalogue-v1.xml
```

This catalogue is continuously refreshed. Read the *Architecture document* for more information. Also check out the *Developers Hub* for useful tools and documents.

[Manifest Importer Status](#) | [HEI/API Coverage Matrix](#) | [EWP Developers Hub](#)

Uptime ratios

100.00% - 24 hours

100.00% - 7 days

100.00% - 30 days

99.99% - 365 days

v1.6.0-RELEASE

DEV Registry Manifest files

```
- <ns9:imobility-tor-cnr version="0.1.0">
  - <ns9:http-security>
    - <ns2:client-auth-methods>
      <ns17:tlscert allows-self-signed="true"/>
      <ns18:httpsig/>
    </ns2:client-auth-methods>
    - <ns2:server-auth-methods>
      <ns36:tlscert/>
      <ns37:httpsig/>
    </ns2:server-auth-methods>
  </ns9:http-security>
  <ns9:url>https://ewp.demo.usos.edu.pl/ewp/tors/cnr</ns9:url>
  <ns9:max-omobility-ids>10</ns9:max-omobility-ids>
</ns9:imobility-tor-cnr>
</ns39:apis-implemented>
- <ns38:institutions-covered>
  - <ns39:hei id="demo.usos.edu.pl">
    <ns39:other-id type="erasmus">PL WARSZAW01</ns39:other-id>
    <ns39:other-id type="pic">999572294</ns39:other-id>
    <ns39:name xml:lang="pl">Uniwersytet Warszawski</ns39:name>
    <ns39:name xml:lang="en">University of Warsaw</ns39:name>
  </ns39:hei>
</ns38:institutions-covered>
- <ns38:client-credentials-in-use>
  - <ns38:certificate>
    MIIDcTCCAImgAwIBAgIEKYg+WjANBgkqhkiG9w0BAQsFADBpM
    VQQKEwdVbmtub3duMRAwDgYDVQQLLEwdVbmtub3duMQ0wCw
    DTE3MDMzMDA5MTI1OVVoXDTE5MTIyNTA5MTI1OVowaTEQM
```

Manifest Importer Status

Currently defined manifest sources and their statuses:

https://dev-registry.erasmuswithoutpaper.eu/manifest.xml	OK	details	reload now
https://ewp.demo.usos.edu.pl/ewp/manifest	OK	details	reload now
https://ewp-hei.demo.usos.edu.pl/ewp/manifest	OK	details	reload now
https://erasmuswithoutpaper.sigmaaie.org:1453/UPF_HOST.xml	OK	details	reload now
https://www.service4mobility.com/europe_test/ewp/manifest?api=all	Error	details	reload now
https://www.service4mobility.com/mobility_test/ewp/manifest?api=all	OK	details	reload now
https://ewp.its.umu.se/ewp-reference-connector/rest/manifest	OK	details	reload now
https://ewp-test.its.umu.se/ewp-reference-connector/rest/manifest	OK	details	reload now
https://qas.ewp.ugent.be/public-api/discovery/manifest.xml	OK	details	reload now
https://ewp.up.pt/rest/manifest	OK	details	reload now
https://fsweb-demo.uio.no/ewp/manifest	OK	details	reload now
https://unisa.esse3.qa.cineca.it/ewp/Manifest.do	OK	details	reload now
https://authewp.it.auth.gr/public-api/discovery/manifest.xml	OK	details	reload now
https://unizone-evaserver.herokuapp.com/ewp/manifest.xml	OK	details	reload now

(write us to add yours)

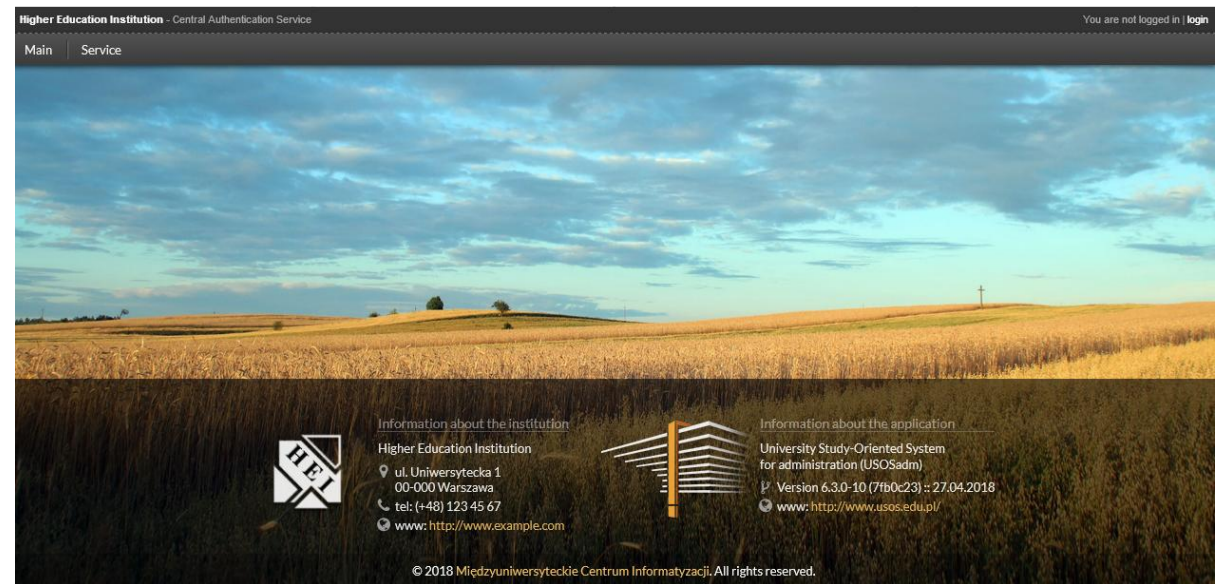
DEV Registry – HEI/API Coverage Matrix

HEI/API Coverage Matrix

Institution	General Purpose APIs				IIAs			OMobilities				IMobilities			IMobility ToRs		
	inst.	ounits	courses	course replic.	ver.	CNR		ver.	update types	CNR		ver.	CNR		ver.	CNR	
						sends	recv.			sends	recv.		sends	recv.			
sop-at.at	2.0.0	2.0.0															
vorlage.sop-at.at	2.0.0	2.0.0															
ugent.be	2.0.0	2.0.0						0.12.1	NNN	yes	0.4.0						
upf.edu	2.0.0	2.0.0	0.7.0		2.0.0	no		0.12.1	NNN	no					0.7.0	no	
uni.gl																	
auth.gr																	
unisa.it	2.0.0	2.0.0	0.7.0														
pomodoro.university.it	2.0.0	2.0.0	0.7.0	1.0.0	2.0.1	yes	2.0.1	0.12.1	YYN	yes	0.4.0	0.1.0	yes	0.1.0	0.7.0	yes	0.1.0
ntnu.no	2.0.0	2.0.0	0.7.0	1.0.0	2.0.0	no											
uio.no	2.0.0	2.0.0	0.7.0	1.0.0	2.0.0	no											
demo.usos.edu.pl	2.0.0	2.0.0	0.7.0		2.0.0	yes	2.0.1	0.13.0	NNY	yes	0.4.0	0.1.1	yes	0.1.0	0.7.0	yes	0.1.0
hei.demo.usos.edu.pl	2.0.0	2.0.0	0.7.0		2.0.0	yes	2.0.1	0.13.0	NNY	yes	0.4.0	0.1.1	yes	0.1.0	0.7.0	yes	0.1.0
up.pt	2.1.0	2.1.0			2.1.0	no		0.14.0	NNN	no		0.1.1	no		0.7.0	no	
ikea.university.se	2.0.0	2.0.0	0.7.0	1.0.0	2.0.1	yes	2.0.1	0.12.1	YYN	yes	0.4.0	0.1.0	yes	0.1.0	0.7.0	yes	0.1.0

Mobility scenarios

- Two installations:
 - University of Warsaw at <https://usosadm.demo.usos.edu.pl/usosadm/>
 - HEI – new mobility partner of UW at <https://usosadm-hei.demo.usos.edu.pl/usosadm/>



University of Warsaw Enters name and SCHAC code of the new mobility partner

+ Add ? Set the filter ? Help

Institutions -- External units -- -- Factsheets --

No	Name in national language	Name in English	PIC	ERASM	POL-on	hei	Instituti	
1	Higher Education Institution					hei.demo.usos.edu.pl	UZ	

First « « » » Last 1

Details Address Telephones External units External persons Logo Factsheet Mobility Tool

Name in national language: Higher Education Institution
Name in English:
Type of institution: Foreign university
Parent unit:
Participant Identity Code:
ERASMUS code:
POL-on code:
SCHAC code: hei.demo.usos.edu.pl
Institution code:
Institution code in HR system:
NUTS region:
WWW:
E-mail:
E-mail addresses for nominations:
Display: Yes
Is public entity:
Is non-profit:

Legal status:
Legal status in English:
Grading scale:
Grading scale in English:

Edit Get data from EWP

University of Warsaw
gets the rest of the
institution data from
the partner by calling
Institutions API
(data are copied to the
appropriate fields)

Edit Institution ? Help

<u>Data from EWP</u>	<u>Data in USOS</u>
SCHAC code: hei.demo.usos.edu.pl	hei.demo.usos.edu.pl
Name in national language:* Higher Education Institution (pl)	<input type="text" value="Higher Education Institution"/>
Name in English: Higher Education Institution	<input type="text"/>
Participant Identity Code: 999642716	<input type="text"/>
ERASMUS code: PL WARSAW50	<input type="text"/>
Factsheet: https://usosapps-hei.demo.usos.edu.pl/services/fac/factsheet_get?fac_id=00000000 (en)	<input type="text" value="https://usosapps-hei.demo.usos.edu.pl/services/fac/factsheet_get?fac_id=00000000 (en)"/>
WWW: http://usos.edu.pl	<input type="text"/>
Logo: https://usosapps-hei.demo.usos.edu.pl/res/fi/200x200/dd4b21e9ef71e1291183a46b913ae6f2-2840ce3d9caf44eb6db74e91499fdb234b29fb9.jpg	<input type="text"/>

Bytes remaining:2000
Characters remaining:100

Correspondence address

Country: Choose

Foreign code:

City/village:

Street:

House number:

Address type:*

Building address

Country: PL

Foreign code: 02097

City/village: Warszawa (Ochota)

Street: Banacha

House number: 2

Not stored in USOS

* - required fields

Save Cancel

University of
Warsaw displays
all obtained
factsheets in
the web portal
for students
and staff

USOSweb

NEWS | DIRECTORY | MY USOSWEB | STUDENT'S SECTION | **STAFF SECTION** | COMMON SECTION | ADMINISTRATION

INTRODUCTION
MY PROFILE
TESTS
EXAM REPORTS
EDITING COURSES
EXAMS
POSTULATES
OPINIONS ON APPLICATIONS
STUDENT MOBILITY
 ▶ coordinated faculties
 ▶ **partner institutions**
 ▶ university's agreements
 ▶ my commissions
 ▶ my opinions
 APPLICATIONS COORDINATING
 SURVEYS RESULTS

Partner institutions

i This page displays foreign higher education institutions with which DEMO University has signed at least one agreement for international exchange that fulfills the following criteria:

- agreement comes into effect within a year from now,
- end date is later than today or is not determined.

FILTER OPTIONS

Country: **i**

City: **i**

Institution name (in native language): **i**

Institution name (in English): **i**

Erasmus code: **i**

Factsheet (for institutions and/or units):

[CLEAR FILTERS](#) [APPLY](#)

Showing elements 1..7 (out of 7)

No.	Country and city	Erasmus code	Institution name	Institution name (Eng.)	Web page	Factsheet
1	Belgium (Antwerp)	B ANTWERP01	Universiteit Antwerpen (show units)	University of Antwerp	http://www.ua.ac.be	show from partner ▶ show from USOS ▶
2	Belgium (Gent)		Universiteit Gent (show units)	Ghent University		show from USOS ▶
3	Portugal (Porto)	P PORTO02	Universidade do Porto (show units)	University of Porto	http://www.up.pt	show from partner ▶
4	Russia (Ulan-Ude)		Бурятский государственный университет	Buryat State University	http://www.bsu.ru/	show from USOS ▶
5	Sweden (Lund)	S LUND01	Lunds Universitet (show units)	Lund University	http://www.lu.se	show from partner ▶ show from USOS ▶
6	Sweden (Umea)	S UMEA01	Umea Universitet (show units)	Umea University	http://www.umu.se	show from partner ▶
7	Switzerland (Geneva)	CH GENEVE01	Université de Geneve (show units)	University of Geneva	http://www.unige.ch	show from USOS ▶

University of
Warsaw gets units
of the partner HEI
by **Organizational
Units API**.
Only units which
participate in the
mobility are copied.

External units

? Help

Data from EWP

en	College of Inter-faculty Studies in the Humanities	Add
pl	Kolegium Międzywydziałowych Indywidualnych Studiów Humanistycznych	
code	70401200	
en	College of Inter-Faculty Individual Studies in Mathematics and Natural Sciences (MISMaP)	Add
pl	Kolegium Międzywydziałowych Indywidualnych Studiów Matematyczno-Przyrodniczych	
code	40130000	
en	University of Warsaw	Add
pl	Higher Education Institution	
code	00000000	
en	Institute of Philosophy	Add
pl	Instytut Filozofii	
code	35010000	
en	Institute of Archaeology	Add
pl	Instytut Archeologii	
code	31010000	
en	Institute of Experimental Physics	Add
pl	Instytut Fizyki Doświadczalnej	
code	11010000	
en	Institute of Journalism	Add
pl	Instytut Dziennikarstwa	
code	21010000	
en	Centre for Local Government and Development Studies	Add
pl	Centrum Studiów Samorządu Terytorialnego i Rozwoju Lokalnego	
code	40070000	
en	Centre for Europe	Add
pl	Centrum Europejskie	
code	40030000	
en	Institute of Polish Culture	Add
pl	Instytut Kultury Polskiej	
code	30020000	

Data in USOS

en	Faculty of Economic Sciences	Update
	Wydział Nauk Ekonomicznych	
code	24000000	
en	Faculty of Psychology	Update
	Wydział Psychologii	
code	25000000	
en	Faculty of Chemistry	Update
	Wydział Chemii	
code	12000000	

* - required fields

Close

University of Warsaw enters details of the bilateral agreement

Add agreement ✕

? Help

Type of agreement: *

Date of signing: *

Number: *

Start date: *

Expiration date:

Status: * podpisana

Migrate: * Yes

Foreign higher education institution or external institution: Higher Education Institution

ERASMUS code:

City/village: Warszawa (Ochota)

Country: Polska

Continent: Europa

External institutional coordinator: [Click to choose](#)

Institutional coordinator of the home institution: Marek Góralowski

Person: [Click to choose](#)

Notes:

Bytes remaining: 4000

* - required fields

Save Cancel

University of Warsaw notifies the partner that the draft agreement is ready by calling IIA CNR API (Interinstitutional Agreement Change Notification Request)

The screenshot shows a web application interface with a table of agreements and a warning dialog box. The table has columns for 'No', 'Type', and 'BI/1/18'. The dialog box asks: 'Are you sure you want to notify the partner about the change?' and has 'Yes' and 'Cancel' buttons.

No	Type	BI/1/18
1	Bilateral	BI/1/18

Warning

Are you sure you want to notify the partner about the change?

Yes Cancel

HEI receives notification, gets agreement data from UW by calling IIA API (no need to enter this data by hand)

There are new EWP notifications from demo.usos.edu.pl.

New EWP notifications

Agreements filter

Agreements

No	-- Type --	Number	Date of signing	Start date	Expiration date	-- all statuses --	Migrate	
1	Bilateral	1/2/3/4/5	23.09.2014	01.10.2014	30.09.2020	podpisana	Yes	Actions
2	Bilateral	1/E+/X13	21.10.2013	01.07.2014	30.09.2021	podpisana	Yes	Actions
3	Bilateral	1/E+107/I16	28.01.2016	28.01.2016	30.09.2021	podpisana	No	Actions

First « « 1 2 3 4 5 » » Last 3

Details

Foreign higher education institution or external institution: Universidade do Porto
ERASMUS code: P PORTO02
City/village: Porto
Country: Portugalia
Continent: Europa
External institutional coordinator: [Go to external persons](#)
Institutional coordinator of the home institution:
Person:
Notes: [EWP 26.10.2017] KOD UMOWY PO STRONIE PARTNERA: 983/E+/III14-15/[EWP] g

University of Warsaw nominates a student for outgoing mobility at HEI under the newly signed agreement

[Notifications of dates](#) [Download](#)
[TOR notifications](#) [Download](#)
[Replies to nominations](#) [Show](#)

[Set the filter](#)
[Reports](#)
[Help](#)

Departures filter

Choose a person by typing PESEL, student number or name
 [Contact interface number](#)
[Contactless interface number](#)

Choose program unit:
 Choose program:
 Choose stage:
 Choose didactic cycle:
 -- no filter --
 Choose a place where program is tz:
[Specify filters](#)

No	Brzezińska	Danuta	PESEL	Main student nur	Main program	Person's unit
1	Brzezińska	Danuta	64022034104	123451263	ZD-HUM (Humanistyczne Studia Doktoranckie w zakresie nauk o polityce)	21000000

[First](#)
[«](#)
[»](#)
[Last](#)
1

2017 [Add](#)

Folder number: 100008554/1/2/3 Organizational unit: 22000000 (Wydział Prawa i Administracji) Foreign Higher Education Institution: Higher Education Institution ERASMUS code: City/village: Warszawa (Ochota) Country: Polska Agreement: BI/1/18 Type of agreement: Bilateral Type of cooperation: studenci-studia Cooperation level: drugi Domain: 10000 Prawo ISCED code: 0421 Prawo In second round: No Agreement with student: Yes Erasmus in the past: No Speaks Polish: Yes Classes in the official language: Yes Type of departure: Studies Status: Active Reasons for resignation:	<u>Application information</u> Program: DM-SM-ISM Type of study: Jednolite magisterskie Study mode: Stacjonarne Year of study: 4 <u>Departure information</u> Program: Type of study: Study mode: Year of study: Academic year: 2017 Academic year of funding: 2017 Scholarships group: Trzecia stawka stypendialna (najniższa) Disability subsidy: No Co-financing from organizational unit: None Received scholarships: Other If other, then which: Opis otrzymanego stypendium	Date of granting: 07.03.2017 Duration of the intended stay: Winter semester Duration of the intended stay - comment: Stay from: 30.08.2017 Stay to: 02.02.2018 Date of departure: Date of return: Actual date of departure: Actual date of return: Prolongation/Shortening: Number of months with scholarship: 5, days: 150 Number of months of prolongation: Number of months without scholarship: 0.17, days: 5 Notes (visible in USOSweb): Notes (not visible in USOSweb):
---	--	--

[Edit](#)
[Delete](#)
[EWP](#)
[Transcript of records](#)

[Learning Agreement](#)
[History of decisions \(EWP\)](#)

University of Warsaw informs the partner about new nominations or changes in nominations by calling Outgoing Mobility CNR API

2017 Add

Folder number: 1000008554/1/2/3
Organizational unit: 22000000 (Wydział Prawa i Administracji)
Foreign Higher Education Institution: Higher Education Institution
ERASMUS code:
City/village: Warszawa (Ochota)
Country: Polska
Agreement: BI/1/18
Type of agreement: Bilateral
Type of cooperation: studenci-studia
Cooperation level: drugi
Domain: 10000 Prawo
ISCED code: 0421 Prawo
In second round: No
Agreement with student: Yes
Erasmus in the past: No
Speaks Polish: Yes
Classes in the official language: Yes
Type of departure: Studies
Status: Active
Reasons for resignation:

Application information
Program: DM-SM-ISM
Type of study: Jednolite magisterskie
Study mode: Stacjonarne
Year of study: 4

Date of granting: 07.03.2017
Duration of the intended stay: Winter semester
Duration of the intended stay - comment:
Stay from: 30.08.2017
Stay to: 02.02.2018
Date of departure:
Date of return:
Actual date of departure:
Actual date of return:
Prolongation/Shortening:
Number of months with scholarship: 5, days: 150
Number of months of prolongation:
Number of months without scholarship: 0.17, days: 5
Notes (visible in USOSweb):
Notes (not visible in USOSweb):

Received scholarships: Other
If other, then which: Opis otrzymanego stypendium

Warning

Are you sure you want to notify the partner about the change?

Yes Cancel

Edit Delete EWP Transcript of records

HEI receives notification, gets student data from UW by calling Outgoing Mobility API

New EWP notifications Pending nominations

Enter nominating entity

<input type="checkbox"/>	No	Di	Family name
<input type="checkbox"/>	1	2016	Ancerowicz
<input type="checkbox"/>	2	2016	Biedrzycki
<input type="checkbox"/>	3	2016	Bogdański

Number of checked: 0 Uncheck all

Sex: female
E-mail: kowalska130
Date of nomination: 02.05.2018 0
Date of response: 03.05.2018 1
ERASMUS code: PL WARSZAWA
Contract number:
Type of cooperation:

Arrival nominations

Data from EWP

Family name **Biedrzycki**
Given names **Aleksander Piotr**
Academic year **2016/2017**
Mobility id **6ADC1F2112FDD550E05000C192418894**

Family name **Brzezińska**
Given names **Danuta**
Academic year **2017/2018**
Mobility id **6236B741AC3B5D02E05000C1924172FD**

Data in USOS

Family name **Biedrzycki**
Given names **Aleksander Piotr**
Academic year **2016**
Mobility id **6ADC1F2112FDD550E05000C19241...**

* - required fields

HEI can copy data which should be stored in the local system (no need to enter data by hand)

The screenshot shows a web application interface for adding a nomination. It features a sidebar on the left with a list of existing nominations and a main form area on the right. The form is divided into three columns: 'Data from EWP', 'Data from USOS', and a central section for nomination details. The 'Data from EWP' column shows two entries with their respective details. The 'Data from USOS' column shows the same data as entered into the system, with 'Choose' buttons next to each field. The central section contains nomination-specific details like 'Given names', 'Family name', 'E-mail', 'Sex', 'Didactic cycle', 'External unit', 'Organizational unit', 'Nomination EQF level', 'Arrival EQF level', 'Agreement', 'Type of cooperation', 'Duration of the intended stay', 'Mobility status', 'ISCED code', 'Languages', 'Nominating entity', and 'E-mail address of the nominating entity'. A legend at the bottom right indicates that fields with a red asterisk are required.

Data from EWP	
Family name	Biedrzycki
Given names	Aleksander Piotr
Academic year	2016/2017
Mobility id	6ADC1F2112FE
Family name	Brzezińska
Given names	Danuta
Academic year	2017/2018
Mobility id	6236B741AC3B

Data from EWP		Data in USOS	
Given names:	Danuta		Danuta
Family name:	Brzezińska		Brzezińska
E-mail:	kowalska1525341@usos.edu.pl		kowalska1525341@usos.edu.pl
Sex:	female		female
Didactic cycle:	2017		2017 <input type="button" value="Choose"/>
External unit:			Not stored in USOS
Organizational unit:			Click to choose <input type="button" value="Choose"/>
Nomination EQF level:	7		Not stored in USOS
Arrival EQF level:			Not stored in USOS
Agreement:	BI/1/18		Click to choose <input type="button" value="Choose"/>
Type of cooperation:	Not supported by EWP		Click to choose <input type="button" value="Choose"/>
Duration of the intended stay:	30.08.2017 - 02.02.2018		-- no value --
Mobility status:	Active		Not stored in USOS
ISCED code:	0421		Not stored in USOS
Languages:	• en: B2		Not stored in USOS
Nominating entity:	Not supported by EWP		
E-mail address of the nominating entity:	Not supported by EWP		

* - required fields

HEI at the end of the mobility generates ToRs for incoming students and notifies the partner (ToR CNR API)

No new notifications Set the filter Help

Arrivals filter

Choose a person by typing PESEL, student number or

<input checked="" type="checkbox"/>	No	Family name	Given name	PESEL	Main student i	Main program	Person's unit
<input checked="" type="checkbox"/>	4	Brzezińska	Danuta	64022034104	123451263	ZD-HUM (Humanistyczne Studia Doktoranckie w zakresie nauk o polityce)	21000000
<input checked="" type="checkbox"/>	5	Szyjka	Maria	61031100901	123433308	DD-FL (Studia trzeciego stopnia, stacjonarne na Wydziale Neofilologii)	33000000

Number of checked: 2

Form of education:
Type of study:
Year of study:

University of Warsaw receives notification and then downloads ToR to the local system (Incoming Mobility ToR API)

Transcript of records

Family name	Brzezińska	Download TOR
Given names	Danuta	
Academic year	2017	
Mobility id	6236B741AC3B5D02E05000C1924172FD	
Transcript of records	YES	
Family name	Bagiński	Download TOR
Given names	Robert Zygmunt	
Academic year	2017	
Mobility id	6A9FB1EEB544A452E05000C19241D900	
Transcript of records	YES	

[Close](#)

Background Interface:

- Buttons: Notifications of dates (Download), TOR notifications (Download), Replies to nominations (Show), Set the filter, Reports, Help.
- Departures filter: Choose a person by typing PESEL, student number.
- Search: Choose program unit.
- Table: No. Brzezińska, Danuta; 1. Brzezińska, Danuta.
- Buttons: 2017 Add, Specify filters, Person's unit (21000000), 1.
- Record details: Folder number: 1000008, Organizational unit: 2200000, Foreign Higher Education Institution: Higher Education, ERASMUS code: 10000, City/village: Warszawa (Ochota), Country: Polska, Agreement: BI/1/18, Type of agreement: Bilateral, Type of cooperation: studenci-studia, Cooperation level: drugi, Domain: 10000 Prawo, ISCED code: 0421 Prawo, In second round: No, Agreement with student: Yes, Erasmus in the past: No, Speaks Polish: Yes, Classes in the official language: Yes, Type of departure: Studies, Status: Active, Reasons for resignation: (empty).
- Departure information: Program: (empty), Type of study: (empty), Study mode: (empty), Year of study: 2017, Academic year of funding: 2017, Scholarships group: Trzecia stawka stypendialna (najniższa), Disability subsidy: No, Co-financing from organizational unit: None, Received scholarships: Other, If other, then which: Opis otrzymanego stypendium.
- Date of departure: 07.03.2017, Date of return: (empty), Actual date of departure: (empty), Actual date of return: (empty), Prolongation/Shortening: (empty), Number of months with scholarship: 5, days: 150, Number of months of prolongation: (empty), Number of months without scholarship: 0.17, days: 5, Notes (visible in USOSweb): (empty), Notes (not visible in USOSweb): (empty).
- Buttons: Edit, Delete, EWP, Transcript of records.

Other scenarios and APIs

- Sharing new versions of factsheets
- Approval/rejection of nominations
- Changes in nominations
- Learning agreements – all parts
- Confirmation of the arrival and departure dates → grants
- Digitally signed Transcript of Records (XML and PDF)
- Mail notifications as a supplement to Change Notification Requests
- Greater process automation
- Use GitHub to tell us about your favorite scenarios – are any APIs or parameters missing?

Steps to join the EWP community

- Get in touch with the EWP **Competence Centre**.
- Depending on the situation:
 - Develop your own connector,
 - Use connector developed by a national consortium (if you are a member),
 - Use connector developed by a commercial provider,
 - Use the **HUB (Dashboard)**.
- Contact EWP technical team to be entered to the **DEV Registry**.
- Test, test, test.
- Contact EWP technical team to be entered to the **PROD Registry**.
- Enjoy easy data exchange at you institution.
- Encourage your partners in mobility to join.

Summary

- EWP proves that it is possible to exchange data between partners in mobility in a digital way.
- Network, tools, specifications, code, competences are publicly available.
- We are getting ready for the official launch of the EWP Network in December – join the EWP conference in Ghent.
- Work will continue in 2019
 - Pending invitation for new partners.
 - New APIs with extended functionalities (MT+, grade conversion).
 - Joining forces with other European digitization projects.
- Goal: interconnect all ECHE holders.
- Get ready for new Erasmus+ in 2021-2027.



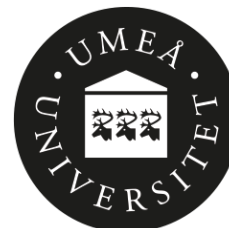
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<http://erasmuswithoutpaper.eu>

<http://developers.erasmuswithoutpaper.eu>

<http://github.com/erasmus-without-paper>

<https://www.linkedin.com/groups/13590744>

<https://twitter.com/hashtag/ErasmusWithoutPaper>