Erasmus Without Paper in numbers

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University of Warsaw, Poland

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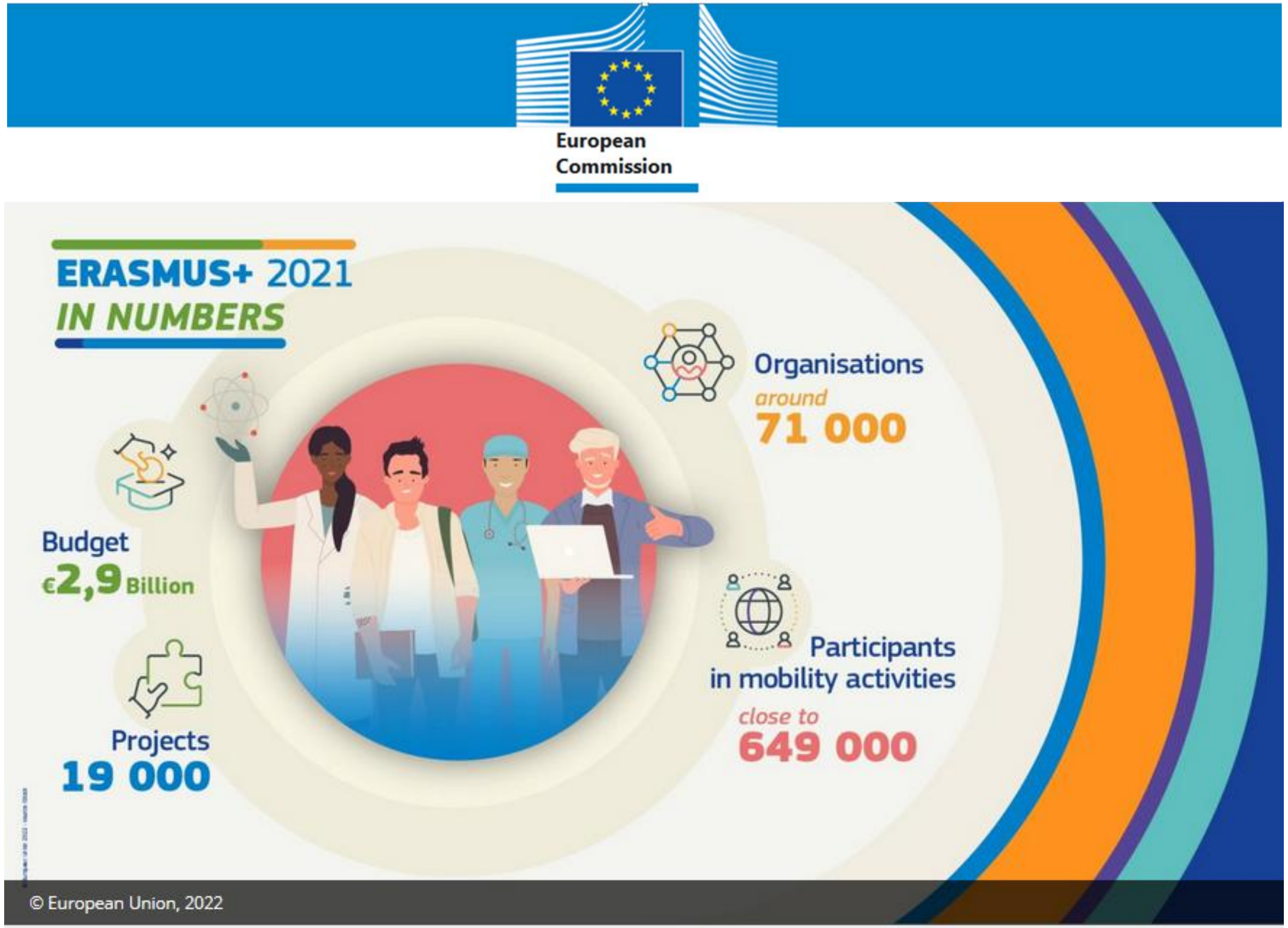

European
Commission

ERASMUS+ 2021
IN NUMBERS

Budget
€2,9 Billion

Projects
19 000

Organisations
around
71 000

Participants
in mobility activities
close to
649 000

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https://erasmus-plus.ec.europa.eu/resources-and-tools/statistics-and-factsheets

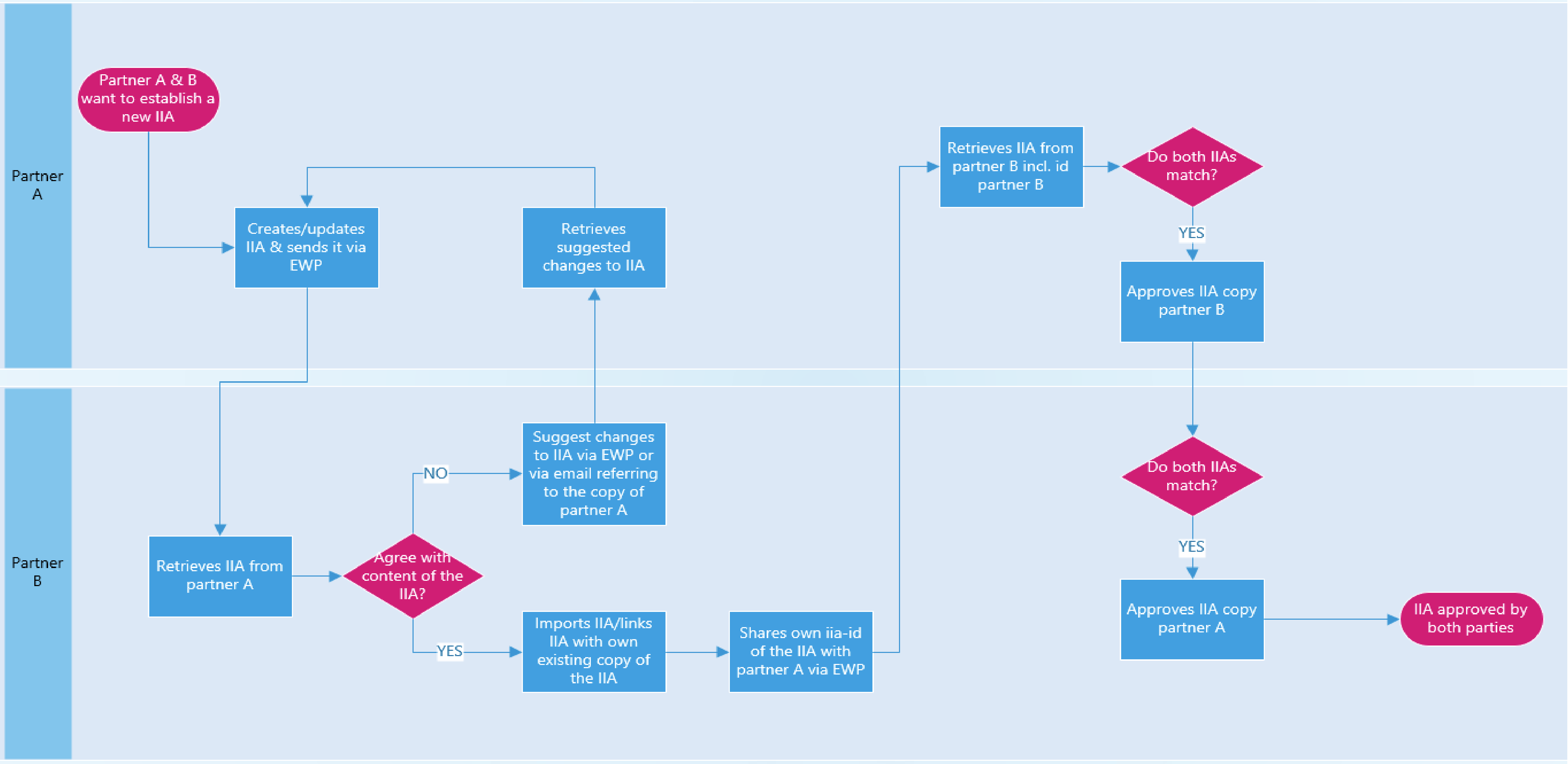
Milestones of Erasmus Without Paper (EWP)

- June 2013: Informal meeting in Ghent to discuss the idea to digitalise Erasmus mobility paperwork.
- December 2018: EWP Network launch conference in Ghent, live data exchanges between different types of systems.
- Call for tender EAC/2020/OP/0008 won by consortium of 10 partners coordinated by European University Foundation – finansing for years 2022-2024 (with possible extension).
- 2021-2027: Digital transformation one of the main priorities of the new Erasmus+ Programme.
- 2022: European Student Card Initiative, the European policy umbrella that encompasses EWP, listed by the European Commission Communication on a European strategy for universities as one of the four flagships to boost the European dimension in higher education and research.

Timeline of digitalisation and implemented processes

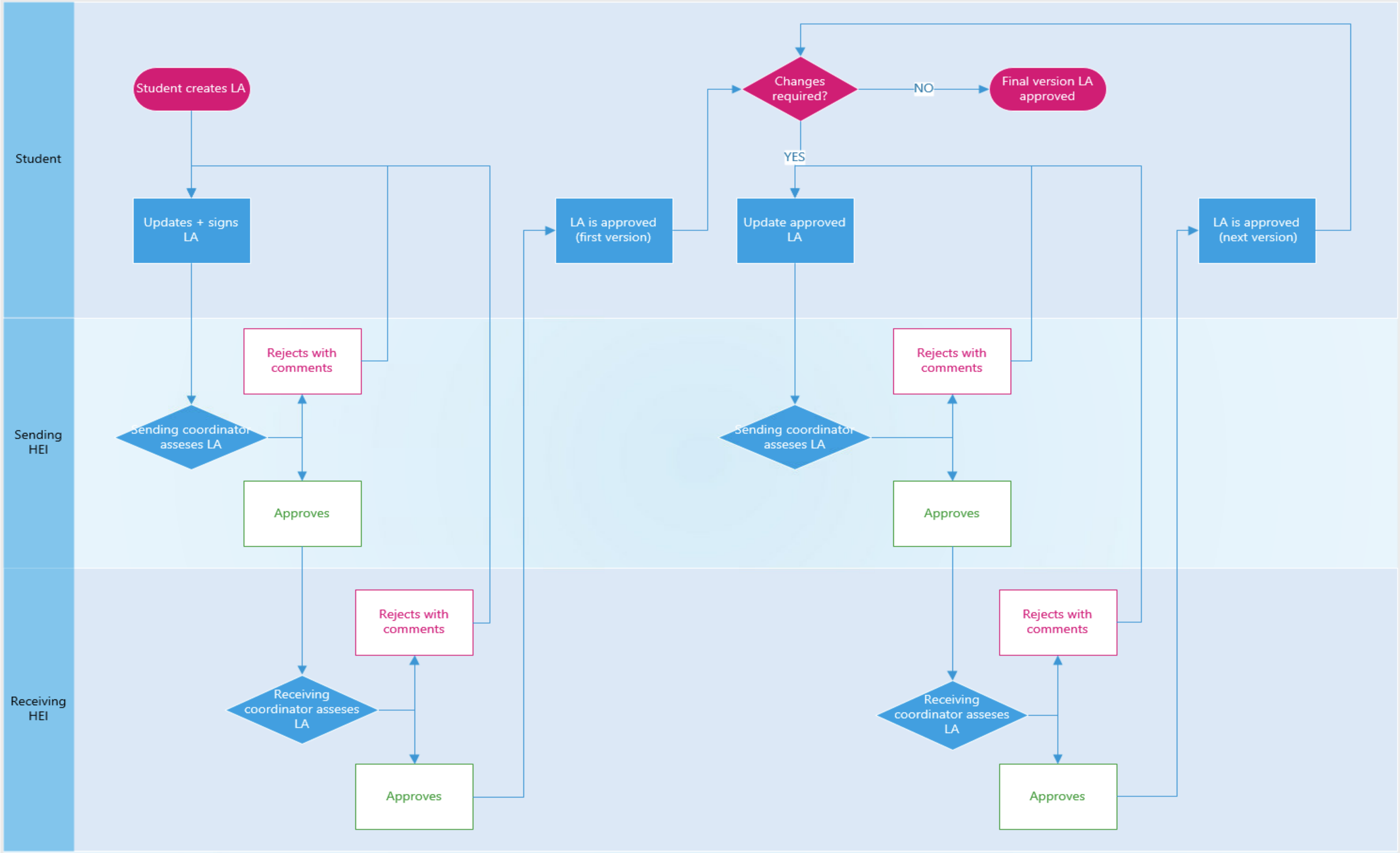
- Digitalisation of processes scheduled for 2022
  - Interinstitutional Agreements (IIAs)
  - Learning Agreements (LAs)
- Digitalisation of processes scheduled for 2023
  - Nominations
  - Transcripts Of Records
- Next years
  - Further digitalizing Erasmus+ mobility processes
- Plans versus reality
- Challenges

High level process for Interinstitutional Agreements


Partner A
Partner B
Partner A & B want to establish a new IIA
Creates/updates IIA & sends it via EWP
Retrieves suggested changes to IIA
Retrieves IIA from partner B incl. id partner B
Do both IIAs match?
YES
Approves IIA copy partner B
Retrieves IIA from partner A
Agree with content of the IIA?
NO
Suggest changes to IIA via EWP or via email referring to the copy of partner A
YES
Imports IIA/links IIA with own existing copy of the IIA
Shares own iia-id of the IIA with partner A via EWP
Do both IIAs match?
YES
Approves IIA copy partner A
IIA approved by both parties

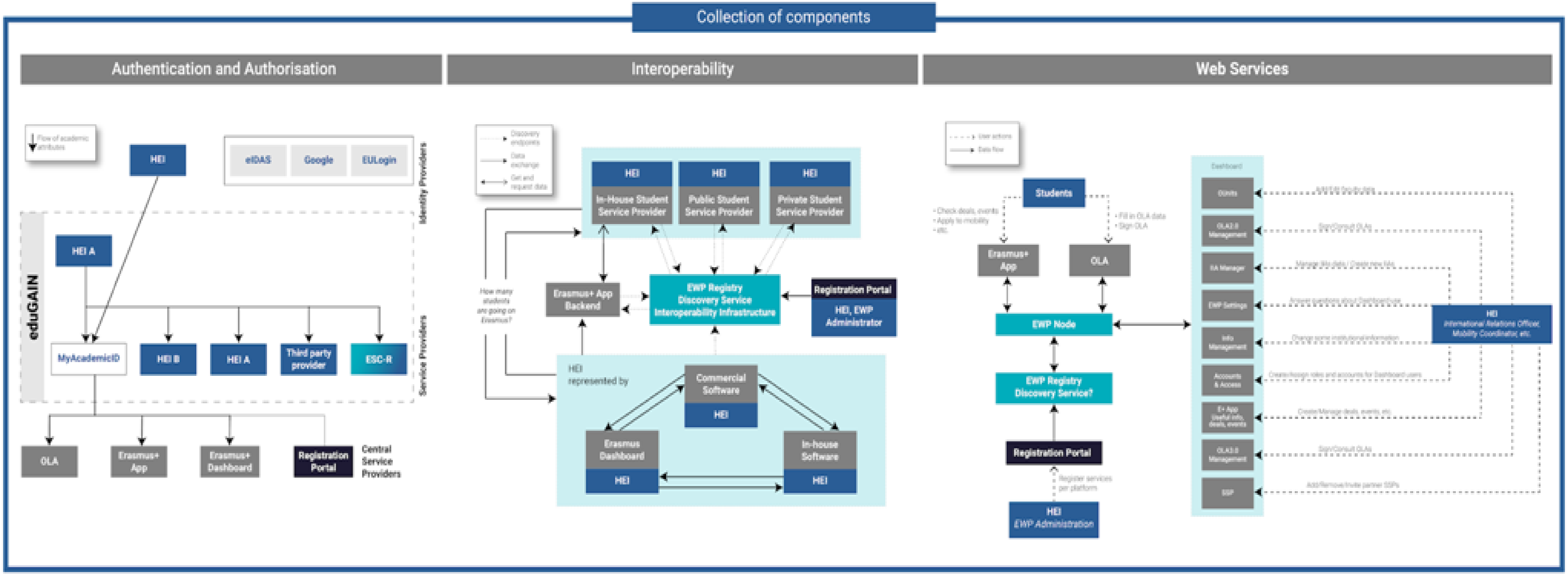
The graph has been developed under the EWP+ initiative

High level process for Learning Agreements


Student
Sending HEI
Receiving HEI
Student creates LA
Updates + signs LA
Sending coordinator asseses LA
Rejects with comments
Approves
Receiving coordinator asseses LA
Rejects with comments
Approves
LA is approved (first version)
Changes required?
NO
Final version LA approved
YES
Update approved LA
Sending coordinator asseses LA
Rejects with comments
Approves
Receiving coordinator asseses LA
Rejects with comments
Approves
LA is approved (next version)

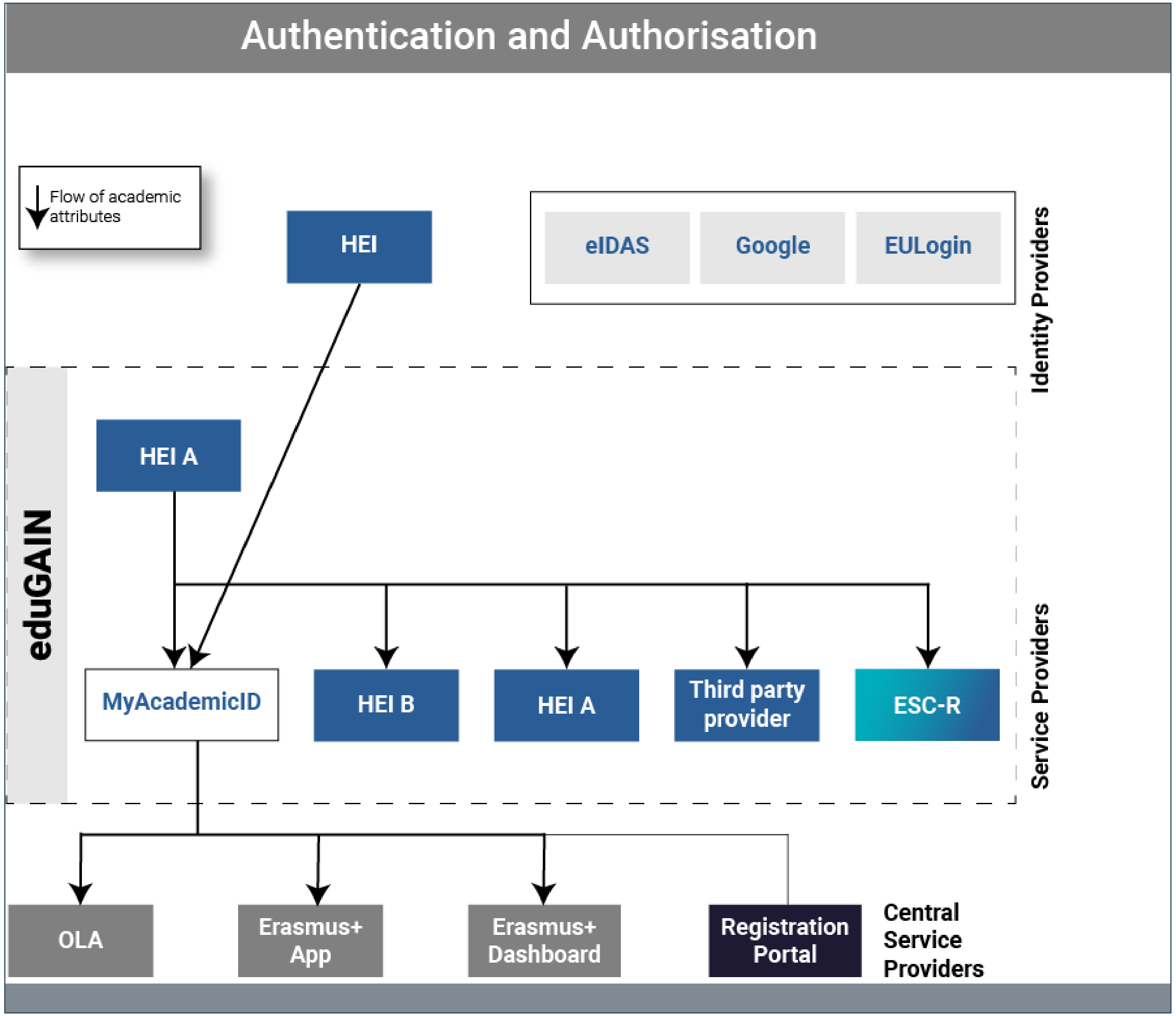
The graph has been developed under the EWP+ initiative

Architecture of the EWP Network


Collection of components
Authentication and Authorisation
Interoperability
Web Services
Flow of academic attributes
HEI
eIDAS
Google
EULogin
Identity Providers
eduGAIN
HEI A
MyAcademicID
HEI B
HEI A
Third party provider
ESC-R
Service Providers
OLA
Erasmus+ App
Erasmus+ Dashboard
Registration Portal
Central Service Providers
Discovery endpoints
Data exchange
Get and request data
HEI
In-House Student Service Provider
HEI
Public Student Service Provider
HEI
Private Student Service Provider
How many students are going on Erasmus?
Erasmus+ App Backend
EWP Registry Discovery Service Interoperability Infrastructure
Registration Portal
HEI, EWP Administrator
HEI represented by
Commercial Software
HEI
Erasmus Dashboard
HEI
In-house Software
HEI
User actions
Data flow
Students
• Check deals, events
• Apply to mobility
• etc.
• Fill in OLA data
• Sign OLA
Erasmus+ App
OLA
EWP Node
EWP Registry Discovery Service?
Registration Portal
Register services per platform
HEI
EWP Administration
Dashboard
OUnits
OLA2.0 Management
IIA Manager
EWP Settings
Info Management
Accounts & Access
E+ App Useful info, deals, events
OLA3.0 Management
SSP
Sign/Consult OLAs
Manage IIAs data / Create new IIAs
Answer questions about Dashboard use
Change some institutional information
Create/Assign roles and accounts for Dashboard users
Create/Manage deals, events, etc.
Sign/Consult OLAs
Add/Remove/Invite partner SSPs
HEI
International Relations Officer, Mobility Coordinator, etc.

The architecture graph has been developed under the EDSSI project

Architecture – Authentication and Authorisation


Authentication and Authorisation
Flow of academic attributes
HEI
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Third party provider
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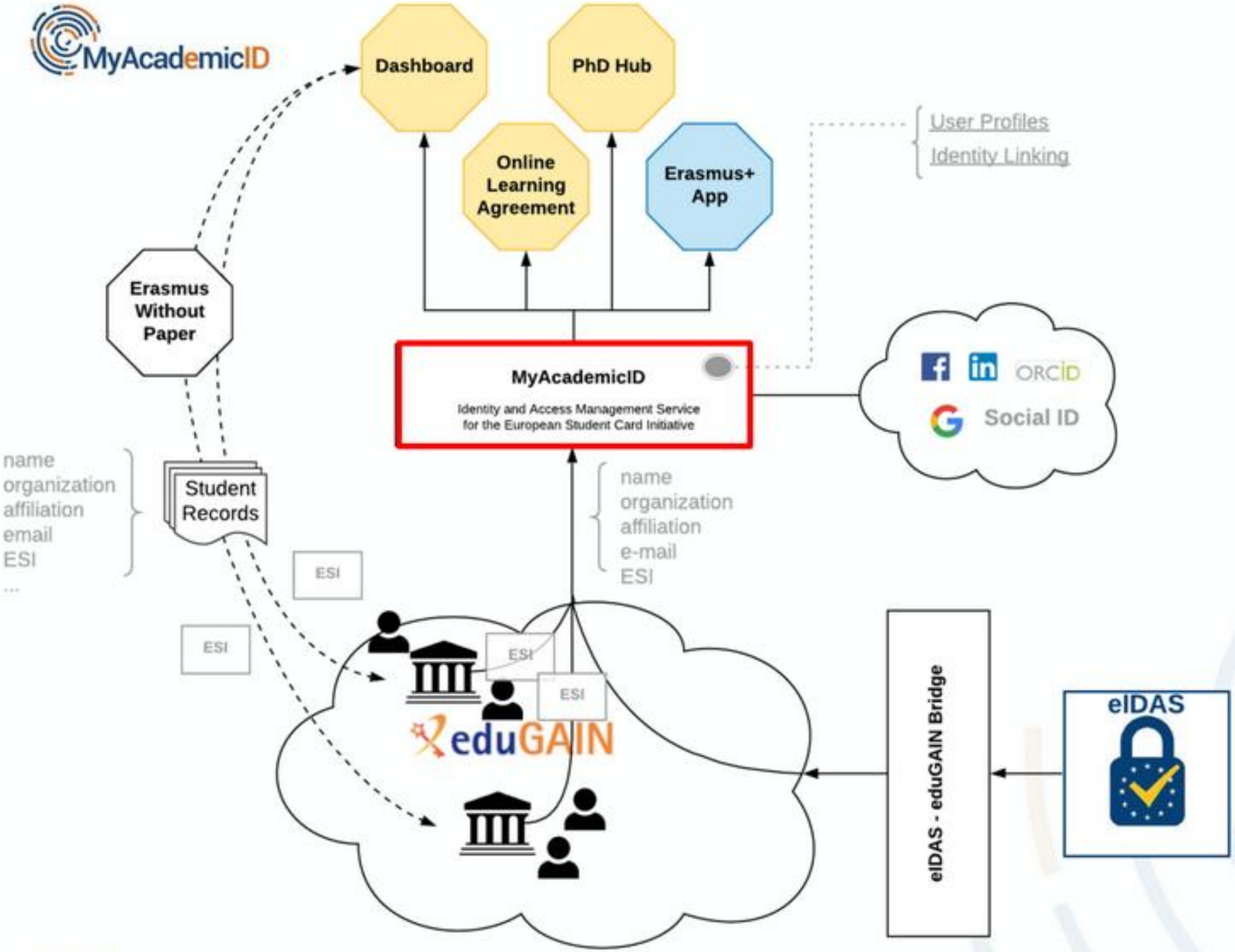
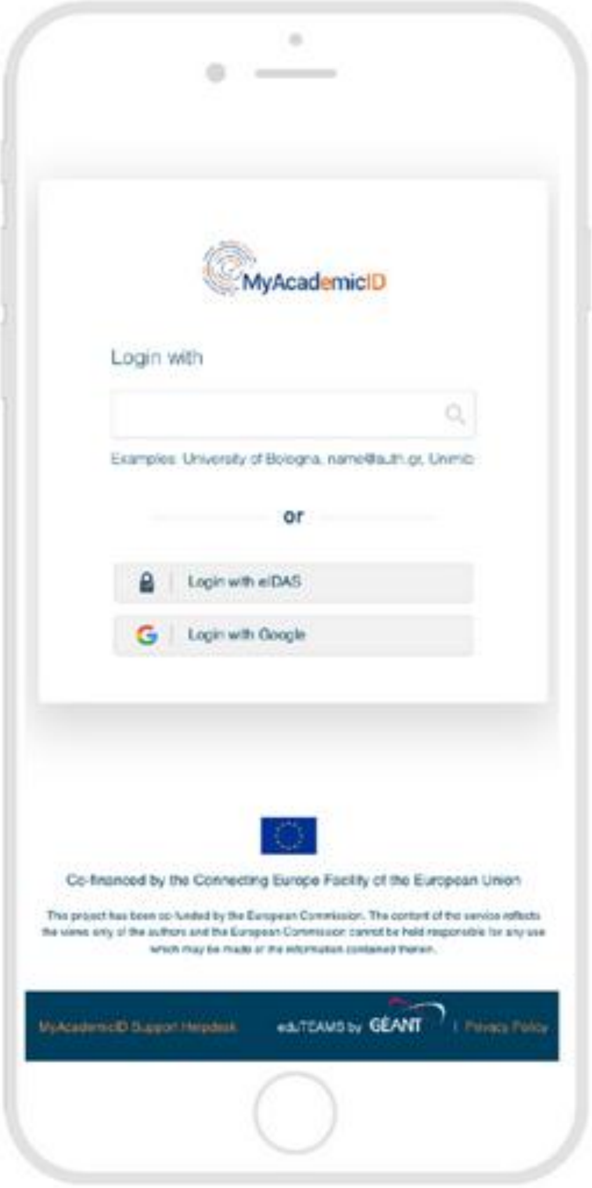
Service Providers
OLA
Erasmus+ App
Erasmus+ Dashboard
Registration Portal
Central Service Providers


MyAcademicID
Dashboard
PhD Hub
Online Learning Agreement
Erasmus+ App
User Profiles
Identity Linking
Erasmus Without Paper
MyAcademicID
Identity and Access Management Service for the European Student Card Initiative
ORCID
Social ID
name
organization
affiliation
email
ESI
...
Student Records
name
organization
affiliation
e-mail
ESI
ESI
ESI
ESI
ESI
eduGAIN
eIDAS - eduGAIN Bridge
eIDAS


MyAcademicID
Login with
or
Login with eIDAS
Login with Google
MyAcademicID Support Helpdesk
eduTEAMS by GÉANT
Privacy Policy

Examples: University of Bologna, name@auth.gr, Unimib

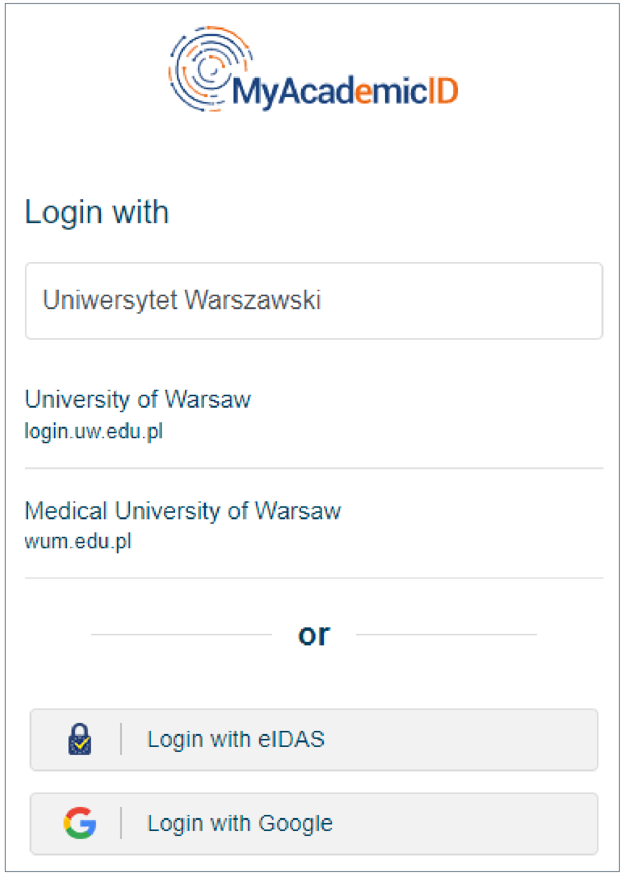
Co-financed by the Connecting Europe Facility of the European Union

This project has been co-funded by the European Commission. The content of the service reflects the views only of the authors and the European Commission cannot be held responsible for any use which may be made of the information contained therein.

Co-financed by the Connecting Europe Facility of the European Union

Registration portal – EWP admin

https://registrationportal.erasmuswithoutpaper.eu/



MyAcademicID

Login with

Uniwersytet Warszawski

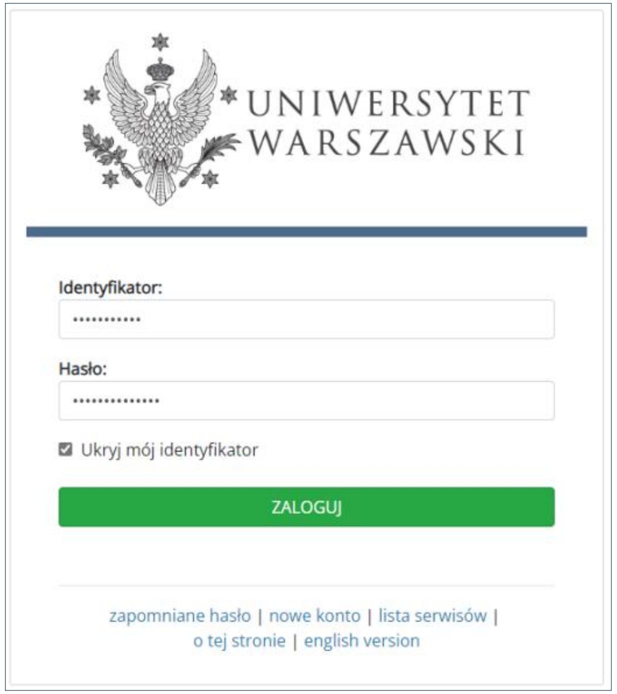
University of Warsaw
login.uw.edu.pl

Medical University of Warsaw
wum.edu.pl

or

Login with eIDAS

Login with Google



UNIWERSYTET WARSZAWSKI

Identyfikator: ••••••••••••

Hasło: •••••••••••••••

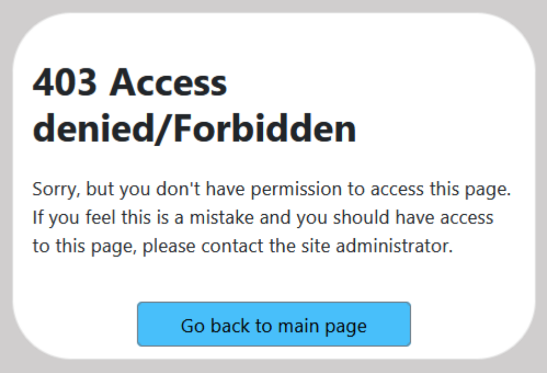
☑ Ukryj mój identyfikator

ZALOGUJ

zapomniane hasło | nowe konto | lista serwisów | o tej stronie | english version

Success

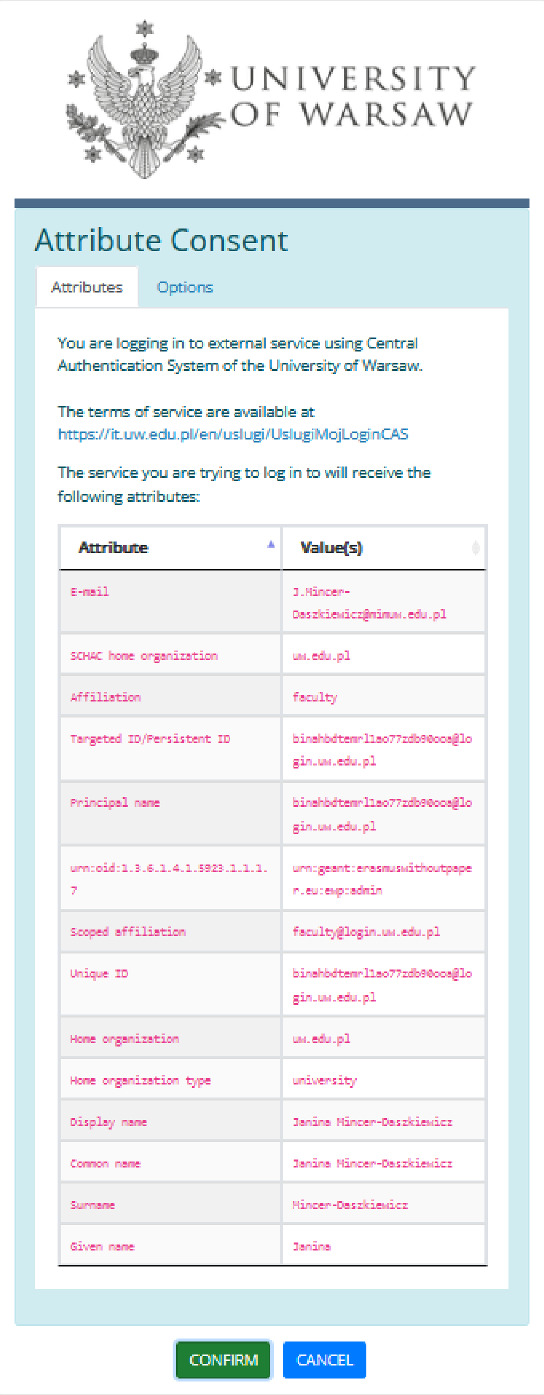
Failure



403 Access denied/Forbidden

Sorry, but you don't have permission to access this page. If you feel this is a mistake and you should have access to this page, please contact the site administrator.

Go back to main page



UNIVERSITY OF WARSAW

Attribute Consent

Attributes | Options

You are logging in to external service using Central Authentication System of the University of Warsaw.

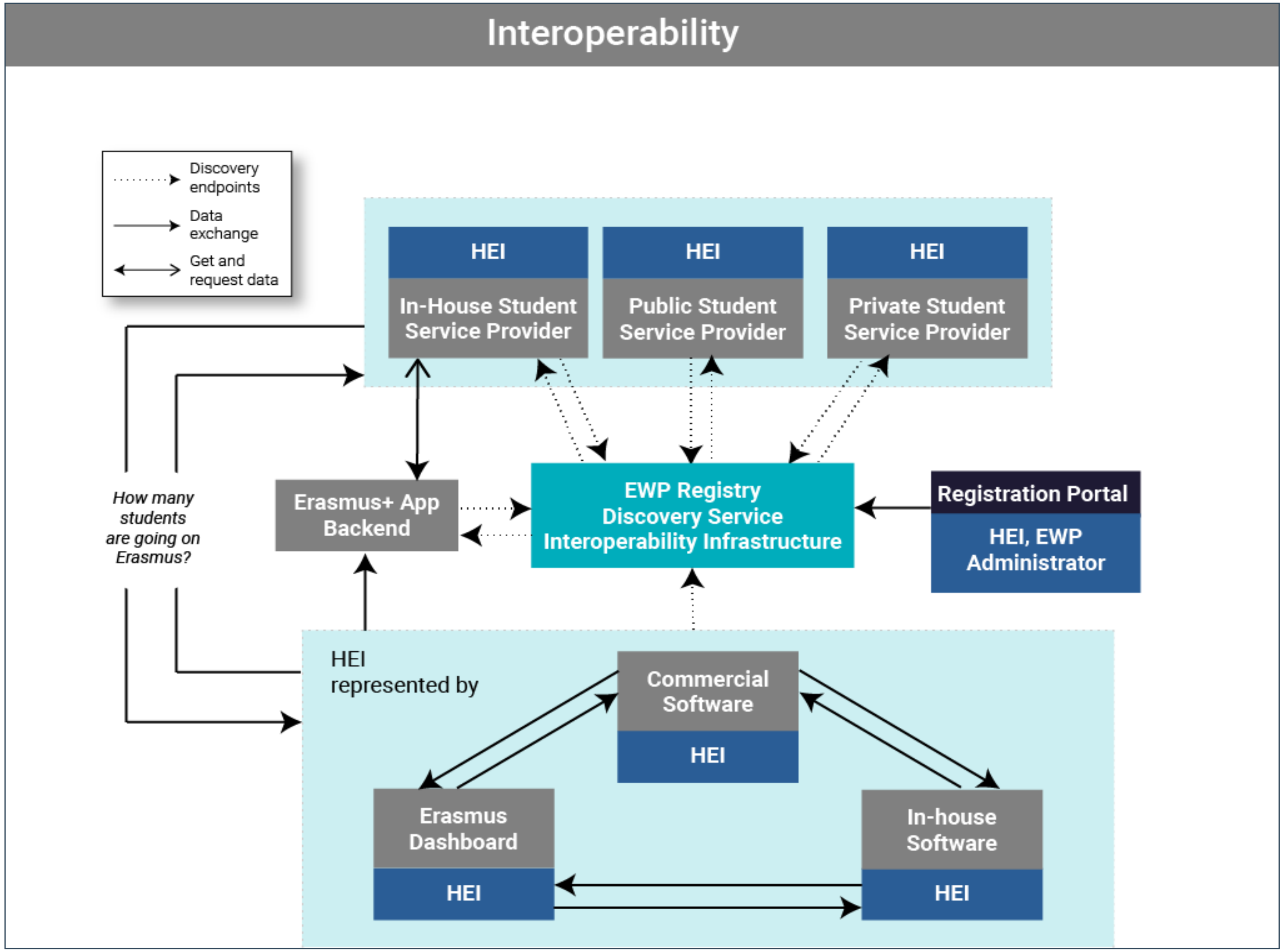
The terms of service are available at https://it.uw.edu.pl/en/uslugi/UslugiMojLoginCAS

The service you are trying to log in to will receive the following attributes:

Attribute	Value(s)
E-mail	J.Mincer-Daszkiewicz@mimuw.edu.pl
SCHAC home organization	uw.edu.pl
Affiliation	faculty
Targeted ID/Persistent ID	binahbdtemrll1ao77zdb90ooa@login.uw.edu.pl
Principal name	binahbdtemrll1ao77zdb90ooa@login.uw.edu.pl
urn:oid:1.3.6.1.4.1.5923.1.1.1.7	urn:geant:erasmuswithoutpaper.eu:ewp:admin
Scoped affiliation	faculty@login.uw.edu.pl
Unique ID	binahbdtemrll1ao77zdb90ooa@login.uw.edu.pl
Home organization	uw.edu.pl
Home organization type	university
Display name	Janina Mincer-Daszkiewicz
Common name	Janina Mincer-Daszkiewicz
Surname	Mincer-Daszkiewicz
Given name	Janina

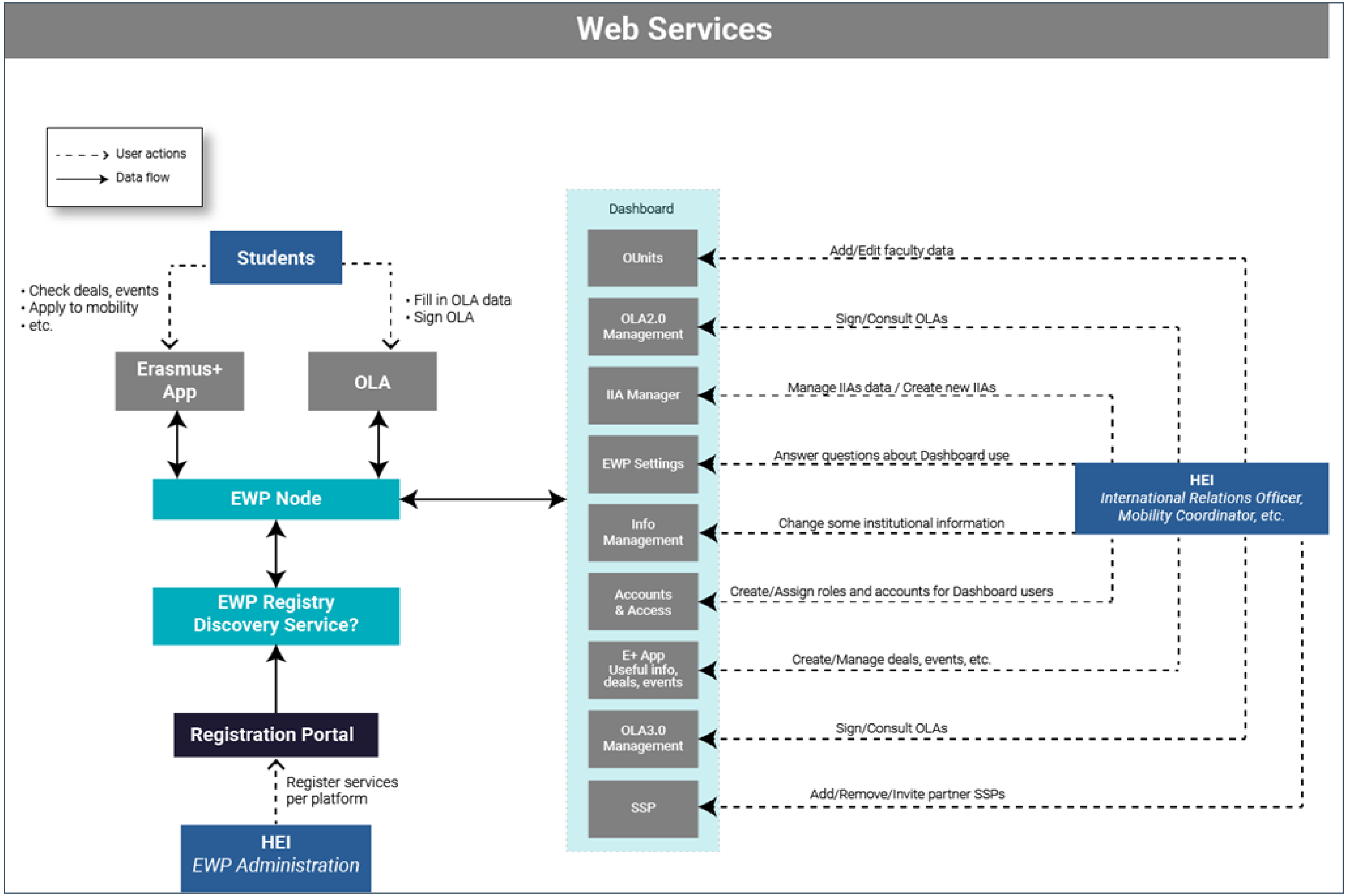
CONFIRM | CANCEL

Architecture - Interoperability


Interoperability
Discovery endpoints
Data exchange
Get and request data
HEI
In-House Student Service Provider
HEI
Public Student Service Provider
HEI
Private Student Service Provider
How many students are going on Erasmus?
Erasmus+ App Backend
EWP Registry Discovery Service Interoperability Infrastructure
Registration Portal
HEI, EWP Administrator
HEI represented by
Commercial Software
HEI
Erasmus Dashboard
HEI
In-house Software
HEI

Registry https://registry.erasmuswithutpaper.eu (3188 HEIs)

Architecture – Web services


Web Services
User actions
Data flow
Students
• Check deals, events
• Apply to mobility
• etc.
• Fill in OLA data
• Sign OLA
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Registration Portal
Register services per platform
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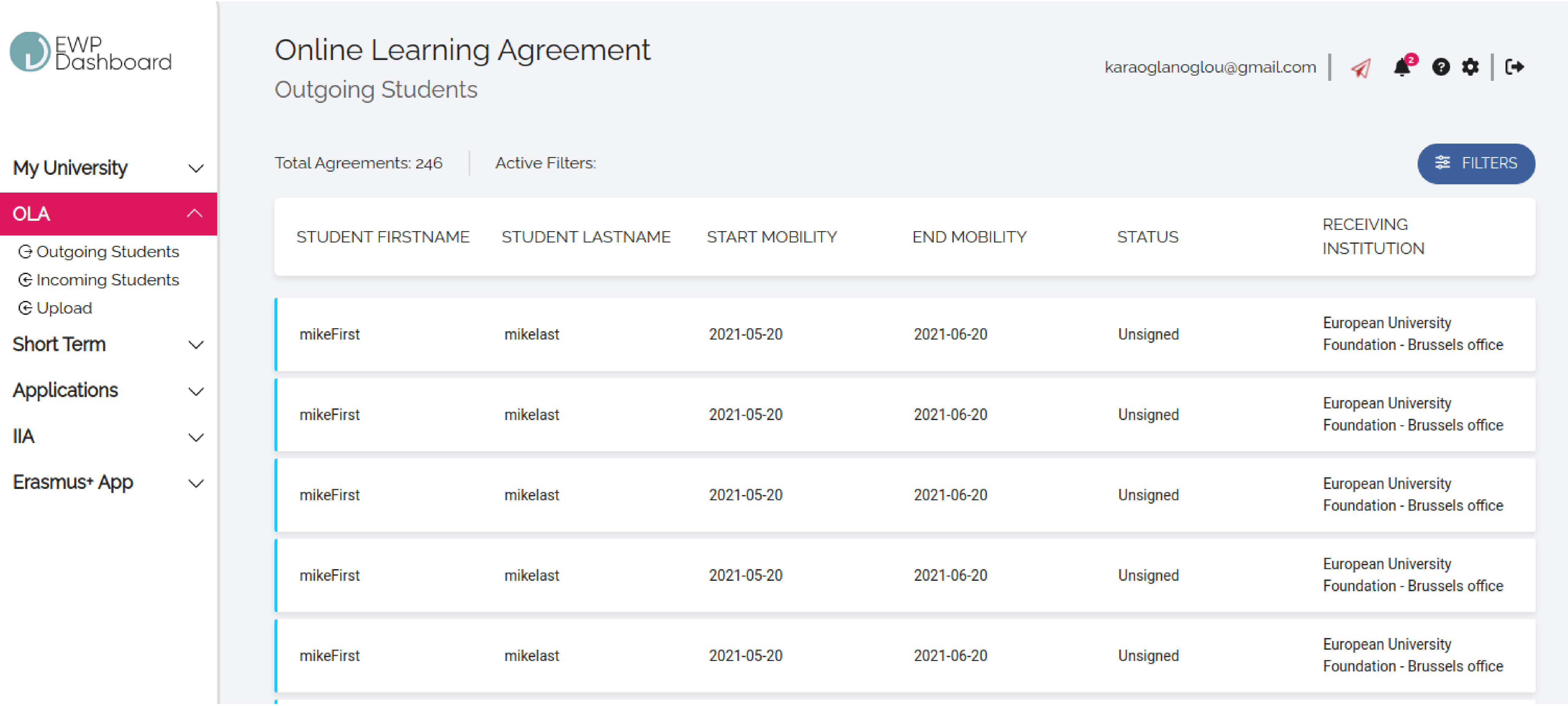
Dashboard
OUnits
OLA2.0 Management
IIA Manager
EWP Settings
Info Management
Accounts & Access
E+ App Useful info, deals, events
OLA3.0 Management
SSP
Add/Edit faculty data
Sign/Consult OLAs
Manage IIAs data / Create new IIAs
Answer questions about Dashboard use
Change some institutional information
Create/Assign roles and accounts for Dashboard users
Create/Manage deals, events, etc.
Sign/Consult OLAs
Add/Remove/Invite partner SSPs
HEI
International Relations Officer, Mobility Coordinator, etc.

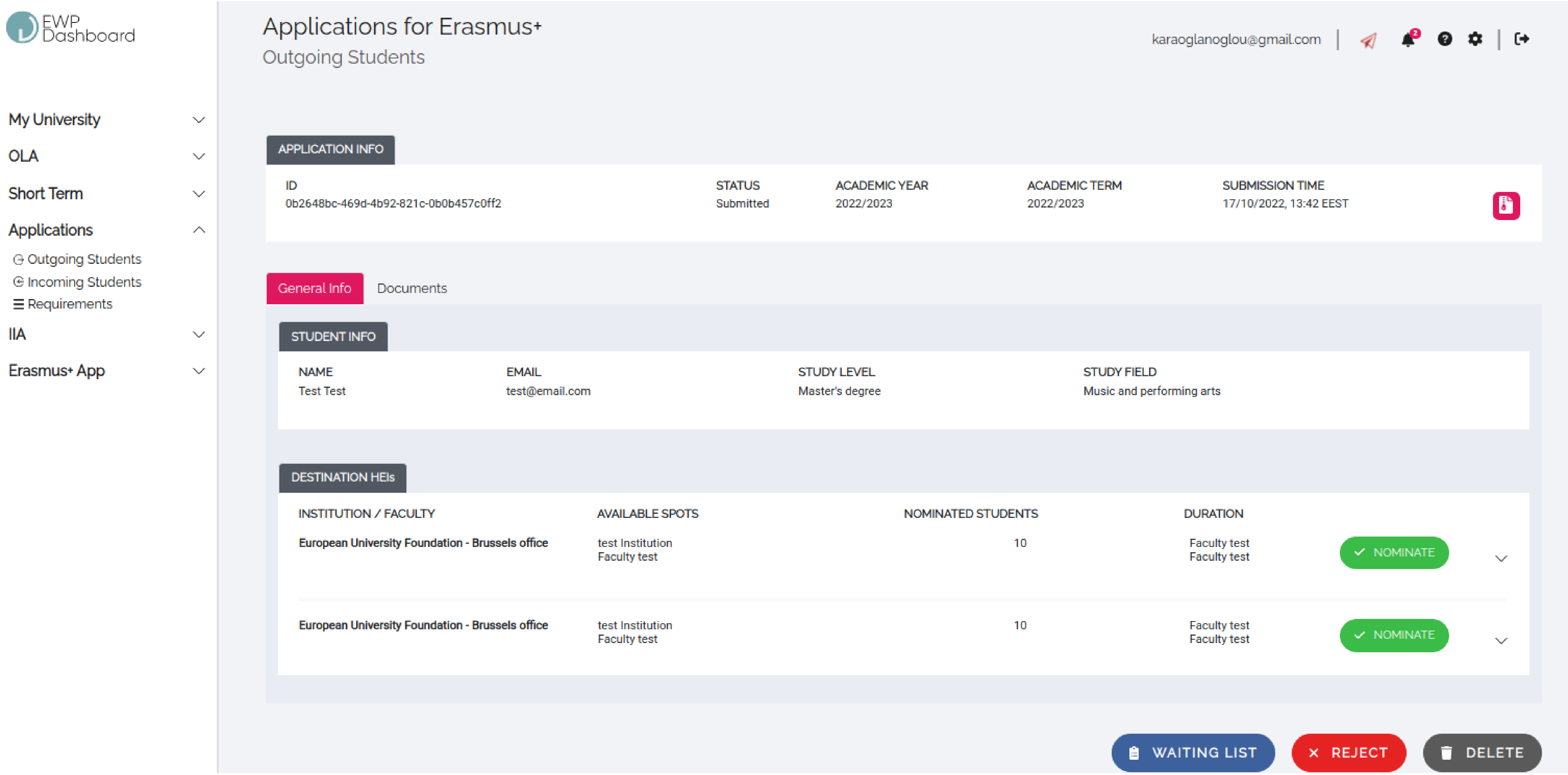

EWP Dashboard
My University
OLA
Outgoing Students
Incoming Students
Upload
Short Term
Applications
IIA
Erasmus+ App
karaoglanoglou@gmail.com
2
FILTERS

Online Learning Agreement

Outgoing Students

Total Agreements: 246 | Active Filters:

STUDENT FIRSTNAME	STUDENT LASTNAME	START MOBILITY	END MOBILITY	STATUS	RECEIVING INSTITUTION
mikeFirst	mikelast	2021-05-20	2021-06-20	Unsigned	European University Foundation - Brussels office
mikeFirst	mikelast	2021-05-20	2021-06-20	Unsigned	European University Foundation - Brussels office
mikeFirst	mikelast	2021-05-20	2021-06-20	Unsigned	European University Foundation - Brussels office
mikeFirst	mikelast	2021-05-20	2021-06-20	Unsigned	European University Foundation - Brussels office
mikeFirst	mikelast	2021-05-20	2021-06-20	Unsigned	European University Foundation - Brussels office


EWP Dashboard
My University
OLA
Short Term
Applications
Outgoing Students
Incoming Students
Requirements
IIA
Erasmus+ App
karaoglanoglou@gmail.com
2
General Info
Documents
NOMINATE
NOMINATE
WAITING LIST
REJECT
DELETE

Applications for Erasmus+

Outgoing Students

APPLICATION INFO

ID	STATUS	ACADEMIC YEAR	ACADEMIC TERM	SUBMISSION TIME
0b2648bc-469d-4b92-821c-0b0b457c0ff2	Submitted	2022/2023	2022/2023	17/10/2022, 13:42 EEST

STUDENT INFO

NAME	EMAIL	STUDY LEVEL	STUDY FIELD
Test Test	test@email.com	Master's degree	Music and performing arts

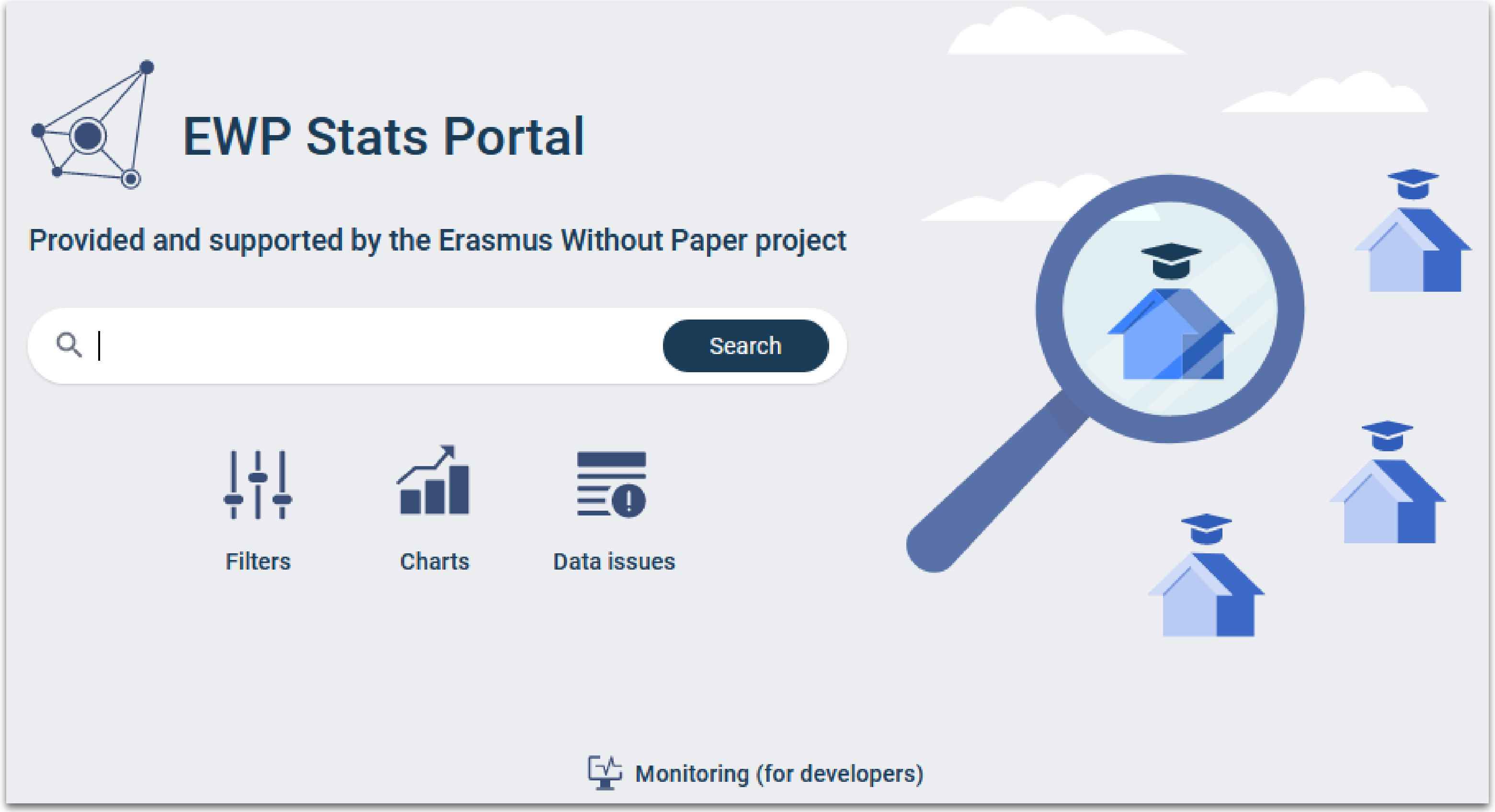
DESTINATION HEIs

INSTITUTION / FACULTY	AVAILABLE SPOTS	NOMINATED STUDENTS	DURATION
European University Foundation - Brussels office	test Institution Faculty test	10	Faculty test Faculty test
European University Foundation - Brussels office	test Institution Faculty test	10	Faculty test Faculty test

Challenges

- In an open network of trust, the individual nodes are responsible for the diligence about their implementation.
- Implementation issues prevent interoperability and had a negative spill-over to end users.
- Enhancements of central network components are under control of the body operating the infrastructure.
- Implementation by third-party providers and in-house solutions are an external factor difficult to control.
- Different options to address this challenge were discussed with all involved parties.
- Counter measures were implemented.

EWP Stats Portal and Monitoring system



EWP Stats Portal

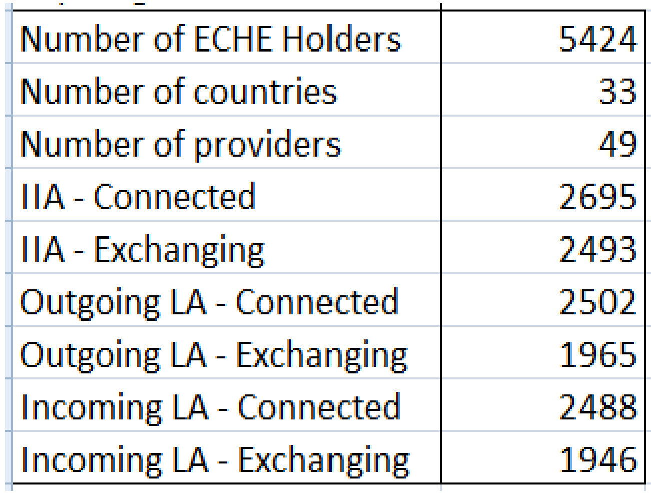
Provided and supported by the Erasmus Without Paper project

Search
Filters
Charts
Data issues
Monitoring (for developers)

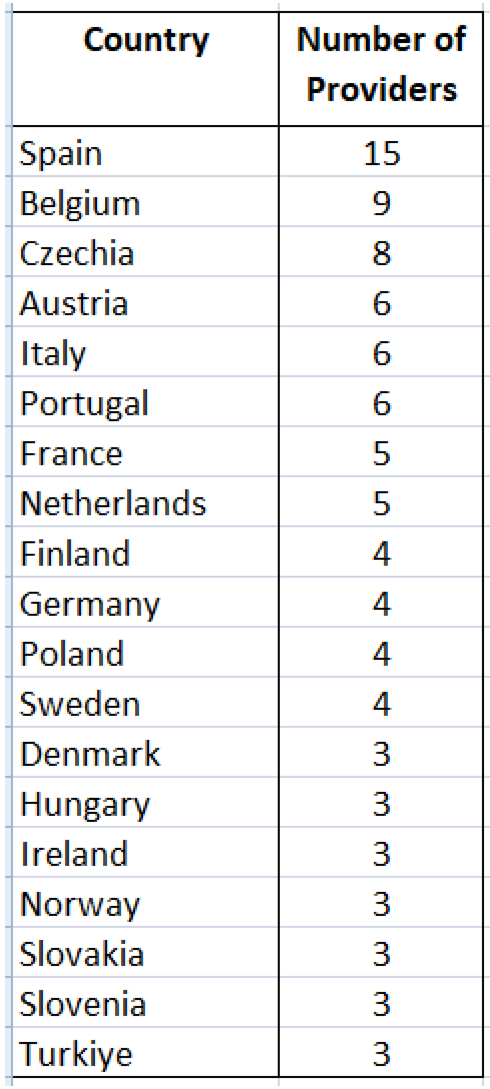
EWP Stats portal: https://stats.erasmuswithoutpaper.eu/

Based on ECHE List API : https://eche-list.erasmuswithoutpaper.eu

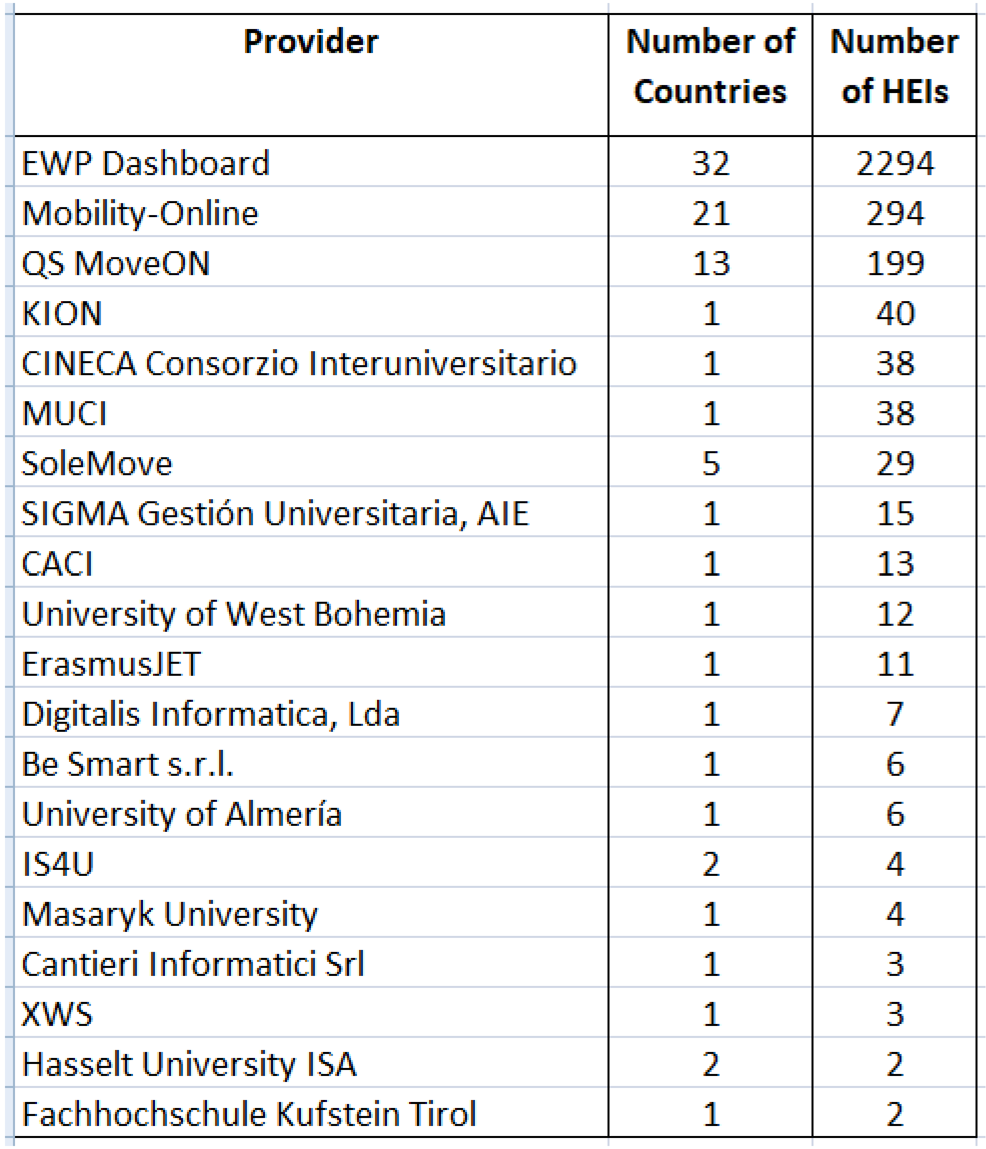
Some general statistics



Number of ECHE Holders	5424
Number of countries	33
Number of providers	49
IIA - Connected	2695
IIA - Exchanging	2493
Outgoing LA - Connected	2502
Outgoing LA - Exchanging	1965
Incoming LA - Connected	2488
Incoming LA - Exchanging	1946



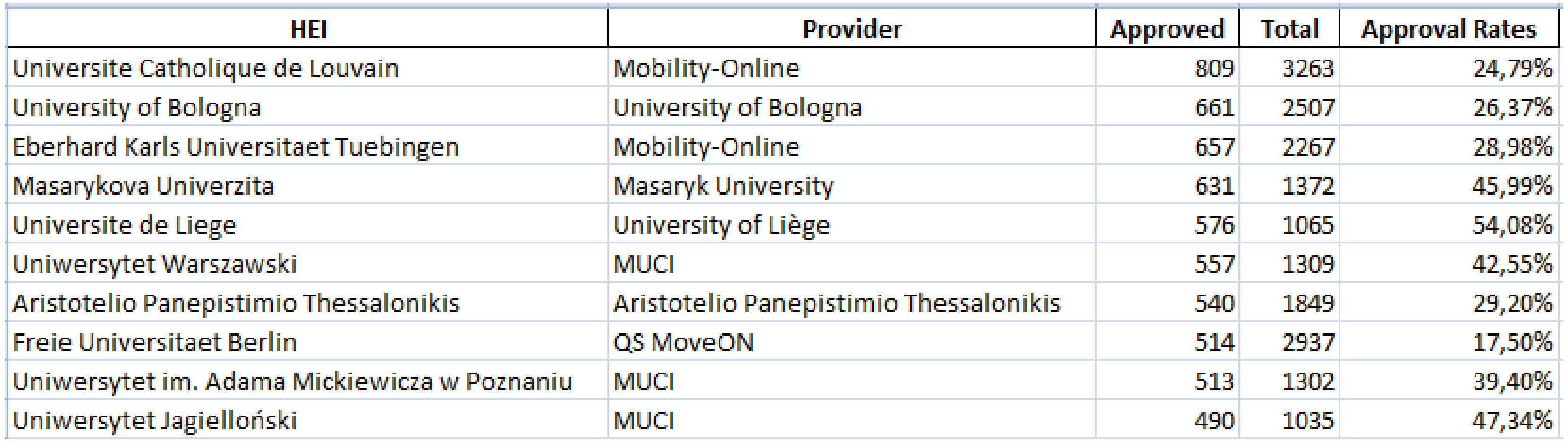
Country	Number of Providers
Spain	15
Belgium	9
Czechia	8
Austria	6
Italy	6
Portugal	6
France	5
Netherlands	5
Finland	4
Germany	4
Poland	4
Sweden	4
Denmark	3
Hungary	3
Ireland	3
Norway	3
Slovakia	3
Slovenia	3
Turkiye	3



Provider	Number of Countries	Number of HEIs
EWP Dashboard	32	2294
Mobility-Online	21	294
QS MoveON	13	199
KION	1	40
CINECA Consorzio Interuniversitario	1	38
MUCI	1	38
SoleMove	5	29
SIGMA Gestión Universitaria, AIE	1	15
CACI	1	13
University of West Bohemia	1	12
ErasmusJET	1	11
Digitalis Informatica, Lda	1	7
Be Smart s.r.l.	1	6
University of Almería	1	6
IS4U	2	4
Masaryk University	1	4
Cantieri Informatici Srl	1	3
XWS	1	3
Hasselt University ISA	2	2
Fachhochschule Kufstein Tirol	1	2

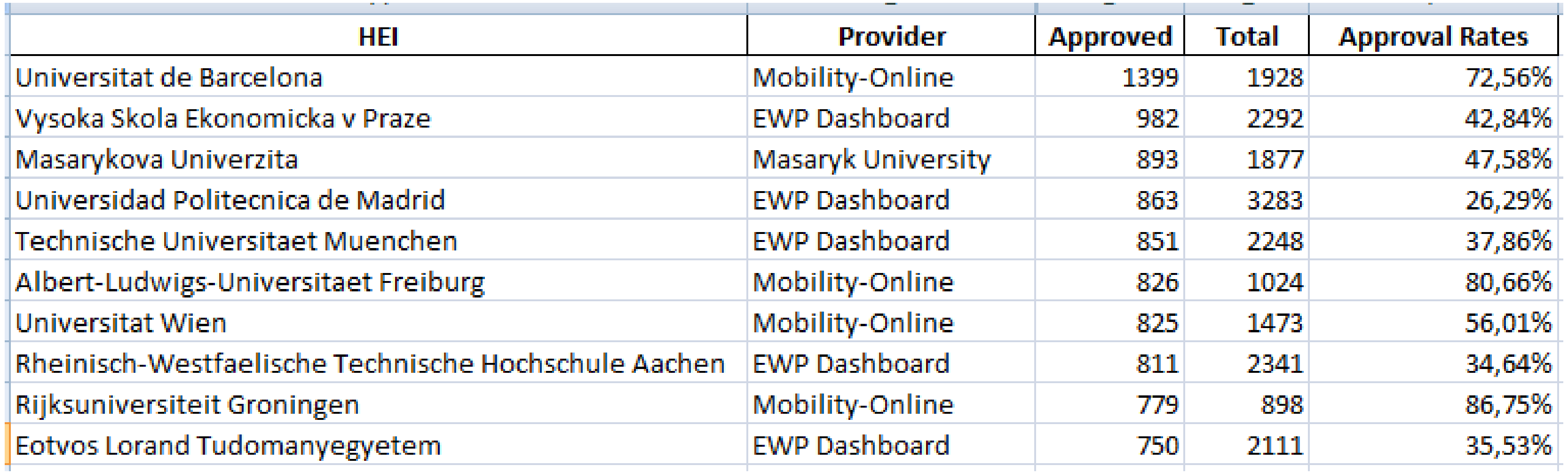
Top 10 HEIs with the highest number of approved IIAs/LAs

Top 10 HEIs with the highest number of **approved IIAs**



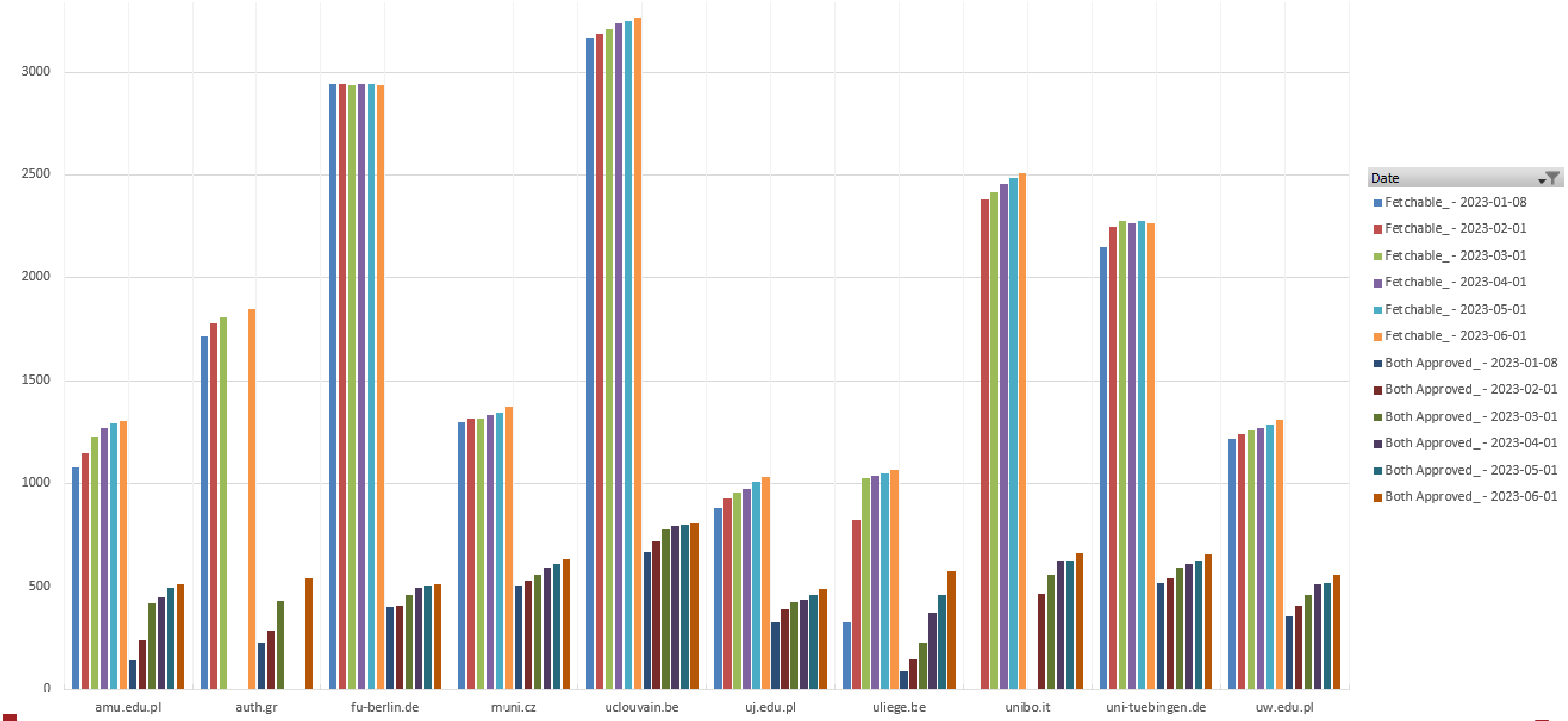
HEI	Provider	Approved	Total	Approval Rates
Universite Catholique de Louvain	Mobility-Online	809	3263	24,79%
University of Bologna	University of Bologna	661	2507	26,37%
Eberhard Karls Universitaet Tuebingen	Mobility-Online	657	2267	28,98%
Masarykova Univerzita	Masaryk University	631	1372	45,99%
Universite de Liege	University of Liège	576	1065	54,08%
Uniwersytet Warszawski	MUCI	557	1309	42,55%
Aristotelio Panepistimio Thessalonikis	Aristotelio Panepistimio Thessalonikis	540	1849	29,20%
Freie Universitaet Berlin	QS MoveON	514	2937	17,50%
Uniwersytet im. Adama Mickiewicza w Poznaniu	MUCI	513	1302	39,40%
Uniwersytet Jagielloński	MUCI	490	1035	47,34%

Top 10 HEIs with the highest number of **approved Outgoing LAs**

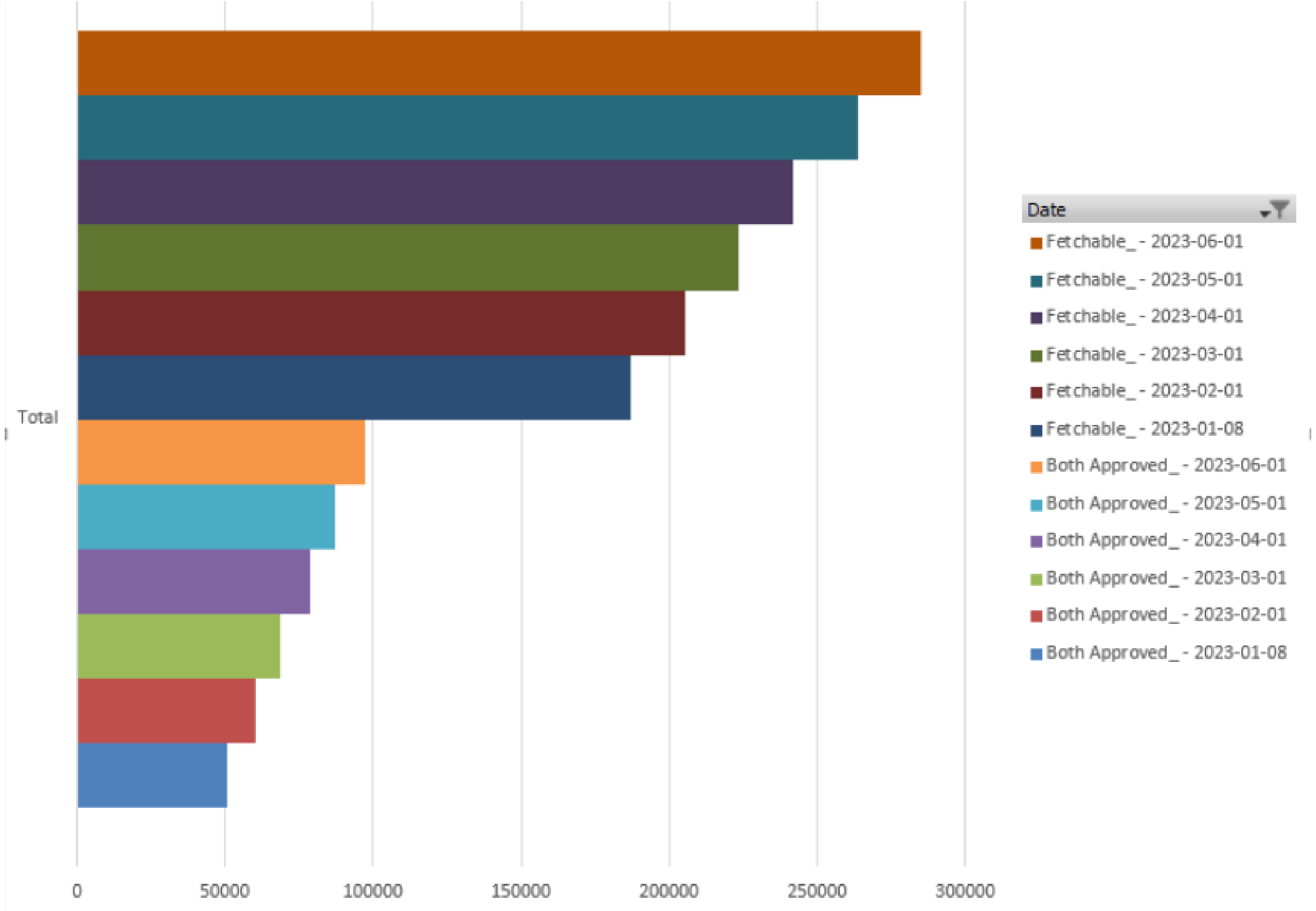


HEI	Provider	Approved	Total	Approval Rates
Universitat de Barcelona	Mobility-Online	1399	1928	72,56%
Vysoka Skola Ekonomicka v Praze	EWP Dashboard	982	2292	42,84%
Masarykova Univerzita	Masaryk University	893	1877	47,58%
Universidad Politecnica de Madrid	EWP Dashboard	863	3283	26,29%
Technische Universitaet Muenchen	EWP Dashboard	851	2248	37,86%
Albert-Ludwigs-Universitaet Freiburg	Mobility-Online	826	1024	80,66%
Universitat Wien	Mobility-Online	825	1473	56,01%
Rheinisch-Westfaelische Technische Hochschule Aachen	EWP Dashboard	811	2341	34,64%
Rijksuniversiteit Groningen	Mobility-Online	779	898	86,75%
Eotvos Lorand Tudomanyegyetem	EWP Dashboard	750	2111	35,53%

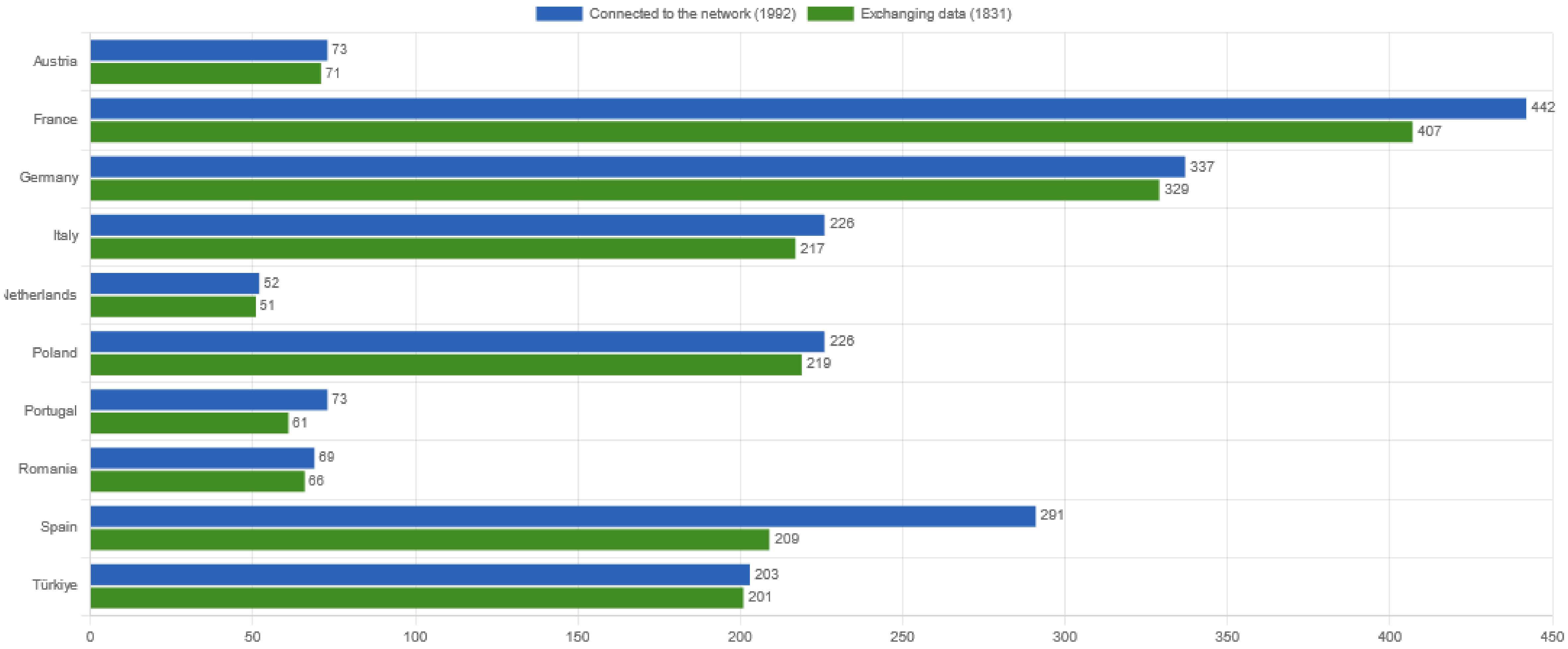
Numbers of IIAs in two categories for top ten HEIs between January-June 2023



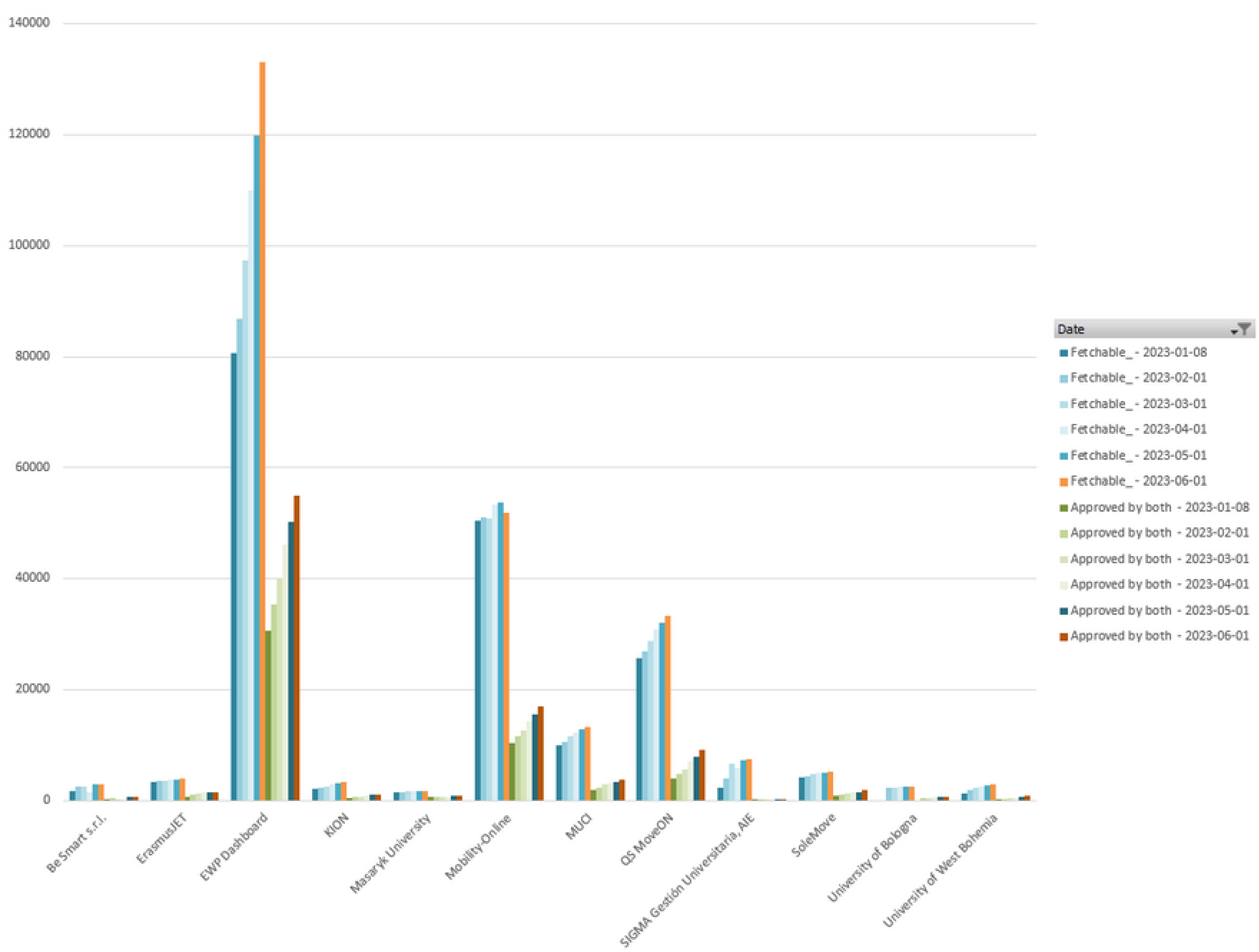
Total numbers of IIAs in two categories between January-June 2023



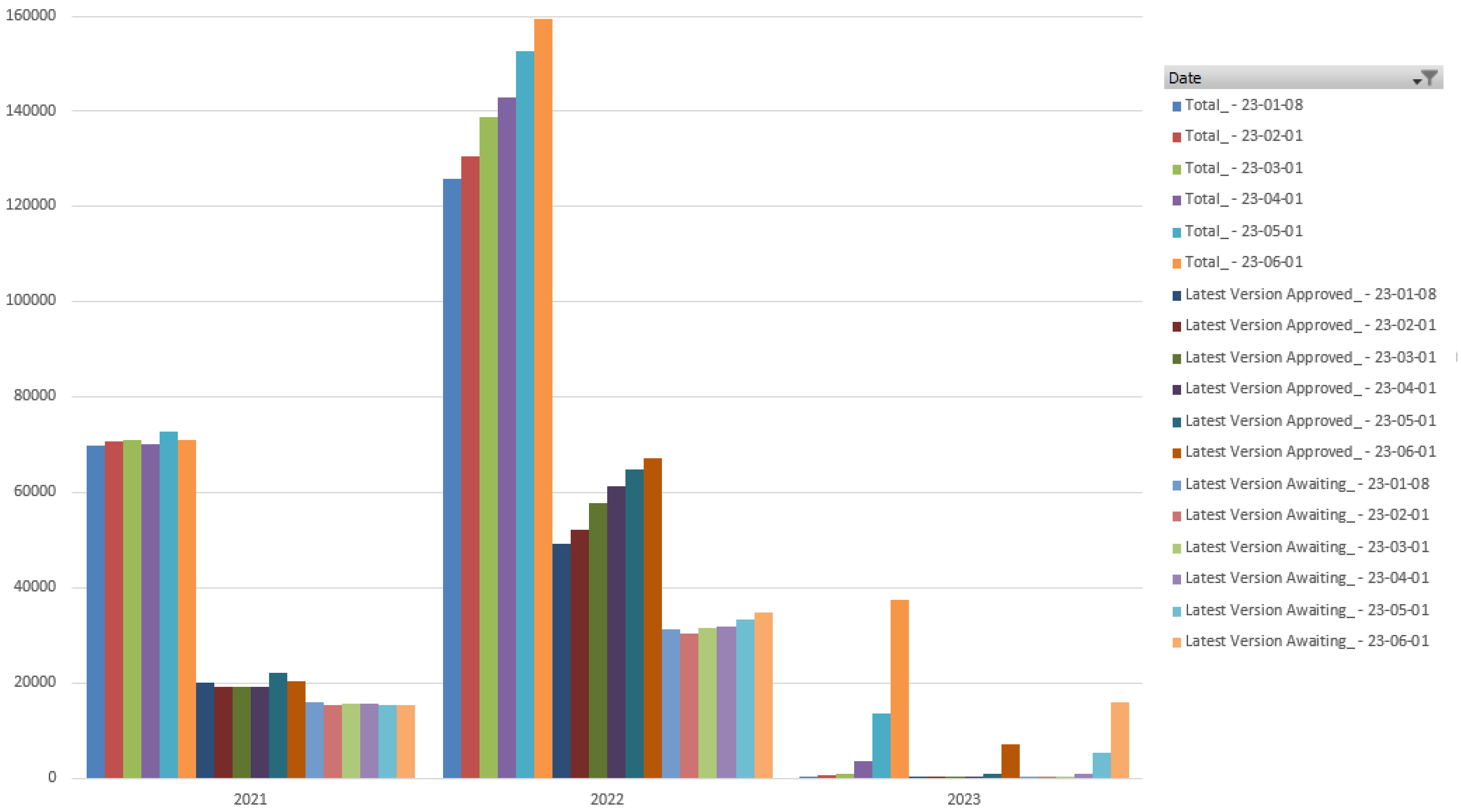
Top ten countries in the number of institutions connected to the network/exchanging data for IIAs in June 2023



Numbers of IIAs in two categories for the largest providers between January–June 2023



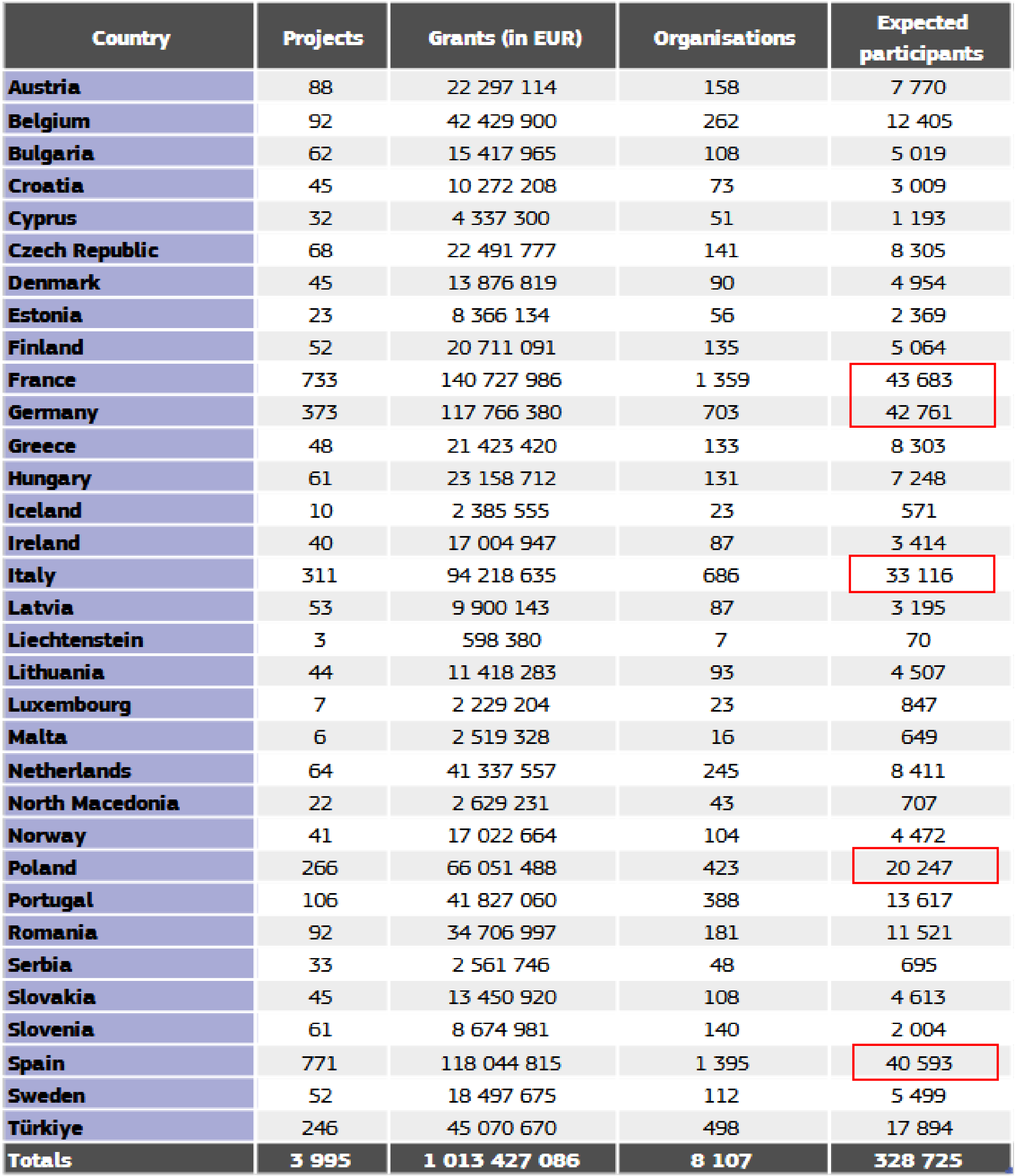
Numbers of Outgoing LAs in three categories grouped by academic year (2021, 2022, 2023) between January-June 2023



Erasmus+ Annual Report 2021 Annex

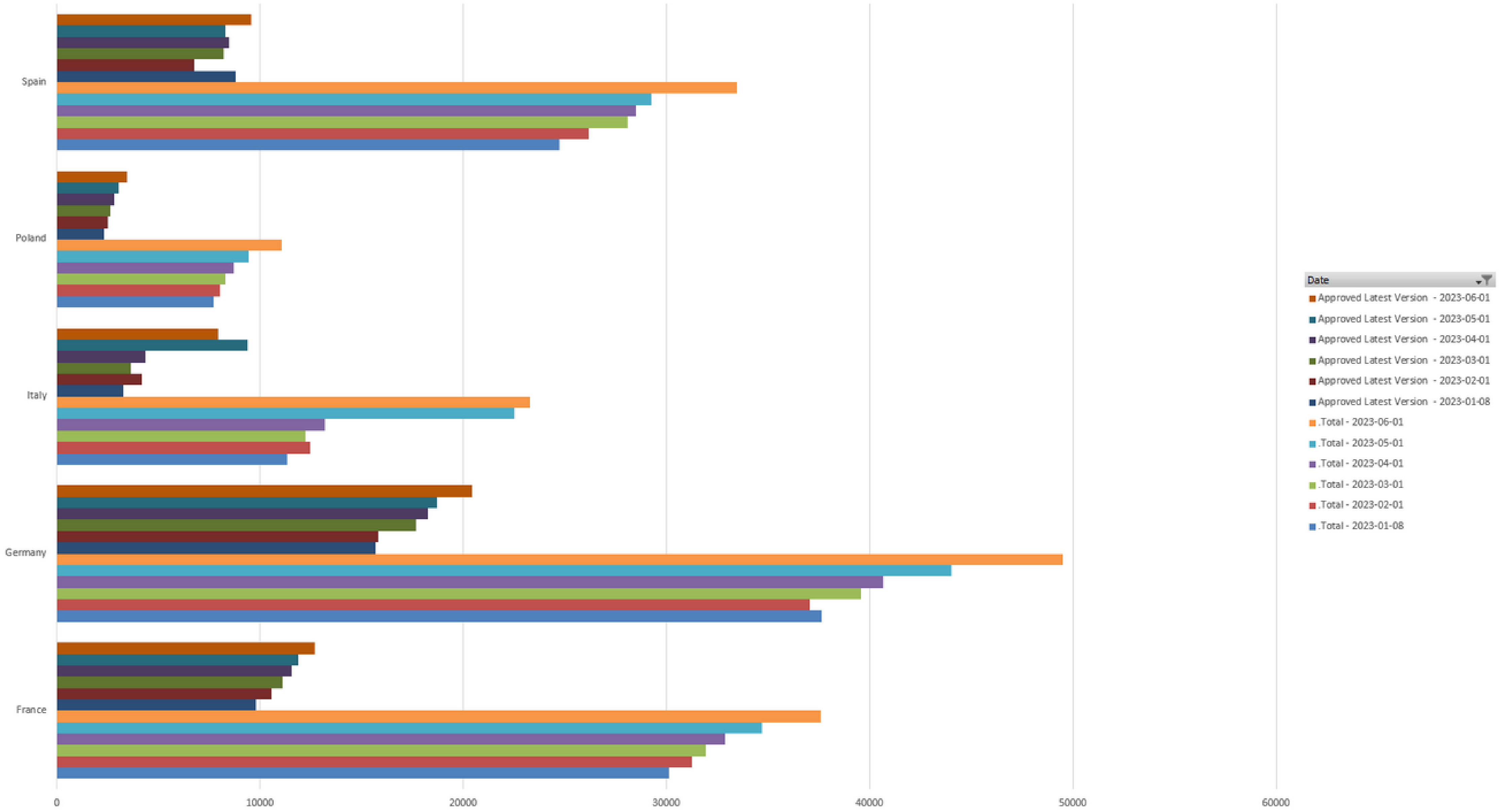
Higher education Projects contracted under calls 2021

https://op.europa.eu/en/publication-detail/-/publication/757368ca-7b6e-11ed-9887-01aa75ed71a1

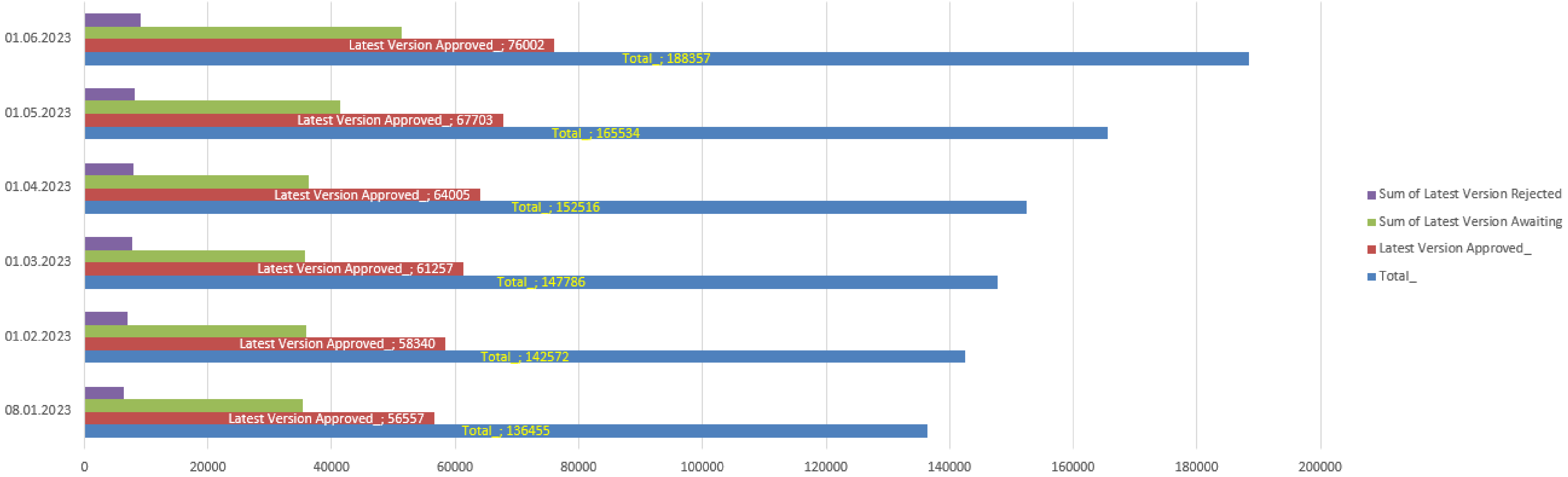


Country	Projects	Grants (in EUR)	Organisations	Expected participants
Austria	88	22 297 114	158	7 770
Belgium	92	42 429 900	262	12 405
Bulgaria	62	15 417 965	108	5 019
Croatia	45	10 272 208	73	3 009
Cyprus	32	4 337 300	51	1 193
Czech Republic	68	22 491 777	141	8 305
Denmark	45	13 876 819	90	4 954
Estonia	23	8 366 134	56	2 369
Finland	52	20 711 091	135	5 064
France	733	140 727 986	1 359	43 683
Germany	373	117 766 380	703	42 761
Greece	48	21 423 420	133	8 303
Hungary	61	23 158 712	131	7 248
Iceland	10	2 385 555	23	571
Ireland	40	17 004 947	87	3 414
Italy	311	94 218 635	686	33 116
Latvia	53	9 900 143	87	3 195
Liechtenstein	3	598 380	7	70
Lithuania	44	11 418 283	93	4 507
Luxembourg	7	2 229 204	23	847
Malta	6	2 519 328	16	649
Netherlands	64	41 337 557	245	8 411
North Macedonia	22	2 629 231	43	707
Norway	41	17 022 664	104	4 472
Poland	266	66 051 488	423	20 247
Portugal	106	41 827 060	388	13 617
Romania	92	34 706 997	181	11 521
Serbia	33	2 561 746	48	695
Slovakia	45	13 450 920	108	4 613
Slovenia	61	8 674 981	140	2 004
Spain	771	118 044 815	1 395	40 593
Sweden	52	18 497 675	112	5 499
Türkiye	246	45 070 670	498	17 894
Totals	**3 995**	**1 013 427 086**	**8 107**	**328 725**

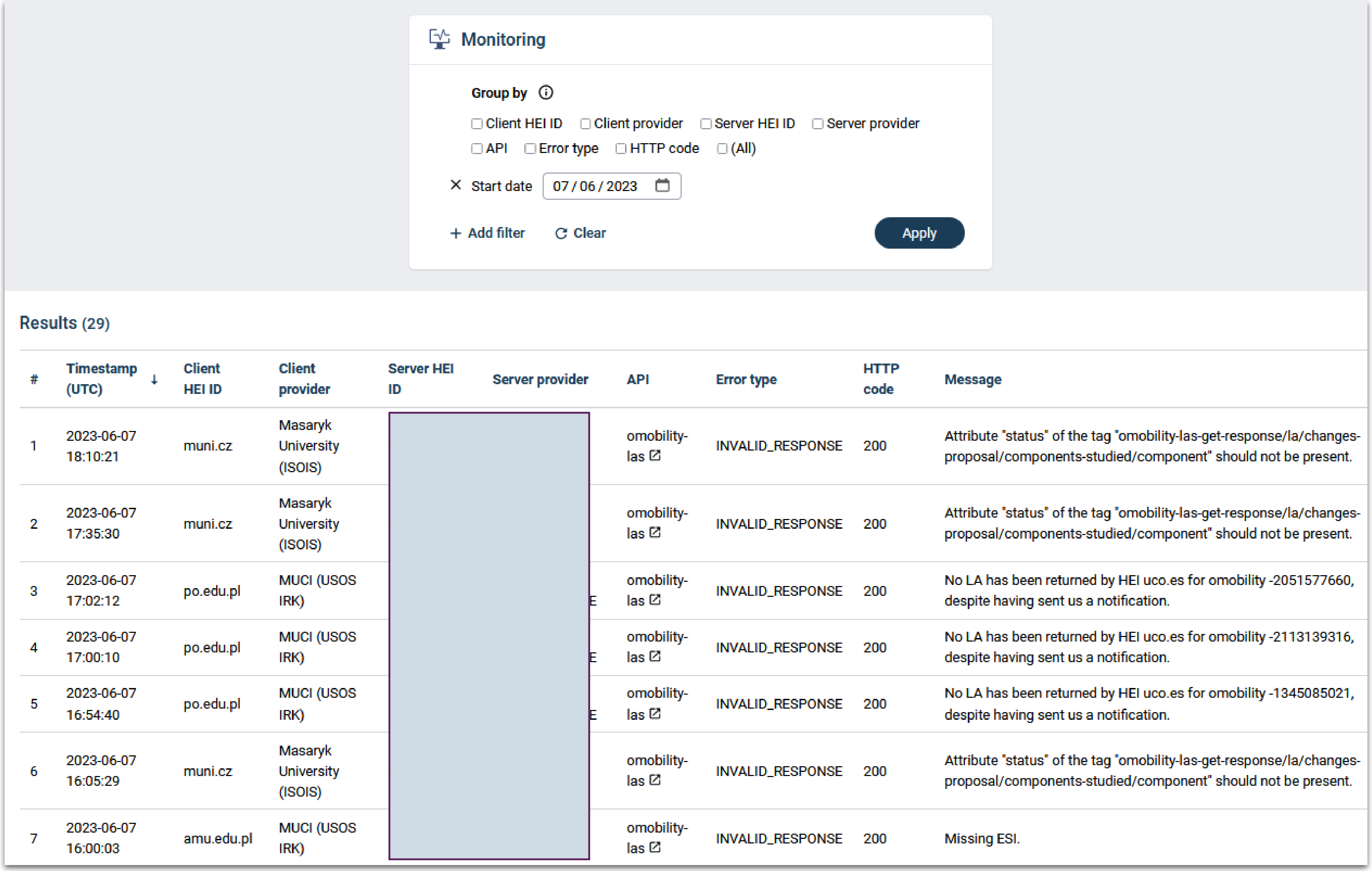
Numbers of Outgoing LAs in two categories for chosen countries between January-June 2023



Total numbers of Incoming LAs in four categories between January-June 2023



Monitoring system – https://stats.erasmuswithoutpaper.eu/monitoring



Monitoring

Group by

☐ Client HEI ID ☐ Client provider ☐ Server HEI ID ☐ Server provider
☐ API ☐ Error type ☐ HTTP code ☐ (All)

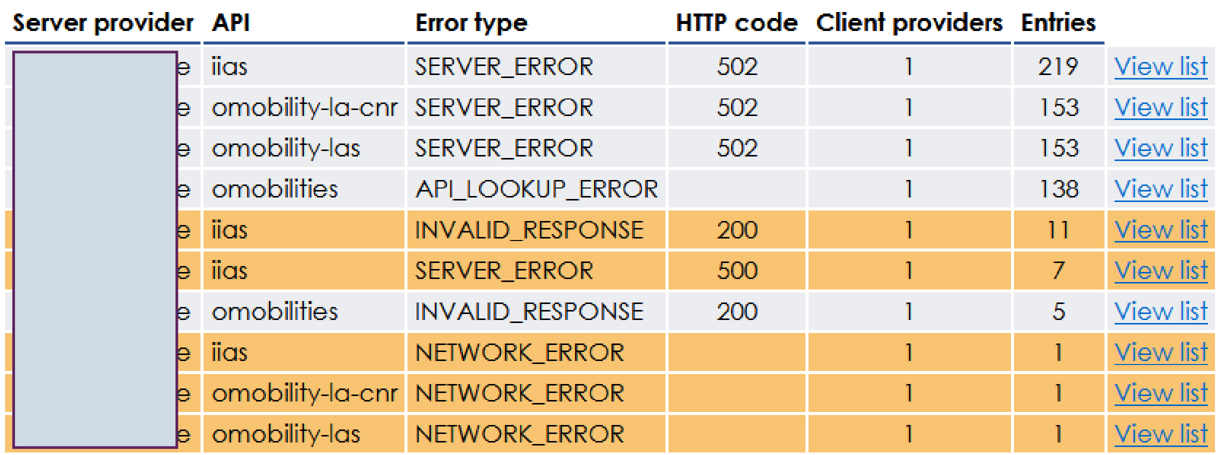
Start date: 07 / 06 / 2023

Results (29)

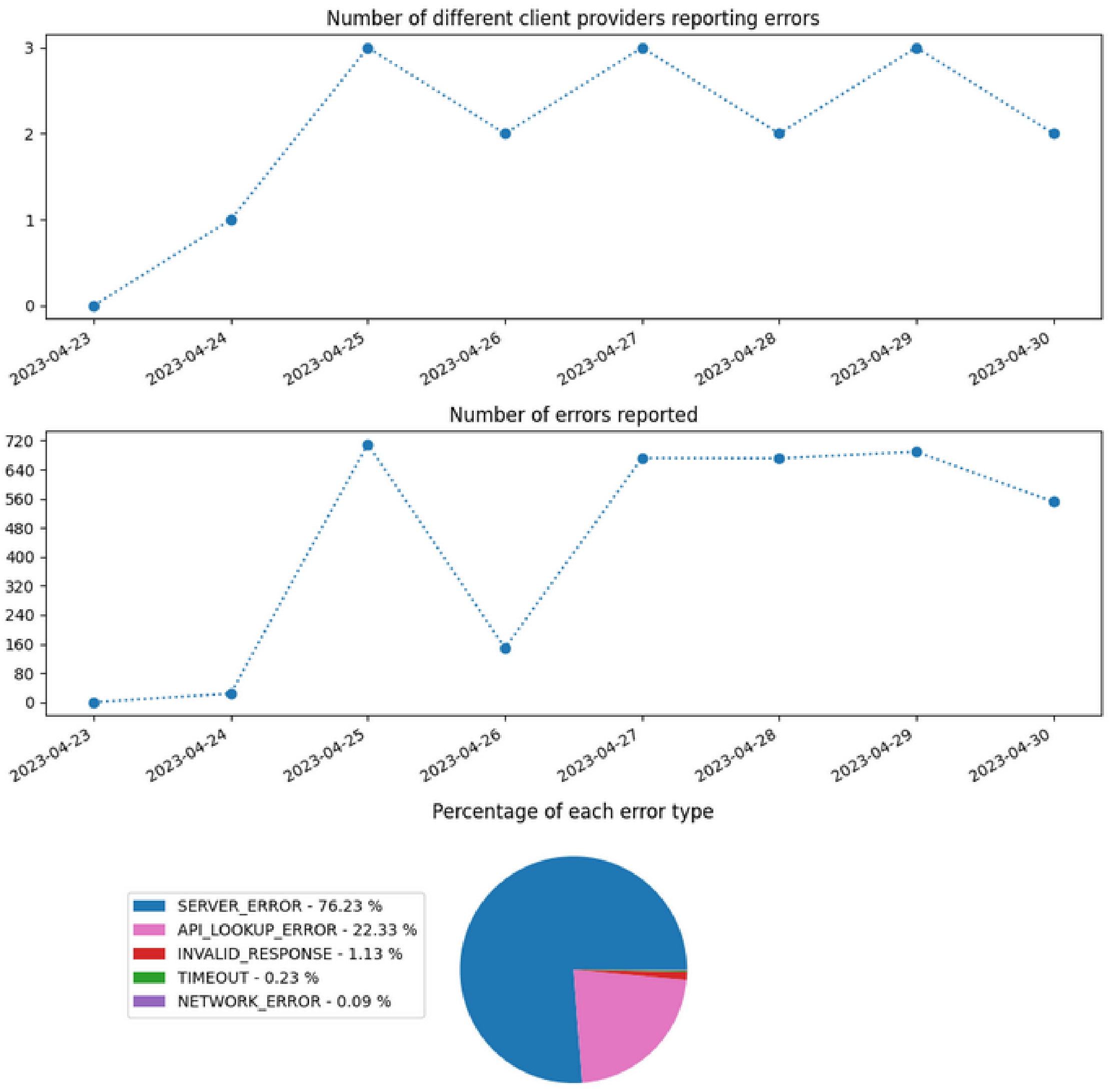
#	Timestamp (UTC)	Client HEI ID	Client provider	Server HEI ID	Server provider	API	Error type	HTTP code	Message
1	2023-06-07 18:10:21	muni.cz	Masaryk University (ISOIS)	[redacted]	[redacted]	omobility-las	INVALID_RESPONSE	200	Attribute "status" of the tag "omobility-las-get-response/la/changes-proposal/components-studied/component" should not be present.
2	2023-06-07 17:35:30	muni.cz	Masaryk University (ISOIS)	[redacted]	[redacted]	omobility-las	INVALID_RESPONSE	200	Attribute "status" of the tag "omobility-las-get-response/la/changes-proposal/components-studied/component" should not be present.
3	2023-06-07 17:02:12	po.edu.pl	MUCI (USOS IRK)	[redacted]	[redacted]	omobility-las	INVALID_RESPONSE	200	No LA has been returned by HEI uco.es for omobility -2051577660, despite having sent us a notification.
4	2023-06-07 17:00:10	po.edu.pl	MUCI (USOS IRK)	[redacted]	[redacted]	omobility-las	INVALID_RESPONSE	200	No LA has been returned by HEI uco.es for omobility -2113139316, despite having sent us a notification.
5	2023-06-07 16:54:40	po.edu.pl	MUCI (USOS IRK)	[redacted]	[redacted]	omobility-las	INVALID_RESPONSE	200	No LA has been returned by HEI uco.es for omobility -1345085021, despite having sent us a notification.
6	2023-06-07 16:05:29	muni.cz	Masaryk University (ISOIS)	[redacted]	[redacted]	omobility-las	INVALID_RESPONSE	200	Attribute "status" of the tag "omobility-las-get-response/la/changes-proposal/components-studied/component" should not be present.
7	2023-06-07 16:00:03	amu.edu.pl	MUCI (USOS IRK)	[redacted]	[redacted]	omobility-las	INVALID_RESPONSE	200	Missing ESI.

Monitoring system – sending alerts by emails

Dear EWP Admin,
This is a periodic report about issues encountered by the EWP Network clients when making requests to servers managed by you. Errors can arise for a variety of reasons: bugs in implementation, incorrect data, unreachable servers etc. More information is available in the [Monitoring API specification](). These are the issues that have been collected since the previous report on ***23 April 2023, 06:00 (UTC)****. Errors that appeared for the first time in the last 14 days are highlighted in orange. Empty value in the "Server provider" column means that the provider could not be matched exactly and the issue may not necessarily concern you.*



Server provider	API	Error type	HTTP code	Client providers	Entries	
[redacted]	iias	SERVER_ERROR	502	1	219	View list
[redacted]	omobility-la-cnr	SERVER_ERROR	502	1	153	View list
[redacted]	omobility-las	SERVER_ERROR	502	1	153	View list
[redacted]	omobilities	API_LOOKUP_ERROR		1	138	View list
[redacted]	iias	INVALID_RESPONSE	200	1	11	View list
[redacted]	iias	SERVER_ERROR	500	1	7	View list
[redacted]	omobilities	INVALID_RESPONSE	200	1	5	View list
[redacted]	iias	NETWORK_ERROR		1	1	View list
[redacted]	omobility-la-cnr	NETWORK_ERROR		1	1	View list
[redacted]	omobility-las	NETWORK_ERROR		1	1	View list



https://stats.erasmuswithoutpaper.eu/monitoring

Conclusions

- Erasmus Without Paper is a crucial cornerstone of the European Student Card Initiative and the Erasmus programme.
- The whole EWP ecosystem is constantly evaluated to pave the way for a stable network operation.
- The challenge of interoperability hindered by implementation in a trust-based network enforced the transition to a rules-based network.
- The Stats portal (actively) collects statistics from the nodes, while the Monitoring system (passively) gathers error reports. Both tools increase the transparency of the state of readiness of EWP Network users to exchange data.
- The growing numbers shown by the tools are a measurable indicator of the success of the EWP network, which translates into the growing satisfaction of its users
- Support from Europen Commission and DG EAC under ESCI/EWP+ is crucial for the success of digitalisation of the Erasmus+ programme (on a policy and financial level).
- The main goal behind this digitalisation initiative is to smoothly connect people.

Acknowledgments

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MUCI programmers designed and developed the Stats Portal and the Monitoring system

The sole responsibility of this publication lies with the project consortium. The European Union is not responsible for any use that may be made of the information contained therein.

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