European Student Identifier and MyAcademicID
Christos Kanellopoulos (GEANT)
The exchange of student records and the authentication of students are separate, thus the need for an identifier that will follow the student.

The ESI is a protocol neutral identifier.

ESI specifications developed with Erasmus+ and eduGAIN.

Process agreed to determine which services can use it.

https://wiki.geant.org/display/SM/European+Student+Identifier
https://wiki.geant.org/display/SM/European+Student+Identifier+Entity+Category
The student does not need to know the ESI.

1. ESI via the student authentication mechanism – SSO *(Front-channel)*.
2. ESI transported via the EWP APIs *(Back-channel)*.

[ Asterisk ] Requirements for service providers to get the ESI via the academic federations: [https://wiki.geant.org/x/QwKCFQ](https://wiki.geant.org/x/QwKCFQ)
European Student Identifier – ESI – What it is NOT

✖ A general purpose identifier to be used in any interactions of the student with electronic services. Only eligible services will be receiving the ESI

✖ An identifier for a service to determine the HEI a student is studying at

✖ A lifelong identifier that will follow the student across their studies in their lifetime
ESI Use Cases

• Student Mobility Services directly enabling mobility, for example, the Erasmus+ programme.

• Services that transfer student records or transcripts of records between educational institutions and which need to identify the students to which the records belong to.

• University Alliances where students’ records are shared across (some of) the universities of the Alliance.

• Formal learning and teaching activities and/or the administrative activities related to those within an institution, for example, Learning Management Systems and remote e-assessment tools.
The ESI is generated by the HEI. There are 2 main ‘ingredients’ needed

Something to **identify the HEI**.
For this we use:
schachHomeOrganization value (sHO)

Something to **identify the student**.
For this we use:
the student number (code)

Ex: `urn:schac:personalUniqueCode:int:esi:hei.edu:23490G`
The ESI is generated by the HEI. There are 2 main ‘ingredients’ needed

Something to **identify the HEI**. For this we use:

- The ISO country code

Something to **identify the student**. For this we use:

- the student number (code)

Ex: [urn:schac:personalUniqueCode:int:esi:<country>:<code>]

This is the case in which the student number is managed by the HEI

Ex: [urn:schac:personalUniqueCode:int:esi:HR:23490G]
### Student Basic Attributes

1. **General purpose identifier**
2. **First Name**
3. **Last Name**
4. **Full Name**
5. **Email address**
6. **Affiliation**
7. **Organisation**
8. **European Student Identifier**

#### Attribute Requirements

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>AnyOf</td>
<td>The services requires to uniquely identify users throughout the student mobility process. Without some kind of unique identifier, it is not possible to distinguish between two different users.</td>
</tr>
</tbody>
</table>
|                         | **Examples:**
|                         | - `Persistent NameId`
|                         | - `eduPersonPrincipalName`[^1]
|                         | - `eduPersonTargetedID`
|                         | - `eduPersonUniqueID`
|                         | - `eduPersonOrcid`
|                         | - `subject-id`
|                         | - `pairwise-id`                                                                                                                                 |
| eduPersonAssurance      | The `eduPersonAssurance` attribute is required in the case an IdP releases only `eduPersonPrincipalName` as an identifier and the IdP does not support the Research and Scholarship entity category. In this case, if `eduPersonAssurance` has a value of [https://refeds.org/assurance/idpnp=unique-no-reassign](https://refeds.org/assurance/idpnp=unique-no-reassign), in order to be able to use `eduPersonPrincipalName` as an identifier. |
| AnyOf                   | The Erasmus process needs to know the name of the person participating in the student mobility process.                                    |
|                         | **Examples:**
|                         | - `cn`
|                         | - `displayName`
|                         | - `sn + givenName`                                                                                                                          |
| mail                    | The service needs to be able to contact the user regarding the status of student mobility process.                                          |
| schacPersonalUniqueCode | The student mobility processes require the use of a number of services, all of which are involved in different stages of the pipeline and which will need to be exchange data about the students who are in mobility. The European Student Identifier (ESI) is globally unique, persistent, non-targeted, protocol neutral and data transport neutral. In SAML, the ESI is transported in the `schacPersonalUniqueCode` attribute (as defined in the SAML Schema for Academia). Currently support for the ESI is being rolled out in Higher Education Institutions around Europe. If your HEI already supports the ESI, you can release it to the ERASMUS SP Proxy using this attribute. **Relevant only for students** |
| schacHomeOrganization   | The student mobility processes need to identify the Home Institution from which the user is coming from.                                    |
| eduPersonScopedAffiliation | The student mobility processes rely on authorising access to users based on the affiliation of their members in their home organisation. |
| eduPersonEntitlement    | The service relies on this attribute to authorise users as EWP Administrators. The expected value for the EWP Admin role is:  |
|                         | `urn:geant:erasmuswithoutpaper.eu:ewp:admin`                                                                                             |
|                         | For more information read EWP Admin Role                                                                                               |

[^1]: The `eduPersonPrincipalName` can be used only if one of the following conditions are met: i) the IdP supports the R&S Entity Category, ii) the `eduPersonAssurance` attribute is also released and it has a value of [https://refeds.org/assurance/idpnp=unique-no-reassign](https://refeds.org/assurance/idpnp=unique-no-reassign), iii) the federation in which the IdP has registered has a policy that prohibits the reassignment of the value of the `eduPersonPrincipalName` attribute.

[https://wiki.geant.org/x/DQDgCQ](https://wiki.geant.org/x/DQDgCQ)
Overview

All Identity Providers are invited to use the European Student Identifier Entity Category to manage the release of the European Student Identifier (ESI) attribute value to Service Providers meeting the requirements described below.

This definition is written in compliance with the Entity Category SAMI, Entity Metadata Attribute Types specification [EntityCatTypes]; this specification may be extended to reference other protocol-specific formulations as circumstances warrant.

1. Definition

The purpose of the European Student Identifier entity category is to support Higher Education Institutions (HEI) in identifying students as part of formal learning and teaching activities and/or the administrative activities related to those. These activities require data exchanges to take place, primarily, within or between institutions. The ESI plays a significant role in reliably identifying the students throughout these data exchanges.

This entity category may be used together with other entity categories to transfer additional attributes.

2. Registration Criteria

This Entity Category is addressed to any Service Provider Organisation established in any of the Member States of the European Union and in any other countries belonging to the European Economic Area (Iceland, Liechtenstein and Norway).

Furthermore, Service Provider Organisations established in any third country or international organisation offering an adequate level of data protection in the terms of Article 45 of the GDPR can also subscribe to this Entity Category.

The current list of Identity Federations that can issue this Entity Category to Service Providers is maintained by GEANT [ESI-EC-ID-Feds].

Services eligible for the ESI Entity Category:

- Student Mobility Services directly enabling mobility, for example, the Erasmus+ programme.
- Services that transfer student records or transcripts of records between educational institutions and which need to identify the students to which the records belong to.
- University Alliances scenario where students' records are shared across (some of) the universities of the Alliance.
- Formal learning and teaching activities and/or the administrative activities related to those within an institution, for example, Learning Management Systems and remote e-assessment tools.

Contact

In order to update the list of federations which are using the ESI entity category send email at support@myacade

<table>
<thead>
<tr>
<th>Country</th>
<th>Federation</th>
<th>Support for Identity Providers</th>
<th>Support for Service Providers</th>
<th>Information URL</th>
</tr>
</thead>
<tbody>
<tr>
<td>AT</td>
<td>ACOnet IDENTITY Federation</td>
<td>YES</td>
<td>YES</td>
<td><a href="http://wiki.geant.org/x/RwKCFQ">http://wiki.geant.org/x/RwKCFQ</a></td>
</tr>
<tr>
<td>DK</td>
<td>WAYF</td>
<td>YES</td>
<td>YES</td>
<td><a href="http://wiki.geant.org/x/QwKCFQ">http://wiki.geant.org/x/QwKCFQ</a></td>
</tr>
<tr>
<td>FR</td>
<td>RENATER</td>
<td>YES</td>
<td>YES</td>
<td><a href="http://wiki.geant.org/x/RwKCFQ">http://wiki.geant.org/x/RwKCFQ</a></td>
</tr>
<tr>
<td>IT</td>
<td>IDEM</td>
<td>YES</td>
<td>YES</td>
<td><a href="http://wiki.geant.org/x/RwKCFQ">http://wiki.geant.org/x/RwKCFQ</a></td>
</tr>
<tr>
<td>PT</td>
<td>RCTSai</td>
<td>YES</td>
<td>YES</td>
<td><a href="http://wiki.geant.org/x/RwKCFQ">http://wiki.geant.org/x/RwKCFQ</a></td>
</tr>
<tr>
<td>SE</td>
<td>SWAMID</td>
<td>YES</td>
<td>YES</td>
<td><a href="http://wiki.geant.org/x/RwKCFQ">http://wiki.geant.org/x/RwKCFQ</a></td>
</tr>
<tr>
<td>SK</td>
<td>safeID</td>
<td>YES</td>
<td>YES</td>
<td><a href="http://wiki.geant.org/x/RwKCFQ">http://wiki.geant.org/x/RwKCFQ</a></td>
</tr>
</tbody>
</table>

Back to top
ESI Status across Europe

Countries

% of Total HEIs

AT  64.91%  3787
BE  54.84%  3482
BG  47.78%  4300
CH  47.29%  122238
CY  47.37%  2157
CZ  45.31%  2964
DE  40.74%  3361
DK  41.75%  129309
EE  37.04%  1027
FI  37.29%  905
FR  25.00%  954
GR  19.35%  631
HR  19.35%  113
HU  13.75%  113
IE  13.75%  113
IT  37.29%  1027
LV  37.29%  1027
LT  37.29%  1027
LU  37.29%  1027
MA  37.29%  1027
MK  37.29%  1027
MT  37.29%  1027
NL  37.29%  1027
NO  37.29%  1027
PL  37.29%  1027
PT  37.29%  1027
RO  37.29%  1027
RS  37.29%  1027
SK  37.29%  1027
TR  37.29%  1027
UK  37.29%  1027

Total HEIs 233,233

Generated on 2023-10-01
HEIs Releasing ESI vs Total Number of HEIs Seen

- HEIs Releasing the ESI
- Total No of HEIs Seen

Last 6 months
Active Users per Authentication Source

<table>
<thead>
<tr>
<th>Month</th>
<th>Google</th>
<th>eIDAS</th>
<th>eduGAIN</th>
</tr>
</thead>
<tbody>
<tr>
<td>2023-07</td>
<td>10316</td>
<td>111</td>
<td></td>
</tr>
<tr>
<td>2023-08</td>
<td>7092</td>
<td>103</td>
<td></td>
</tr>
<tr>
<td>2023-09</td>
<td>9068</td>
<td>124</td>
<td></td>
</tr>
</tbody>
</table>

Authentication Source
- Google
- eIDAS
- eduGAIN
National IdPs of Last Resort

FR, HU, IT, PL, ES

MyAcademicID of Last Resort

AT, BE, BG, CY, CZ, DE, DK, EE, GR, HU, LT, LU, LV, MT, NL, NO, PT, RS, SE, SI, TR
MyAcademicID IdP of Last Resort Status
MyAcademicID ESI and University Alliances

Alliance Identity & Access Management

Non Federated HEIs