

# The Mobility Project

Review of the current status

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RS<sup>3</sup>G workshop, Bologna, March 18th 2010

- State of the project before Uppsala
- Workshop in Uppsala
- Wiki, teleconferences
- Three installations of Mobility web nodes
- New installation package
- How to make a next step?

# List of nominated students

USOS - [Wyjazdy]

Akcja Edycja Zapytanie Blok Rekord Pole Okno Pomoc

Program <wszystkie> Etap <wszystkie> Cykl dydaktyczny <wszystkie> Miejsce <wszystkie> Filtruj po etapach

Nazwisko Imię PESEL Jednostka osoby Email Obywatelstwo

Filtr  
Osoba  
Szukaj po indeksie  
Szukaj...  
Dokumenty  
Szukaj duplikatów

**Wyjazdy**

(\*) Jednostka Nazwa

Numer umowy

Dziedzina

(\*) Rok akad. wyj. Plan

Pobyt od Pobyt do

Liczba miesięcy ze styp. bez styp.

Grupa stypendiów

Uwagi Fina

**Projekt MOBILITY**

Kanwa testowa projektu MOBILITY.  
Proszę nie używać w trakcie pracy na bazie produkcyjnej.

Data przyjazdu osoby wyjeżdżającej do uczelni przyjmującej:

Wysyłanie listy nominowanych studentów:

Kod ERASMUS uczelni partnerskiej	Umowa	Rok akademicki wyjazdu
<input type="text" value="PARMA01"/>	<input type="text" value="1207/E/XI08"/>	<input type="text" value="2009"/>

partner\_send\_nominated\_stud

Ostatni komunikat o błędzie

Wszystkie dane pobrane z systemu są wpisywane do formularza, jednak nie są zapisywane do bazy danych.

**Raporty**

Raporty lokalne  
Raport ERASMUS

Generuj nr teczki  
Usuń nr teczki  
Programy osoby

Wyślij wiadomość

# List of incoming students

USOS - [Przyjazdy]

Akcja Edycja Zapytanie Blok Rekord Pole Okno Pomoc

Program <wszystkie> Etap <wszystkie> Cykl dydaktyczny <wszystkie> Miejsce <wszystkie> Filtruj po etapach

Osoby

Projekt MOBILITY

Kod dyscypliny	Poziom studiów	Rok. akad. przyjazdu	Okres przyjazdu	Jednostka przyjmująca	Czas utworzenia wpisu
<b>08.4</b>	<b>2</b>	<b>2008</b>	<b>S1</b>	<b>Facolta di Lingue e Letterature straniere</b>	<b>19.06.2009 12.38.33</b>
10.0	4	2008	S2	Facolta di Giurisprudenza, Istituto di Diritto e	19.06.2009 12.38.33
10.0	2	2008	S1	Facolta di Lingue e Letterature straniere	20.06.2009 17.42.52
10.0	4	2008	S2	Facolta di Giurisprudenza, Istituto di Diritto e	20.06.2009 17.42.52

Jednostka wysyłająca  
Instytut Archeologii

Nazwisko i imię koordynatora jednostki przyjmującej  
Prof. Modrzewska-Pianetti Iwona

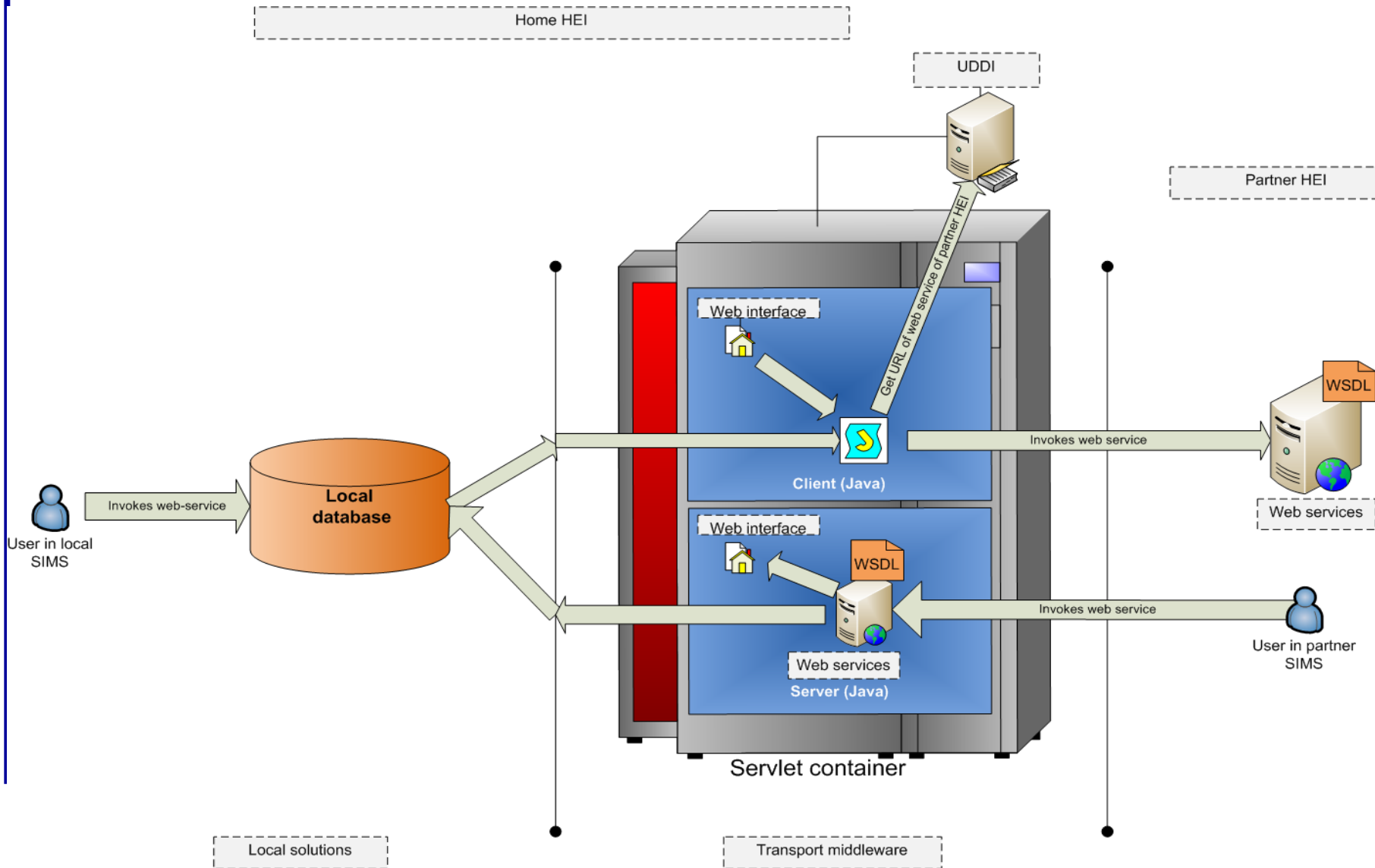
Nazwisko	Imię	Data urodzenia	Kraj urodzenia	Płeć	Czas utworzenia wpisu
<b>Kurzydowski</b>	<b>Michał</b>	<b>1985-10-26</b>	<b>PL</b>	<b>M</b>	<b>19.06.2009 12.38.33</b>
Kowalski	Fabio	1985-01-14	PL	M	19.06.2009 12.38.33

Miasto urodzenia: Warszawa Email: michal.kurzydowski@students.mimuw.edu.pl

Zamknij

MOBILITY w. 1  
MOBILITY w. 2

# Architecture of the prototype (ver. 2)



# UDDI – Universal Description, Discovery and Integration (registry of Mobility nodes)

## Mobility Client

- Information
  - Introduction
- Web Service Methods
  - OrganizationData
    - sendOrganizationData
    - getOrganizationData
  - AgreementData
    - sendAgreementData
    - getAgreementData
  - NominatedStudents
    - sendNominatedStudents
    - getNominatedStudents
  - ArrivalDate
    - sendArrivalDate
    - getArrivalDate
  - DepartureDate
    - sendDepartureDate
    - getDepartureDate
  - CourseData
    - getCourseData
  - LearningAgreement
    - sendLearningAgreement
    - getLearningAgreement
  - TranscriptOfRecords
    - sendTranscriptOfRecords
    - getTranscriptOfRecords
  - Other
    - validateNationalPersonalId
- UDDI Registry
  - Edit
- Help
  - WSDL

### UDDI Registry

	Id	IName	WSDL URL
⊙	unipr.it	it:Universita degli Studi di Parma	http://usosphp:7878/mobility-server-transport/webservices/mobility-service?wsdl
⊙	uw.edu.pl	pl:Uniwersytet Warszawski	http://usosphp:7979/mobility-server-transport/webservices/mobility-service?wsdl

### Details

**Id \***  246 left / 255

**Name \***

**Language**

**Localized Name**

**WSDL URL \***

**Contact Person Name**

**Phone Number**

**Service Name**

**Service Description**

\* - required



# Web client (client= WARSAW, server= PARMA)

http://usosphp.mimuw.edu.pl:7979/mobility-client-web/index.jsp

Mobility Client

**Information**

- Introduction

**Web Service Methods**

- OrganizationData
  - sendOrganizationData
  - getOrganizationData
- AgreementData
  - sendAgreementData
  - getAgreementData
- NominatedStudents
  - sendNominatedStudents**
  - getNominatedStudents
- ArrivalDate
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  - getCourseData
- LearningAgreement
  - sendLearningAgreement
  - getLearningAgreement
- TranscriptOfRecords
  - sendTranscriptOfRecords
  - getTranscriptOfRecords
- Other
  - validateNationalPersonalId

**UDDI Registry**

- Edit

**Help**

- WSDL

**Client**

Id:

Name: pl:Uniwersytet Warszawski

WSDL URL: http://usosphp:7979/mobility-server-transport/webservices/mobility-service?wsdl

**Server**

Id:

Name: it:Universita degli Studi di Parma

WSDL URL: http://usosphp:7878/mobility-server-transport/webservices/mobility-service?wsdl

**Request**

Resource: xml/client=uw.edu.pl

Path: /server=unipr.it

Sample Data File:   Upload a file

```
1 <?xml version="1.0" encoding="UTF-8"?><tns:sendNominatedStudentsRequest
2 xmlns:tns="http://mobility.usos.edu.pl" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
3 xsi:schemaLocation="http://mobility.usos.edu.pl MobilitySchema.xsd">
4   <tns:agreementId>
5     <tns:homeId>
6       <tns:organizationId>uw.edu.pl</tns:organizationId>
7       <tns:value>982/E/II08</tns:value>
8     </tns:homeId>
9     <tns:partnerId>
10      <tns:organizationId>unipr.it</tns:organizationId>
11      <tns:value>1207/E/XI08</tns:value>
12    </tns:partnerId>
13  </tns:agreementId>
14  <tns:academicYear>2008</tns:academicYear>
15  <tns:nominatedStudentsWithPersonalData>
16    <tns:uniquePersonalData>
17      <tns:student>
18        <tns:nationalPersonalId>PL:85 </tns:nationalPersonalId>
19        <tns:givenName1>Michał</tns:givenName1>
20        <tns:givenName2>Marek</tns:givenName2>
21        <tns:surname1>Kurzydłowski</tns:surname1>
22        <tns:gender>1</tns:gender>
23      </tns:student>
24    </tns:uniquePersonalData>
25  </tns:nominatedStudentsWithPersonalData>
26</tns:sendNominatedStudentsRequest>
```

Data successfully sent.

Type	Line	Column	Report
------	------	--------	--------

**Response**

```
1 <?xml version="1.0" encoding="UTF-8"?><tns:sendArrivalDateResponse xmlns:tns="http://mobility.usos.edu.pl"
2 xsi:schemaLocation="http://mobility.usos.edu.pl MobilitySchema.xsd" xmlns:soap="http://schemas.xmlsoap.org
3 /soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"/>
```

# Web server (server=PARMA)

http://usosphp.mimuw.edu.pl:7878/mobility-server-web/

## Mobility Server

⏪ ⏩ 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

Items/Page:  Count: 51 | [Id unipr.it](#)

2009-11-13 14:28	getOrganizationDataRequest
2009-11-13 14:29	getOrganizationDataRequest
2009-11-13 14:31	getOrganizationDataRequest
2009-11-13 14:32	getOrganizationDataRequest
2009-11-13 17:04	sendAgreementDataRequest
2009-11-14 21:05	sendNominatedStudentsRequest

```

<tns:sendNominatedStudentsRequest xmlns:tns="http://mobility.usos.edu.pl" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://mobility.usos.edu.pl/MobilitySchema.xsd">
  <tns:agreementId>
    <tns:homeId>
      <tns:organizationId>uw.edu.pl</tns:organizationId>
      <tns:value>982/E/II08</tns:value>
    </tns:homeId>
    <tns:partnerId>
      <tns:organizationId>unipr.it</tns:organizationId>
      <tns:value>1207/E/XI08</tns:value>
    </tns:partnerId>
  </tns:agreementId>
  <tns:academicYear>2008</tns:academicYear>
  <tns:nominatedStudentsWithPersonalData>
    <tns:uniquePersonalData>
      <tns:student>
        <tns:nationalPersonalId>PL:85      </tns:nationalPersonalId>
      </tns:student>
    </tns:uniquePersonalData>
  </tns:nominatedStudentsWithPersonalData>
</tns:sendNominatedStudentsRequest>
        
```





# Web client (client= PARMA, server= WARSAW)

http://usosphp.mimuw.edu.pl:7979/mobility-client-web/index.jsp

**Mobility Client**

**Information**

- Introduction
- Web Service Methods**
- OrganizationData
  - sendOrganizationData**
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  - sendDepartureDate
  - getDepartureDate
- CourseData
  - getCourseData
- LearningAgreement
  - sendLearningAgreement
  - getLearningAgreement
- TranscriptOfRecords
  - sendTranscriptOfRecords
  - getTranscriptOfRecords
- Other
  - validateNationalPersonnelId
- UDDI Registry**
- Edit
- Help**
- WSDL

**Client**

Id:

Name: it:Universita degli Studi di Parma

WSDL URL: http://usosphp.7878/mobility-server-transport/webservices/mobility-service?wsdl

**Server**

Id:

Name: pl:Uniwersytet Warszawski

WSDL URL: http://usosphp.7979/mobility-server-transport/webservices/mobility-service?wsdl

**Request**

Resource: xml/client=unipr.it

Path: /server=uw.edu.pl

Sample Data File:

```

1 <?xml version="1.0" encoding="UTF-8"?><tns:sendOrganizationDataRequest
2 xmlns:tns="http://mobility.usos.edu.pl" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
3 xsi:schemaLocation="http://mobility.usos.edu.pl MobilitySchema.xsd">
4 <tns:organizationDataWithPersonalData>
5 <tns:uniquePersonalData>
6 <tns:employee>
7 <tns:nationalPersonalId>IT:CRDTZN </tns:nationalPersonalId>
8 <tns:givenName1>Tiziana</tns:givenName1>
9 <tns:surname1>Cord </tns:surname1>
10 <tns:gender>2</tns:gender>
11 <tns:employeeId>unipr.it:2323</tns:employeeId>
12 </tns:employee>
13 <tns:employee>
14 <tns:nationalPersonalId>IT:CCR5L </tns:nationalPersonalId>
15 <tns:givenName1>Silvia</tns:givenName1>
16 <tns:surname1>Iacc </tns:surname1>
17 <tns:gender>2</tns:gender>
18 <tns:employeeId>unipr.it:2424</tns:employeeId>
19 <tns:title>Prof.</tns:title>
20 <tns:personalPosition>Rector delegate international student mobility</tns:personalPosition>
21 <tns:phone>+390521905359</tns:phone>
22 <tns:fax>+390521905305</tns:fax>
23 <tns:email>silvia.iacc @unipr.it</tns:email>
```

Data successfully sent.

Type	Line	Column	Report
------	------	--------	--------

**Response**

```

1 <?xml version="1.0" encoding="UTF-8"?><tns:sendArrivalDateResponse xmlns:tns="http://mobility.usos.edu.pl"
2 xsi:schemaLocation="http://mobility.usos.edu.pl MobilitySchema.xsd" xmlns:soap="http://schemas.xmlsoap.org
3 /soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"/>
```

# Web server (server=WARSAW)

http://usosphp.mimuw.edu.pl:7979/mobility-server-web/

## Mobility Server


 Items: Page 10  Count 22 Id uw.edu.pl

2009-11-13 19:33 sendOrganizationDataRequest

2009-11-14 22:39 sendOrganizationDataRequest

```

<tns:sendOrganizationDataRequest xmlns:tns="http://mobility.usos.edu.pl" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://mobility.usos.edu.pl MobilitySchema.xsd">
  <tns:organizationDataWithPersonalData>
    <tns:uniquePersonalData>
      <tns:employee>
        <tns:nationalPersonalId>IT:CRDTZN </tns:nationalPersonalId>
        <tns:givenName1>Tiziana</tns:givenName1>
        <tns:surname1>Cord </tns:surname1>
        <tns:gender>2</tns:gender>
        <tns:employeeId>unipr.it:2323</tns:employeeId>
      </tns:employee>
      <tns:employee>
        <tns:nationalPersonalId>IT:CCRSL </tns:nationalPersonalId>
        <tns:givenName1>Silvia</tns:givenName1>
        <tns:surname1>Iacc </tns:surname1>
        <tns:gender>2</tns:gender>
        <tns:employeeId>unipr.it:2424</tns:employeeId>
    
```

# Workshop in Uppsala (2009-11-16)

- Presentations from Uppsala can be found in wiki  
<http://wiki.teria.no:8080/confluence/display/RS3G/UPPSALA>
- Main outcome – formation of the Work Teams, appointing Team leaders:
  - WSDL (Janina Mincer-Daszkiwicz)
  - Identity and Access Management (Victoriano Giralt)
  - Security and Lifecycle Management (Andy Dowling)
  - Architecture (Geir Vangen)
  - Business Processes (Manuel Dietz)
  - Funding (Simone Ravaioli)

# Wiki and Teleconferences

- Wiki

Unfortunately there is almost no activity – may be we should look for some other means of communication

- Mailing lists

There is one for WSDL Team ([mobility-wdsl@mimuw.edu.pl](mailto:mobility-wdsl@mimuw.edu.pl)) - not to much activity either

- Teleconferences

Most effective way to activate people, review work and make plans, but not for real work

# Reasons

- We are busy
- Mobility is not a top priority
- We do not see immediate results
- There is no funding

but on the other hand ...

- We see the need for electronic exchange of data
- We see expectations of the users
- We know the problem may become a barrier for increasing mobility in the future
- Technically it does not seem to be a problem

## Other actions

- KION upgraded software to the new version
- Staff mobility – Michał from University of Warsaw visited Barcelona for a week to help installing software in Sigma
- We tried to replace Tomcat by Glassfish (requirement of Sigma), but not yet succeeded
- We prepared a new installation package – preconfigured installation, takes 5 minutes to deploy (web client and sever inside Tomcat, small database for UDDI entries); we might also prepare one on virtual platform, like VMware (free version)

- Paper for Eunis'2010 has been delivered

**„The Mobility Project – Building network of web-servers for exchange of data on student mobility“**

A network of three nodes is described, but a paper is ready to be updated if anybody wants to join before June ...

# Some thoughts on WSDL

In my opinion we cannot discuss various aspects of WSDL (data format, number and specification of web methods) until we write sample files for our own data and try to simulate (even on paper) various real life scenarios of sending/getting data



# Some thoughts on software

- Software for mobility nodes could be developed and distributed as open-source
- We might experiment with various technologies (e.g. do we want to use REST instead of SOAP for part of the project?)
- Software for local system should be developed by local vendors, consortia, ...

# Some thoughts on Identity Management

- Poland is ready, see e.g. <https://atlases.muni.cz/>  
(Shibboleth/simplesamlphp, WFAYF)
- Practical issues
  - federation or federation of federations (flat or hierarchical structure)?
  - how to register Identity Providers and Service Providers
  - using eduGAIN (<http://www.edugain.org/>)?
  - what attributes should be delivered by IdP for defining roles (edupersonentitlement, eg. mobility:admin:fun1:fun2) ?

- Main objective is to send mobility data straight from one database to another database
- Data is sent through the encrypted channel
- Sender is authorized by Federated IdM
- Receiver is a certified web-server
- Do we need to digitally sign messages sent by web-services – probably no

- Other objective – on request send documents in PDF format (e.g. LA, transcript of records, bilateral agreement)
- Such document would be stored in electronic archives (which are going to replace paper archives)
- Do we need to digitally sign such documents – definitely yes
- Is this in the scope of the project? – to be discussed (CEDEFOP already implemented such system)

# Some questions and problems

from Uppsala but still valid

- Mobility project has specific objectives and specific needs concerning exchanged data – how to integrate its WSDL with other standards
- UDDI – one or many, who should administer?
- Authorisation and authentication in global scale (federated IDM or bilateral authorisation agreements)
- Security and privacy of data – legal aspects
- Next steps ...

# In the meantime in Warsaw ...

We are just deploying a new admission system for the incoming students ...



# Admission of incoming students



## Online application for short-term studies University of Warsaw

[Home](#)[Registration](#)[Help](#)[Log in](#)

[mobility.uw.edu.pl](#) > Home

## Welcome to the online application for short-term studies

The online application for short-term studies at the University of Warsaw will open on **March 20<sup>th</sup>, 2010**.

### Application Deadlines:

Full academic year or first semester (starting October 1st, 2010):

**May 15<sup>th</sup>, 2010**

Second semester (starting February 14th, 2011):

**November 15<sup>th</sup>, 2010**

E-mail:

Password:

[Log in](#)

[Create a new account](#)

[Forgotten password](#)

# Admission of incoming students



## Online application for short-term studies University of Warsaw

Home








Application

Help

Log out

### Application

#### Step by step

1.  All personal data completed. [Review and modify.](#)
2.  Accommodation decision made. [Review.](#)
3.  Status filled in. [Review and modify.](#)
4.  Studying details completed. [Review and modify.](#)
5.  [Upload your documents.](#)
6.  **The confirmation of acceptance.**
7.  **Send the application form by post.**

#### Message inbox

No new messages.



# In the meantime in Warsaw ...

University of Warsaw just finished recruiting  
outgoing students for 2010/2011  
app. 1500 ...

# List of nominated students in USOSweb

## Erasmus outgoing student mobility coordination

at the faculty/unit: Faculty of Management [choose another]

### Assigned outgoing student mobilities

- print list
- export list to file
- send list to coordinators **i**

FILTER OPTIONS

Qualifications stage: (all)

Mobility state: Active

Mobility type: (all)

Status of LA: (all)

Academic year: 2010

Institution name: **i**

Erasmus Code: **i**

Country: **i**

Assigned not earlier then: **i** YYYY\_MM\_DD

Assigned not later then: **i** YYYY\_MM\_DD

OR

SELECTED STUDENT

student's name

Showing first 30 table entries ... show more | show all

No.	Surname	Name	Country	Erasmus Code	Institution name	Date of assignment	Acad. year	Mobility type	Mobility state	Qualifications stage	Options
1	Adam		Norwegia	N TROMSO01	Universitetet I Tromso		2010	Studies	Active	Finished	<b>i</b> → view → learning agreement
2	Joanna		Francja	F MONTPEL02	Université de Montpellier II		2010	Studies	Active	Finished	<b>i</b> → view → learning agreement
3	Marcelina		Francja	F MONTPEL02	Université de Montpellier II		2010	Studies	Active	Finished	<b>i</b> → view → learning agreement
4	Marta		Portugalia	P PORTO07	Universidade Portucalense Infante D. Henrique		2010	Studies	Active	Finished	<b>i</b> → view → learning agreement
5	Mateusz		Niemcy	D OSNABRU01	Universität Osnabrück		2010	Studies	Active	Finished	<b>i</b> → view → learning agreement
6	Joanna		Hiszpania	E VALENCI01	Universidad de Valencia		2010	Studies	Active	Finished	<b>i</b> → view → learning agreement
7	Agata		Francja	F MONTPEL13	Ecole Supérieure de Commerce de Montpellier		2010	Studies	Active	Finished	<b>i</b> → view → learning agreement

but ...

Mobility button to send/get a list of nominated students to/from the partner is still not active



# Possible scenarios for the near future

- How to get involved:
  - choose your area of interest
  - give some contribution?
    - write XML files with mobility data for your institution
    - simulate, document real life scenarios
    - install software
    - enable exchange of data
    - get federated
    - delegate your experts part-time (e.g. in architecture, programming, security)
    - treat this as a platform for experimentation with various technologies (may be useful for your other projects anyway)
    - ask your student management software provider for cooperation (→ unisolution 😊)

# Links and readings

- Project home page

<http://usos.edu.pl/Mobility>

- Web client

<http://usosphp.mimuw.edu.pl:7979/mobility-client-web/>

- Web server

<http://usosphp.mimuw.edu.pl:7979/mobility-server-web/>

- Rafał Nagrodzki, *The Mobility Project*, Master Thesis in Computer Science, University of Warsaw