



How the world's biggest exchange programme is going digital

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# Erasmus+ Exchange Programme

- More than 4 million beneficiaries
- Half of which in higher education
- €14.7 billion from 2014 to 2020
- Includes student, staff mobility and youth mobility, volunteering and support for projects

# Erasmus+

key process overview

inter-  
institutional  
agreements

application/  
nomination

learning  
agreement

transcript of  
records

# Erasmus without Paper project (2015-2017/2018-2020)

- Project supported by the European Commission
- EWP is halfway: from proof of concept we move on to operational roll-out (follow-up project)
- Paradox: we move from 'individual' student exchange software to the real exchange of data
- The challenge is to create standards that will enable machine-to-machine communication
- The project is HEI-oriented rather than student-oriented

# Data exchange is problematic in Erasmus+

Although most data is stored electronically, the actual exchange is still largely either paper-based or document/scan based (not data)

We need a new digital infrastructure

# Challenge

- The challenge is great and not always 'sexy'
- Steps that have been taken in EWP
  - Conceptualisation and desk research
  - Data dictionaries and data models
  - Security (major stumbling block!)
  - API development and scalability
  - Proof of concept
- It is a long and tedious process but from now on development will accelerate

# Internationalisation without paper?

- Develop tools to get rid of paper
- Less administrative workload for HEIs = more time to focus on quality and support. Not only students are the victim of the administrative burden
- Electronic communication leads to faster results and in real-time
- Ultimately: rethink whole process

# Possible negative impact factors

- The majority of HEIs at least partly use in-house software which needs to be adapted
- Standards are missing and even commercial solutions do not offer data exchange as a standard
- EC mobility documents tend to change frequently and are often published late
- There is uncertainty about possible standardisation in the new programme

**The challenge is cultural rather than technological**



# Co-operation needed

- Scarce resources can only be met by more cooperation and centralized quality measures and by going international, especially for HEIs
- Students are digitally-minded and will demand more and digital efficiency
- Project results need to be compatible with each other
- Open source will help the transition

# First conclusion

- EWP is just the beginning of something far bigger
- International cooperation in software development is a must
- The future is for independent open-source modules that can be strung together into suites of tools
- Student data portability and digitalization will not stop in Europe, but needs to be worked out on a global scale
- Projects need to cooperate and adhere to common standards



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# What is the solution?

?

- Create tools where partners can
  - Change fact sheet data
  - Online sign the inter-institutional agreement
  - Nominate students and have them confirmed
  - Online approve and sign the learning agreement
  - Confirm the arrival and departure dates
  - Send the ToR
- More direct involvement of partners
- Duplication of tools to be avoided

# EWP defining characteristics

- **Ambition:** enable interoperability between +2000 in-house systems, making it possible to exchange data (instead of documents) electronically and securely
- **Impact:** digitize all key steps of the management of Erasmus+ exchanges (and those of other programmes)
- **Scale:** interconnect all ECHE holders
- **Final Goal:** Grow into a common platform for all kinds of internationalization processes
- **Timing:** key infrastructure needs to be ready before the next programme (early 2021)

# State of the art as of now

- Proof of concept/working prototype – finetuning
- Proves feasibility of technical approach
- Testbed underpinned by extensive desk R&D
- Development of EWP hub as a central operational resource has begun

Register for EWP Newsletter to keep in touch!

[www.Erasmuswithoutpaper.eu](http://www.Erasmuswithoutpaper.eu)

# Anticipate future needs

- New services can be added at any time and not all have to be implemented
- EWP does not operate in a vacuum: OLA, EGRACONS, EMREX, ESC, E+ App, EVA, ESMO,...
- Consider eIDAS and GDPR introduced from 2018
- Roll-out, documentation and training in 2018
- Global developments

# Goals for 2018-2019

## 1. Complete work on the EWP network

- going from prototype to production is still a critical endeavour

## 2. Launch of EWP network in December '18

- aim: +700 universities connected electronically by then as part of the project

## 3. Create an open source repository of technical solutions

- stop reinventing the wheel
- radically decrease development costs within HEIs



4. Launch EWP Hub/Erasmus Dashboard
  - single point of access to free and online solutions
  - bringing OLA, Egracons, Inter-institutional Agreement Manager, and others under 1 roof - no fragmentation
  - critical to avoid digital divide between large/small HEIs
  
5. Put a competence centre in place
  - to support HEIs going digital
  
6. Enable electronic exchange of data worldwide
  - partners in US, China, Australia, India and others > Groningen Declaration Network

# Plus ... EWP is shifting its focus

- Reuse and recycle
- EWP as umbrella for existing open source tools developed with EU funding (or not)
  - Egracons
  - Online Learning Agreement
  - European Student Card
  - Erasmus+ App
- Enhances impact / sustainability + fights fragmentation

# EWP network in practice

- EWP “buffet of” APIs
  - Institutions (address, logo, contact persons)
  - Organisational units (faculties, departments, divisions)
  - Courses (exported from course catalogue)
  - Inter-institutional agreements / CNR (change notification receiver)
  - Outgoing and incoming mobilities / CNR
  - Transcripts of records
  - Mobility Tool+ connection
- Modular approach allows future extensions

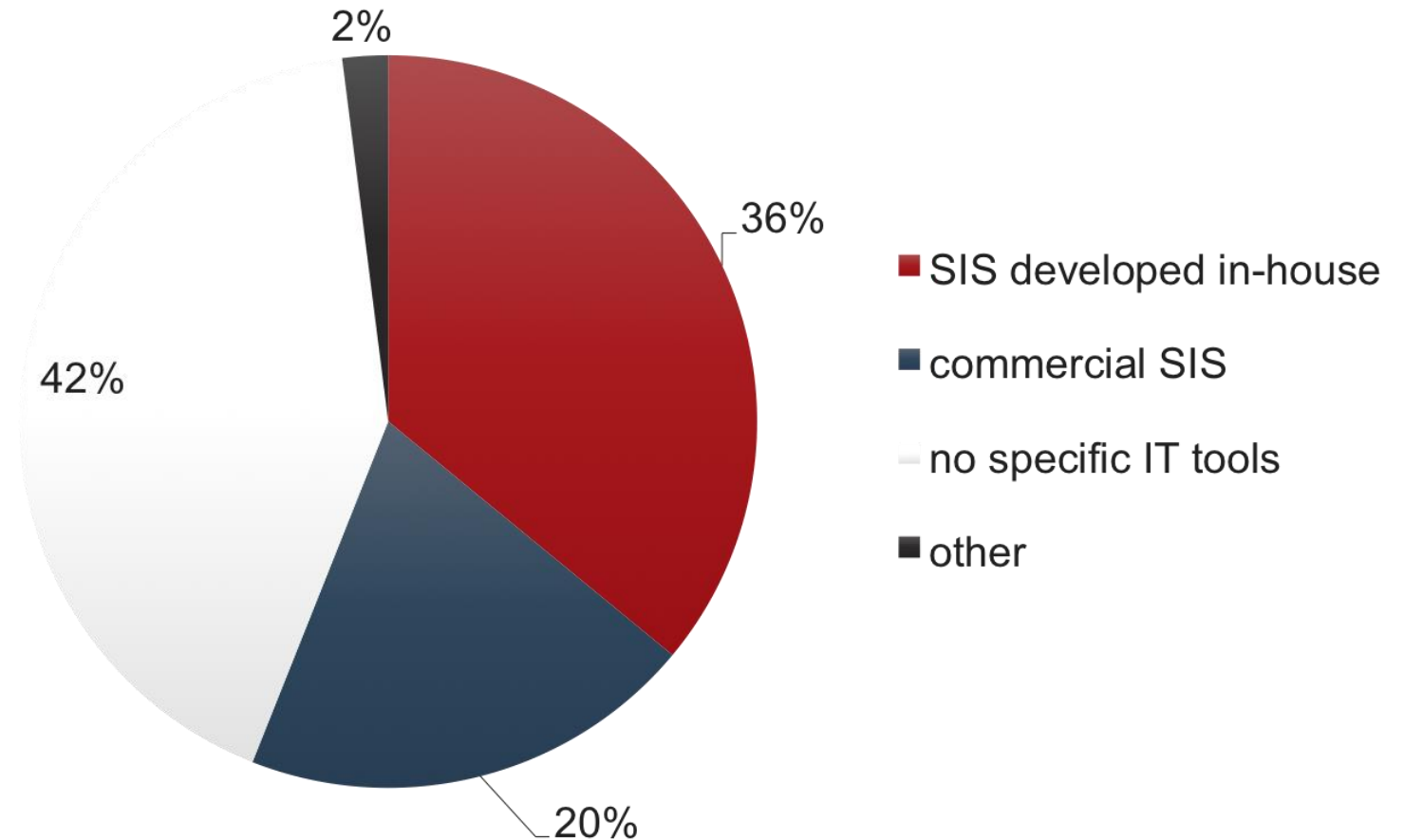
# The EWP dream

- EWP as the “electronic brain” of new E+ programme
- Anticipate how workflows can be adapted and take advantage of new infrastructure (EUF Erasmus Experts workgroup)

# No university will be left behind

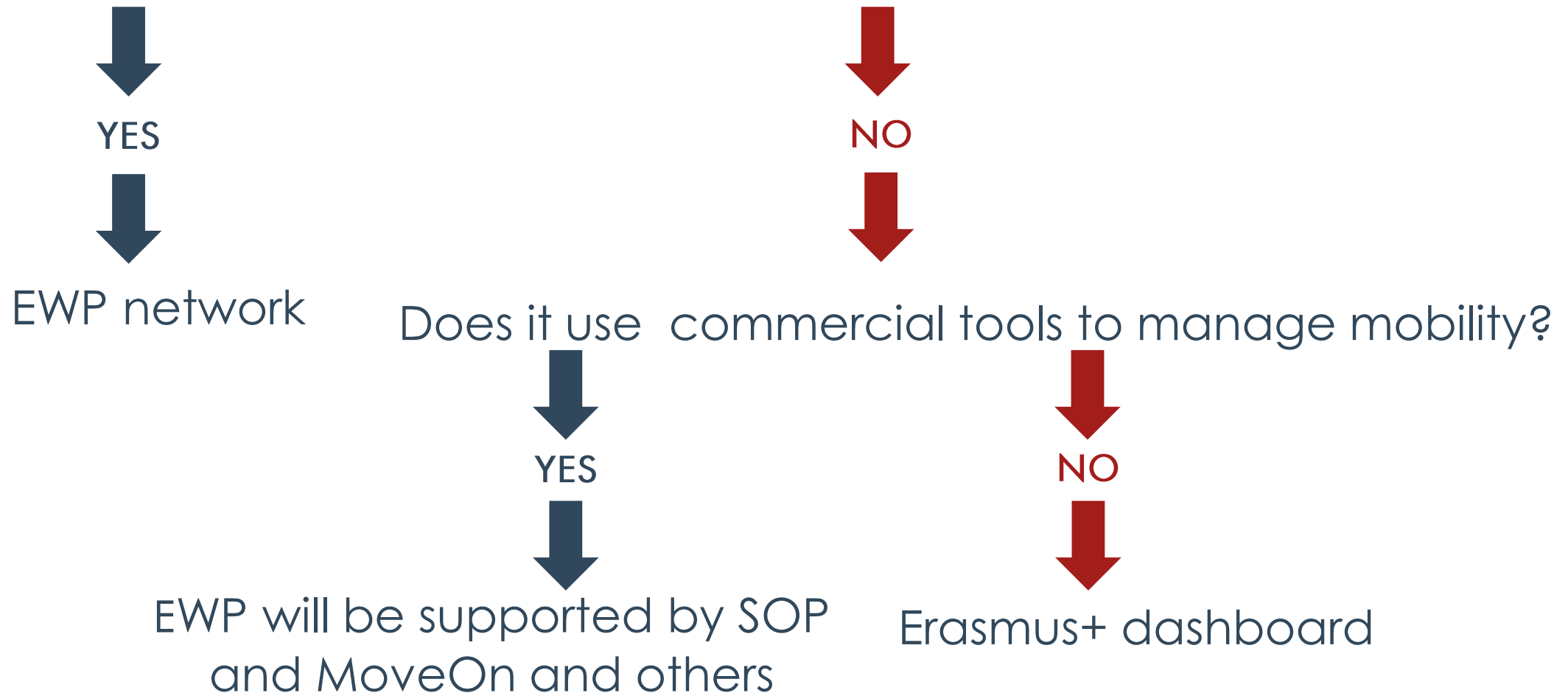
- Three types of HEI users
  - In house SIS
  - Commercial or national software
  - Little or no IT mobility infrastructure

# Types of software in use

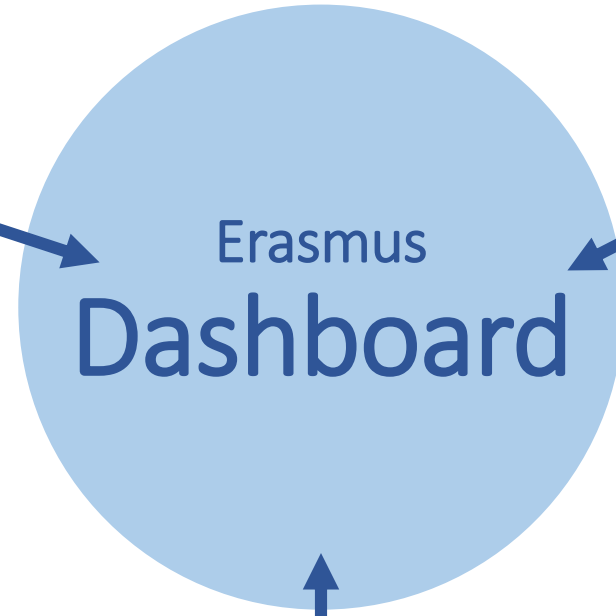


Mapping of IT infrastructure among ECHE holders

# Does your institution have in-house developed IT tools for managing Erasmus mobilities?



# EWP Hub





# Commercial tools



# Setting up EWP in-house

- Technical documentation
- Training toolkit
- Practical examples



EWP  
Competence  
centre

# Open source code repository



support developers → lower costs → better quality and security

# Open Source University Alliance (OSUA)

support developers → lower costs → better quality and security

However an empty repository...  
...is a useless repository

Can you help us reach critical mass?

<http://uni-foundation.eu/open-source-university-alliance>

# Open Source University Alliance



SGROUP  
EUROPEAN  
UNIVERSITIES'  
NETWORK










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↓  
MT+ connection

- network 2018 →   

- Erasmus dashboard 18/19 →   
  

- competence centre 18/19
- code repository 18/19

↓  
Open Source University Alliance

# Digital change is cultural change!!

developing technology is easy  
making the most out of it is much harder

Thank you for your attention



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