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EMREX

Supporting Student Mobility



Uddannelses- og
Forskningsministeriet



Swedish Council for
Higher Education



CIMO 28.5.2015



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Agenda

- Introduction to Emrex
- Technical solution
- Field trial in 2016

“Field trial on the impact of enabling easy mobility on recognition of external studies”



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Emrex prehistory

- Collaboration between the Nordic countries (Finland, Sweden, Norway and Denmark) began more than 10 years ago.
- A couple of earlier attempts at creating a solution for electronic transfer
- (Emrex) Prestudy done by Nordforum and afterwards decision to start a common project
- Funding decision from EACEA in late 2014



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Towards automatic recognition

1. Need common terminology (Nordic Glossary)
2. Technical solution for transferring data (EMREX, EWS)
3. Final step is aligning processes to support automatic recognition (FAIR, EGRACON)

Term	Term (MLO/ELM)	EN translation/ description	N	DK	SV SE	FIN
Combination rule ("Rule")		Rule governing what is allowed or accepted regarding combination of learning opportunities taken by a learner. Example module A can only be taken after successful completion of module B, and must be studied in conjunction with module C.	Forkunnskapskrav Krav til utdanningsplan (emnekombinasjon)	Regel	Förkunskapskrav, behörighetsvillkor	Rakenteen säännöt (kuten, sisältyvyydet, edeltävyydet, edeltävät opinnot)
Cost	Cost	MLO: A cost associated with obtaining access to the learning opportunity (instance)	Kostnad	Pris?	Kostnad	Opetuksen osallistumismaksu
Course	Learning opportunity object: course	Formally specified education or training process in the form of a course	Emne	Undervisningsaktivitet	Kurs	Opintojakso
Course	Learning Opportunity Object: Course	Learning opportunity object that awards credits.				
Course instance	Learning opportunity instance: course	LO offered to students restricted to time, place, pace and form	Undervisnings-enhet, Undervisnings-aktivitet	Lektion?	Kurstillfälle	Opintojakson toteutus
Credit	Credit	Credit, a measure of the extent of the learner action according to a framework like ECTS.	Studiepoeng (=ECTS)	Belastning	Poäng (ECTS = högskolepoäng)	Opintopiste



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Background

*“The biggest obstacle for student mobility,
after financial support, is the lack of
recognition”*

(Erasmus Student Network 2012)





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What is EMREX?



- EU Erasmus+ project (2015-2017)
- Ministry level initiative
- Increase student mobility (20%)
- Recognition of previous studies
- Electronic and secure transfer of student data between HEIs
- Denmark, Finland, Italy, Norway, Poland, Sweden



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Timeline

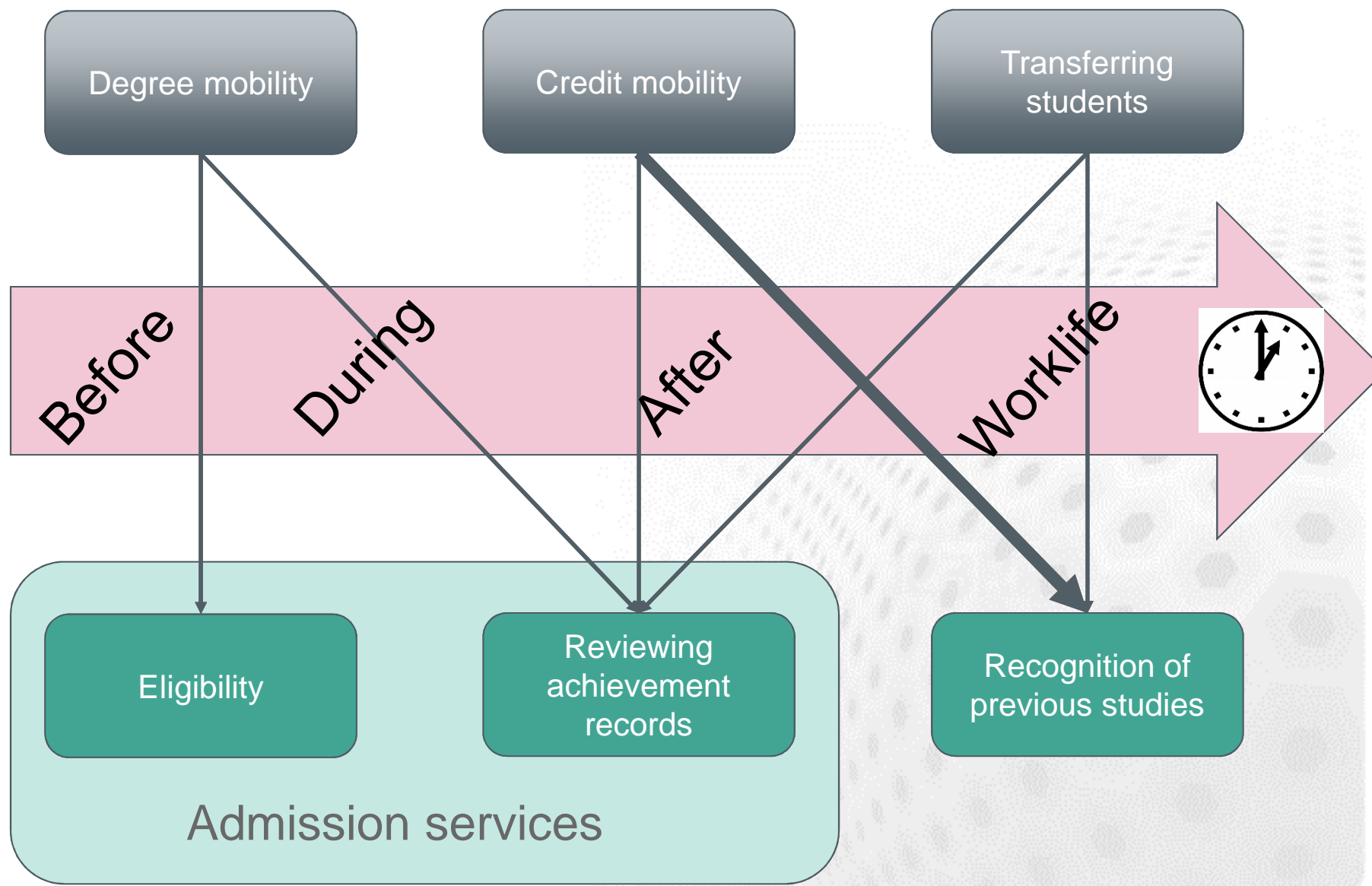




Where to use EMREX



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Benefits for higher education

- Mobility targets - increases student mobility and crediting
- Enables automatic recognition
- Mobility statistic – reliable and aggregated data
- Non-HEIs e.g. government/student support agencies
- Electronic solution saves time and money
- Reduces risk of forgeries
- Turnkey solution for connecting existing systems:
 - Easy tool to implement locally
 - Student authorization (no new contracts)
 - Local infrastructure (data warehouses, authentication) to be utilized

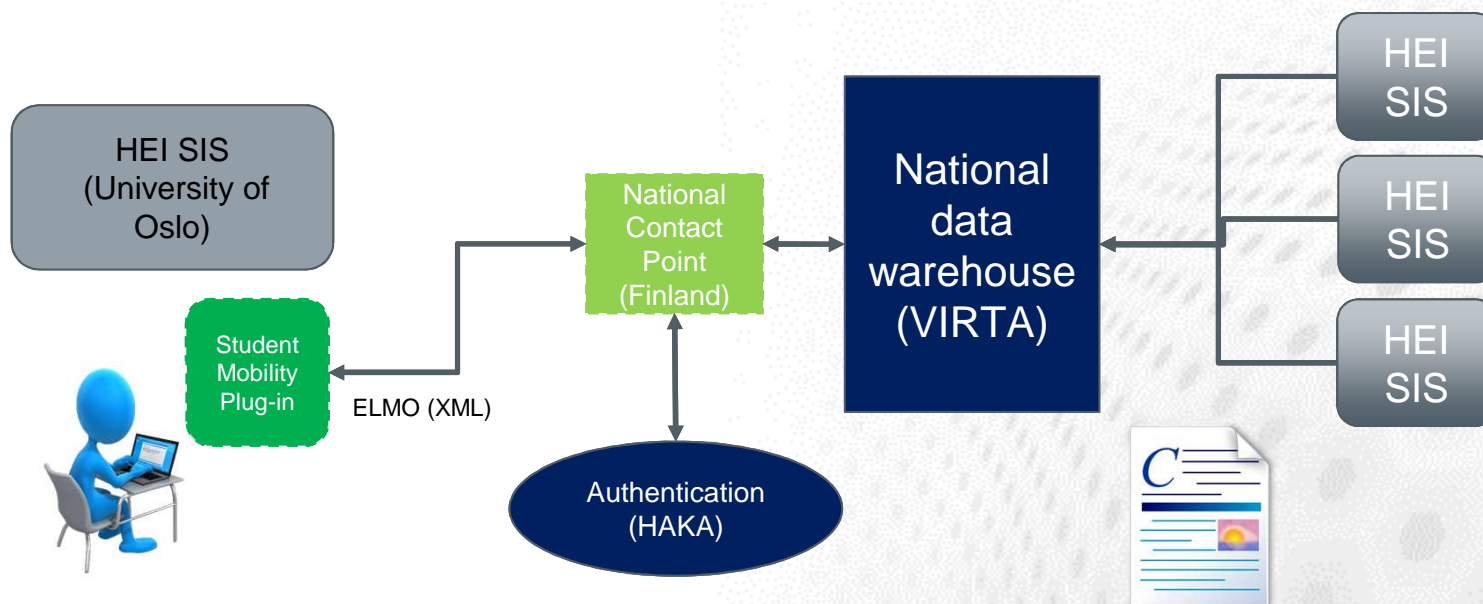


Students used to google – demand fast and online services



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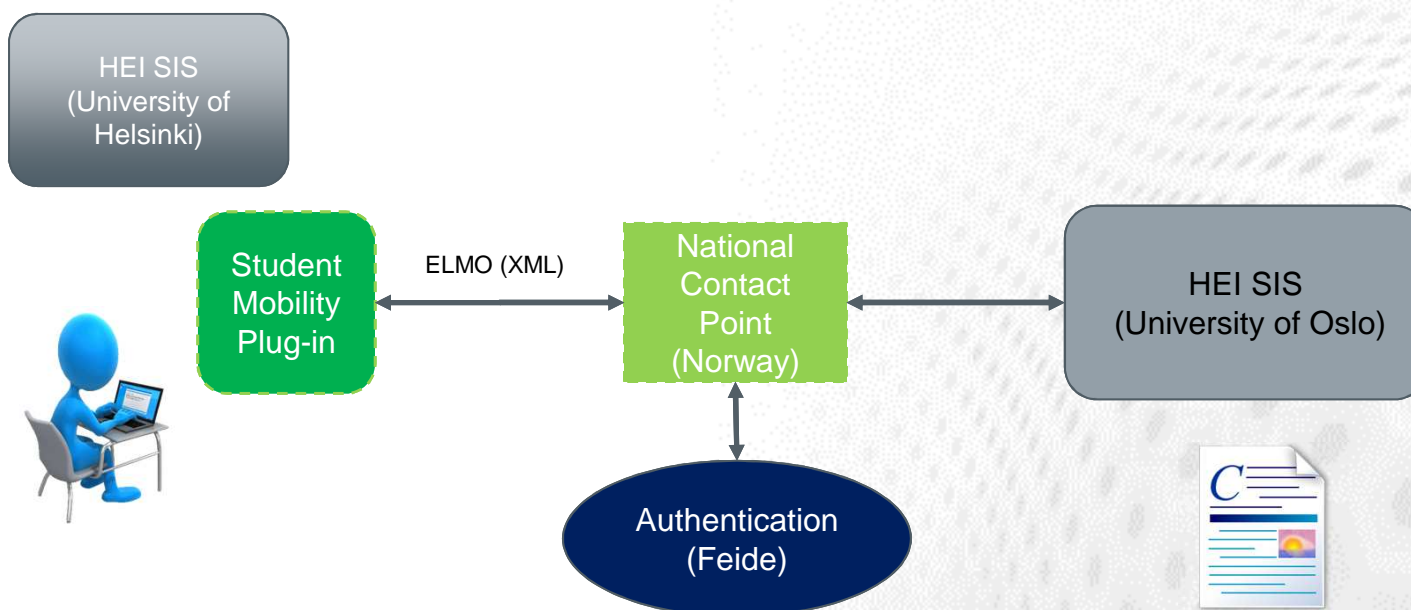
Case: Transferring data from Finland to Norway





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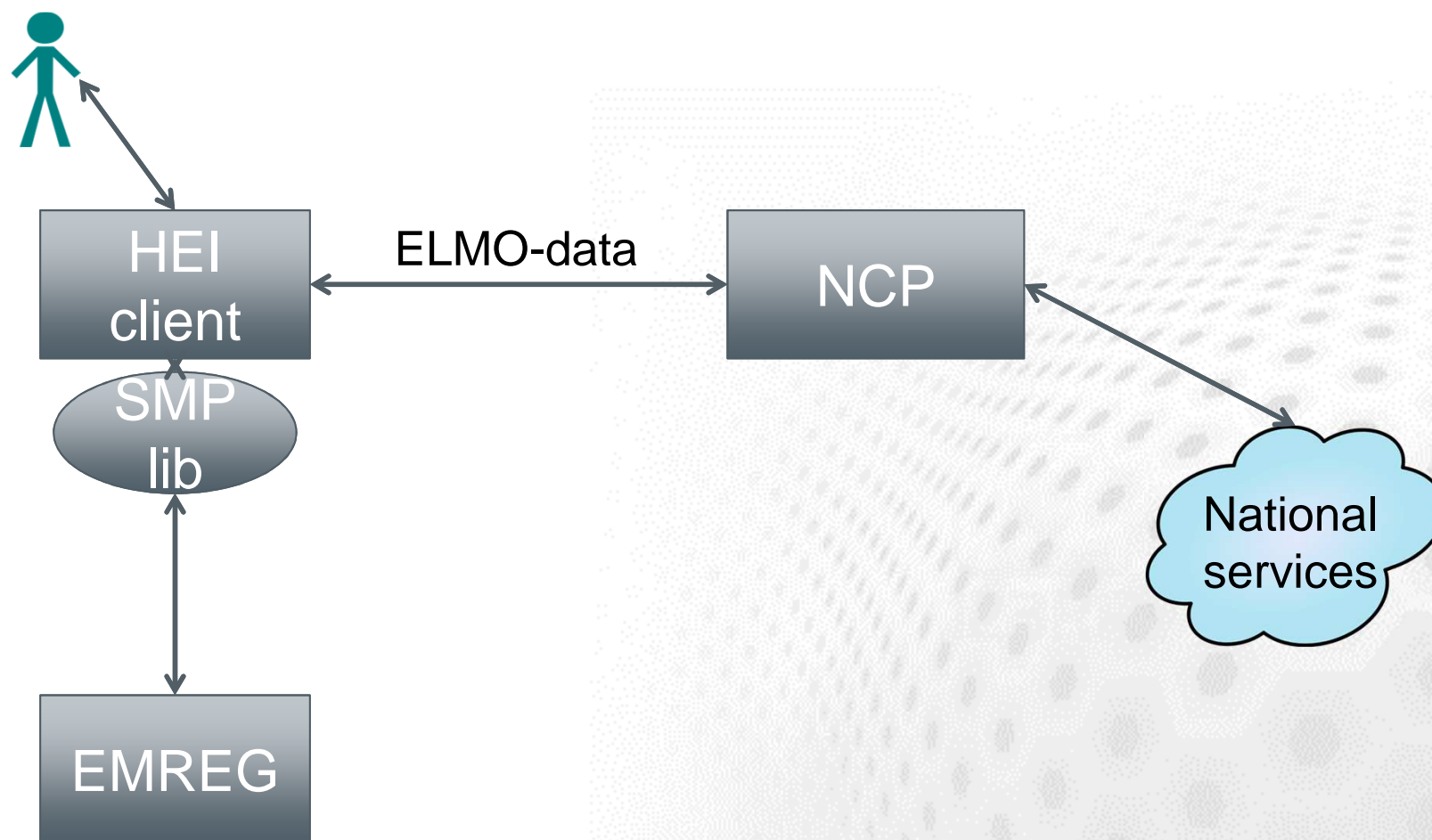
Case: Transferring data from Norway to Finland





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Technical components





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HEI client of SMP

- Initiates the EMREX transfer for the student
- Must implement secure login
- Provides a way to store fetched results in local SIS



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SMP library

- Used by the HEI client to ensure that the transfer is standardized
- A library of helpful functions



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NCP – National contact point

- Entry point for the EMREX network to that country's data
- Must contain functionality for secure login, result-fetching and transfer



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- Only central component
- Registry of available NCPs with metadata
- Exposed through web services
- Currently hosted in Norway



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Standards – ELMO

- EMREX uses the ELMO XML format to exchange data
- Metadata for learner opportunities (MLO-AD)
- European Learner Mobility – Achievement Information (EuroLMAI)



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Security

- Login at both client and NCP
- Enforce HTTPS
- Sign ELMO data. Public key in EMREG
- Validate student



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EMREX field trial in 2016

- Testing electronic transfer of study records between HEIs
- To promote higher attainment level to student mobility in higher education
- To encourage more effective recognition of prior learning
- To avoid overlapping studies
- To test new ways to enable easier administration of student mobility



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Field trial in a nutshell

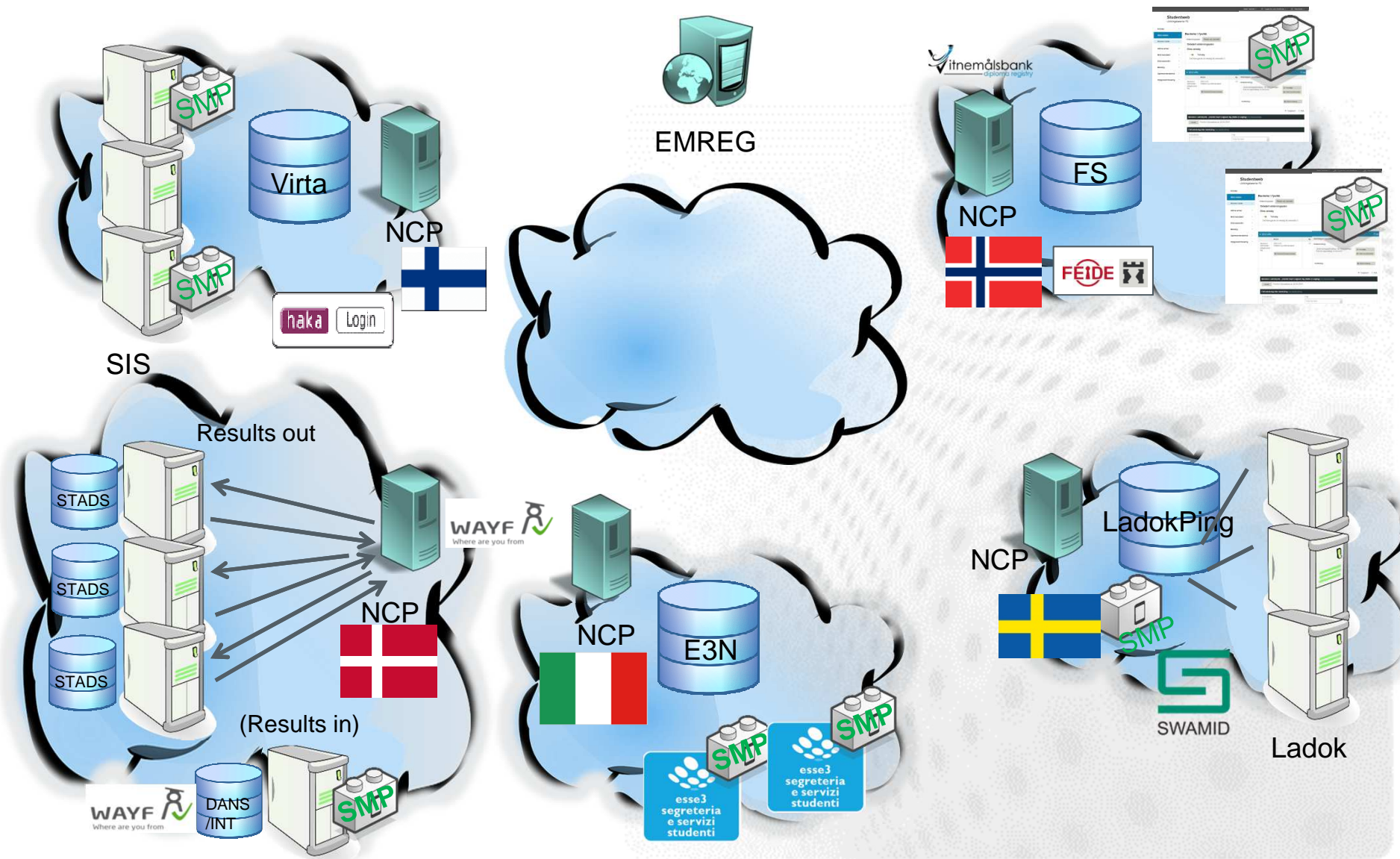
- Between Nordic countries, including Italy
- In some countries both SMP and NCP, in some just the NCP
 - All HEIs in Norway both ways
 - All HEIs data (incoming) in Finland, Sweden and some outgoing HEIs
 - NCP in Denmark
 - 2-3 big Universities in Italy
- From 1.1.2016 to 28.2.2017 (to get returning students)
- Estimated for “a few hundred students”
- Local recognition processes as is, or improved



EMREX Field Trial Network



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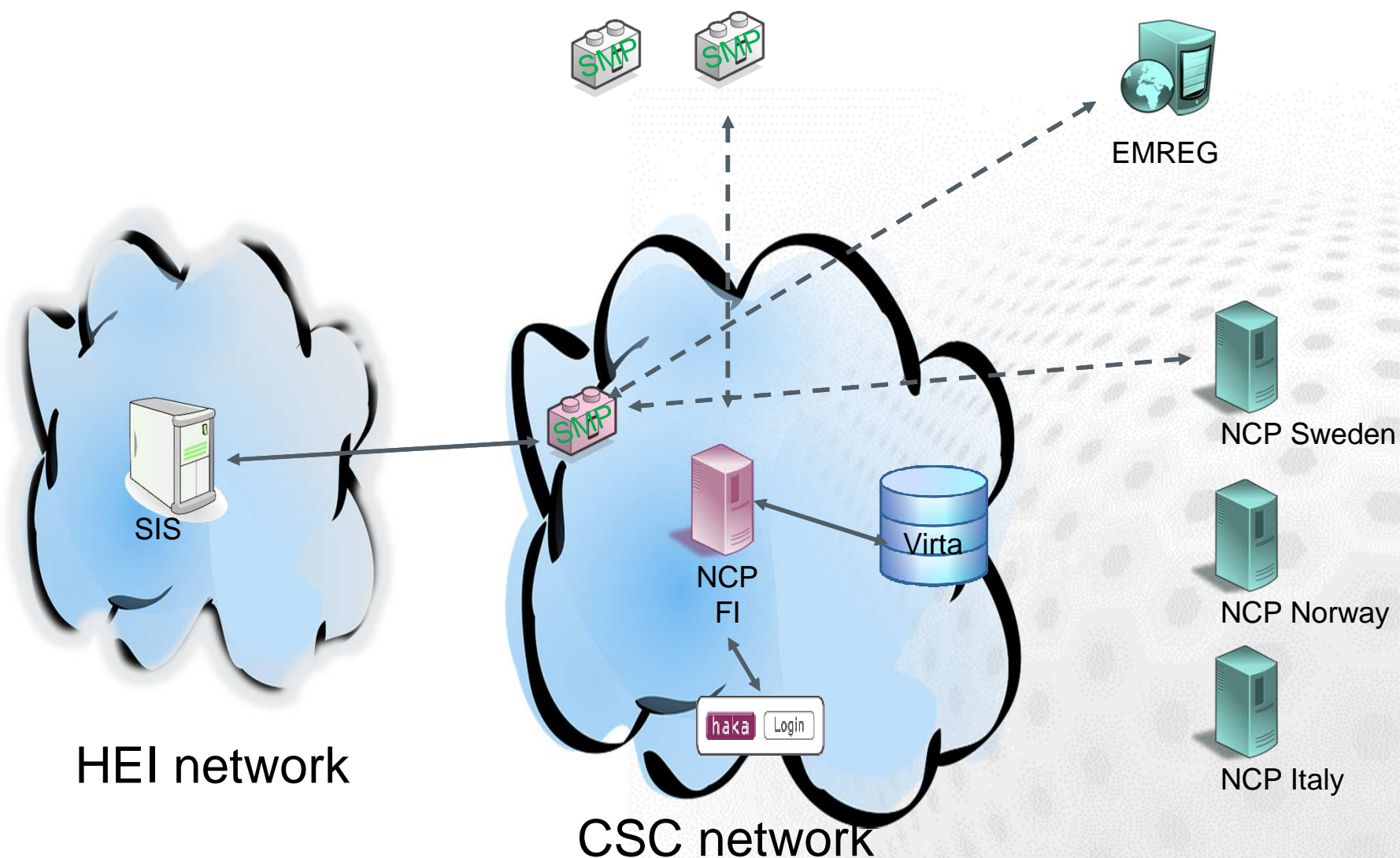




EMREX CSC Field Trial - in Finland



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Wireframes

<https://moqups.com/lundin.goran@gmail.com/2sWGyfXn/p:a2fa73ae2>

➤ Italy:

<https://moqups.com/megachirone@gmail.com/vULqzxsH/p:ac3457fa0>

➤ Sweden:

<http://vl9gc1.axshare.com/home.html>



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What happens after field trial?

- Plans for an EMREX steering group
- Up-scaling to whole of EU (if successful)
- All results including code available for everybody



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Additional information

- ➔ Project internal website www.csc.fi/emrex
- ➔ Emrex-info email list (Enquiries: mats.lindstedt@csc.fi)
- ➔ Stakeholder Forum (Enquiries: mats.lindstedt@csc.fi)
- ➔ Official EMREX website
www.emrex.eu

Questions?

