

eIDAS eID & eSignature for HEI/EDU Applications

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EUNIS 2019, 06.06.2019



Connecting Europe Facility

TREATS (TRans-European AuThentication Services)

Action-No: 2015-DE-IA-0065

StudIES+ (Student's Identification and Electronic Signature Services)

Action No. 2017-DE-IA-0022



Co-financed by the European Union
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Agenda

- WAYF
- Projects:
 - Campus/Scampii: Security- & E-Gov.-Standards @ University (GeID; no eDiploma register D)
 - GeID at HEI – **cross domain**
 - **eIDAS** at **HEI/EDU – cross boarder/domain**: TREATS/StudIES+ (EU CEF), hybrid IDs/accounts, applications/platforms/services & academic attributes & **eID/eSign**.
- Conclusions/Outlook (esp. implementing new law OZG, ~ 2022)

 Hochschule Harz

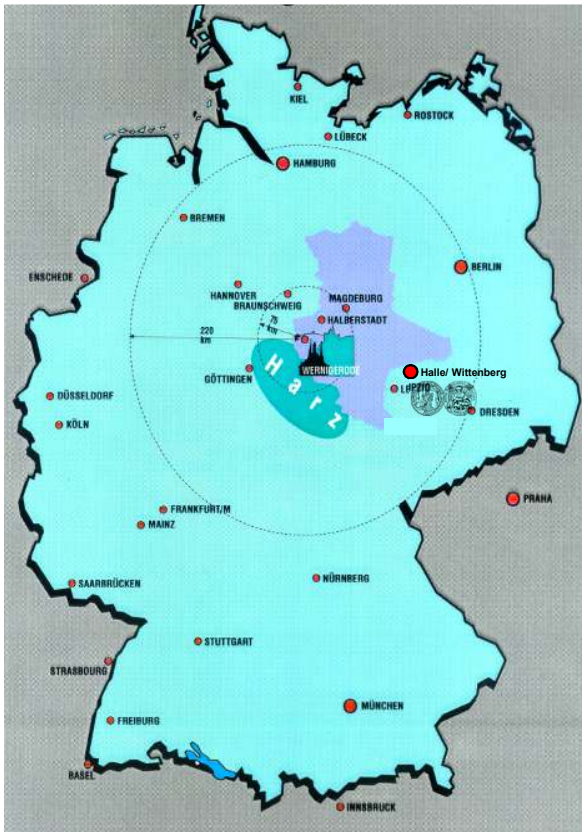

BUNDESDRUCKEREI

 SiXFORM

Freie Universität  Berlin

 **FP**
GERMAN MAILGENERINO

HZU, MLU, OVGU, Sfh



- Uni. Faculties/Institutes/Research Groups:

- Automation and Computer Science (HZU/netlab)
- Institute for Computer Science (MLU/IFI)
- Workgroup Multimedia and Security (OvGU/AMSL)

- Research Cooperation at IT & Cyber Security

- Cyber-Sec. (Saxony-Anhalt) joint research & coop. (EFRE 2019)
- Federal/Local State (Saxony-Anhalt) & EU Funding

- Stiftung für Hochschulzulassung (hochschulstart.de)

- Allocation of university places in study programs with nationwide and local admission restriction



eIDAS – building blocks (cross-border interoper. eID + trust services)



eIDAS:

- interoperable eID cross-boarder
- trust services (eSignature, eSeal, time stamps,...)

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TREATS (TRans-European AuThentication Services)

Zeitstrahl der eIDAS Verordnung des Rates, der Kommission und des Parlamentes

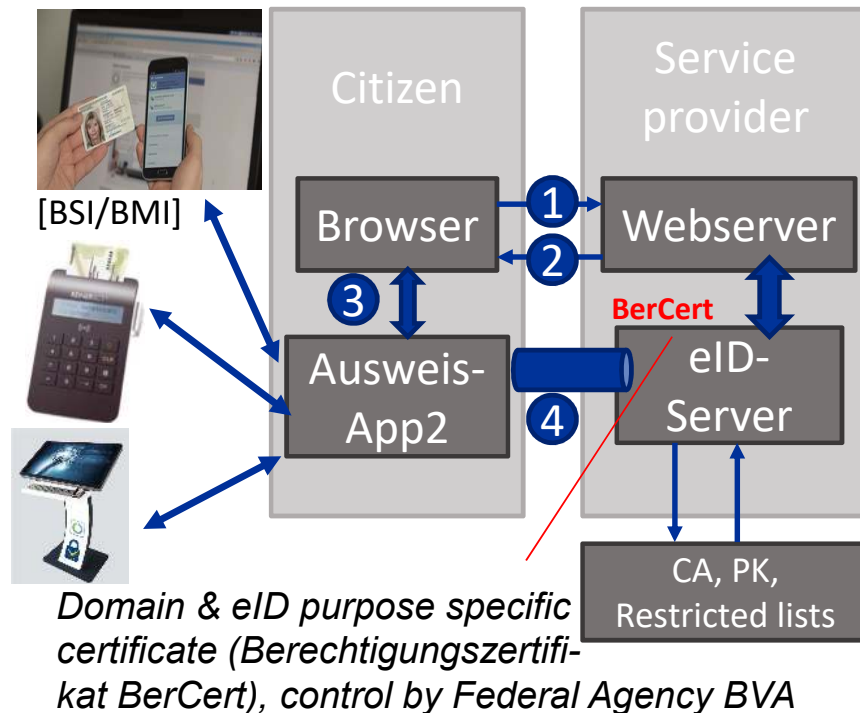


[Rohstock, TREATS-
Workshop 2017]

(G)eID at University Management

GeID skeleton, Motivation, national projects

German electronic Identity Card (GeIDC), Rollout until 2020



- **2-Factor-Authent. & 2x-end2end**
 - nontracable eID / privacy
 - BerCert mandates GeID fields for SP
 - decentralized eID services/server
 - Form filling access/upload by GeIDC at public SP: substitution for the QES Sign. Level
- **8/2017: GeID eIDAS notification, level „high“**

Challenges HEI/EDU integration:

- Existing legacy HEI ID/credentials ?
- HEI/EDU cross domain extension ?
- **eIDAS cross boarder extension ?**

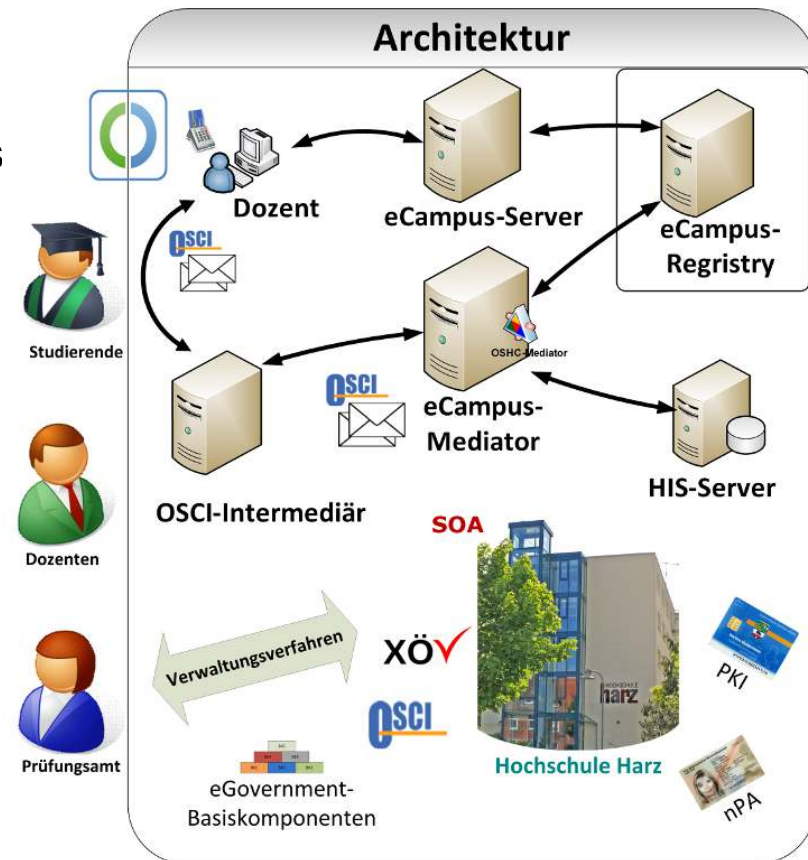
eCampus Integration Architecture (hybrid: GeID,...)

- Integration of eGovernment-Standards @ Legacy University Campus Management & electronic Processes by Security Shell Architecture
- GeID for Authentication (hybrid Ids), OSCI for secure Delivery, QES Signature
- Projects Funding: EU & Federal/Local State (DE)

Förderungen: MW, Land Sachsen-Anhalt, EFRE-Massn.11.03/41.03, FKZ: 11.03-08-03



Europäische Kommission
Europäischer Fonds
für regionale Entwicklung
INVESTITION IN IHRE ZUKUNFT



MyCredentials (hybrid Ids/Accounts)

Mobile Request for new Credentials (GeID)

MyCredentials@HS-Harz
Startseite
Disclaimer
Administration

My-Credentials @ Hochschule Harz

- gesichert mit neuem Personalausweis

Registrierung

Für die einmalige Registrierung zur sicheren Initialisierung Ihres Accounts werden aus Ihrem Personalausweis nPA (mit aktivierter eID) nach Ihrer Zustimmung per PIN-Eingabe einmalig "Name, Vorname und Geburtsdatum" ausgelesen, um für Sie einen eindeutigen Account anlegen zu können.

Registrierung (AutentApp)
Registrierung (AusweisApp2)

Login

Nach der einmaligen Registrierung mit dem neuen Personalausweis nPA können Sie sich an Ihren Account mit nPA/eID wieder anmelden (nur das nPA-Pseudonym wird dann ausgelesen)

Authentifizierung (AutentApp)
Authentifizierung (AusweisApp2)

MyCredentials@HS-Harz
Startseite
Disclaimer
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Kontakt

My-Credentials @ Hochschule Harz

- gesichert mit neuem Personalausweis

Sie sind nun angemeldet als:
Karl Hillebrandt

Sie können nun Dokumente für das Credential-Handling hoch- und herunterladen, klicken Sie auf Datei hochladen um mit dem Upload zu beginnen. Sie können nur Dateien der Formate: pdf, xsl, doc, zip hochladen. Unter dem folgenden Link erhalten Sie einige Hilfestellung zur erfolgreichen Durchführung Ihres Credential-Anliegens bei der Hochschule Harz.

Bitte teilen Sie uns Ihr Credential-Anliegen mit:

Hochschulpasswort ändern/erneuen

Credential-Beschreibung:

Bitte teilen Sie uns Ihr Credential-Anliegen mit!

Hochgeladene Dateien

entfernen ansehen

Legende:

Eigene Dateien
Admin Dateien

Hier können Sie sich abmelden!

Abmelden

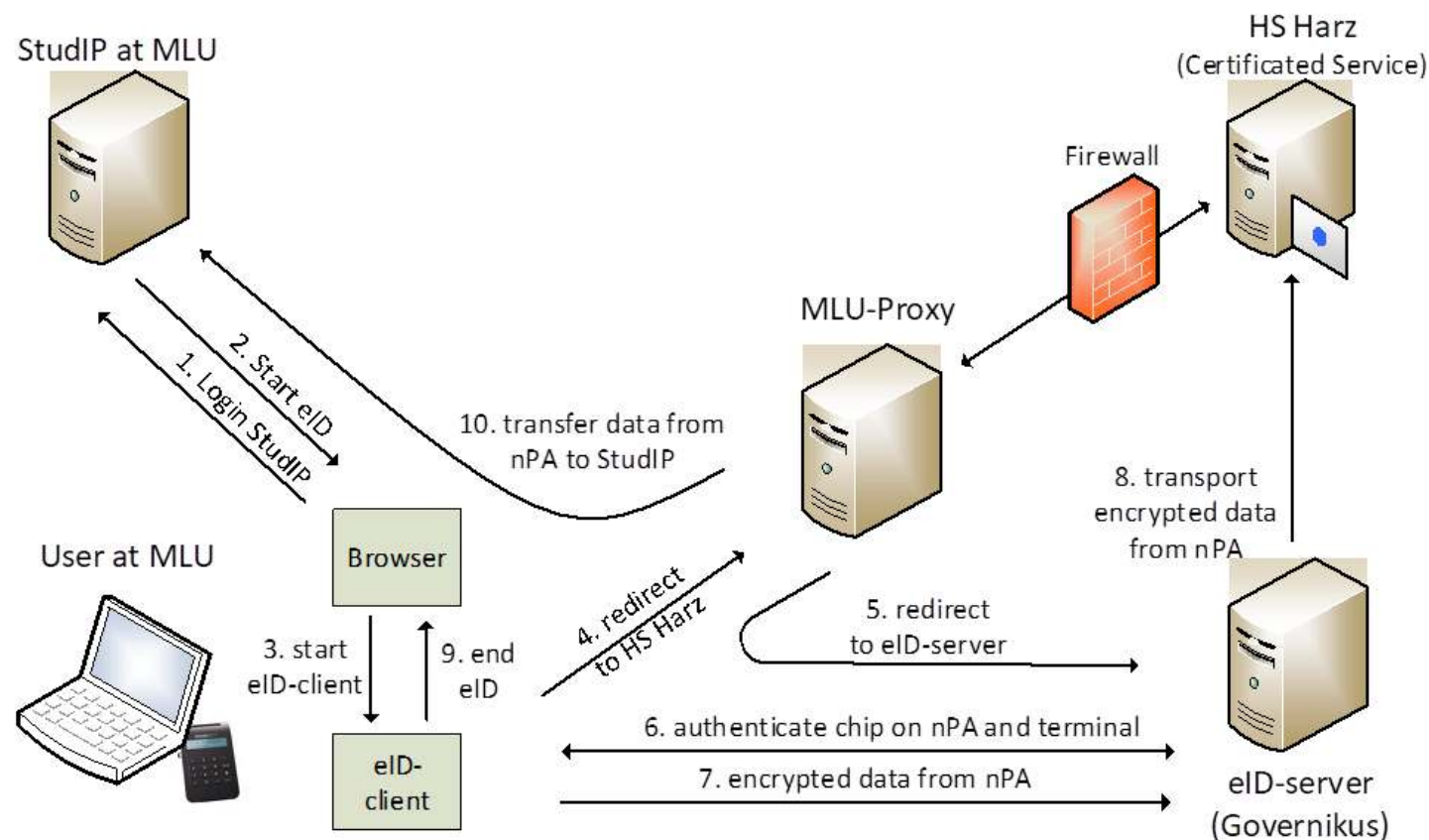
Der neue Personalausweis
Meine wichtigste Karte.

Governikus KG
... so innovativ ist Sicherheit

Hochschule Harz

GeID/eIDAS at Universities Management

GeID proxy for cross domain university access (HZU-MLU)

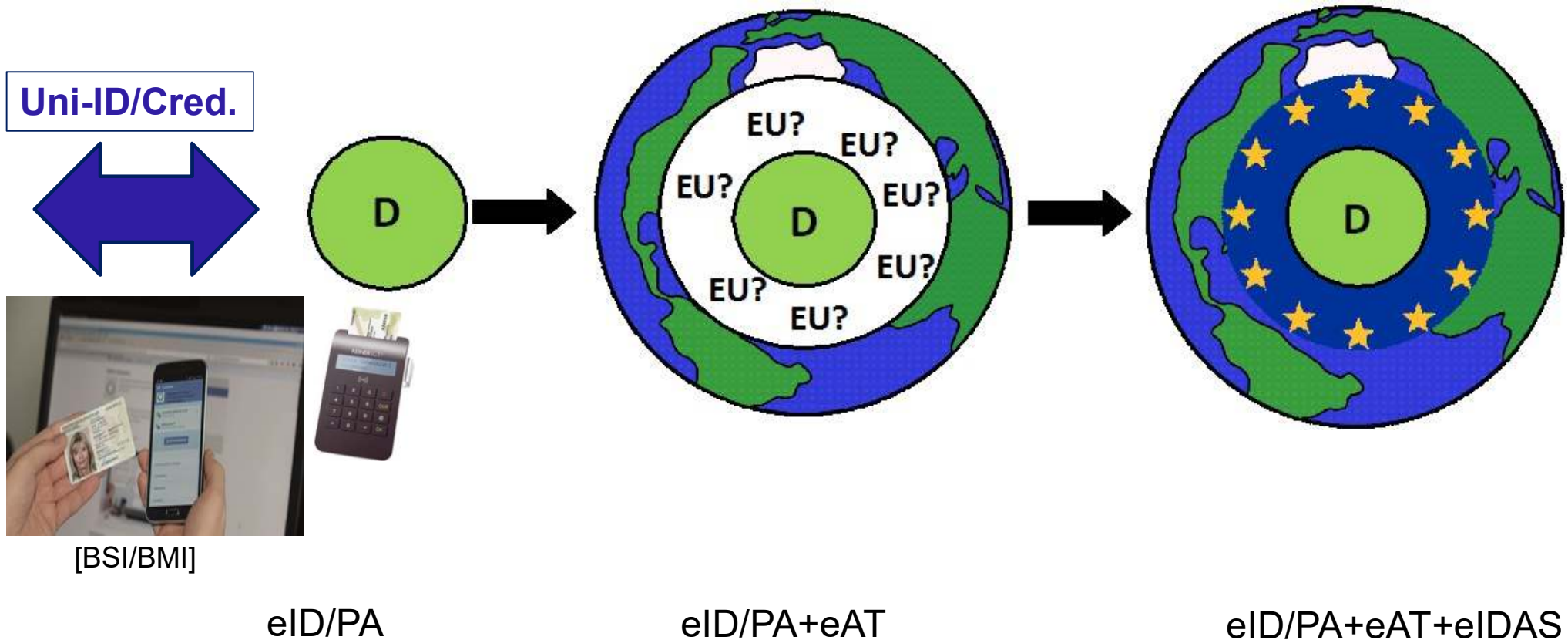


eIDAS @ University Management



eIDAS @ Universities – „saving the missing donut“ ?

Extension of the eID Access Topology (D): the cross-border way (EU, interop.)



TREATS Consortium Partners:

- MTG (media transfer AG)
- OpenLimit SignCubes GmbH
- Governikus GmbH & Co. KG
- HSH Soft- und Hardware Vertriebs GmbH
- SiXFORM GmbH
- Bundesdruckerei GmbH
- Harz University of Applied Science
- Anstalt für Kommunale Datenverarbeitung in Bayern (AKDB)

eID server



eID Serverhersteller

Services and Applications



Anwendungen und Betreiber

Staatlicher Auftraggeber:

- Bundesinnenministerium
vertreten und unterstützt durch das
- Bundesamt für Sicherheit in der Informationstechnik



Mentoring / Überwachung



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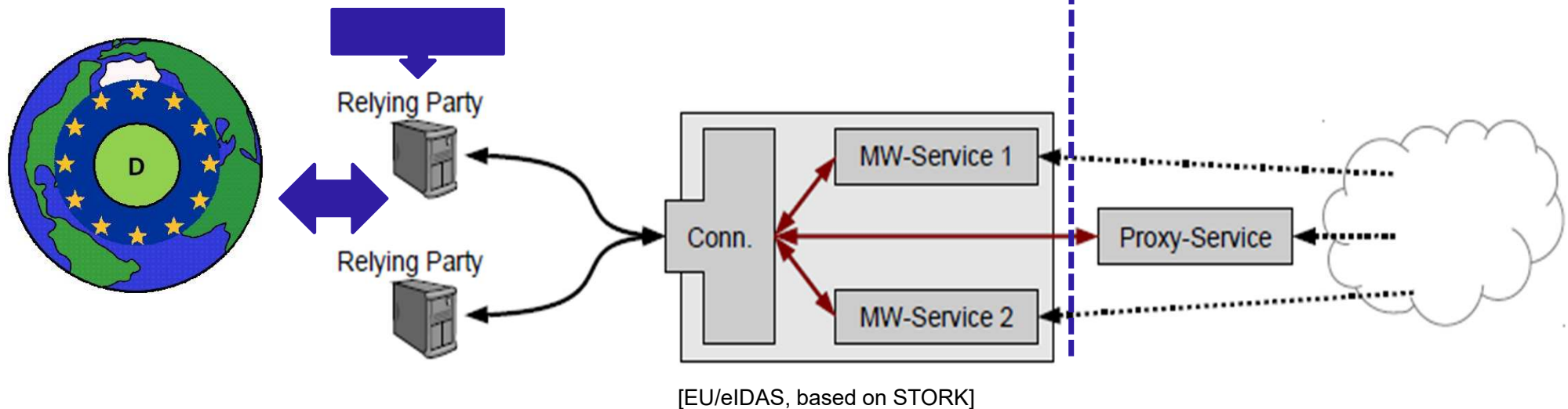
TREATS (TRans-European AuThentication Services)
Action-No: 2015-DE-IA-0065 (EU CEF)

TREATS – TRansEuropean Authentication Services (eIDAS)

HS-Harz - eIDAS extended Applications (3 * APEX use case) :

case) :

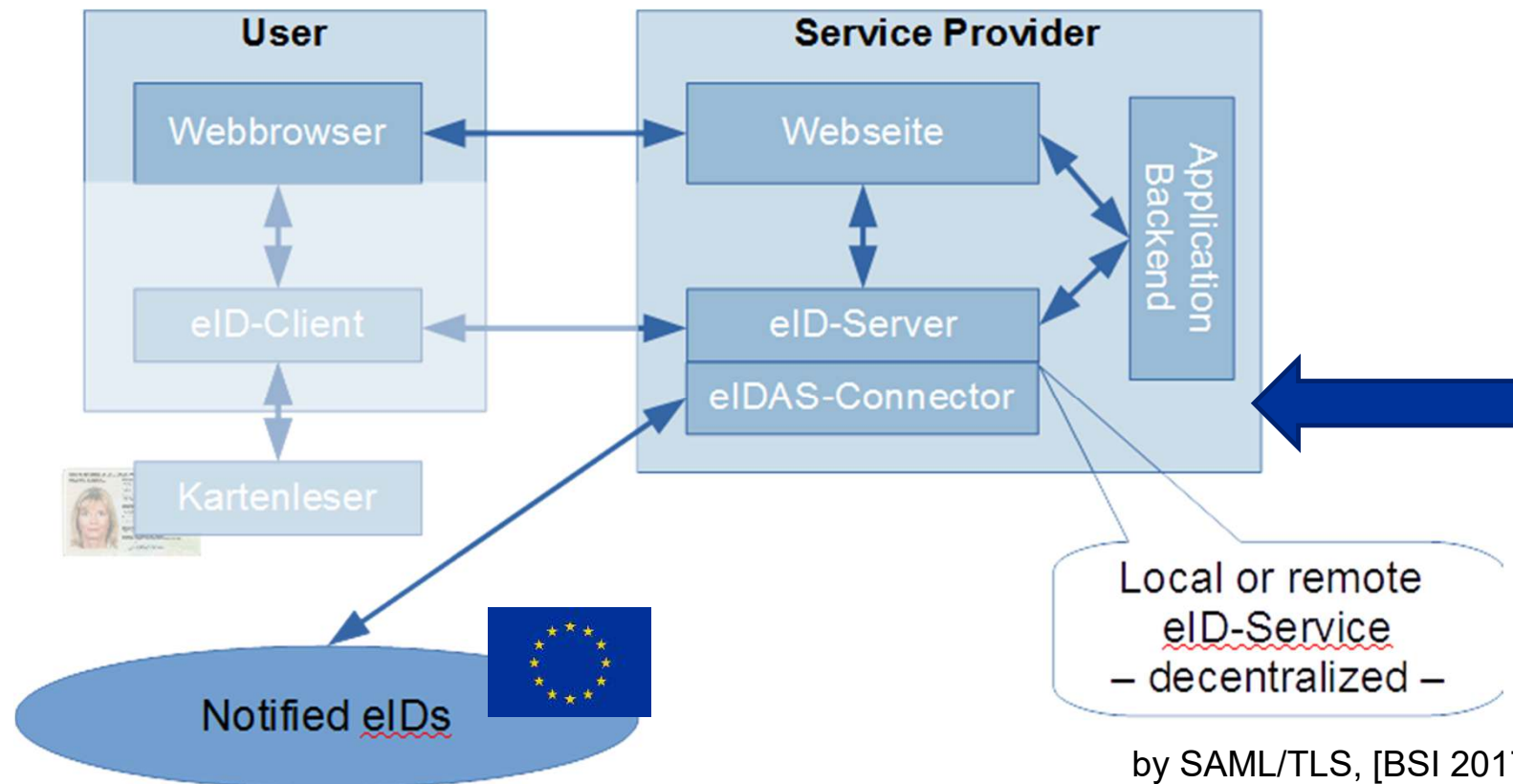
Student Mobility, Research, Local Appl.-Infrastructure



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EU „MS boarder“

TREATS – eIDAS eID Server/Service extension



by SAML/TLS, [BSI 2017, TR03130]

TREATS workshop @ Berlin 8.6.2017: <http://netlab.hs-harz.de/TREATSWS/>

MyResearch (HZU): eIDAS eID APEX & System/Process Integration

MyResearch Home Benutzerportal Administration Logout

MyResearch @ Hochschule Harz

- gesichert mit neuem Personalausweis

Up/Download - Research Partner

EU-CEF-eID-Application-2015-v05.pdf

Upload Entfernen

Vorschau Download

Up/Download - Research Office

EU-CEF-eID-Application-2015-v07.pdf

Upload Entfernen

Vorschau Download

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Powered by Governikus KG



Connecting Europe Facility
TREATS (TRAns-European AuThentication Services)
 Project-No: 2015-DE-IA-0065



eID/eIDAS minimal data set:

eIDAS MDS	German eID
Current family name(s)	Last Name
Current first name(s)	First name
Date of birth	Date of birth
Uniqueness identifier	Pseudonym
Name(s) at birth	Birth Name (if present)
Place of birth	Place of birth
Address	Address
Gender	-

[BSI, Bender, 2017]

- eIDAS Uni.ID integration:
shell architecture (Authent. & Autoriz.)
- eIDAS-Signature:
out of project scope TREATS



StudIES+ (EU CEF)

Student's Identification and Electronic Signature Services - Objectives

StudIES+ as a distributed platform

- will **facilitate the mobility** of students in the European Union (Gothenborg Declaration 2017)
- **build trust** for secure e-services among students (~ 2025)
- will **incorporate digital services** for Higher Education Institutions (HEIs) students
- services will be accessible via
 - **eID** (including eIDAS eID) and
 - **derived eIDs** (Erasmus Student eCard) as well as provide
 - **eSignature/eSeal/time stamp services** that rely on DSS for eSignature generation and verification.
- **Digital Transaction Management (DTM) platform** will be connected to the StudIES+ platform in order to offer a platform for eSigned document exchange between students, HEI, HEI services organisations on the one hand and businesses on the other hand.
- Secure exchange of the documents will also be ensured by deploying **secure document exchange** (ePROSECAL) and **notarization platform/services** (eNOTAR)



StudIES+ Scope & Overview

Francotyp-Postalia (lead)
Bundesdruckerei, FU Berlin, HS Harz, sixform

HS Harz Part – Application Scope:

- MyCredentials ➡ YourCredentials (signed)
- ...eNotar-platform/services (sign. integration)
- ...MyPracticum, MyDiploma, MyToR ...

Hochschule Harz

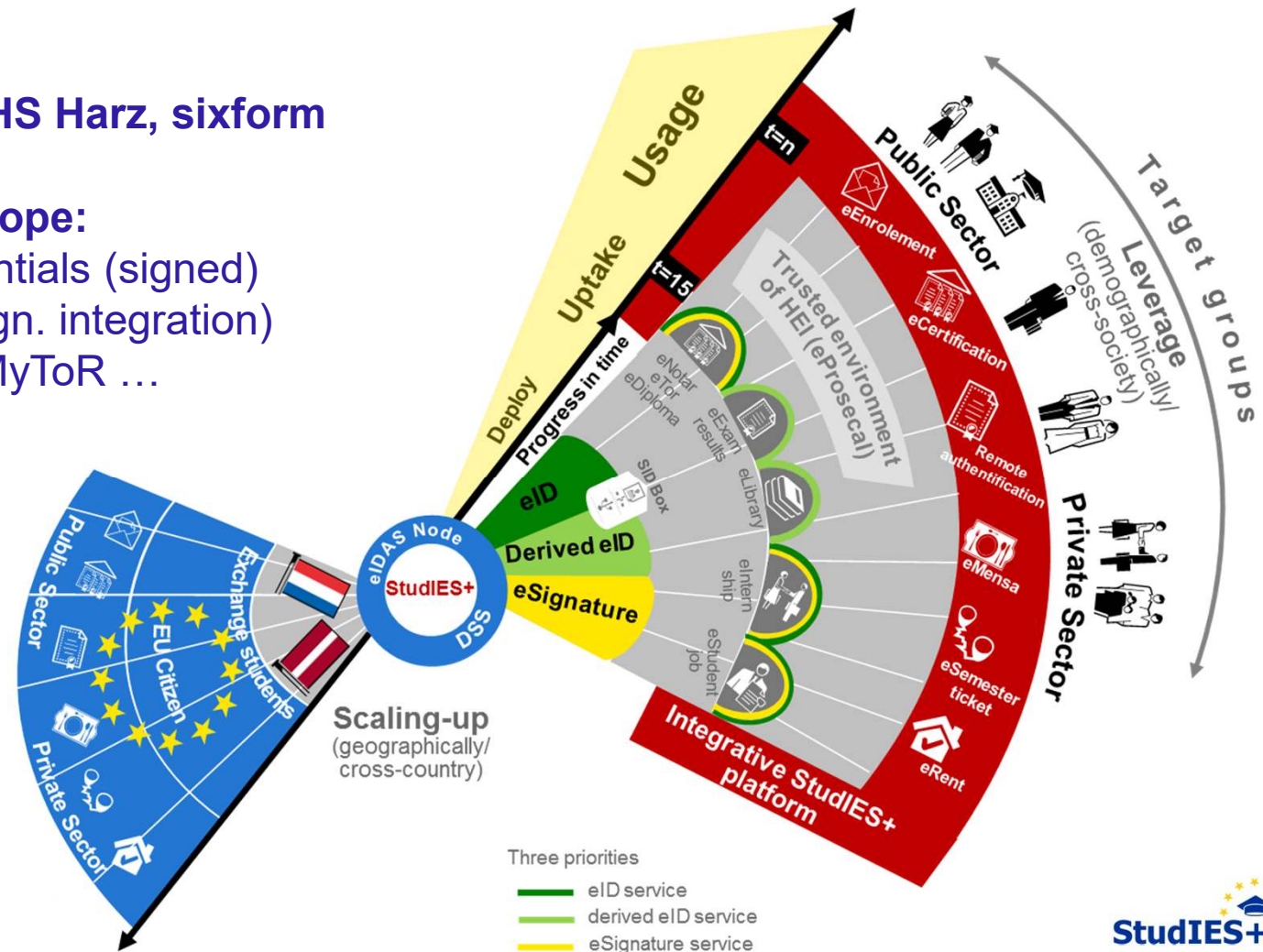
bdr
BUNDESDRUCKEREI

SiXFORM

FP
GERMAN MAILENGINEERING

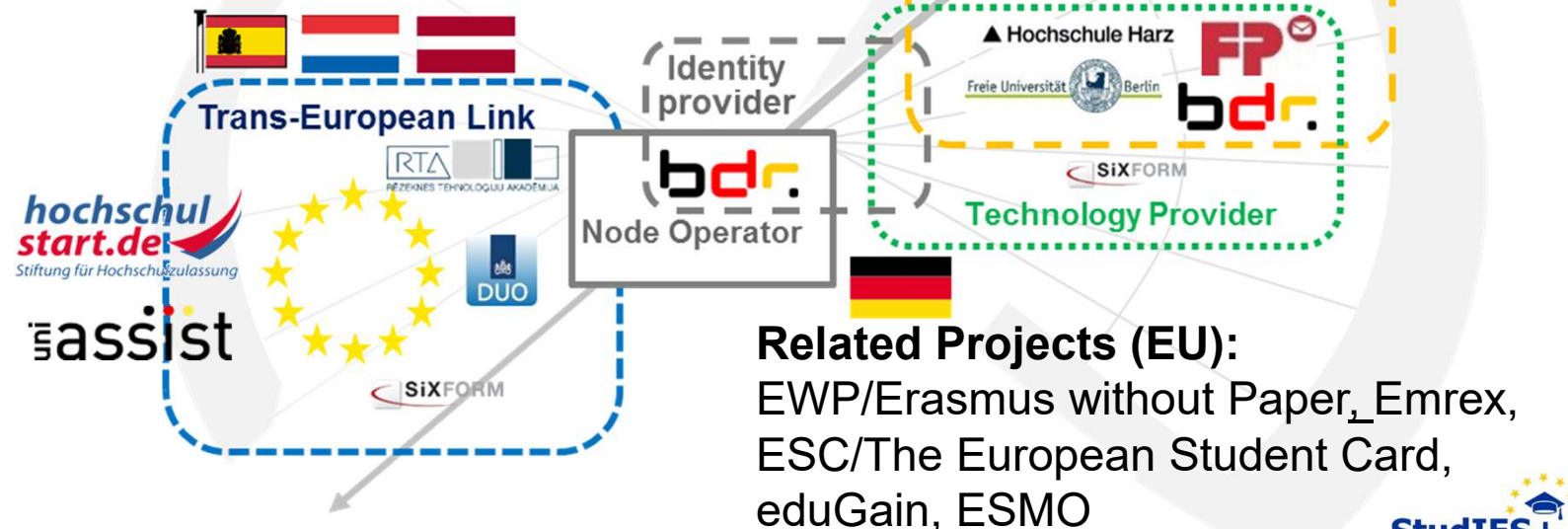
Freie Universität Berlin

Consortium Project Scope:



StudIES+-Partners - News, Outlook

- 12/2017: Gotenborg Declaration (EU): eID-4-Students
- 03/2018: Kickoff StudIES+
- 03/2018: eIDAS & ESC Student projects workshops @ EU (1)
- 05/2018: Hochschulstart.de + netlab @DUO NL
- 09/2018: StudIES+ Spec. & Prototyping
- 01/2019: eIDAS & ESC Student projects workshop @ EU (4)
- 06/2019: eIDAS & ESC Student projects workshop @ EU (5)
- mid term outlook (OZG law for eGov.-Online DE ~ 2022): eQualification @ eID-Service-Konto





StudIES+ (EU CEF) – ongoing work (HZU)

eIDAS user/student hybrid IDs & account(s), academic attributes, applications & platforms/services

- Hybrid Ids / Accounts:

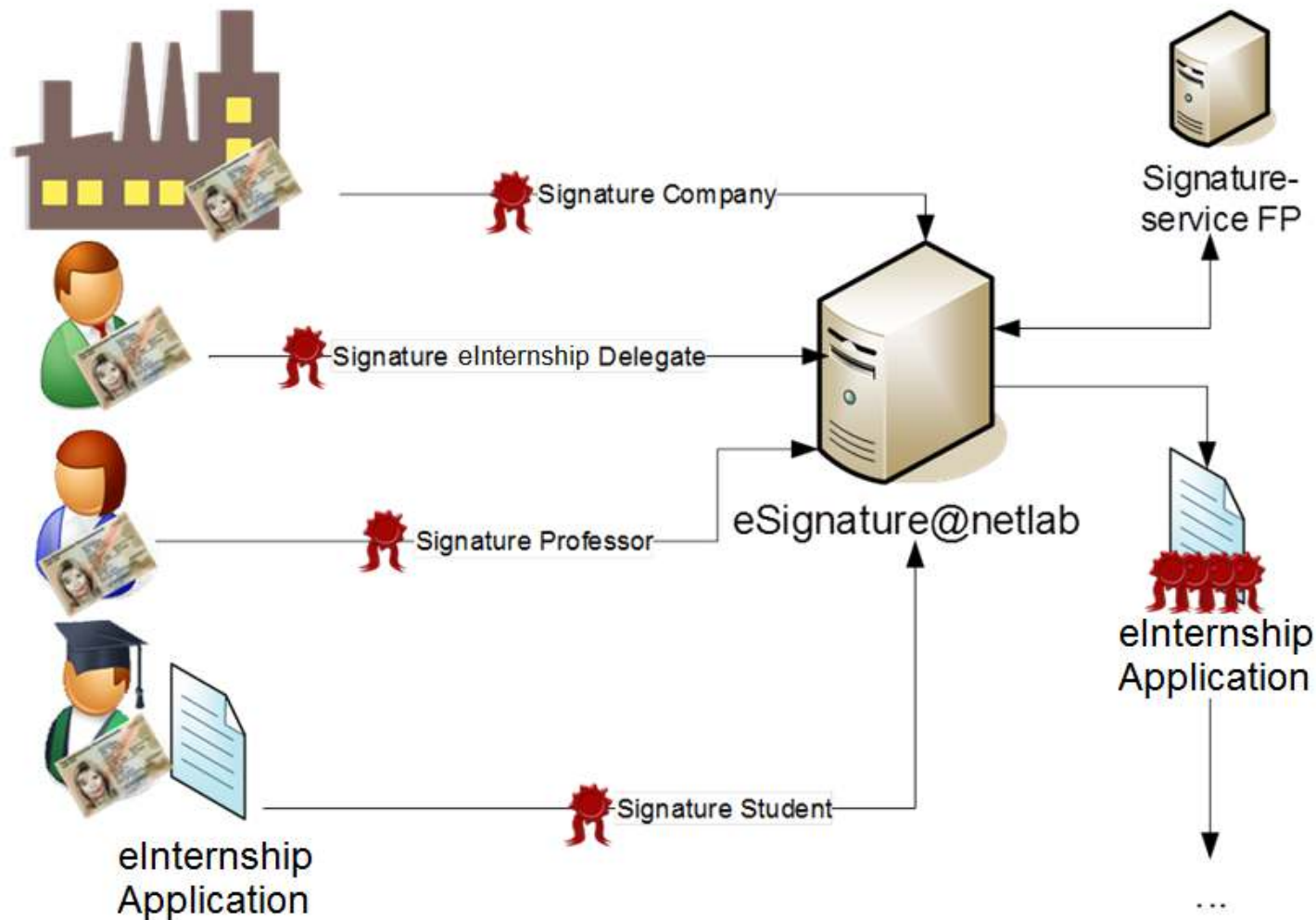
- Uni Ids (legacy)
- GeID/eIDAS pseudonym / identifier (application & PA specific)
- Uni & Citizien service accounts
- Academic Attributes

- eIDAS based Applications/APEX (eID/eSign.):

- eInternship – management of student mobility for Internships/Practica
- eNotar – (remote) notarization of eDiploma/eToR etc. (no eDiploma register DE*), coop. „Stiftung für Hochschulzulassung/hochschulstart.de“
- eTestate: eLab/eExam–Registration
- Application backend for Security support: eProSecal platform/services

*)but by law: ... public admin. **should** give QES eNotarizations for their doc.... (§33 VwVfG (6)-(7))

eInternship forms - by eIDAS eID & eSign. mutually





eInternship - by eIDAS eID & eSign. mutually

 **Hochschule Harz**

Hochschule für angewandte Wissenschaften

Version: 0.9

Startseite Kontakt de | en

eInternship4eIDAS	Vorgänge	Meine Daten	abmelden
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Bachelorpraktikum , (als Studierende(r)) vom 22.10.2018 bis 29.10.2018

Details:

Allgemeine Angaben

von: 22.10.2018, bis: 29.10.2018

Matrikel-Nr: 123456, Studiengang: Informatik

Unternehmung/Einrichtung

Musterfirma

Musterstraße 12345 Musterstadt

Telefon: 0123456789, Fax: 0123456789, Webadresse: www.musterfirma.com

Beauftragte/r der Praxisstelle

Max Mustermann

Durchwahl: 123456789, E-Mail: muster@muster.com Musterstadt

Hochschulseitige(r) Betreuer(in)

Maxima Musterfrau

E-Mail: muster@muster.de

Praktikumsbeauftragte(r)

E-Mail: mster@muster.de

Dokumente:

Antrag

Vertrag

Praktikumsbericht

Dokument hochladen

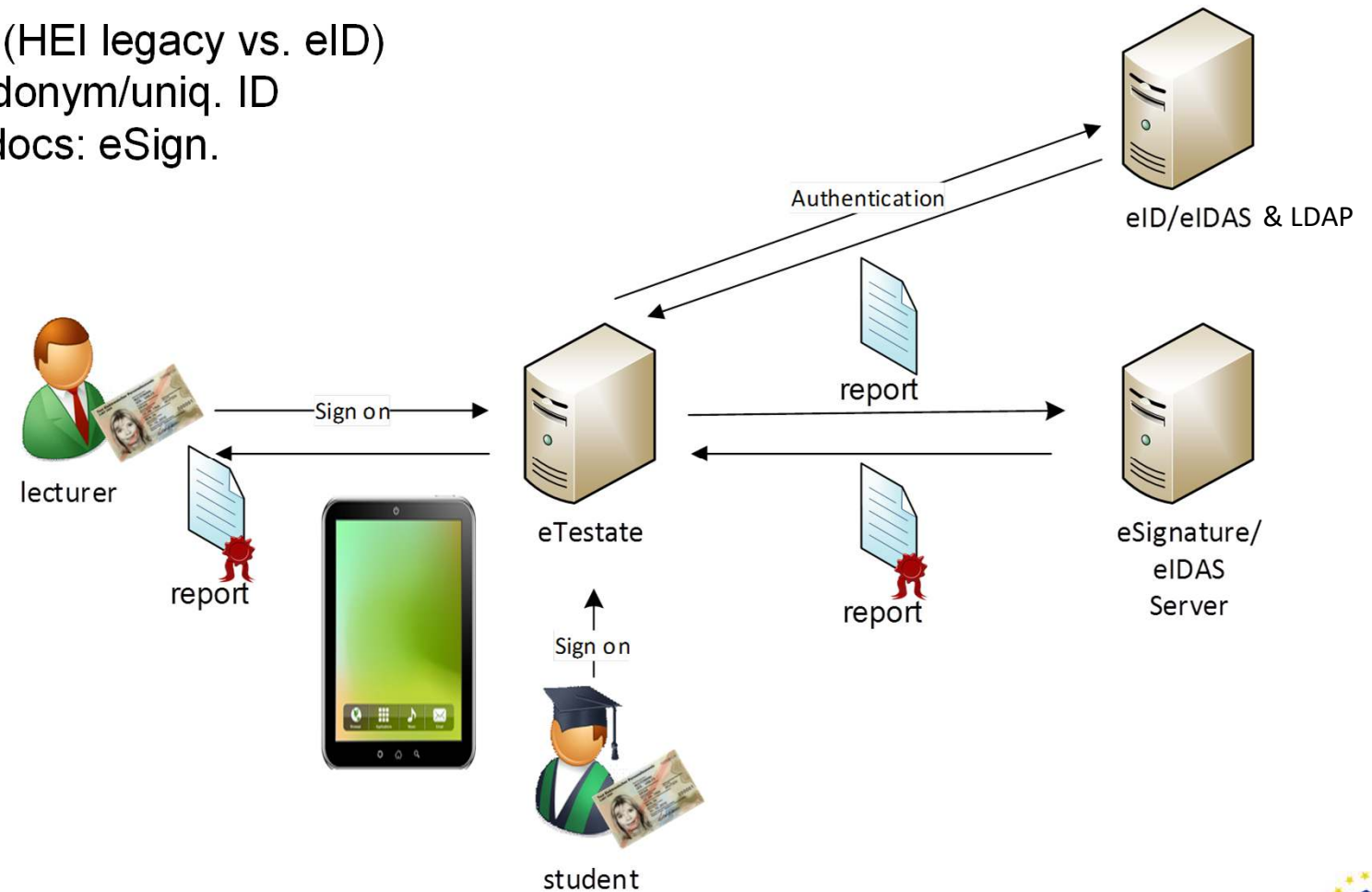
Dokument hochladen

Dokument hochladen

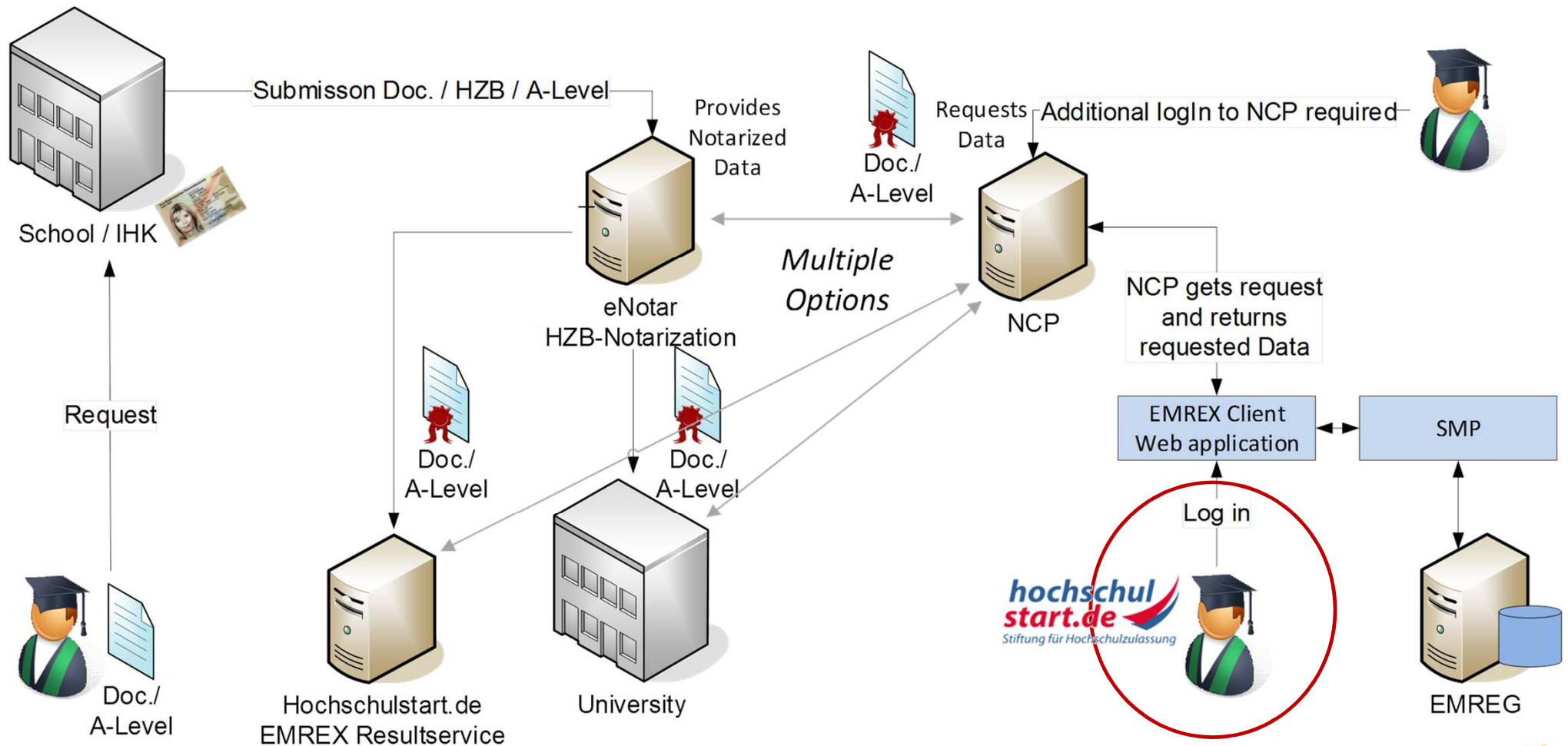
Neuen Vorgang erstellen

eTestate – Lab/Exam registration by eIDAS eID/eSign.

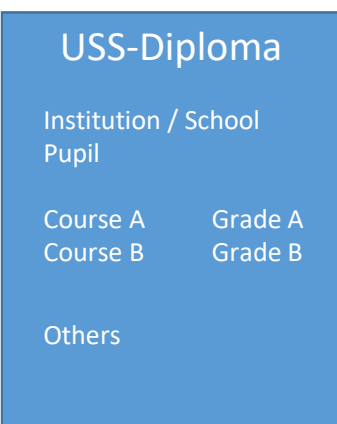
- Hybrid Account / ID (HEI legacy vs. eID)
- LDAP vs. eID Pseudonym/uniq. ID
- Legally binding for docs: eSign.



eNotar + Emrex – by eIDAS eID & eSign. (ongoing/prototyping)



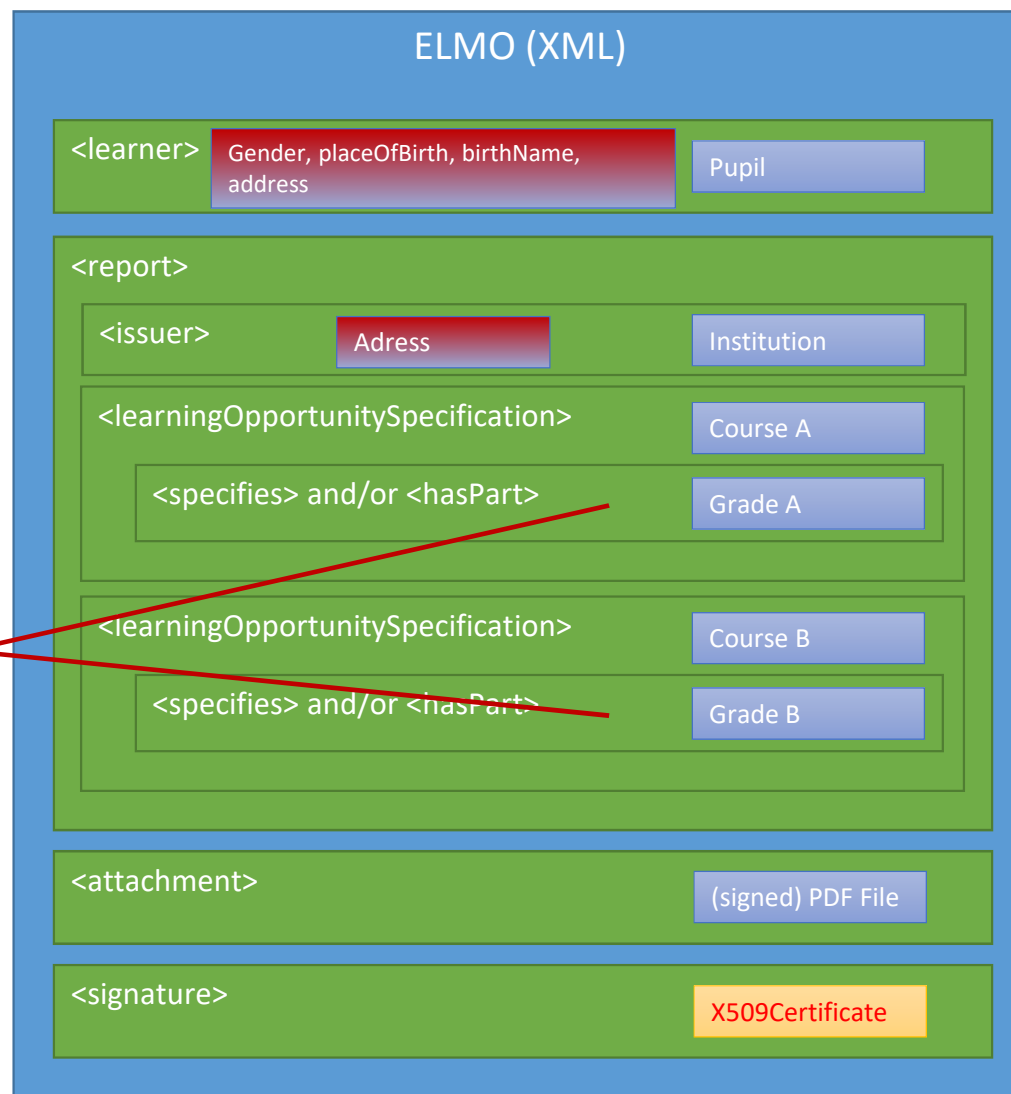
ELMO – Additional data for German Upper Secondary School diploma



Create Meta / XML File

Average grade, grade in points - 300-900, grade in points - 280-840

Create PDF (opt. signed)

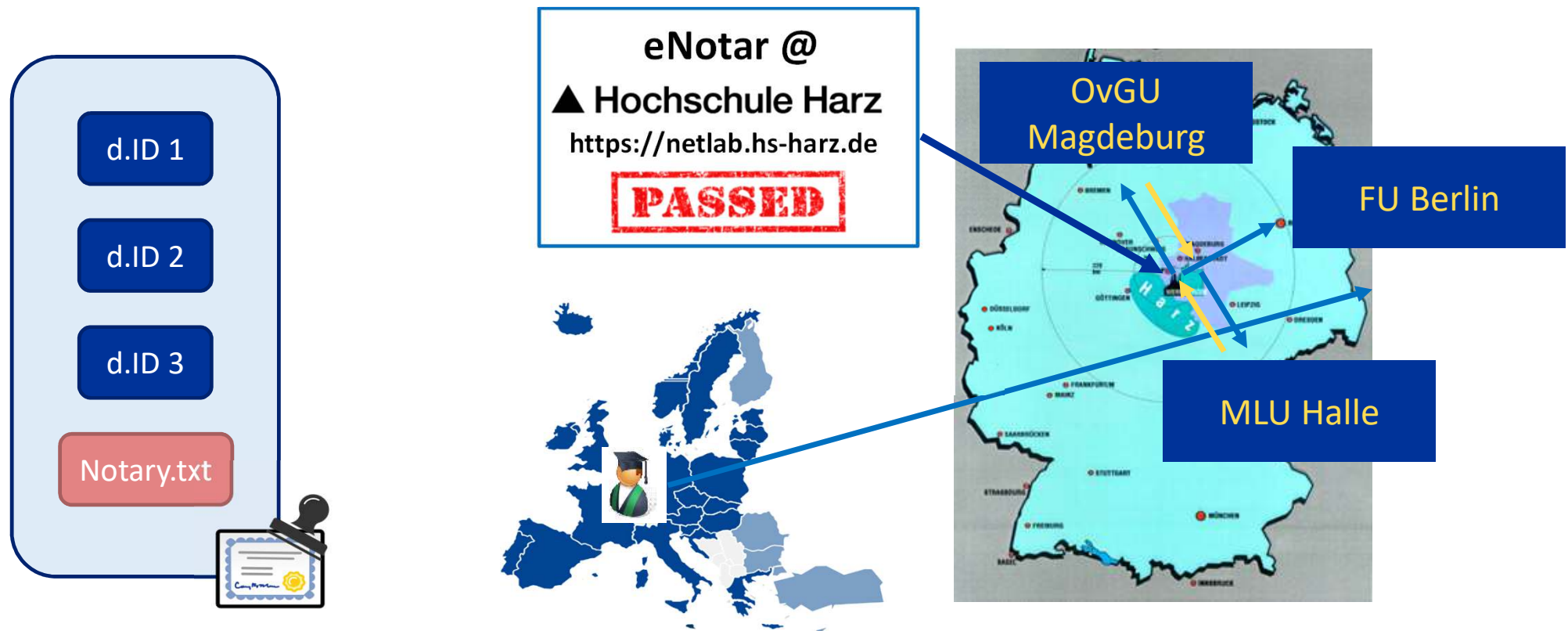


create Enveloped Signature

StudIES+

YourCredentials (StudIES+, ongoing)

- eNotarization for derived Ids (signed d.ID shares/matches)
- eID Sharing Hochschulen LSA (HSG, LSA)



Conclusions/Outlook



- eIDAS extensions of eID/eSign. Infrastruct. & Applicat. for HEI/EDU (TREATS/StudIES+, EU CEF)
- Use Cases at HEI/EDU DE & at public/private Sector, eg. eNOTAR for eDiploma/eExam/eCert/IDs
- eInteroperability for Student Mobility Services by eIDAS / EMREX (ongoing)
- interoperable eServices (eIDAS) by Law DE (OZG, ~ 2022)



Thanks for your kind Attention, Interests in cross-boarder testings, Questions?



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<https://studies-plus.eu>

<https://netlab.hs-harz.de/research/>

<https://netlab.hs-harz.de/TREATSWS/>

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