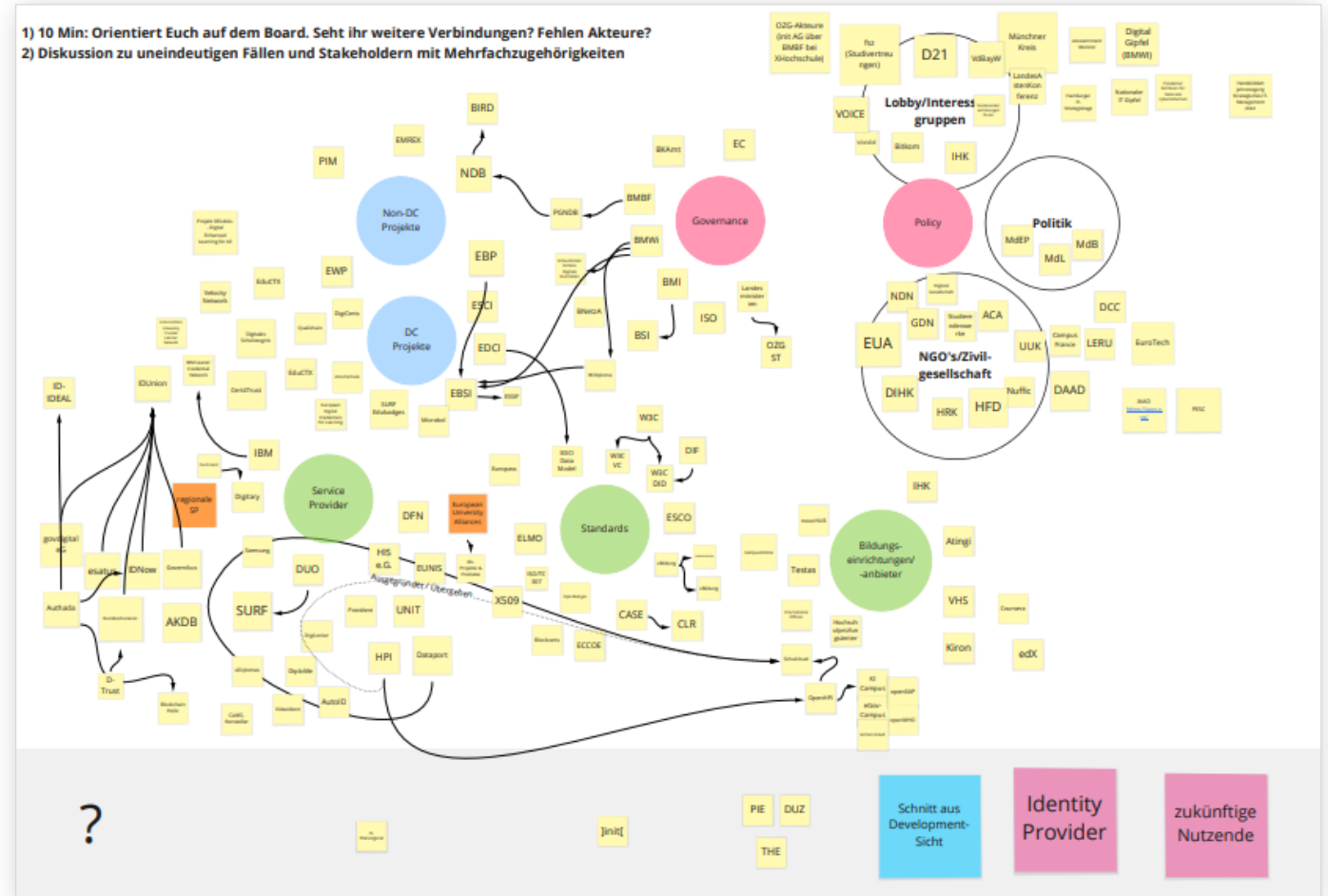


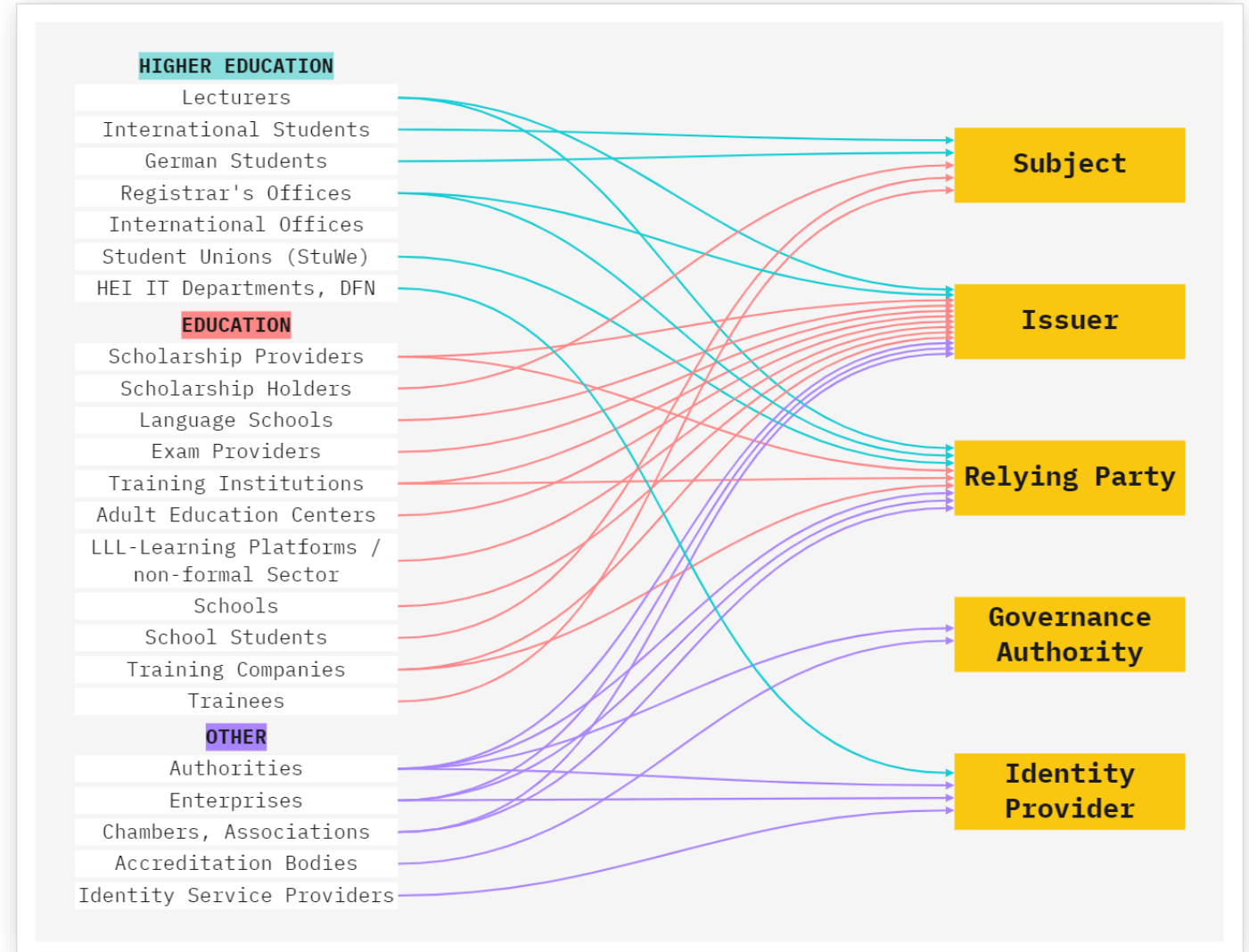
In Review: Dissemination & Stakeholder Engagement

- Introduction
- Dissemination Objectives
- User Workshop on Requirements
- Community Building:
 - Digital Credentials Regulars
 - Community Briefings
- Moving Target Digitalisation 2022

A complex landscape



With many actors



Dissemination Objectives

Future Users

- Collect feedback for development
- Elicit requirements
- Map processes and identify barriers to implementation
- Review, test and evaluate

Scientific Community

- Inform and create visibility
- Community building
- Participate in specialised discourse

Governance and Policy

- Advocacy at all political levels
- Agenda-setting with regard to legal and political frameworks
- Distribute knowledge on digital credentials

Requirements User Workshop

Einführung

User Workshop: Anforderungen DiBiHo

Frame 1

Frame 2

2

Wir haben die Wünsche und Sorgen von drei zukünftigen Nutzer*innen identifiziert. Priorisieren Sie die Anforderungen an einen Standard für Bildungsnachweise aus Perspektive der dargestellten Personen. Vergeben Sie max. 5 Punkte je Person, die Kumulation von Punkten ist möglich.

Ich möchte meine Nachweise praktisch und sicher verwahren, sodass ich die volle Kontrolle über meine Daten habe und jederzeit darauf zugreifen kann.

Ich möchte alle mich betreffenden Informationen in einer Wallet speichern, damit ich schnellen Zugang habe.

Ich möchte nur ein Minimum an Nachweisen an einen Arbeitgeber (Rating Party) übermitteln, sodass ich die Kontrolle über meine Daten behalte.

Ich möchte aus meinen digitalen Nachweisen eine menschensichere Version erzeugen, um diese aufzuhängen.

Ich möchte mehrere Identifikatoren besitzen, um die volle Kontrolle über meine Daten zu haben.

Ich möchte eine Freigabe erteilen, wenn ein Arbeitgeber oder Uni meine Nachweise erhält oder verifiziert.

Ich möchte in der Lage sein meine Identität zu verbergen, wenn ich einen Nachweis teile, sodass ich entsprechende Dienste unter einem Pseudonym nutzen kann.

Ich möchte verschiedene, auch außerhochschulische Kompetenzen erwerben und die Nachweise meinem LinkedIn-Profil hinzufügen.

Ich möchte einen Nachweis der internationalen Interoperabilität, um Kosten und Aufwand für Notar und Beglaubigungen einzusparen.

Ich möchte einen digitalen Nachweis ausstellen (oder auch widerrufen), damit ich die Leistung eines spezifischen Lernenden bestätigen kann.

Ich möchte Lernendendaten löschen können, damit ich der DSGVO entsprechen kann.

Ich möchte jede Nachweissignatur einem spezifischen Delegierten zuordnen, sodass ich im Falle von Irrtum oder Fehlverhalten Rechenschaft ablegen kann.

Ich möchte ein System, dass verschiedene Nachweistypen unterstützt, sodass ich flexibel arbeiten kann.

Nachweise stelle ich auch ohne die vorherige Freigabe der Lernenden aus.

Ich möchte ein System, dass verschiedene nationale Rechtsordnungen berücksichtigt.

Ich möchte einheitliche Anforderungen an einen Bildungsnachweis.

Ich möchte die ausgestellten Dokumente auch digital archivieren können.

Ich möchte ein System, dass nahtlos mit meiner bestehenden Infrastruktur funktioniert.

Ich möchte einen Nachweis verifizieren, sodass ich sicher sein kann, dass der Inhalt des vorgelegten Nachweises vertrauenswürdig ist.

Ich möchte die Informationen innerhalb des digitalen Nachweises in meine digitalen Prozesse integrieren, sodass ich sie in weiteren internen Arbeitsabläufen weiter verwenden kann.

Ich möchte so viel wie möglich des Prüfungsprozesses automatisieren.

Ich möchte, dass auch außerhochschulische Leistungen z.B. berufsbegleitende MOOCs in digitalen Nachweisen berücksichtigt werden.

Ich möchte einen Nachweis ohne Freigabe der betroffenen Person verifizieren können.

Ich möchte den Aussteller eines digitalen Nachweises authentifizieren, sodass ich die Identität und Berechtigung des Ausstellers kenne und damit die Gültigkeit des vorliegenden Nachweises verifizieren kann.

Ich möchte ein System, dass nahtlos mit meiner bestehenden Infrastruktur funktioniert.

Laia, die lebenslange Lernerin

Amparo, die akribische Ausstellerin

Peter, der prüfende Personaler

Ich wohne in Barcelona und würde gerne in Stuttgart meinen Master machen. Für die Bewerbungen muss ich meine Originalzeugnisse zur Verfügung stellen. Und Geld für die beglaubigten Übersetzungen habe ich auch nicht.

Ich koordine die Auslandsaufenthalte meiner Studierenden und stelle das TdF und individuelle Leistungsscheine aus. Je nach Land gibt es unterschiedliche Anforderungen an die auszustellenden Dokumente, das kann chaotisch sein und ich muss oft individuelle Anfragen beantworten.

Ich arbeite für ein mittelgroßes Unternehmen in der Personalabteilung. Der Einstellungsprozess muss so effizient wie möglich ablaufen, um Kosten zu sparen. Aktuell muss ich jede Zeugnisprüfung individuell durchführen, das ist äußerst mühsam.

3.4 Frame 6

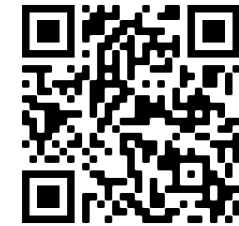
3.5 Frame 9

3.6 Frame 12

Screenshots: Miro ([Doku_DiBiHo User Workshop Anforderungserhebung](#))

Requirements User Workshop

Browse the requirements on Miro:

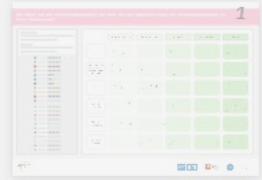


Einführung



User Workshop: Anforderungen DIBiHo

Frame 1



Core Functionality

Summary

- ISSUE-01** As a learner, I want to authorize relying parties to receive and verify my credentials, so that I can share my data.
- ISSUE-02** As a learner, I want to manage requests, approve, decline, revoke, delete my credentials in a usable and secure way, so that I have full control over my data, can access it at all times, can use the system and have trust in the system.
- ISSUE-03** As a learner, I want to be my identifier (my mobile identity) so that I can identify myself.
- ISSUE-04** As a learner, I want to receive my keys, so that I can add my own mobile identity to my keys.
- ISSUE-05** As a learner, I want to choose a new account, so that I can have digital credentials assigned to me.
- ISSUE-06** As a learner, I want to choose a device family, change my number, delete or reset my phone, so that I can have the best device for my needs.
- ISSUE-07** As a learner, I want to choose my storage location, so that I can choose the storage location for my keys of accessibility, privacy, security.
- ISSUE-08** As a learner, I want to have all information related to my data available in my profile, so that I can have full control.
- ISSUE-09** As a learner, I want to have all information related to my data available in my profile, so that I can have full control over my data.

Additional Functionality

Summary

- ISSUE-10** As a learner, I want to be able to revoke my credentials so that I can have full control over my data.
- ISSUE-11** As a learner, I want to be able to revoke my credentials so that I can have full control over my data.
- ISSUE-12** As a learner, I want to be able to revoke my credentials so that I can have full control over my data.
- ISSUE-13** As a learner, I want to be able to revoke my credentials so that I can have full control over my data.
- ISSUE-14** As a learner, I want to be able to revoke my credentials so that I can have full control over my data.
- ISSUE-15** As a learner, I want to be able to revoke my credentials so that I can have full control over my data.
- ISSUE-16** As a learner, I want to be able to revoke my credentials so that I can have full control over my data.
- ISSUE-17** As a learner, I want to be able to revoke my credentials so that I can have full control over my data.
- ISSUE-18** As a learner, I want to be able to revoke my credentials so that I can have full control over my data.
- ISSUE-19** As a learner, I want to be able to revoke my credentials so that I can have full control over my data.

Non-Functional Requirements

Open Standard And Interoperable Use

- ISSUE-20** The DIBiHo system shall be interoperable regarding who can participate in the system.
- ISSUE-21** The DIBiHo system shall be interoperable regarding who can participate in the system.
- ISSUE-22** The DIBiHo system shall be interoperable regarding who can participate in the system.
- ISSUE-23** The DIBiHo system shall be interoperable regarding who can participate in the system.
- ISSUE-24** The DIBiHo system shall be interoperable regarding who can participate in the system.
- ISSUE-25** The DIBiHo system shall be interoperable regarding who can participate in the system.
- ISSUE-26** The DIBiHo system shall be interoperable regarding who can participate in the system.
- ISSUE-27** The DIBiHo system shall be interoperable regarding who can participate in the system.
- ISSUE-28** The DIBiHo system shall be interoperable regarding who can participate in the system.
- ISSUE-29** The DIBiHo system shall be interoperable regarding who can participate in the system.

Summary

- ISSUE-30** As an issuer, I want to issue a digital credential, so that I can confirm the content of my personal information.
- ISSUE-31** As an issuer, I want to be able to issue credentials, so that I can be sure that they cannot be used by anyone.
- ISSUE-32** As an issuer, I want to be able to issue credentials, so that I can be sure that they cannot be used by anyone.
- ISSUE-33** As an issuer, I want to be able to issue credentials, so that I can be sure that they cannot be used by anyone.
- ISSUE-34** As an issuer, I want to be able to issue credentials, so that I can be sure that they cannot be used by anyone.
- ISSUE-35** As an issuer, I want to be able to issue credentials, so that I can be sure that they cannot be used by anyone.
- ISSUE-36** As an issuer, I want to be able to issue credentials, so that I can be sure that they cannot be used by anyone.
- ISSUE-37** As an issuer, I want to be able to issue credentials, so that I can be sure that they cannot be used by anyone.
- ISSUE-38** As an issuer, I want to be able to issue credentials, so that I can be sure that they cannot be used by anyone.
- ISSUE-39** As an issuer, I want to be able to issue credentials, so that I can be sure that they cannot be used by anyone.

Summary

- ISSUE-40** As an issuer, I want to be able to issue credentials, so that I can be sure that they cannot be used by anyone.
- ISSUE-41** As an issuer, I want to be able to issue credentials, so that I can be sure that they cannot be used by anyone.
- ISSUE-42** As an issuer, I want to be able to issue credentials, so that I can be sure that they cannot be used by anyone.
- ISSUE-43** As an issuer, I want to be able to issue credentials, so that I can be sure that they cannot be used by anyone.
- ISSUE-44** As an issuer, I want to be able to issue credentials, so that I can be sure that they cannot be used by anyone.
- ISSUE-45** As an issuer, I want to be able to issue credentials, so that I can be sure that they cannot be used by anyone.
- ISSUE-46** As an issuer, I want to be able to issue credentials, so that I can be sure that they cannot be used by anyone.
- ISSUE-47** As an issuer, I want to be able to issue credentials, so that I can be sure that they cannot be used by anyone.
- ISSUE-48** As an issuer, I want to be able to issue credentials, so that I can be sure that they cannot be used by anyone.
- ISSUE-49** As an issuer, I want to be able to issue credentials, so that I can be sure that they cannot be used by anyone.

Summary

- ISSUE-50** The DIBiHo system shall be designed with an upgrade strategy.
- ISSUE-51** The DIBiHo system shall be designed with an upgrade strategy.
- ISSUE-52** The DIBiHo system shall be designed with an upgrade strategy.
- ISSUE-53** The DIBiHo system shall be designed with an upgrade strategy.
- ISSUE-54** The DIBiHo system shall be designed with an upgrade strategy.
- ISSUE-55** The DIBiHo system shall be designed with an upgrade strategy.
- ISSUE-56** The DIBiHo system shall be designed with an upgrade strategy.
- ISSUE-57** The DIBiHo system shall be designed with an upgrade strategy.
- ISSUE-58** The DIBiHo system shall be designed with an upgrade strategy.
- ISSUE-59** The DIBiHo system shall be designed with an upgrade strategy.

Summary

- ISSUE-60** The DIBiHo system shall be designed with an upgrade strategy.
- ISSUE-61** The DIBiHo system shall be designed with an upgrade strategy.
- ISSUE-62** The DIBiHo system shall be designed with an upgrade strategy.
- ISSUE-63** The DIBiHo system shall be designed with an upgrade strategy.
- ISSUE-64** The DIBiHo system shall be designed with an upgrade strategy.
- ISSUE-65** The DIBiHo system shall be designed with an upgrade strategy.
- ISSUE-66** The DIBiHo system shall be designed with an upgrade strategy.
- ISSUE-67** The DIBiHo system shall be designed with an upgrade strategy.
- ISSUE-68** The DIBiHo system shall be designed with an upgrade strategy.
- ISSUE-69** The DIBiHo system shall be designed with an upgrade strategy.

Requirements User Workshop

3.18

MoSCoW - Ihr Alias
Welcher Rolle würden Sie sich primär zuordnen?

DiBiHo-11

DiBiHo-30

☒ Learner
 ☐ Issuer
 ☐ Relying Party
 ☐ Governance Authority
 ☐ Other

3.18

Core Functionality

Learner

- DiBiHo-1 As a learner, I want to authorize relying parties to receive and verify my credentials so that they don't need to send them a certified copy of the original.
- DiBiHo-3 As a learner, I want to manage (import, present, delete, receive) my credentials in a usable and secure way, so that I have full control over my data, can access it as often as I want, because the system will then trust in the system.
- DiBiHo-4 As a learner, I want to be able to identify myself in a digital way, so that I can identify myself.
- DiBiHo-5 As a learner, I want to receive my credentials after having lost my keys.
- DiBiHo-6 As a learner, I want to create a new account, so that I can have digital credentials assigned to me.
- DiBiHo-7 As a learner, I want to choose a claim freely, change to another claim or even implement one myself, so that I can choose the claim which suits my needs best.
- DiBiHo-8 As a learner, I want to choose my registration location, so that I can switch to the location best suited to my needs of accessibility, privacy, security.
- DiBiHo-9 As a learner, I want to have all information related to the available in my wallet, so that I have full control.
- DiBiHo-10 As a learner, I want to be able to use multiple identities, so that I can have full control over how my data is connected.

Relying Party

- DiBiHo-12 As a relying party, I want to verify a credential, so that I can be sure that the content of a presented credential is trustworthy.
- DiBiHo-14 As a relying party, I want to authenticate the issuer of a presented digital credential, so that I can be sure of the identity of the issuer, as well as their authorization to issue, and therefore the validity of the credential.
- DiBiHo-15 As a relying party, I want to verify a credential without the direct involvement of the issuer, so that I can rely on the issuer's infrastructure even when the issuer party does not have experience.

Governance Authority

- DiBiHo-16 As a governance authority, I want to explore my intention about an issuer, so that relying parties and users can trust them.

Must (Minimalanforderung)

Should (hohe Relevanz)

Could / Nice to Have (geringe Relevanz)

Won't (geringste Relevanz)

Relying Party

- DiBiHo-24 As a relying party, I want to authenticate a learner, so that I can be sure that the issuer of the presented digital credential is the issuer as mentioned in the header of the digital credential.
- DiBiHo-25 As a relying party, I want to integrate the information inside a digital credential in my digital processes, so that I can use it in my further workflows.

Governance Authority

- DiBiHo-26 As a governance authority, I want to inspect the issuer and access any metrics, so that I can make informed decisions for governance.

Technical System

- DiBiHo-27 As the user, I want to use the system regardless of my disabilities, so that no barrier is excluded.
- DiBiHo-28 As the user, I want to use different sign methods, so that I can make a choice and experiment.

Further Requirements

DiBiHo-17 The DiBiHo system shall use interfaces with existing systems.

Even though, we are convinced that digital credentials are important for various reasons, we cannot guarantee every use case. The DiBiHo does not support all necessary functionality in this city.

Screenshots: Miro ([Doku DiBiHo User Workshop Anforderungserhebung](#))

User Workshop - Learnings

It is of vital importance that the learner be at the centre of the process, **user-centred data management** is a must

All information related to the **learner** must be available in their wallet to ensure full control

The system must be **free-of-charge** for learners

Authentication of the learner (i.e. identity anchors) is key for issuers, whilst the authentication of issuers is key for relying parties

Learner data must **not be used for secondary purposes**. **Data minimisation** is key

User Workshop - Surprises

Storage Location
was seen to be of
less importance by
workshop
participants

**Selective
Disclosure** or minimal
disclosure is needed
due to a growing
awareness of data
privacy

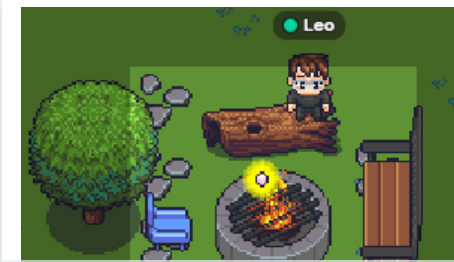
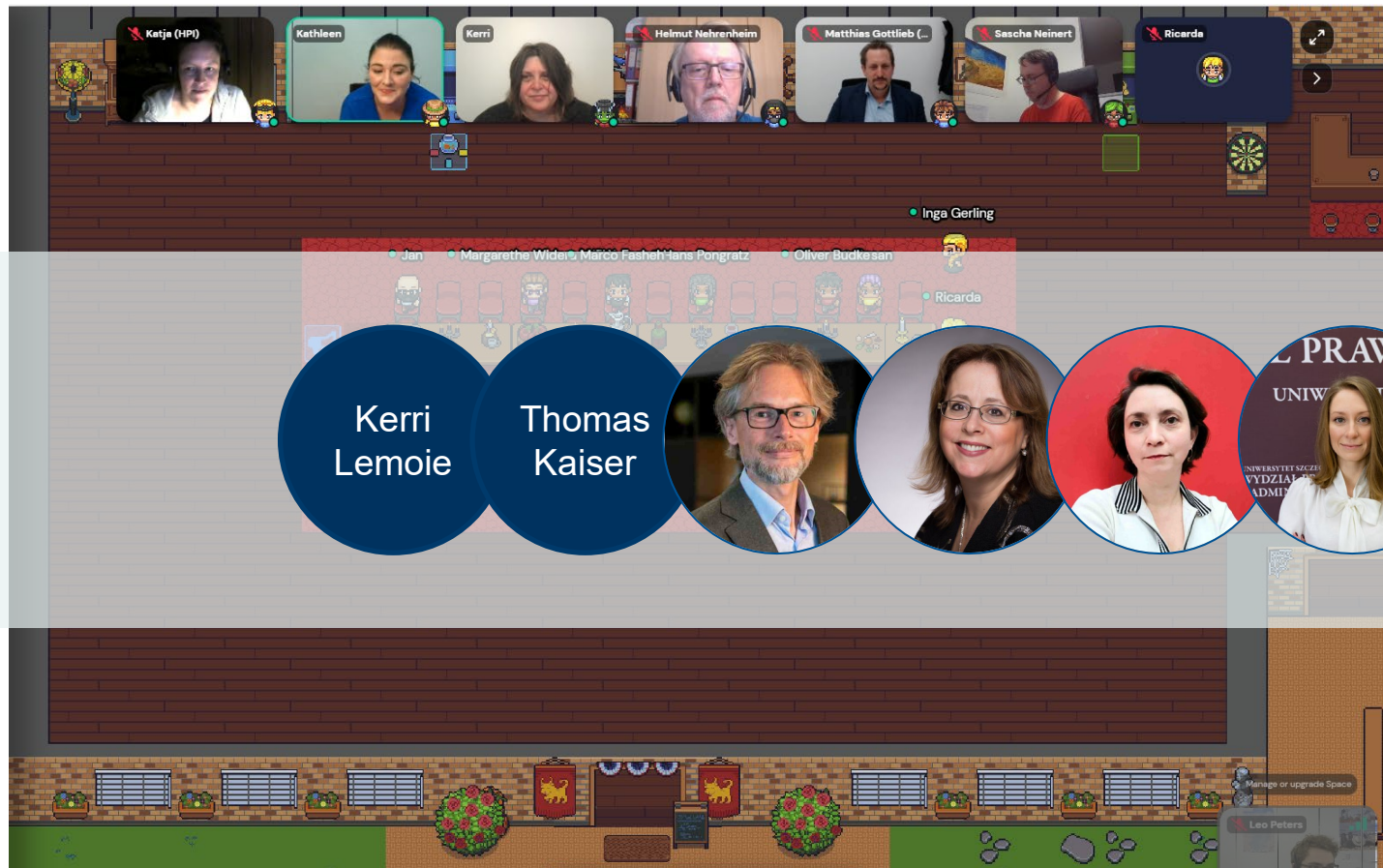
**Delegation of
Credential Management**
is needed, authorisation
concepts must be
implementable

Verification of
credentials could **directly
involve the issuer** (from
the perspective of the
relying party)

**A human-readable
version** of a VC was
important to us, but ranked
low for workshop
participants.

Multiple identifiers
were seen as a minor
issue for data control,
though user-centred
data management is a
must

Digital Credentials Regulars



Community Briefings

Join our
mailing list!



DiBiHo-Info

Digital Credentials for Higher Education Institutions |
Digitale Bildungsnachweise für Hochschulen - DiBiHo
University of Munich (TUM) | Hasso Plattner Institute for Digital Engineering (HPI) |
German Academic Exchange Service (DAAD)

[Infolist](#)

DiBiHo Community Briefing - April 2022

Community Briefing Spring

Dear Digital Credentials Community,

As Spring blossoms and the evenings grow longer, we are happy to share our update on upcoming events, credentialing news and general resources on digitalisation in Higher Education. As always, we would be more than happy to share your news or upcoming events. Please contact us at dibiho@daad.de with ideas and feedback.

All the best from Munich, Potsdam and Berlin,

DiBiHo-Info
Digital Credentials for Higher Education Institutions |
Digitale Bildungsnachweise für Hochschulen - DiBiHo
University of Munich (TUM) | Hasso Plattner Institute for Digital Engineering (HPI) |
German Academic Exchange Service (DAAD)

DiBiHo Community Briefing - January 2022

Happy New Year from the DiBiHo Team!

Dear Digital Credentials Community,

Sending you all the best wishes for a happy and healthy new year, may bring good cheer, good fortune, good luck and plenty of digital credentials content to your doorstep. Please enjoy our little roundup of upcoming events, credentialing news and general resources on digitalisation in Higher Education. As always, we would be more than happy to share your news or upcoming events. Please contact us at dibiho@daad.de with ideas and feedback.

All the best from Munich, Potsdam and Berlin,
The DiBiHo Team

DiBiHo-Info

Digital Credentials for Higher Education Institutions |
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University of Munich (TUM) | Hasso Plattner Institute for Digital Engineering (HPI) |
German Academic Exchange Service (DAAD)

DiBiHo

DiBiHo Community Briefing - November 2021

Hello there Digital Credentials-Community!

This is our 8th edition of the Digital Credentials Community Briefing, which we want to take to the next level. Keep you informed about upcoming events, updates to the Digital Credentials Community and our new project, discuss our developments and share knowledge for our new year.

Our intention is to create a space where we can share our digital credentials and we want to be more than happy to share your news or upcoming events. Please contact us at dibiho@daad.de with ideas, feedback and proposals.

All the best from Munich, Potsdam and Berlin,
The DiBiHo Team

What's new?

- Our latest briefing was on the "Introduction of Digital Credentials in a Digital University" (DiBiHo-Info) from the Hasso Plattner Institute for Digital Engineering (HPI) and the University of Munich (TUM). You can find it at dibiho.de or in the "DiBiHo-Info" newsletter.

Coming soon: Conference Moving Target Digitalisation 2022



**Track:
Digital Credentials
and Trust Networks
in Education**

**30 Nov – 2 Dec
2022, Berlin**

📍 Berlin-Brandenburg
Academy of
Sciences and
Humanities

More Info:



Photos: DAAD/Ausserhofer; BBAW/Fischer