CHICAGO
MARCH 4-7

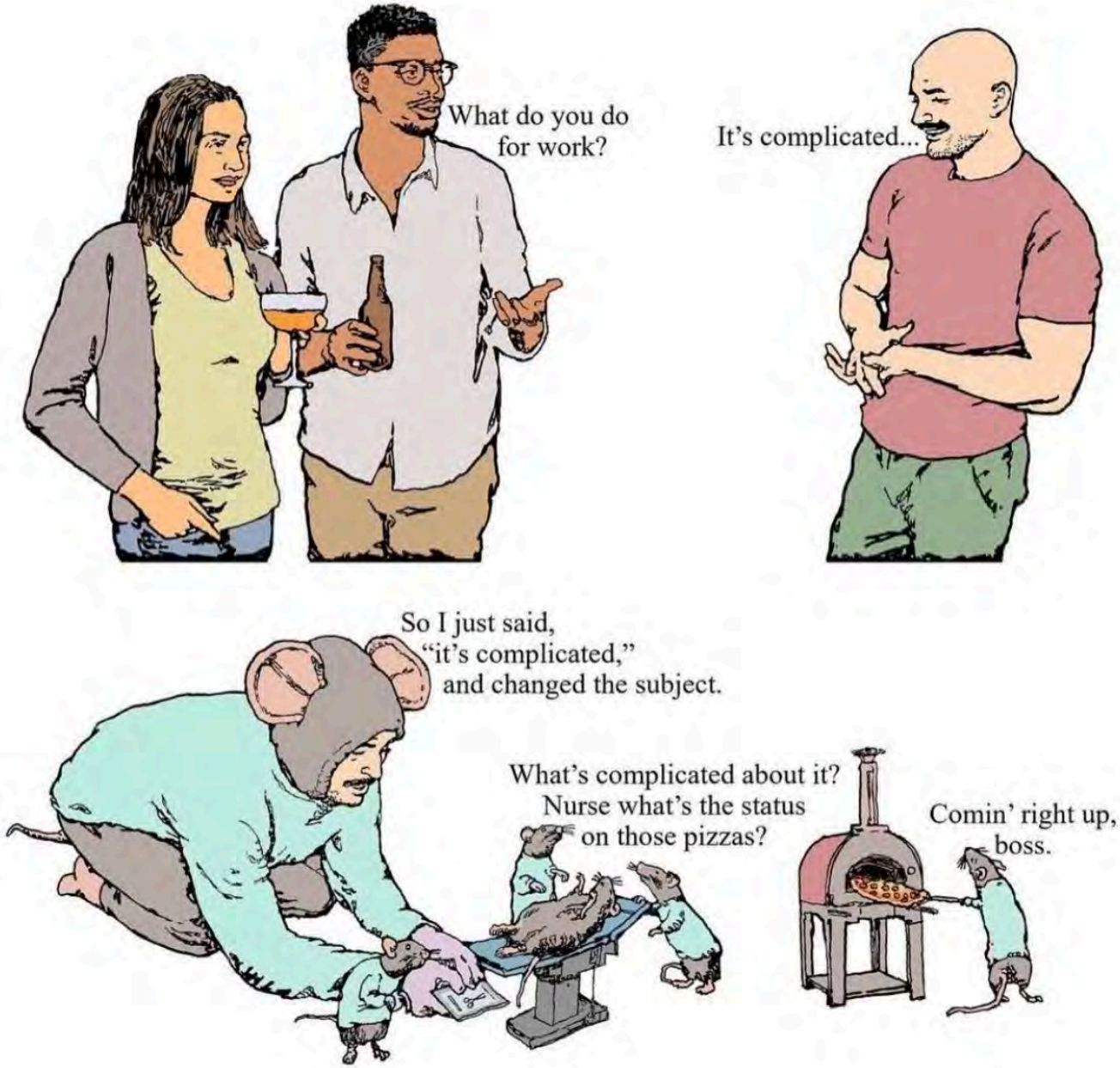
INTERNET2
2024
COMMUNITY
exchange

Whither Wallets?

The Future of Digital Identity: How Do We Get There?

March 5, 2024

(I had to)


What do you do for work?
It's complicated...
So I just said, "it's complicated," and changed the subject.
What's complicated about it? Nurse what's the status on those pizzas?
Comin' right up, boss.

Speakers

Klaas Wierenga, Chief Information and Technology Officer, GÉANT

Dmitri Zagidulin, Technical Architect, Digital Credentials Consortium, MIT

Nicole Roy, Director of Infrastructure and Operations, Internet2 T&I

Today

eduGAIN

- ❑ Limited to Research and Education Federations
- ❑ 79 eduGAIN member federations
- ❑ 9166 entities in eduGAIN
- ❑ 5553 Identity Providers
- ❑ 3633 Service Providers

Risks and Opportunities

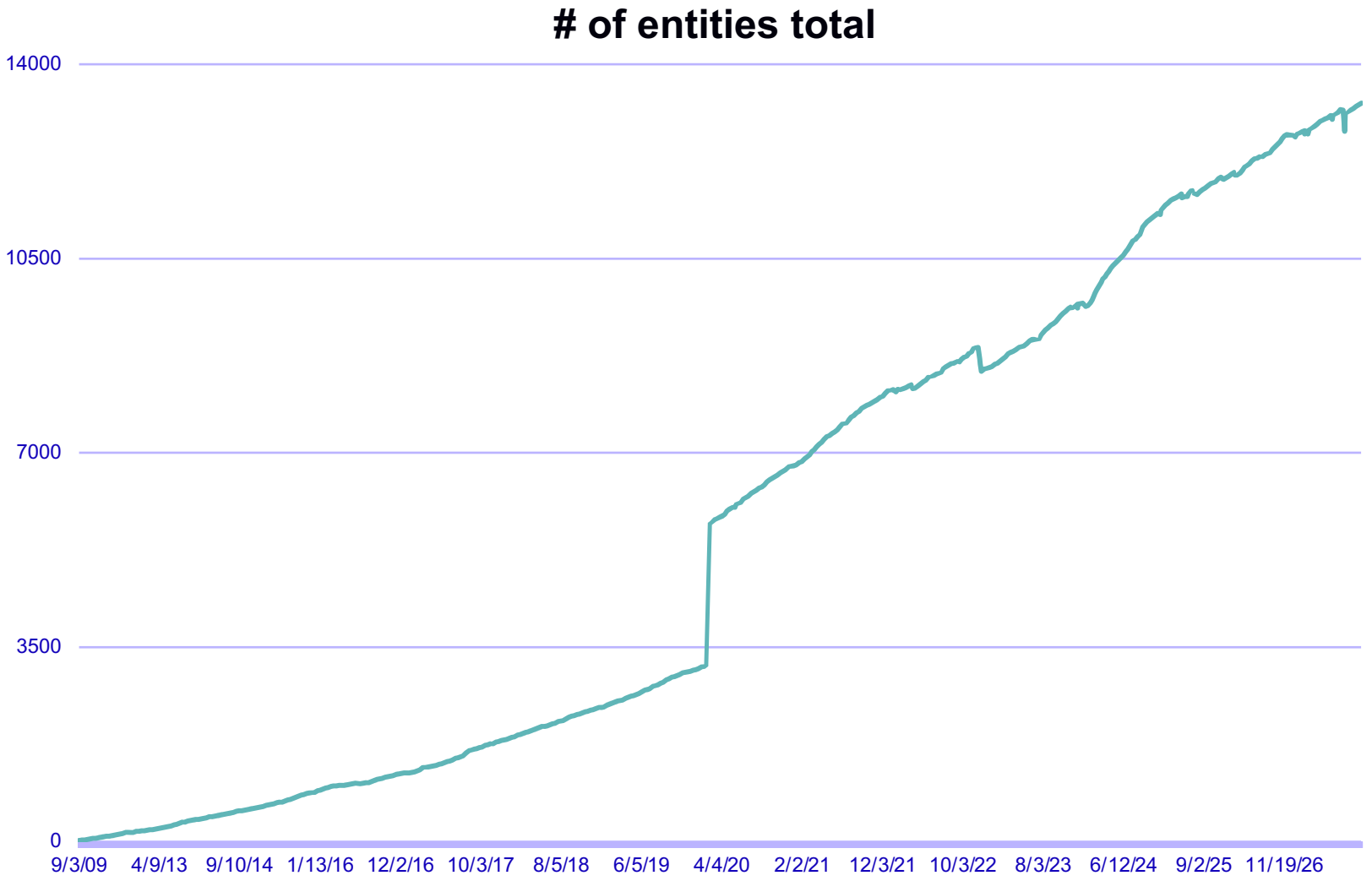
Risks

- ❑ “Long tail” of federations joining, has pretty much stopped
- ❑ Limited community engagement on new challenges
- ❑ Perception that the problem is “solved”
- ❑ Multiprotocol support not widespread
- ❑ Cryptographic agility nonexistent
- ❑ Threats to the installed base from browsers, legacy dependencies, quantum

Opportunities

- ❑ Empowering users
- ❑ Learnings from our 20+ years of experience, address many of the risks
- ❑ New types of credentials depend upon our trust bootstrapping
- ❑ Interoperability with other sectors (government, commercial, medical, etc.)
- ❑ Scalability

The Flattening Curve



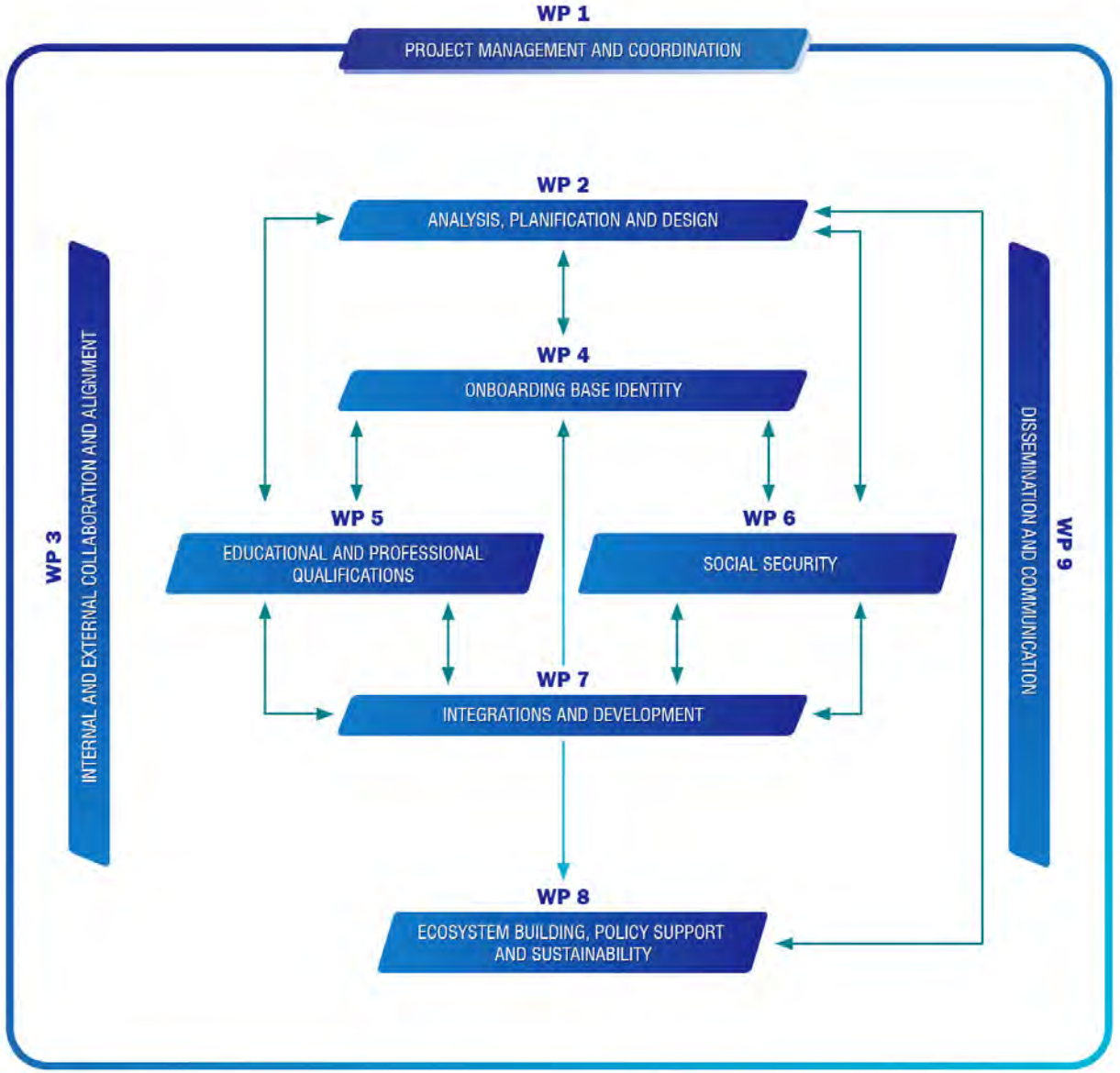
What's Next?

Empowering the user and focus on privacy through

- ❑ **Use of new protocols and technologies**
- ❑ **Leveraging, preserving and extending the trust model**
- ❑ **Tearing down barriers between sectors to enable greater collaboration**
- ❑ **Extending the reach to underserved communities**
- ❑ **Addressing increasing complexity**

EU Initiatives

- DC4EU



(source: https://www.dc4eu.eu/project/)

EU Initiatives

DC4EU – Replacing EIDAS

- Social Security
- Academic and Professional Credentials
- Member-State Wallets
- Broad Interoperability
- Strongly-Trusted Attestations of Identity

DC4EU Wallet Pilot

Adoption of Emerging Standards

- ❑OpenID Federation
- ❑OpenID for Verifiable Credential Issuance
- ❑OpenID for Verifiable Presentations
- ❑Creation of a multiprotocol, interoperable, open-source wallet

DC4EU Wallet Pilot

DC4EU Work Package 7

❑Led by SUNET

“The Project’s main objective is to test interoperability and scalability in the national domain and multiple cross-border contexts, to provide feedback to the European Commission and EU member states for iterative updates through specific coordination of work packages, project management processes and tasks. The process will allow for comprehensive wallet testing using Electronic Attestations of Attributes […] and credentials, and their national and cross-border functionalities in a pre-production environment and correspondent use cases.”

“The European Digital Identity Wallet (EUDIW) will be a fundamental element of hybridization for cross-sectoral and cross-border use cases (identity, signature, educational credentials and social security). DC4EU will contribute to a new paradigm for citizens in the field of education and social security, which is fully aligned with the European Council requirements for identity and data. It will also adhere to the European Declaration on Digital Rights and Principles.”

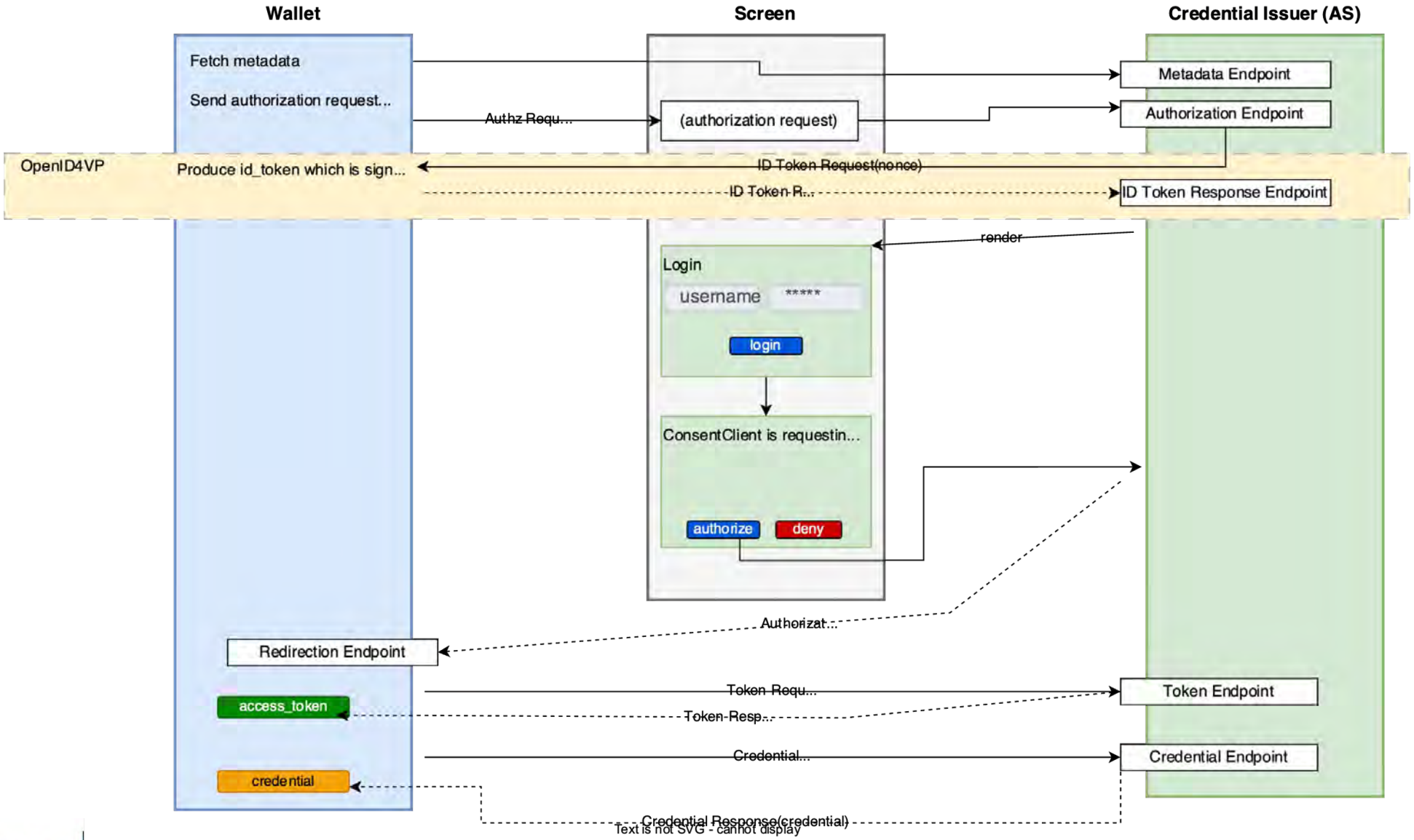
(source: https://www.dc4eu.eu/project/)

DC4EU Wallet Pilot

Work To-Date

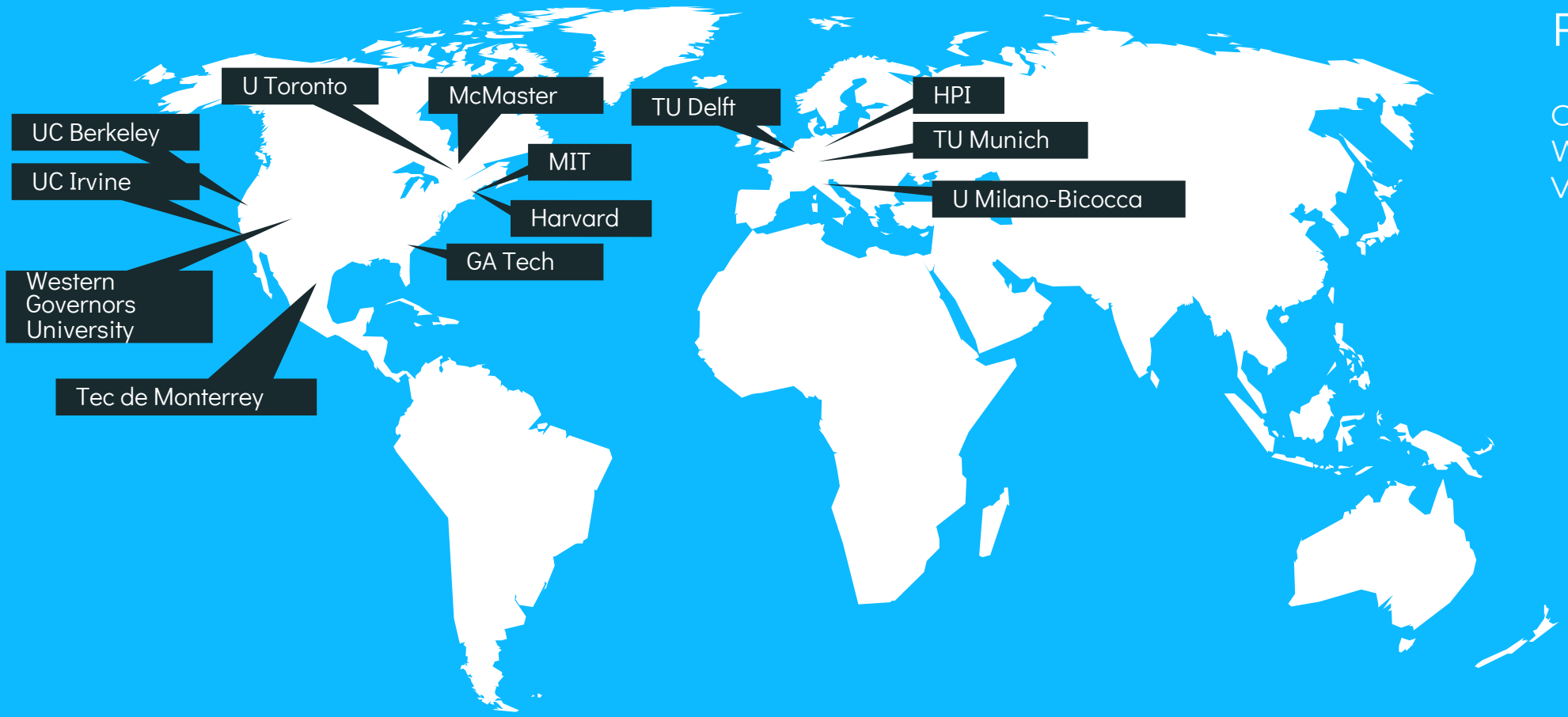
- https://wwwallet.org
- https://wwwallet.github.io/wallet-docs/
- Initial focus on credential issuance into wallet

DC4EU Wallet Pilot



DCC DIGITAL CREDENTIALS CONSORTIUM

Founded 2018



Open Badges
W3C Verifiable Credentials
VC-EDU & Plugfests

13 members
6 countries
93 code repos

https://digitalcredentials.mit.edu/

DCC Member Efforts

- LTI/Canvas integration
- Micro-masters (Open edX)
- Professional certifications & micro-credentials
- Continuing Ed (CS50) certificates
- Degrees

Community

- W3C VC Education Task Force
- W3C CCG
- 1EdTech OB/CLR WG
- CTDL Advisory Groups
- DCC Open Community Calls

Research

- Applied Research Lab
- Credentials to Employment: Last Mile
  https://shorturl.at/tvwL6
- Ecosystem Map
  https://lermap.t3networkhub.org/

Last Piece of the Wallet Puzzle

- Data Model? (check. well.. in progress)
- Protocols (Issuance and Verification)? (check)
- Wallet Software? (check. evolving)
- Legislation? (at least in the EU)
- Known Issuer and Verifier Registries?

    ^ this is where you come in

Contacts

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