

Microcredentials, Open  
Badges, Edubadges,  
digitale certificaten, etc  
Allemaal vormen van;

# Verifiable Credentials

## Leven Lang Ontwikkelen en Flexibel onderwijs met een eigen Digitale Identiteit

**SURF Onderwijsdagen**

15 november 2023



**INGDIL**  
ngdil.com



# Next-Generation Digital Identity in Learning



UNESCO School with  
~20.000 students in  
Brabant, Netherlands

Driver for partnerships  
in inclusive education



UNESCO Learning City  
Oss representative for  
lifelong learning

Expert in lifelong  
learning & partnerships



Self-Sovereign Identity  
startup connecting  
ecosystems

UniMe Wallet and  
OpenId Expertise



**TANGLE LABS**

International verifiable  
identity service provider  
and consultant

Vira Wallet and no-code  
identity expertise

# Facts and Figures Koning Willem I College

- Economics
- Technology
- Health Care & Welfare and Sports
- Creative Industry
- Catering, Hospitality & Tourism
- Order & Security
- Entry Training (level 1)
- Adult General Secondary Education and Adult Education
- Lifelong Learning Koningsacademie

## Values

- We are a community college
- We strive for excellence in all that we do
- We welcome everyone and are an inclusive college
- Together with companies we develop education for the future
- We consider creative thinking and entrepreneurship a core competence



20,000 students, 2,000 staff & faculty, 14 departments, 4 communities



## UNESCO Region Noord-oost Brabant

UNESCO Learning cities Oss and 's-Hertogenbosch  
UNESCO School Koning Willem I College

## Region Noord-oost Brabant

- Unesco Learning Cities 's-Hertogenbosch and Oss
- Unesco School Koning Willem I College
- Unesco Lifelong Learning Program

## Principles

- Open
- Inclusive
- Social
- Accessible
- Learning community
- Skills and recognition



## Enable Lifelong Learning

- Skills-based Job Market
- Flexible Learning Pathway
  - Seamless Onboarding
  - Interoperable and Verifiable Badges
- Easy collaboration education, government, business, society and labor market

## Open Ecosystem

- Open global standards
- Open Source
- Interoperability
- Accessible ecosystem
- Safe and privacy compliant
- Decentralized Digital Identity

# Trend 1: User Centric Identities



CURRENT MODEL OF IDENTITY

- Companies control Identity & Data
- Many Data Silo's & Honey Pots
- Many Integrations
- No Privacy



SELF-SOVEREIGN IDENTITY

- You control Identity & Data
- Centralized on the Subject
- One Integration
- No Honey Pots!

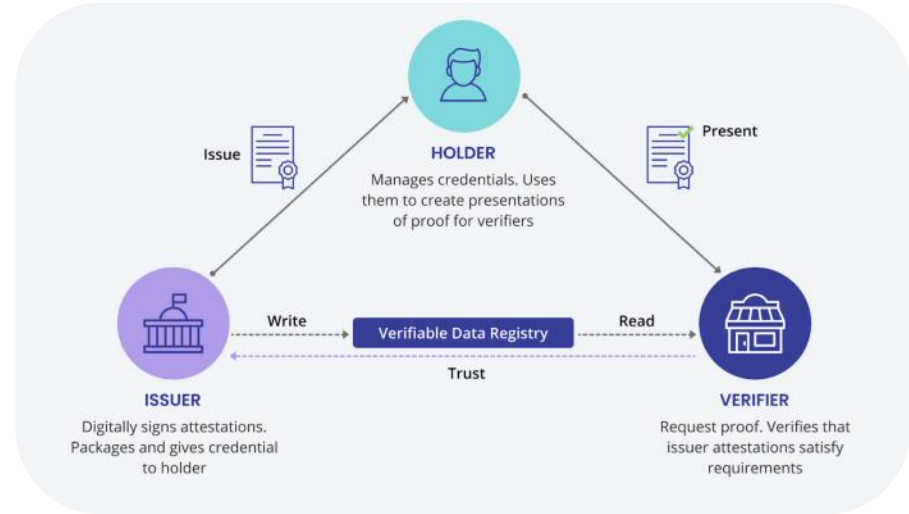
# Trend 1: Digital Credentials

## Three Roles:

- **Holder** = User / Student
- **Issuer** = Trusted third-party
- **Verifier** = Service Provider

## Digital Certificates

- Course badge digitally signed by Issuer (School)
- Given to Holder (Student)
- Presented to Verifier (Recruitment)



eIDAS = **E**lectronic **I**dentification, **A**uthentication and trust **S**ervices

- Framework for User Authentication, Identification and more
- EU wide adoption of Self-Sovereign Identity principles
- DigiD but also mandatory for finance, education, transportation etc...
- Regulation planned to go into effect by **2025**  
[https://ec.europa.eu/commission/presscorner/detail/en/IP\\_23\\_5651](https://ec.europa.eu/commission/presscorner/detail/en/IP_23_5651)
- Citizens of EU get their own Identity Wallet App
- Certificates and Certification exchange standardized
  - OpenID Foundation and World Wide Web Consortium standards





### Continuous Learning and Skills Development

- Skills based Job Market
- Flexible Learning Pathway
  - Seamless onboarding
  - Interoperable and Verifiable Results
- OpenBadges from 1EdTech
- EduBadges from SURF



# OPEN BADGE CANVAS

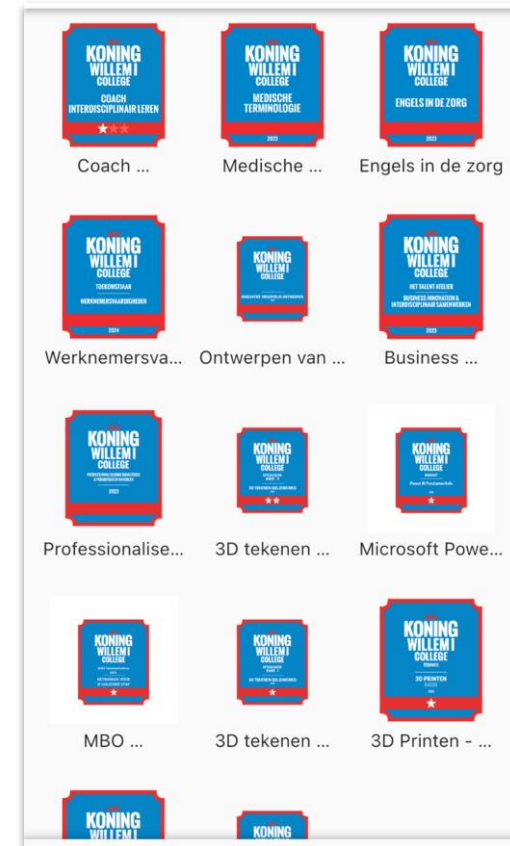
Badge naam: \_\_\_\_\_

<b>Prestatie-indicatoren</b> Aan het einde van dit leertraject is de deelnemer in staat zijn om:  [specifieke kennis/vaardigheid/competentie] te [actiewoord, bijvoorbeeld: toepassen, analyseren, ontwikkelen] in [relevante context of situatie], met inachtneming van [eventuele voorwaarden of kwaliteitscriteria].*	<b>Kennis</b> Over welke kennis beschikt de eigenaar van deze badge?	<b>Waardepropositie</b> Waarom zou je open badges gebruiken? Welke kansen zijn er?	<b>Onderschrijvers</b> Wie erkent en onderschrijft de kwaliteit van de ontwikkeling?	<b>Gebruikers</b> Wie (personen, rollen, functies) gebruiken open badges?
	<b>Vaardigheden</b> Welke vaardigheden beheerst de eigenaar van deze badge?	Ontvanger	<b>Media</b> Waar is informatie over de badge/ opleiding te vinden?	Ontvanger
		Verstrekker		Verstrekker
<b>Competentie(s)</b> Welke competentie(s) beheerst de eigenaar van deze badge?	Raadpleger	<b>Beloners</b> Wie 'beloont' eigenaren van deze badge? Hoe wordt de eigenaar beloond?	Raadpleger	
<b>Leerpaden</b> Welke andere badges bestaan er in het eco-systeem? Is er sprake van een hierarchie?		<b>Voorwaarden</b> Wat is er nodig om deze badges in te zetten? Denk aan middelen, technologie, infrastructuur, etc.		

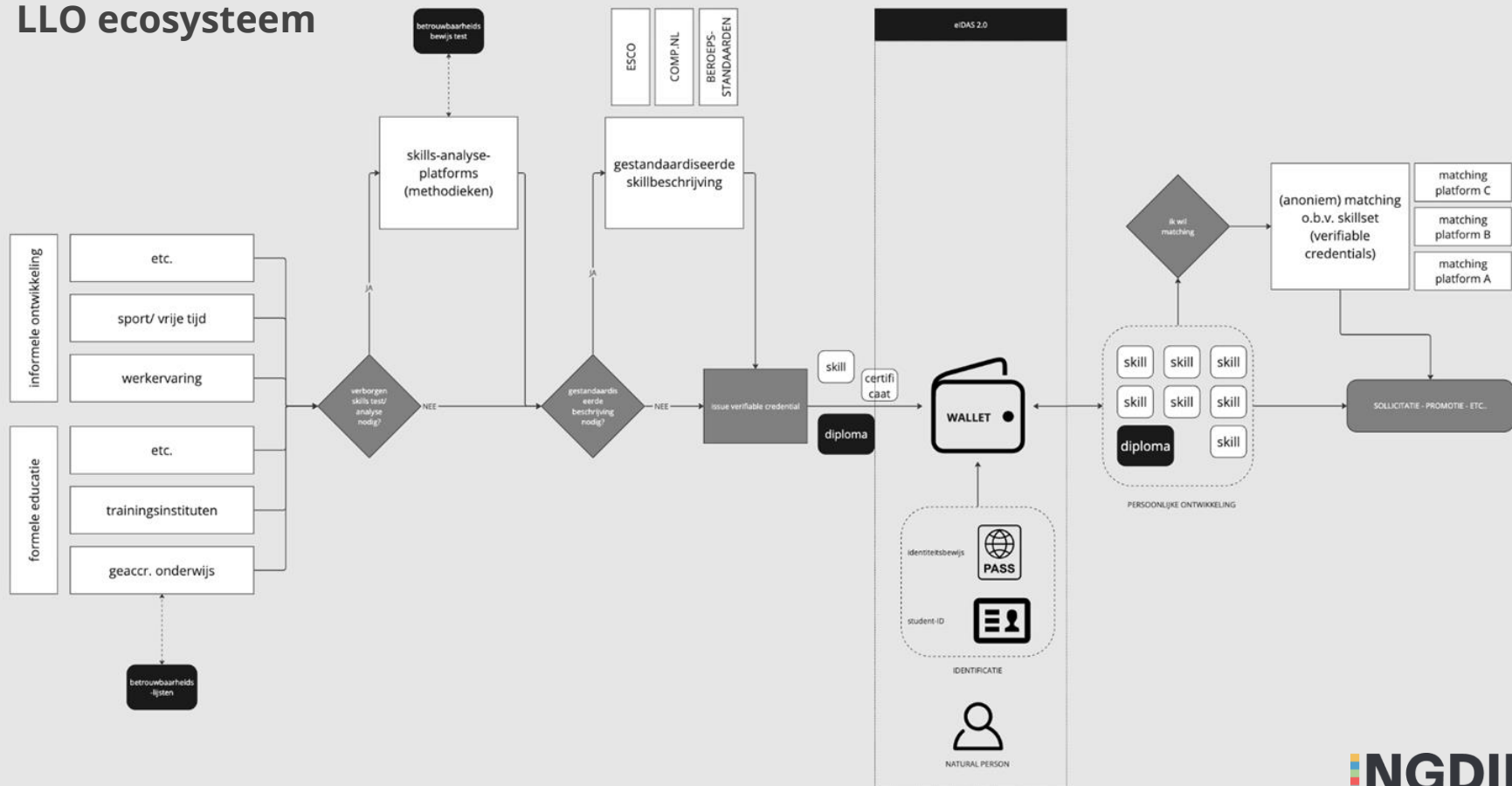
# Trend 3: Lifelong Learning

## Continuous Learning and Skills Development

- Skills based Job Market
- Flexible Learning Pathway
  - Seamless onboarding
  - Interoperable and Verifiable Results
- OpenBadges from 1EdTech
- EduBadges from SURF



# LLO ecosysteem

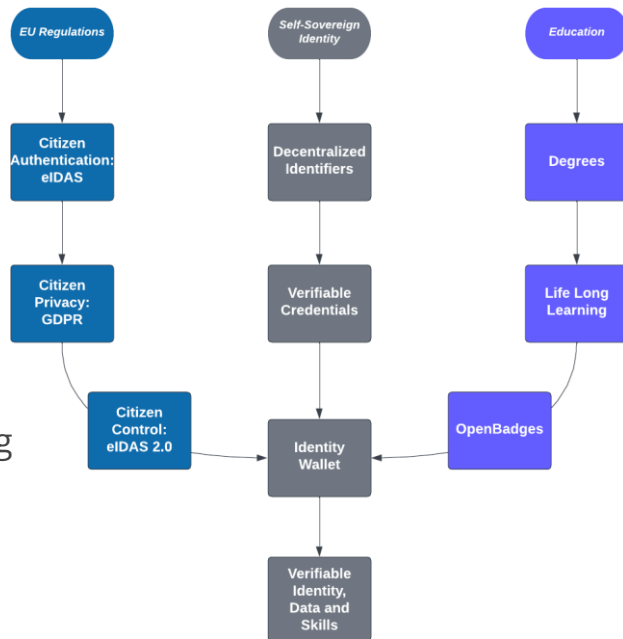


## Converging of eIDAS & SSI

- eIDAS 2.0 implements SSI principles
- Adoption of Digital Credentials

## Converging with Lifelong Learning

- Flexible Learning Pathway requires Seamless Onboarding
  - Verification of Identity information
  - Verification of Skills, Badges and Degrees
- OpenBadges v3 are compatible with eIDAS standardize credentials



## Demonstration

<https://demo.ngdil.com>



Welcome to the NGDIL interactive demo for  
self-sovereign identity in learning.

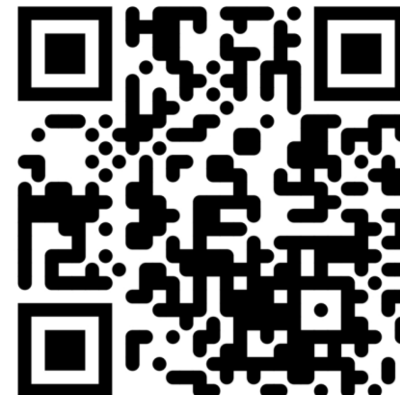
Here we will explore the value SSI can bring to the individual participants within the  
education and learning space, from learners, to educators, and employers.

Start Your Journey

## Time to act!



Our journey



Try demo