DRIVING INNOVATION TOGETHER:
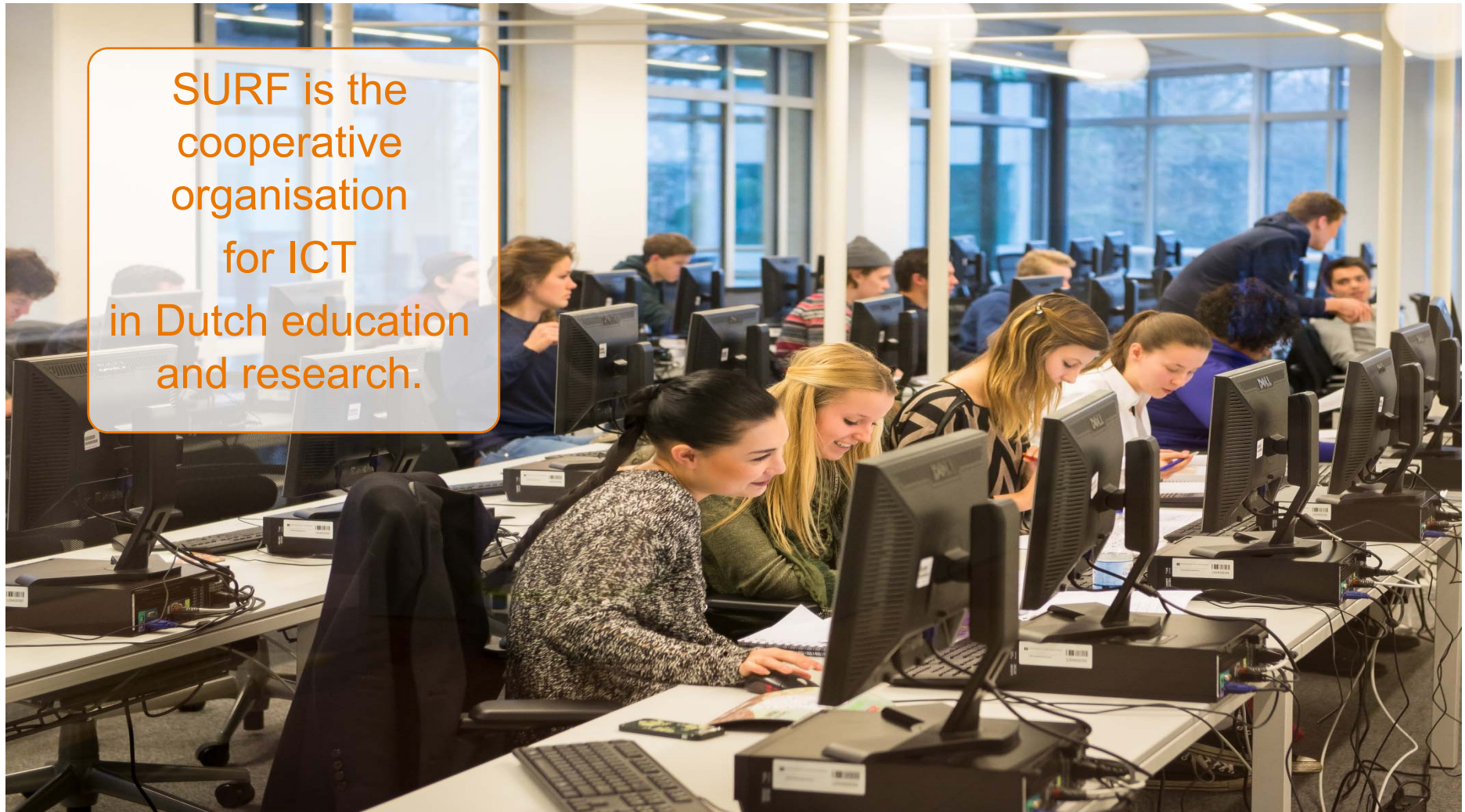
DEVELOPING EDUBADGES FOR MICRO-CREDENTIALING

Dec 9th, 2019
Janina van Hees

SURF, the collaborative ICT
organisation for Dutch
education and research

SURF

SURF is the cooperative organisation for ICT in Dutch education and research.

Driving innovation together

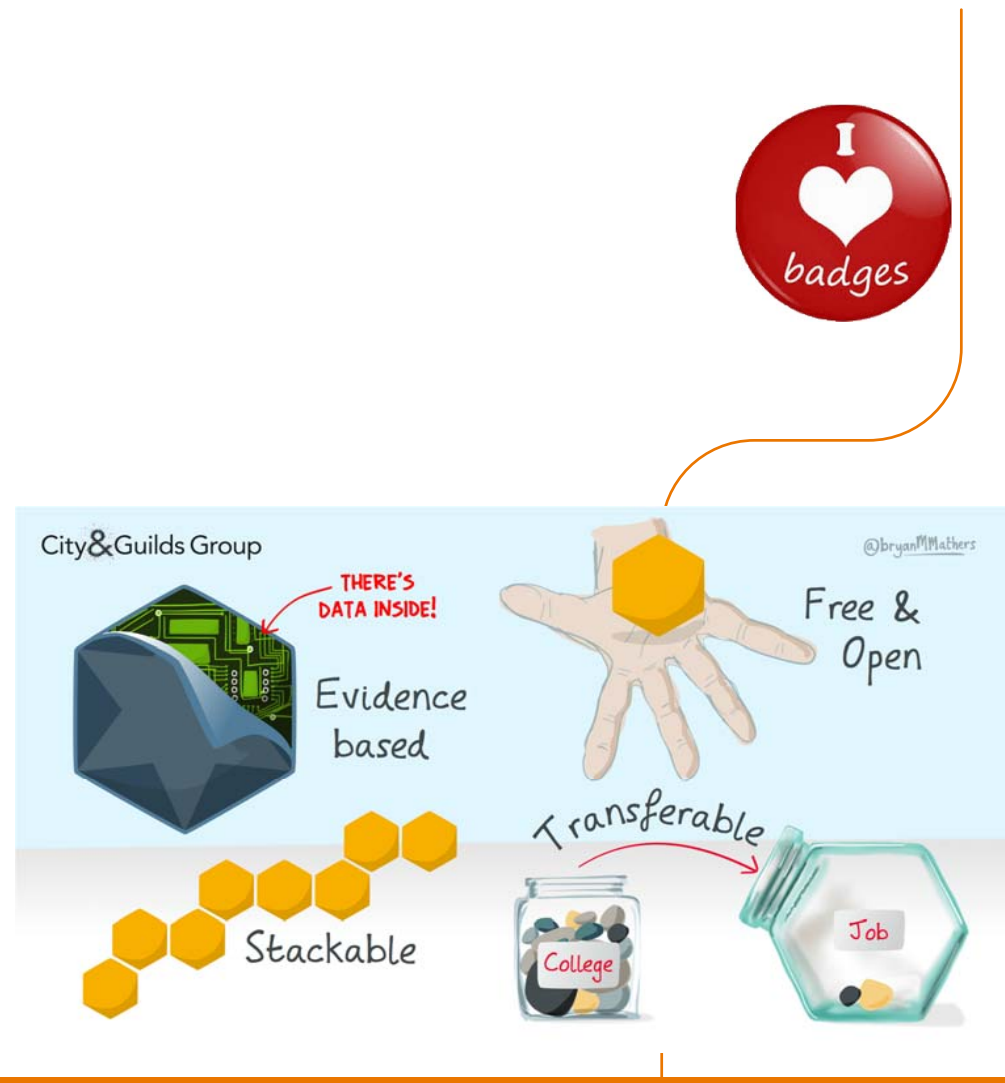# Serving more than 100 institutions with more than 1 mio users

Mission:

improving the quality of Dutch education and research through ICT innovation.

An example: Open Badges

- A way to demonstrate a certain degree of skills or knowledge;

- With verifiable proof and link to issuer of the badge;

- Enabler of micro-credentialing;

- High demand for more flexible education.

SURF Edubadges project

- Can we develop an infrastructure for Dutch educational institutions to award digital credentials to their students in the form of badges?

- Can this become a sustainable service with significant added value to the education system as a whole?

2016

Proof of concept

Prove that open badges can be used in practice in Dutch higher education

-> set up the work proces, show how it would work and what's needed to make it work

- > let institutions get an idea of what badges could mean in their educational context

Edubadges Proof of concept

2017 - 2018

- Open Badge Infrastructure based on Open Source Badgr

- Collaboration with Concentric Sky on joint development

- Development on Badgr on Github (https:///github.com/edubadges)

  - SSO SURFconext – openID Connect

  - LTI integration component

  - Roles and permissions model

  - Frontend Theming options

- Experiment researching blockchain technology for endorsements

- Code audit

Learned lessons Edubadges Proof of Concept

BADGE ISSUER
(EDUCATIONAL INSTITUTION)

Lessons learned
- Badge strategy; determine the status that the badge has within the education system and how it relates to other badges.
- Badge governance; who may issue badges, when may they be issued, and to whom?
- Badges for micro-credentials require a vision on flexible education.

BADGE CONSUMER
(EMPLOYER OR OTHER EDUCATIONAL INSTITUTION)

Lessons learned
- No experience acquired through the PoC (to be discussed in the future).

BADGE EARNER
(STUDENT)

Lessons learned
- Possibilities offered by badges not yet known.
- Uploading badges to social media takes time and effort, and they are not displayed prominently.
- Managing badges is still an issue to be resolved.

INFRASTRUCTURE

Lessons learned
- Important focus is storage of edubadges.
- Standardisation: alignment required on subject-specific metadata and value system.
- Integration of the edubadge features in the digital learning environment and student information systems (SIS) is imperative.
- Important focus is on guaranteeing the authenticity of the badge's content, the awarding party and the badge earner.
- A persistent ID to manage the badges is a prerequisite (e-mail address is not sufficient).

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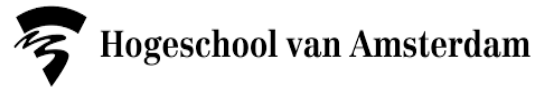
Proof of concept ➡ Pilot

How could we organize a system of open badges in Dutch education in a sustainable way?

-> improve the **infrastructure**, make it GDPR-proof, solve the problem of storage, look at signing vs hosted badges, integrate with Learning Management System, improve theming possibility

-> discuss **within institutions** what badges could mean in the educational context of the institution and how to proceed in the long term

LESSONS LEARNED FROM THE EDUBADGES PROOF OF CONCEPT

INITIAL EXPERIENCE WITH DIGITAL BADGES IN DUTCH HIGHER EDUCATION

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Pilot institutions

Edubadges pilot

2018-2020

- Fresh install Edubadges infrastructure

- GDPR compliant setup

- More participating institutions

- Increasing effort on policy support for enabling microcredentialing within Dutch HE

- Alignment with European exchange and description frameworks

- Preparing business model for service delivery by SURF to Dutch HE

- Investigating interest and possibilities for a pan European badge infrastructure

The road to an educational system with microcredentials in the form of badges needs…
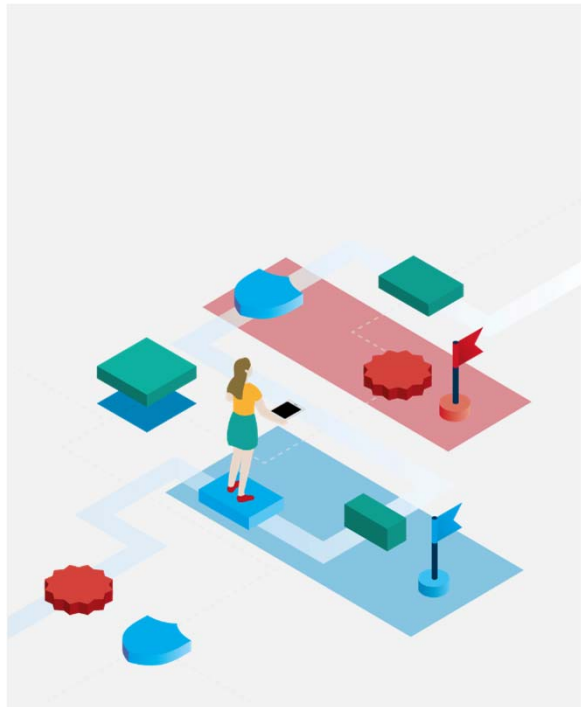
…Technology / infrastructure
- SURF is developing an infrastructure which Dutch educational institutions may use to issue open badges

… Institutional strategies and willpower
- Institutions draw strategic conclusions from pilot and decide about priorities

… Policy / frameworks
- System needs standards to define the value of badges as microcredentials
- Developing policy paper, with support of ministry

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Next steps

Technology & infrastructure	Institutional strategies	Policy & frameworks
SURF	**Individual educational institutions**	**Acceleration plan & umbrella organisations/DUO/ministry**
Improve infastructure badge signing, LTI-integration to LMS and SIS, integrate national persistent student ID, sustainable trusted badge wallet (Europass?), improve **alignment** with European exchange and description frameworks, develop **service offering** to educational institutions	**Draw conclusions from pilot participation, decide on continued use and on strategy for educational context** (formal/extra-curricular)	**Make inventory & analysis of policy questions related to microcredentialing in Dutch educational system** Work towards a joint framework that ensures comparability and avoids proliferation Work towards national database of educational modules and registry of awarded microcredentials?

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Why a joint national approach?

- Federated infrastructure that fits into ICT-ecosystem

- Authentication, verification, privacy, GDPR compliancy well organized

- Alignment to international standards: Currently looking into connection with Europass

- Joint effort to achieve recognisability, stackability, meaningfulness

- Triggers national-level governance questions

7 ARGUMENTEN VOOR EEN NATIONALE AANPAK VAN OPEN BADGES IN HET ONDERWIJS

www.surf.nl/edubadges

SURF

Project team
Open Badges

info@edubadges.nl