

# MAKE talks

## Sharing Maker Skills

by Dr. Sarah C. Hutton

Technical and Research Advisor

Internet of Production



This project has received funding from the European Union's Horizon 2020 research and innovation programme under Grant Agreement No 101016858.



INTERNET OF  
PRODUCTION

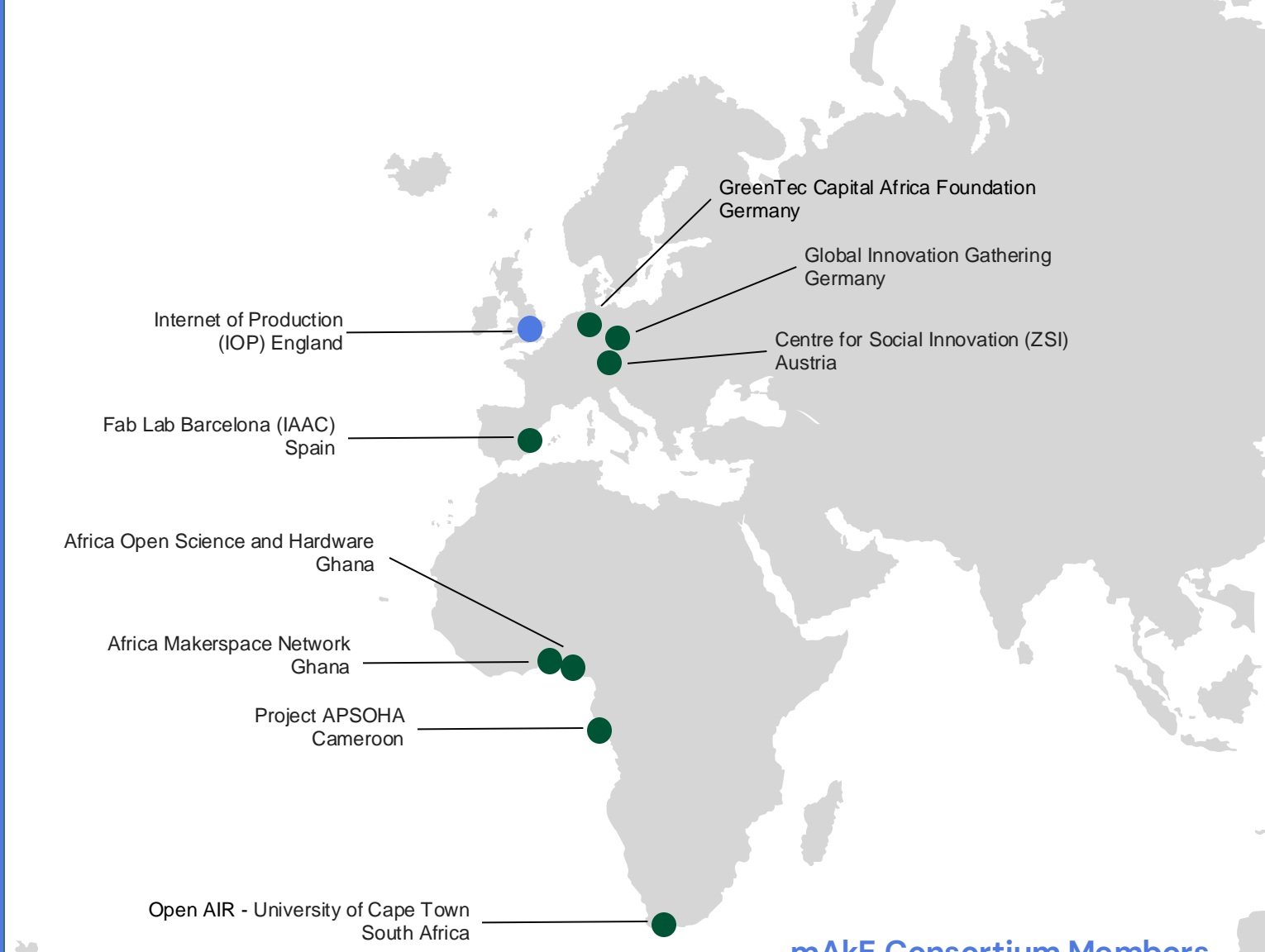


# Internet of Production

The Internet of Production is a global network reimagining the future; united in a common goal to revolutionise the way we source, manufacture and deliver products.

<https://www.internetofproduction.org/>

Join the Internet of Production community:  
<https://community.internetofproduction.org/>



## mAke Consortium Members


**50%** European participant organisations

**50%** African participant organisations



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# WP4 – Distributed Manufacturing Network



WP1

**Business Models**  
Document and Disseminate  
an Open Catalogue of Business  
Models


The background image shows a desk with various documents, charts, and colorful sticky notes.



WP4

**Data Standard &  
Maker Passport**  
SKILLS – Mutual Recognition  
Standard and collection of  
Maker Passports.

The background image shows the lower legs and feet of a person walking on a dirt path.



WP4

**Map of  
Machinery**  
Online map of machinery based  
on the OKW standard

The background image shows a close-up of a red pushpin on a map.



WP4

**Digital  
Contracting  
System**  
Based on a model contract

The background image shows a network of white nodes and lines on a dark blue background.



MAKE

# Presentation Outline

1.



## Research

Research design and development of the people and skills specification to define maker skills and experiences

2.

## Implementation

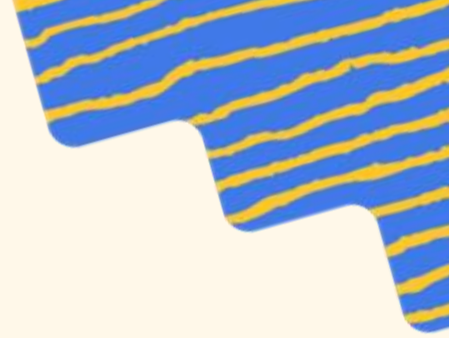
Implementation of the maker passport for the location and matching of experienced makers with projects

3.



## Use Cases

Practical potential application of the maker passport and continued testing

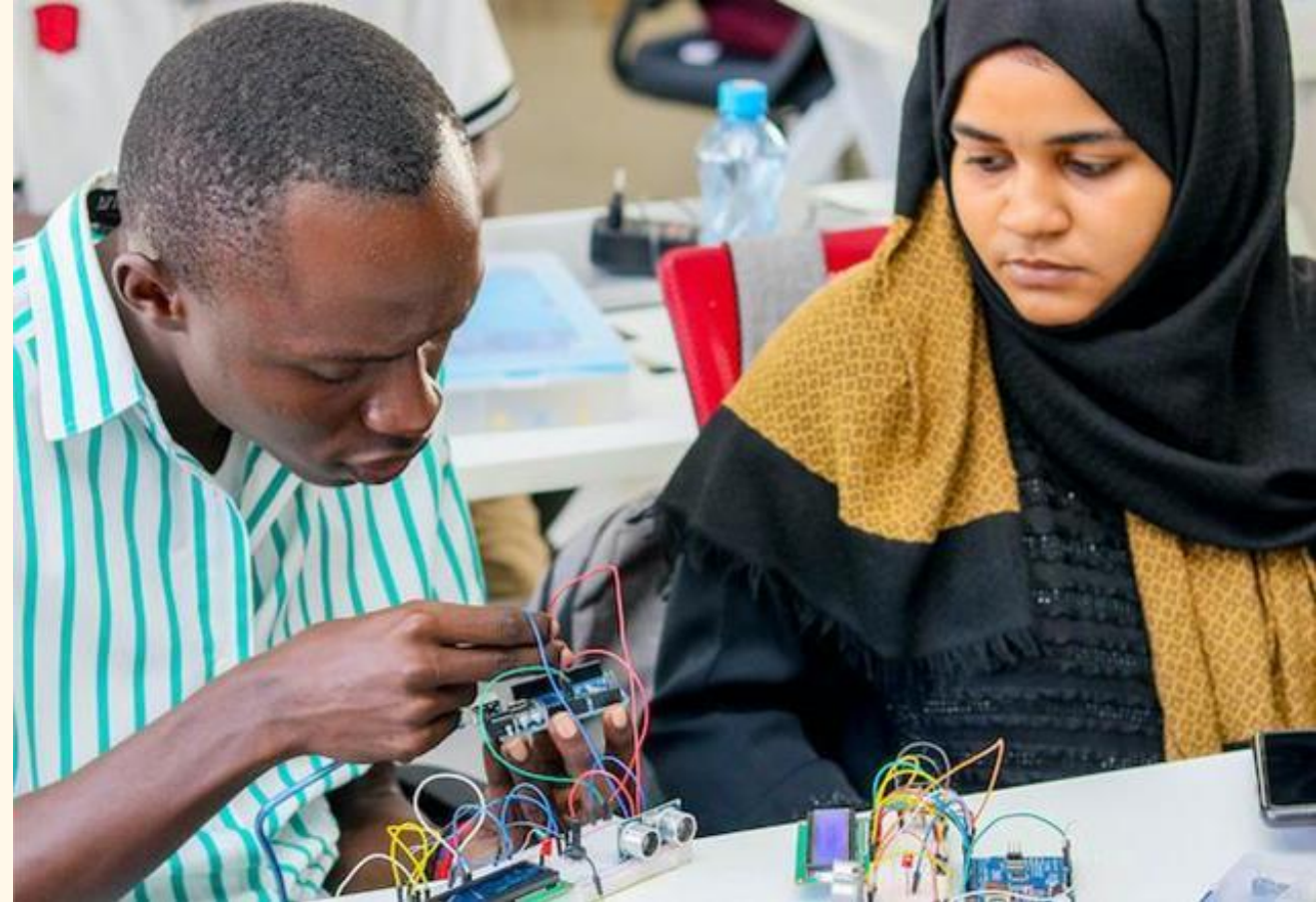


## Sharing Skills

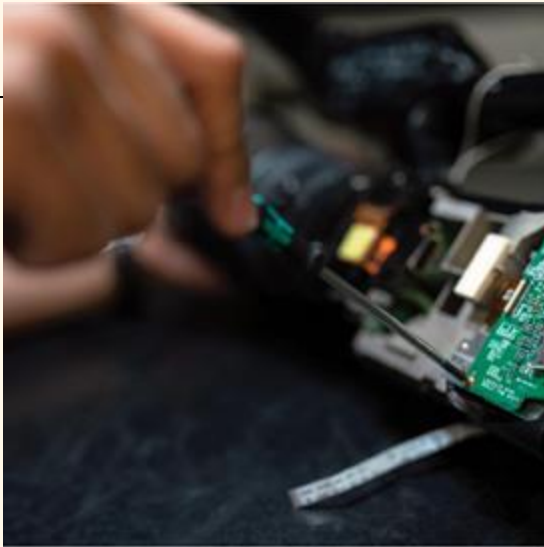
The People and Skills Specification (PSS) is a framework for creating records of experiences, skills, trainings and certificates that makers can use to showcase accomplishments and relevant knowledge.

**View Specification** →

<https://standards.internetofproduction.org/pub/r7gOn9fo/release/4>



# MAKE



Provides a shared taxonomy of skills and experiences and a framework for the recognition of knowledge to make things.



Global experts in data science, manufacturing, education, and social innovation dedicated to supporting People and Skills.



“Maker Passport” holders will be able to easily communicate experience and skills levels to collaborators and industry.

## Skills Blogpost

<https://makeafricaeu.org/people-and-skills-specification/>





# Maker Passport

The People and Skills Specification (PSS) helps locate and match experienced makers with the right project at the right time.

**Share your skills  
and be ready to  
participate in  
production!**



People and Skills  
WhatsApp  
sign-up form

## People and Skills Sign Up

Name (Last, First)

Email

Birthdate

*This question is necessary in case there is any legal safety requirement (to be over the age of 18) to use space or equipment.*

With which makerspace are you currently affiliated?

*List any makerspaces, labs, or other workspace(s) you currently work in, or have a membership.*

Do you currently belong to any maker networks, artisan guilds, or other related consortia? If yes, please list. If no, enter 'N/A':

Please share any certifications and/or trainings that you have completed or received related to your work in makerspaces or fablabs. This could be anything from basic safety, to using specific equipment, or apprenticing in a certain craft or skill like wood turning or 3D modeling.

Anything additional you would like to share about your work

 Submit on WhatsApp

MAKE

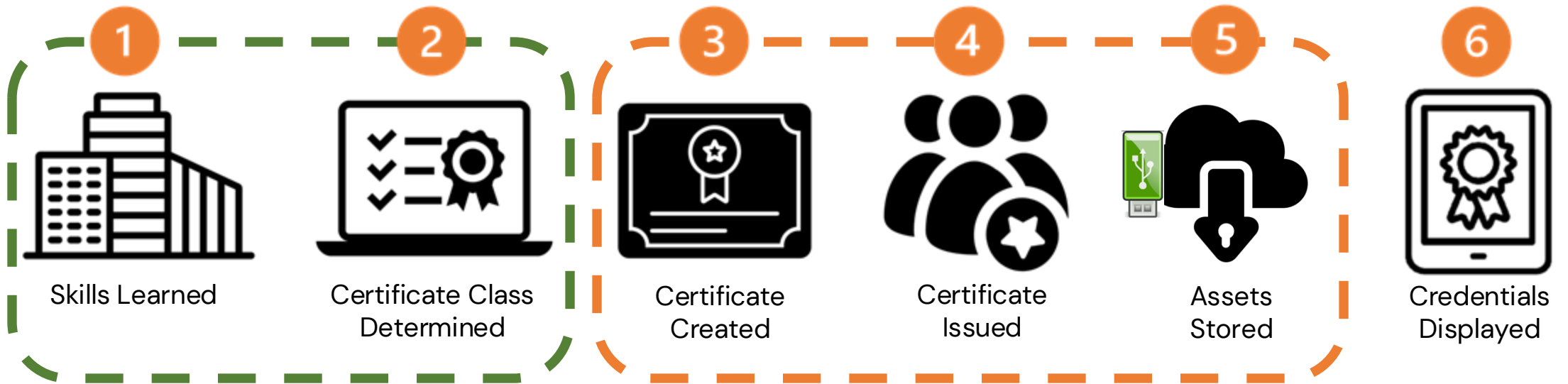
# Passport Methods

Pathways for turning skills  
attestations into digital certificates





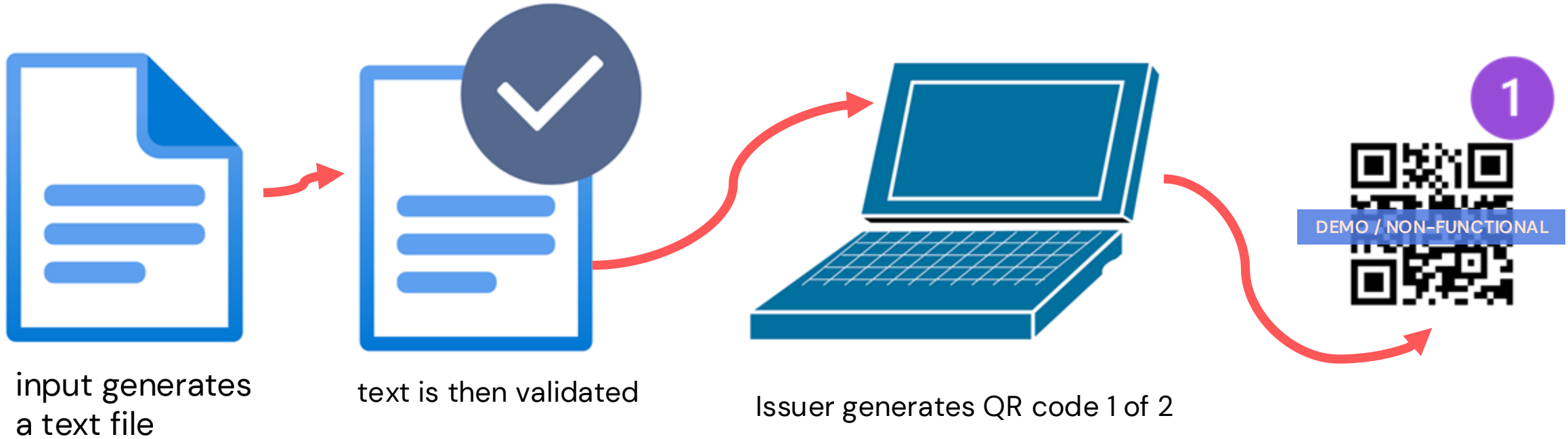
# Passport method 1: Community-based authentication



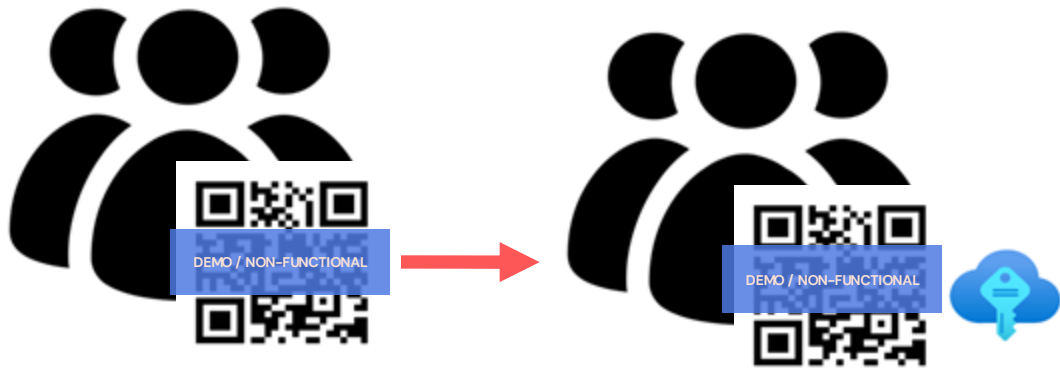
Determined by issuing institution/makerspace and dependent on agreements between makerspaces recognizing credentials

Process for creating digital certificates which can be stored on a local server or thumb drive, or in the cloud, for display in a maker profile.

# 3 Certificate creation



# 4 Certificate issued



The certificate issuer confirms identity.



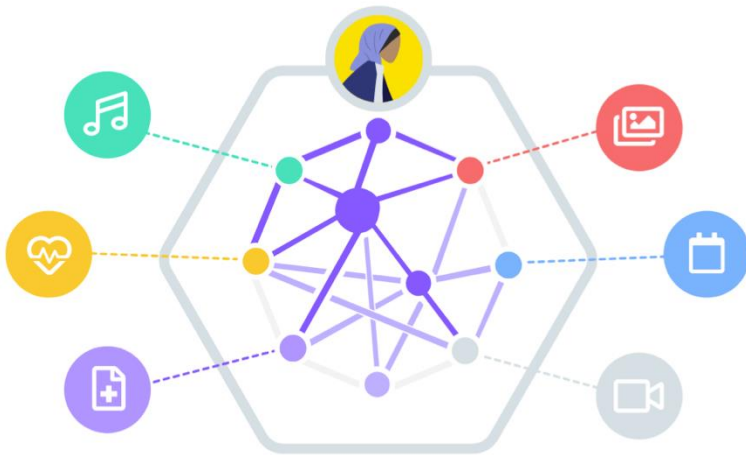
User confirms certificate assertions and identity.

This will generate QR code 2 of 2.



This second QR code serves as the certificate.

# 5 Asset stored



<https://solidproject.org/about>



<https://solid-app.internetofproduction.org>

# Passport method 2: Badging from pre-existing systems

**Award badge**  
Enter information about the recipient and their achievement to award this badge.

**RECIPIENT INFORMATION**

Recipient name (optional)

Note: The recipient name will appear in the awarded badge in plain text.

Identifier

Email address

**ISSUE DATE**

Date \*

11/11/2024

Time \*

03:00

**Badge awarding**  
You can award a badge via a recipient's email address or url.  
[Learn More](#)

**What is issue date?**  
This is the date on which this badge was awarded, defaulting to today's date. You may choose to change this to a date in the past, if that better reflects when the recipient earned this credential.  
[Learn More](#)

For organisations with pre-existing micro credentialing systems, the People and Skills Specification can be applied to creating attestations and creating badges as a personal issuer using an open badging system.

[Canvas Badges](#) (formerly badgr) is being used as an example for issuance of credentials.  
<https://badgr.com/issuers> (Europe only)



[Issues](#) / [Maker Skills](#) / Safety Orientation - Ashanti Woodworking



## Safety Orientation - Ashanti Woodworking

General facilities orientation and review of safety protocol.

Created on: Nov 11, 2024

Public



Bulk award

Award badge



Offered by  
[Maker Skills](#)

Details

Awards

Data management

### Badge details

#### EARNING CRITERIA

Recipients must complete the earning criteria to earn this badge

1. Walkthrough of workshop
2. Orientation of safety protocol for bleed controls
3. Review bench schedule
4. Completion of Rikon repair and safety training, level 3

We Issue [Open Badges](#)

View JSON



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# Collaboration: Innovative Manufacturing in Africa 2023 project



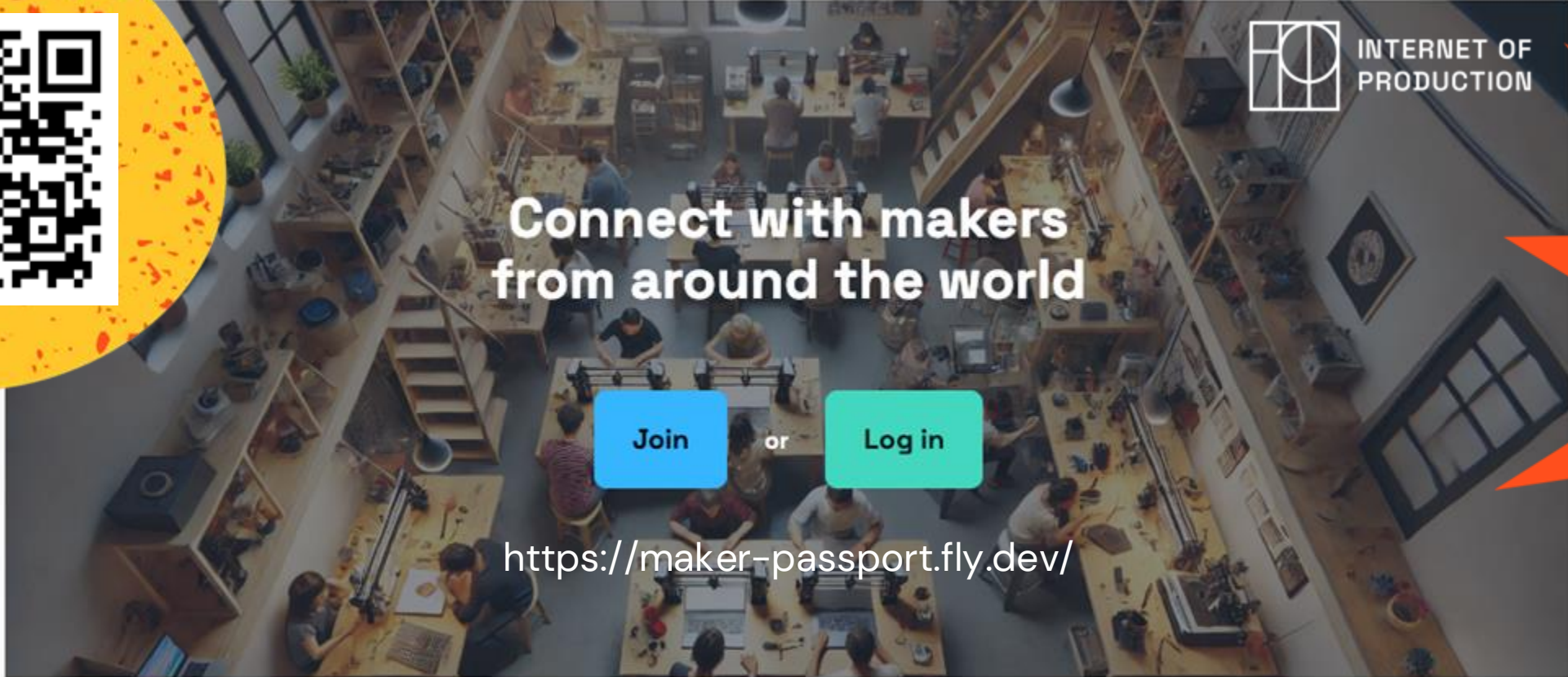
# Network Collaboration: H FabLab and REFFAO



<https://h-fablab.org/>

<https://reffao.org/>





Recently Active Makers

[See all](#)



Max Wardeh

Software Development, Raspberry Pi, Arduino programming



Wazir Umar

CNC Machining, Laser





## Sarah Hutton

United States of America . Worcester

I am a community-focused researcher and artist, working with mixed media to express marginalized concepts and populations. Whether it's in clay or data, I enjoy getting my hands dirty - I'll throw down on a wheel or a keyboard any day.

### Skills

3D Modeling

3D scanning

3d printing

Ceramics

Circuit assembly

Pottery

### Websites

[LinkedIn Professional Researcher Profile](#)

<https://maker-passport.fly.dev/>

## Contribute!



People and Skills Working Group  
<https://shorturl.at/F36nR>

People and Skills Channel  
<https://shorturl.at/B4XQe>

Internet of Production on Github  
<https://github.com/iop-alliance>



**MAKE** African European Maker  
Innovation Ecosystem



*Thanks!*

