

Satu Järvinen

# FROM SKILLS NEEDS TO TRUSTED MICRO-CREDENTIALS

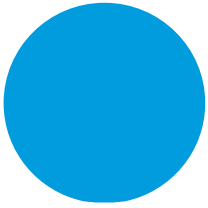
How we can use AI tools across the  
process — and what we need to  
consider

# The European approach: a common language for trust

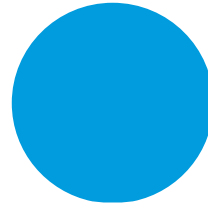
A micro-credential is the documented, assessed evidence of learning outcomes from a small volume of learning, with enough information for others to trust and use it.



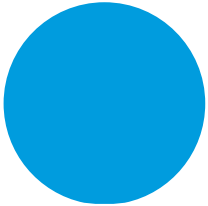
# Micro-Credentials in a nutshell



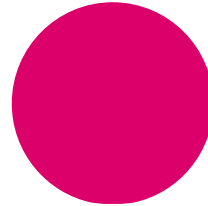
**Micro-credentials are trusted evidence within a broader skills ecosystem.**



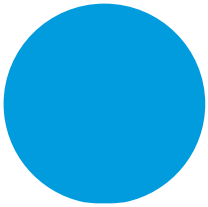
**Countries combine routes: qualifications, labour-market needs, funding, social dialogue and recognition.**



**The key policy tension is flexibility versus regulation.**

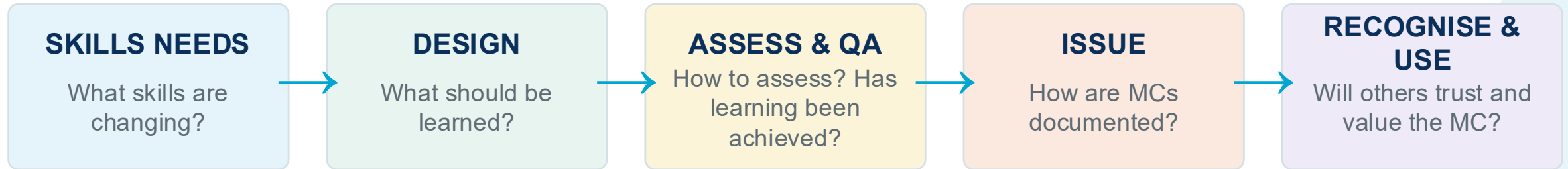


**The aim is to create better access to learning, fair transitions, mobility and recognised opportunity.**



**Value has several dimensions: progression, labour market signalling, RPL, fair transitions.**

# Where to use AI tools in micro-credential systems?



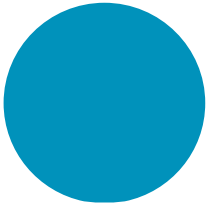
**People and institutions can use AI tools at every stage of designing and issuing micro-credentials.**

**The purpose, data and consequences change along the chain.**

# Using AI tools across the micro-credential process

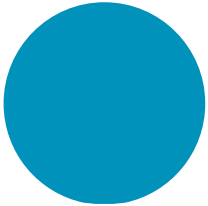
| PROCESS                               | EXAMPLE USES OF AI TOOLS                                                                                                                                | OPPORTUNITIES FROM USING AI                                                                                                                    | THINGS TO CONSIDER                                                                                                                                                      |
|---------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>1. Identify skills needs</b>       | Analyse labour-market and sector data; detect emerging/changing skills; map occupations, tasks and skills.                                              | Faster identification of changing demand; analysis at scale; more granular skills intelligence; quicker updating.                              | Data quality and representativeness; bias in source data; contextual interpretation; expert validation.                                                                 |
| <b>2. Design the micro-credential</b> | Translate skills needs into learning outcomes; align with occupational/skills standards; structure content, workload and assessment criteria.           | Faster development and updating; easier response to emerging skills; more systematic alignment between needs, standards and outcomes.          | Accuracy and relevance of generated outputs; alignment with frameworks/standards; subject-matter expertise and human validation.                                        |
| <b>3. Assess &amp; quality assure</b> | Generate assessment tasks/criteria; check alignment of outcomes and assessment; analyse evidence; support QA and consistency checks.                    | Faster assessment design/review; systematic alignment checks; scalable analysis of evidence and QA information.                                | Validity and fairness; transparency; human oversight and accountability; data protection; AI Act high-risk rules may apply.                                             |
| <b>4. Issue the credential</b>        | Generate structured metadata; link outcomes to ESCO/other classifications; check completeness; support digital/verifiable credential creation.          | More consistent credential information; easier skills linking; greater interoperability; reduced administrative workload.                      | Accuracy and integrity; security and data protection; interoperability standards; verification/authenticity; issuer responsibility.                                     |
| <b>5. Recognise &amp; use</b>         | Compare outcomes/skills across credentials and qualifications; map across systems; support matching to requirements for employment or further learning. | Faster interpretation of unfamiliar credentials; scalable comparison; easier cross-border comparison supporting study and employment mobility. | Comparison ≠ recognition/equivalence; context, level, assessment and QA matter; transparent methods; final recognition remains with employers/institutions/authorities. |

# From AI use to organisational practice



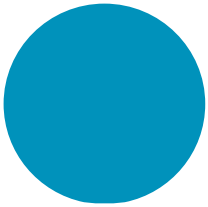
## **PURPOSE**

For which tasks should AI tools be used, and which decisions should remain explicitly human or institutional?



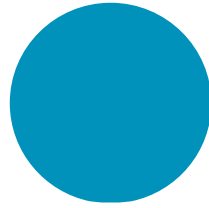
## **DATA**

Which data and documents may be processed, in which tools, and under what conditions?



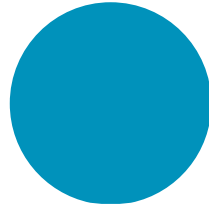
## **VALIDATION**

Who validates outputs produced with AI tools: skills analysis, learning outcomes, assessments and mappings?



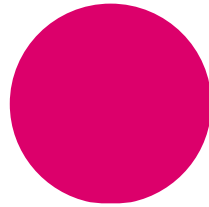
## **TRANSPARENCY**

When and how should the use of AI tools be documented or communicated?



## **AI LITERACY**

Do staff understand the capabilities, limitations and risks of the AI tools they choose to use?



## **ACCOUNTABILITY**

Who owns the final decision, and the accuracy of the credential?

# The opportunity, and the condition for trust

1. For which tasks does using AI add real value in the micro-credential process?
2. Where does our use of AI move from support into higher-stakes decision-making?
3. What governance is needed so that AI-supported processes produce credentials that remain trusted and portable?

**People define the task.  
People validate the output.  
Institutions remain  
accountable.**

# Thank You