Nordic Network for
Lifelong Learning

Microcredentials in a Nordic perspective

Contents

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About this publication

Nordic Network for
Lifelong Learning

Foreword

NLL and the Nordic network for validation supports the visibility and recognition of skills, knowledge and competences obtained by individuals through education, work and leisure activities. These skills and competences are increasingly important and promote growth throughout the Nordic region based on knowledge and mobility.

With the aim of the Nordic region being the world's most sustainable and integrated region in 2030, NLL's validation network contributes to reaching this vision through several initiatives. The network supports the development of high-quality validation in the Nordic countries and self-governing regions as well as systematic exchange of experiences regarding structure and method development. The network advocates a strategic approach to validation and proposes integration of validation with new education policies, such as microcredentials, which are the focus of this report.

With the EU's strategy on microcredentials as the point of departure, the Nordic validation network has carried out a mapping and analysis of small learning units in order to describe the possibilities and benefits of micro merits. In addition, the network has looked into validity and legitimacy of competencies based on non-formal and informal learning, without applying the criteria used within the formal education system.

Key questions asked by the network are:

- How can microcredentials in a Nordic perspective be linked to validation and guidance? How can they play a role?

- What could be the gains of recognising non-formal learning that is otherwise invisible to either the individual or the employer through microcredentials?

The analysis shows that a microcredential may stand alone (e.g. one completed course) or it might be combined with several microcredentials as a set of credentials and/or to a wider and larger credential. Microcredentials are owned by the learner, they are the property of the learner, they might be shared and are transferable through place and time. It is essential that they are underpinned by quality assurance, following agreed standards in the relevant sector or area of activity and imply stakeholder collaboration.
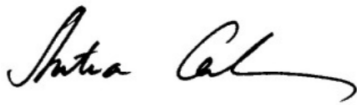
This analysis has been coordinated and conducted by Bodil Husted, former associate professor at VIA University College, Denmark, with a highly valued contribution by network members from all Nordic countries and self-governing areas.

NLL thanks the members of the Nordic validation network for their important contribution to further development and implementation of holistic validation policies throughout the Nordic region.

The Nordic analysis on microcredentials recommends and supports informed decision making if and when countries decide to include microcredentials in national and regional standards and systems. NLL hopes the analysis will support and facilitate development work at all levels of education as well as help connect microcredentials to related activities, such as guidance and validation, and integrate different contexts and arenas of learning.

Enjoy the reading!

Antra Carlsen, NLL head-coordinator

Executive summary

This investigation on microcredentials (hereafter MCs) in a Nordic perspective has been carried out under the remit of NLL, the expert network on validation. The investigation, from mid-2023 till end of 2024, concerns the occurrence, proliferation and development of MCs in a Nordic perspective. The investigation is financed by the Nordic Council of Ministers.

The investigation has been informed and inspired by several recent initiatives in the EU and in European countries regarding the emergence and operation of MCs. The EU initiative on MCs, including the European Council's Recommendation on the development of MCs, and the extensive Research by Cedefop has been followed with great interest by the NLL investigation in particular.

With few exemptions, the term, MC is not formally used in Nordic countries and self-governing regions. Though, in Sweden, small learning experiences are entitled Mikromeritter and Aalborg University, in Denmark, has developed and provided small add-on learning units, named MCs. In the present investigation, the mapping part has been led by the EU definition of MC, having resulted in a variety of learning examples which, in some respects, however not fully, are associated with characteristics of the EU definition. Hence, the aim of the study has been to identify development in learning provided for labour market and society's objectives, and to examine the added value of this way of addressing current and future needs and requirements in the labour market and society in a situation of rapid and determining changes in jobs and lives.

Identified changes related to trends and megatrends, mapping results and Good Practice cases are analysed and assessed as to their potential to actually provide benefits for end-users. In general, the investigation demonstrates that, smaller learning experiences/MCs should be regarded within the current situation of changes, calling for requirements such as responsiveness and timeliness, together with flexibility and options for individual planning and achievement of the described learning outcomes of the MCs. Thus, forming an option of a complementary career pathway at the learner's own pace.

The framework, focus and expected results of the NLL study include:

- Mapping of smaller learning experiences in the five Nordic countries of Sweden, Norway, Iceland, Finland and Denmark and the three self-governing regions of the Faroe Islands, Greenland and the Åland Islands.
- Analysis of Good Practice Cases
- Elaboration of recommendations for the development of MCs
- A podcast on results
- A policy brief

For the mapped examples and cases, aims and purposes are typically defined as for upskilling and reskilling as responses to changes in jobs and work, lack of qualified workforce and for inclusion of target groups being, currently, outside jobs and education.

The mapped examples of smaller learning experiences/MCs are developed and provided in various formats as stand-alone, add-ons to former skills and series of MCs, divided into smaller parts. Hence when taken together, these formats reflect various means and methods for the application of the achieved MCs in work life and society.

Two general questions have been thoroughly investigated in the study: the question of the added value of the smaller learning experiences/MCs and the question of benefits for end-users.

While it is assessed and concluded that the mapped Examples and Good Practice Cases in various respects provide an added value – for instance, in terms of responsiveness, timeliness and flexibility, the question of benefits for end-users is considered in terms of the aspects of strengths and requirements.

A strong stakeholder collaboration for development and provision adds significantly to legitimacy, trust and transparency for the validity and recognition of the achieved learning outcomes.

Concerning the aspects of portability and stackability, limitations are seen in terms of national systems and frameworks, like some NQFs being less open to non-formal learning, and some national systems for VPL being restricted to assessment towards formal education programmes.

Besides, in general, evidence for the benefits achieved is scarce.

Aspects such as these are included in the Recommendations for the development of MCs.

> The Recommendations for the development of MCs are an important result of the investigation. The recommendations address five levels:
>
> - The learner
> - The educational institution and other providers in collaboration with stakeholders
> - Social partners
> - Policy makers
> - Society

The idea of addressing these levels, individually and collectively, is based on the understanding that to ensure legitimacy, trust and transparency – to mention just some of the decisive criteria to be fulfilled – *decisions* about placement in the overall learning landscape of the Nordic countries and self-governing regions must be considered and made according to various levels of interests and requirements.

Considerations for these purposes are drawn up in the conclusion section, for the possibility of two systems – the formal education system and a system of MC – to exist together, separately, though characterised by permeability – i.e. doors to each system that open for the benefits of learners.

1. Introduction

1.1. Presentation of investigation and aim

In August 2023, the Nordic expert network on validation initiated an investigatory project on the identification and investigation of MCs in the Nordic countries of Norway, Denmark, Sweden, Finland, Iceland and the self-governing regions of Greenland, the Faroe Islands and Åland Islands.

The project is defined as:

An Investigation of smaller learning units that can be accommodated within a broad understanding of the term, MC, following the preliminary definition proposed in the EU Commission's initiative concerning MCs. This definition also forms the basis for:

1. Cedefop, Research project, on the current occurrence of MCs in 27 EU countries as well as Iceland, Norway and Great Britain
2. European Councils Recommendation for MC

We have followed Cedefops mapping and analysis reports alongside the NLL working group's investigation into the occurrence of smaller learning units, characteristics and functions, whether these are called MCs or otherwise.

1.2. MCs in national contexts – defining MCs for the study

In the Nordic context, we are interested in conducting a more detailed analysis of the overall national contexts for the respective smaller learning units, which – with different designations – are assessed relevant to be accommodated within the overall definition framework for MCs, as the project is based on the provisional definition, proposed by the EU Commission, **The European Council's Recommendation on a European approach to Micro-Credentials for lifelong Learning and Employability** (Adopted, June 2022):

'Microcredential' means the record of the learning outcomes that a learner has acquired following a small volume of learning. These learning outcomes have been assessed against transparent and clearly defined standards. Courses leading to microcredentials are designed to provide the learner with specific knowledge, skills and competences that respond to societal, personal, cultural or labour market needs. Microcredentials are owned by the learner, can be shared and are portable. They may be standalone or combined into larger credentials. They are underpinned by quality assurance following agreed standards in the relevant sector or area of activity.

The NLL expert network on validation has carried out the MC investigation project within the following overall focal points:

Context, formats and target groups

We are mapping the formats in which MCs are available, when looking at a match of target groups and contexts i.e. work life, education and training, learning – formal and non-formal – and possibly contexts in combinations.

Legitimacy, credibility and recognition

We are concerned with the investigation issues of legitimacy, trust and the application of MCs with a view to assessing transparency, coherence and the involvement of cross-cutting collaboration in the development and supply of MCs, as well as whether the identified MCs enjoy wider recognition across sectors, actors and stakeholders in a national context.

Validation and recognition

We are interested in exploring the ways in which validation is included as an element of the MC format, with the possibility that (a) an assessment can be made against the learning objectives for formal education, applying existing legislation and practice, and hence the possibility to stack MCs – cf. the principle of Stackability, e.g. for part of a full Qualification (a). *Or* (b) as validation of a person's prior learning, which, potentially, results in a MC and hence, with recognition in the company, the industry, the sector or generally in work life, which ensures the holder of a given MC that this can be applied in the industries in question (subsectors). One question in relation to (b) that needs to be investigated in more details is, *how* this recognition – in the framework of work life, either industry or sector-specific – is ensured legitimacy. Is there a system for this recognition? Or does it depend on other mechanisms that can be attributed to validity within a given domain?

Added value and benefit for end-user

Finally, we are interested in exploring *if* and *how* an added value is identified by an individual's' achievement and application of MCs, while added value is compared with other formats of education and learning. Furthermore, there is a focus on identifying significant factors of importance for the end-users' achievement of benefits.

1.3. Results and products

The survey is carried out with the following elements and results:

- **Mapping of MCs** – smaller learning units in the Nordic countries and the self-governing regions of Greenland, the Faroe Islands and the Åland Islands.
- **Analysis** of the mapping results.
- **Good Practice Cases** with a particular focus on determining features for the achievement of benefits for end-users.
- **Recommendations** for the development of MC, with a particular focus on the importance of quality assurance, legitimacy and transparency to ensure a broad recognition and users' application of MCs with the opportunity to benefit from the achieved MCs across industries and workplaces, cf. the principle of Portability.
- **Policy Brief on MCs in a Nordic perspective** with a state of the art, concerning the occurrence of MC/smaller learning units, together with perspectives on how MCs can be included in future skill and competence strategies.
- **Podcast on MCs in a Nordic perspective**

1.4. Sources of information and inspiration

The NLL study is informed and inspired by:

- The Nordic Vision 2030
- OECD, Research project on Micro-credentials: Micro-credentials for Lifelong Learning and Employability, Uses and Possibilities
- OECD, Research project on Micro-credentials: Micro-credentials for Lifelong Learning and Employability, Public Policies for Lifelong Learning and Employability
- Cedefop, Research project, Micro-credentials for Labour Market Education and Training
- 1) Mapping of Micro-credentials, (2) Micro-credentials and Evolving Qualifications Systems and (3) The Added Value for End-users.
- EU Commission, European Council's Recommendation on Microcredentials for Lifelong Learning and Employability (June 2022)
- NOVA Nordic project (2023)

2. Investigation – background, focal points and approach

2.1. Scope and delimitation

It is important to emphasise that this investigation of MC in the Nordic perspective is not intended as a complete, exhaustive study, but rather is based on diversity of mapping findings, to uncover occurrence, proliferation, application, development and potentials in the form of categories, types and formats of smaller learning units that can be contained within the current EU definition of microcredentials.

Furthermore, the aim of the study is to present mapping examples and, from these, to describe exemplary cases, named Good Practice Cases by application of the study's methodological focal points.

The expectation is thus to provide systematic insight into state-of-the-art for this type of learning formats, which might – sometimes, but not consistently – be called MCs in each of the Nordic countries, Greenland, the Faroe Islands and the Åland Islands. Furthermore, to assess whether, despite national differences, a particular Nordic perspective can be defined for the development, occurrence, uses and anchoring of MC with a labour market and employment aim.

2.2. Data processing and analytical approach

This description illustrates structure, elements and processes in the overall investigation of MC towards an insight into state-of-the-art of MC in the Nordic countries and self-governing regions.

In the data processing, several part-processes are linked to establish a coherent analysis model, suitable for examining the identified MCs regarding built-in coherent factors.

Hence, in the **mapping**, the national examples of MCs are identified and characterised based on individual themes and aspects. In the **analysis**, correlations between individual topics are examined to establish a view of the complexity in the development, supply and application of MC. This means that there is a movement from the initial mono-perspectives of the mapping to the analysis' identification and assessment in the form of a multi-perspective.

This methodological movement, from individual/mono-perspectives to combined/multi-perspectives, provides the possibility of identifying factors and conditions, and determining the development of MCs, which can be characterised in terms of added value for the end-users.

It is an ongoing aim of the research process to examine specifically what makes it likely for end-users to achieve benefits in terms of MCs.

Hence, the aim is to establish insight into such determining factors so as to develop a set of Recommendations regarding the development and application of MC.

2.3. Structure and elements

The analytical model and approach, figure 1 illustrates this movement and aim with the following elements and part-processes:
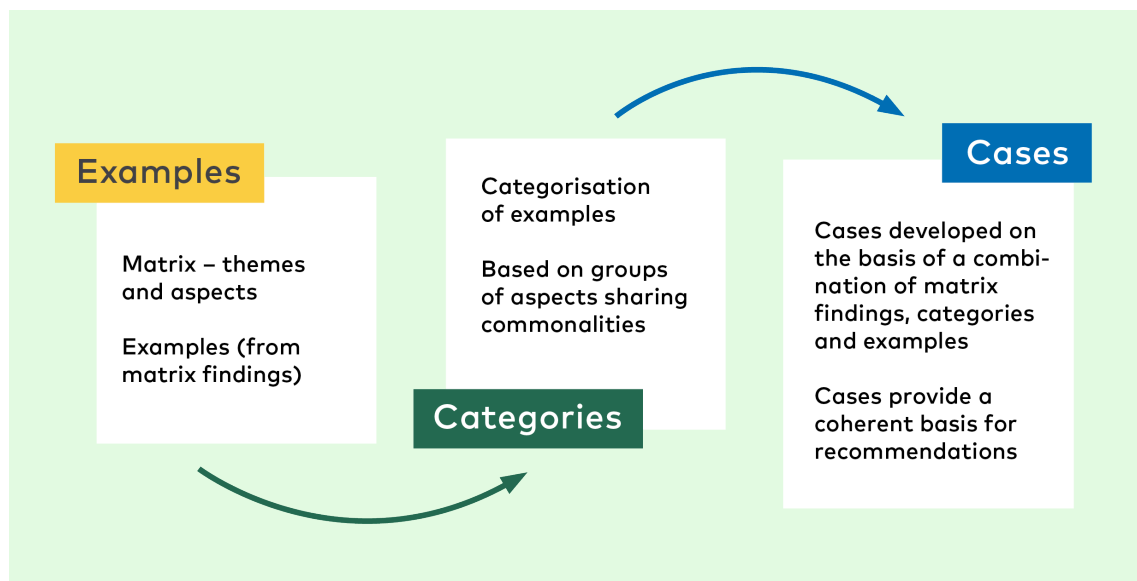

Figure 1. Model for data processing and analytical approach.

2.3.1. Examples

Based on mapping themes & aspects and findings, national examples are selected and presented.

2.3.2. Categories

Based on groups of aspects sharing commonalities, Categorisation of examples from the mapping findings are defined.

The definition of **category**, applied for the actual purpose – sorting and ordering data of micro-credential findings – is:

"A group of aspects and criteria that share commonality".

The aspects are identical to the thematic aspects of the matrix for mapping (presented below).

The categorising process enables an identification of patterns and connections to be further investigated in the analysis.

The categorisation process provides, as mentioned above, a movement from the initial mono-perspective of the collected, national mapping results – to the multi-perspective, applied in the overall analysis of identified MCs in a Nordic perspective. This perspective aims to enable an analysis of the complexity in development, provision and application of MC. In the analysis, this complexity is examined in terms of cases, which are developed based on mapping examples (reported in the matrix-answers).

Furthermore, an important scope of the analysis is to examine and assess *if, how* and *why* expected benefits for end-users are achieved – or not.

This scope also corresponds with the aim of examining the overall **added value** of MCs with a particular interest in examining the prerequisites for realising an added value and – hence to describe the character of an added value.

This scope and process for identifying a potential added value of MCs are also taken further into the process of Recommendation for the development of MC.

2.3.3. Cases

Cases are developed based on a combination of mapping findings, examples and categories. Together, the individual cases form core units for the analysis, as they also provide a coherent and firm basis for the Recommendations.

The NLL partners have selected one or more cases for description, based on a developed model. The model has been developed with a three-part structure, a WHAT section, a HOW section and a WHY section. The three-part structure provides case descriptions, applicable to explaining the content and mechanisms of the MC to ensure the intended results.

The cases provide a complex knowledge and understanding of development, provision, application and benefits of concrete MCs, while addressing the WHAT, HOW and WHY questions:

The **WHAT** section aims to provide an understanding of WHAT constitutes frameworks, conditions, context etc. for this specific MC – *or in other words*: to set the stage for the closer exploration of the MC.

The **HOW** section aims to provide an understanding of HOW the MC in terms of, for instance, content, aim, application and methods is developed.

Together, the two previous sections form the basis for a description of **WHY** the expected results of added value, benefits to end-users, are considered likely to be achieved by the user.

Thus, the cases demonstrate coherent perspectives and indicators, identified in terms of single perspectives and aspects from the mapping examples while also contributing to reflecting on the analysis of cases in coherent multi-perspectives.

The analysis of cases is carried out with the application of 1) models of coherent factors and 2) national context descriptions:

2.3.4. Models of Coherent Factors

Three models have been developed for the illustration of built-in coherent factors for the development, application and benefits of MCs.

The overall rationale for the models is: What determines the added value of MCs and benefits for end-users?

The primary focus of each model is:

1. The Learner
2. Legitimacy and Trust
3. Transparency and Reference to Systems

The models, with these focal points, are applied in the analysis of cases to examine the impact of combined, coherent factors for the questions of added value and benefits for end-users.

2.3.5. National Context Descriptions

For each NLL partner country and self-governing region, an introduction to the national context for MCs is provided with a short description of what has or could have an impact on the opportunities for further development and proliferation of MCs. A particular element of the context descriptions are new formal initiatives.

National context descriptions thus provide a resource for the analysis of cases – as well as for the development of the recommendations.

3. Mapping, scope, methodology and results

3.1. Mapping, scope and methods

The mapping of small learning experiences / MCs has been carried out by each participating organisation in the NLL expert network on validation. The mapping is based on a semi-structured matrix. Furthermore, guidelines have been developed for filling in the matrix, with an in-depth explanation of each of the matrix themes. The themes with associated aspects have been selected, based on project scope and inspired by current international research on MCs.

With the matrix questions, themes and aspects, and guidelines, each member of the participating NLL organisation has been responsible for researching smaller learning formats, whether named MC or not, in the national context. Mapping has been carried out through the reading of documents and interviews with stakeholders. The network member has filled in the matrix.

Based on the received mapping data, a second round was subsequently carried out, with in-depth questions in particular areas in the national matrix replies. These in-depth questions, asked by the project coordinator, have typically been linked to the need for a closer understanding of the context for the development of the mapped MCs, and collaborative relationships in the development as well as the scope of validation and recognition of the examples in question.

As stated in the above introduction, the mapping is not carried out with the aim of delivering statistical evidence for the occurrence of MCs.

With the application of qualitative methods (the semi-structured mapping matrix and second round discussion on questions), it has proved possible to make a clustering of mapped examples into categories and characteristics of MCs for further examination and analysis (see Analytical approach, chapter 2.3.).

3.2. Mapping matrix, themes and aspects

The themes selected for the matrix have been inspired by relevant research materials and documents (see chapter 1.4.).

THEMES AND ASPECTS

1. Context and formats for application of the microcredential

Rationale of the theme

We are interested in identifying a multitude of smaller learning units with a connection to various **contexts.** We use the general term, microcredential, though we assume that this designation might not be found and applied for the learning unit in reality.

Furthermore, we assume that the format of the specific smaller learning unit (MC) might differ according to context and other focus points, such as target group, purpose, learning outcome and suchlike.

It is the aim of the Validation Network to identify and map the various **formats,** when looking at the contexts of working life, formal education, non-formal and informal learning – and eventually in combinations.

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2. Provider, including stakeholder involvement in development and provision/supply-led or demand-driven

Rationale of the theme

We wish to examine if there are differences between supply-led and demand-driven microcredentials. We approach these questions with the preliminary assumption that the supply-led MC has a format and a content, which may differ from the demand-driven MC – especially looking at the emergence and proliferation, interest and results of the MC. Furthermore, the questions concerning Information and Guidance are also aspects which may have special forms, depending on – whether the provider is the primary actor, or – as for a demand-driven MC – other actors/stakeholders are active in relation to Information and Guidance. Finally, the aspects of Legitimacy and Trust could be affected by this distinction – is the MC supply-led or demand-driven?

Who is the **provider** of the specific MC?

- Education institution, level?
- Labour market organisation/branch/sector?
- Adult education institution
- Third sector? School or association?
- Other? For instance OCN – Open College Network

Is the MC supply-led?

- Is the supply-led MC based upon a skill needs anticipation – and which type?
- Which **status/authority** does this skill forecast characterise? (Public? Labour market? National, regional, local, sector?)
- Skills forecasts in combination with other policy areas for target groups of employed, unemployed, youth, disadvantaged people?
- Labour market organisation/branch/sector?
- Adult education institution
- Third sector? School or association?
- Other? For instance, OCN (Open College Network)

Is the MC demand-driven?

- Which assumptions/skills needs form the background for the demand-driven MC?
- Is the demand-driven MC based on skills needs anticipation?
- Which status/authority does this skill forecast characterise? (Public? Labour market? National, regional, local?)
- Skills forecasts in combination with other policy areas, for target groups of employed, unemployed, youth, disadvantaged people?

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3. Characteristics for stakeholder involvement and collaboration

Rationale of the theme

This thematic aspect is important, because stakeholder involvement may indicate important aspects of legitimacy and trust for the quality, relevance and so on of the MC. Stakeholder collaboration typically promotes trust and legitimacy, which are important aspects to guarantee application of the MC. This is important for end-users, both the actual user and the owner of the issued credential as well as for employers and education institutions. These aspects of cross-stakeholders and cross sector collaboration also guarantee the portability of the MC.

Which stakeholders, partners, actors are **involved in the development** of the MC?
- Formal education and training institutions
- Companies
- Labour market organisation
- Municipality
- Non-governmental organisation/voluntary organisation?
- Association of Third Sector organisations?

Are some of these stakeholders **involved in other parts** of development, for instance:
- Recognition
- Information and Guidance,
- Validation and Recognition
- Description and/or issuance of the credential

4. Availability and Information and Guidance I&G/ Counselling

Rationale of the theme

In this thematic aspect, it is important to investigate whether information and guidance is available for the individual user concerning selection and – eventually – composition of several MCs according to skills needs and career expectations. Without I&G, it could be difficult for the user to make the proper choice, if MCs are offered in a variety and without Guidance and Counselling. To do this, Information and Guidance are needed and hence the questions below concern where to find the information and guidance, what kind – if I&G is provided? And by whom/*key actors?*

How is availability of Information and Guidance ensured?

- Through awareness-raising activities to promote MC as a new option for practice-oriented skills and skill development?
- Adaptation of MC to systems or services for Lifelong Guidance (LLG) in order to support the individual learner within fast changing societies and labour market?
- Is special targeted information about the MCs ensured? Where? By whom?

What does the information contain?

- Description of MC as a new format for upskilling, adult learning or other purposes
- Description of the specific MC, including field of application
- Aim
- Learning outcome
- Duration
- Linked to formal education
- The credential, text
- Price

Is guidance and counselling available for the selection of MCs? Provided by whom? (Public system or services? By the provider?)

- e-guidance
- guidance by the provider
- guidance by labour market organisation, e.g. Trade union, Job Centre, Public Unemployment Office

5. Accessibility to achieving the MC (digital, physical attendance learning)

Rationale of the theme

This thematic aspect is important because the type of learning may affect the relevance and benefit for the user according also to target groups and preconditions for learning. Evident in other studies on MC is that self-directed online learning is a pre-dominant way of learning. However, this may cause difficulties for some learners.

How does the learner attend the MC?

- Online
- In person
- By validation of prior learning according to the MC's content/learning outcome (see also thematic aspect no. 8)

The learning form and approach?

- Self-directed learning
- Classroom learning
- Validation of prior learning (towards the learning outcome for the MC)

6. Legitimacy and recognition

Rationale of the theme

This thematic aspect is important because we are interested in achieving knowledge on the potentials for VPL as a way of achieving the MC.

Is it possible to obtain the credential for the MC in question by assessment of relevant prior learning, when the user's prior learning is recognised as equivalent to the defined learning outcome of the MC? This perspective of MC is relevant on validation as a lever for lifelong learning as well as for the aspects of portability and stackability.

Is the MC also recognised outside the specific context of provision?

Is transparency of the issued credential a factor in ensuring that the MC can be recognised and trusted across sectors? This concerns for instance:

- Learning outcome
- Included in or referenced to NQF and or EQF for Lifelong Learning?
- Credibility of the provider/issuer of the credential
- Quality assurance (which QA measures and tools are considered for the provision of the MC?)
- Cross sector collaboration
- National system of VPL

7. Validation	21

Rationale of the theme

This thematic aspect is important because we are interested in examining how Validation of prior learning is part of the MC, either as recognition with an assessment against learning objectives for the formal education and by the application of existing legal regulation and practice, thereby providing the option of stacking MCs– **the principle of Stackability** to formal education. Or, as validation of the learner's prior learning, with the result of issuing the MC, which – with the recognition in the sector and working life – ensures the owner of the given MC the application of this in the branches and enterprises concerned.

- Is the national system for VPL open to including MCs in the overall documentation for assessment of prior learning?
- Is it possible to achieve the MC through validation of prior learning?

8. Added value and Benefits for end-users (the individual, employee/employer.

Rationale of the theme

This thematic aspect is important because benefits can be conceived in many forms and aspects. The three options mentioned below may be supplemented by you when filling in the template. The Nordic Vision 2030 works towards a more sustainable and integrated Nordic Region, and the OECD report (MCs for Lifelong Learning and Employability, Uses and Possibilities) stresses the importance of inclusion and empowerment by MC. The EU skills agenda 2030 is oriented towards the situation of fast changing labour market demands – which calls for upskilling in a variety of forms. Therefore, it is important for our mapping and analysis to identify coherent aspects that prove the relevance of user/target group, purpose, content and learning approach of the MC.

Does the MC support the user in terms of

- Inclusion?
- Skills update?
- Empowerment?

Figure 2. The mapping themes and aspects explained with the associated rationales.

3.3. Mapping results – overall findings

Mapping material has been received from the five Nordic countries and three self-governing regions.

This presentation of overall findings provides a first step in the process of systematisation of mapping findings towards gaining an insight into the state of MCs occurring in the Nordic countries and self-governing regions. The findings, presented below, are thematically structured by the combination of interrelated themes and aspects from the mapping matrix.

The material illustrates the following:

3.3.1. Format, context and target groups

Initially, it can be stated, that MCs are reported in two general main types: a) MCs as learning activities, regardless of their exact volume and duration; (b) MCs as proof/records of achieved learning outcomes.

The mapped material represents a high diversity across examples.

Formal labour market education and training as well as CVET institutions provide smaller learning units which are closely linked to existing formal education.

> **TWO PATTERNS EMERGE** from the reported examples of MCs in the mapping:
>
> **1) Existing formal systems for labour market education and training** are typically built in a structure of small courses with a specific focus on job functions and tasks within various sectors.
>
> The courses are well-known and supported by cross-stakeholder (social partners) development, surveyance and maintenance.
>
> In **Denmark**, the system for Labour Market Education & Training (AMU) has existed since 1960 as the primary upskilling system for short-skilled employees. AMU courses are small size courses (EQF, level 3 and 4) for employed as well as unemployed people (unskilled and skilled) with the aim of upskilling and reskilling to a wide range of occupations within the labour market. Similar labour market education systems exist in other Nordic countries.
>
> In the **Faroe Islands,** many short and small courses, related to various branches and professions are provided. For instance, the maritime area and the building and construction industry. The courses are mostly provided by formal Faroese Education

institutions, though also by private companies to a lesser extent. Often, these courses are part of a full qualification, VET or CVET, mostly in connection with security and safety requirements. The courses have a duration of one day to four weeks in length. One example is security courses for building and construction workers.

2) The provision of MCs is built on a validation process

Finland: For many years, digital, open badges have been provided for the possibility of having the person's prior learning outcomes recognised. For example, digital basic skills can be required in any context. There is no need to attend a specific course – learning can take place in many fields. The recognised learning outcome (a set of digital open badges) can be used especially in working life or in formal education.

In **Denmark, validation of prior learning** in the AMU system, allows the participant the opportunity for individual educational planning in AMU, and to be issued AMU education certificate(s) and AMU skill certificate(s) for recognised skills, when there is a basis for this.

The Åland Islands, Iceland and Greenland have developed models for preparing adolescents and adults for labour market education and jobs. The models rely on different frameworks and concepts, e.g. **Emmaus Åland** applies the **OCN method** (Open College Network) as the primary concept and model for the provision of digital open badges, aimed at upskilling, reskilling and empowerment.

In **Iceland,** the **ETSC** (Education & Training Support Centre) for working life provides the **Professional certificate** (Fagbréf) in **working life.** The provider is a labour market organisation, owned by the social partners in Iceland. The process of having the person's prior learning and skills recognised is based on a primary validation of knowledge and skills related to requirements for professional skills in a certain branch and companies – described in occupational profiles. All learning outcomes are mapped in relation to the Icelandic Qualification Framework (ISQF). A gap training is performed afterwards when needed.

In **Greenland**, the application of the legal framework on Validation of Prior Learning (RKV) is perceived as a MC, while the documentation of the person's recognised learning experience allows access to and possibly shortening of an education programme. Likewise, in the private sector, a MC can be used by companies as a valid credential for employment, while recognising skills achieved through Lifelong Learning.

Splitting up existing modules into smaller parts

Besides these two overall patterns of addressing smaller learning units, a tendency towards the provision of smaller learning units is widely seen in terms of splitting up existing modules into smaller parts. This is mostly seen among formal CVET-HE. The argument in favour of this is it accommodates the increasing preferences from employers and employees for short-duration and flexible courses.

Development of new small courses

In **Sweden**, as part of the Swedish project, Kompetenspasset (The Competence Passport), a series of 24 MCs concerning security and safety in the job, have been developed for the target group of employees in the company, Skellefteå Kraft AB, Maintenance Hydropower. Together, the MCs are aimed at the evaluation and validation of employees' knowledge and skills for security in work. Based on the validation results, gap training, when required, is carried out as non-formal learning at the workplace.

In **Norway,** Open University studies, in smaller units, are developed under the authority of The Norwegian Directorate for Higher Education and Competence (HK-dir) and under the Tripartite Sector Programme for Skills Development. The courses, of 5 ECTS, are blended learning courses aimed at providing skills enhancement to strengthen employees in their current job situations and thereby reduce the risk of job loss. For the period July 2022–June 2023, a significant proportion of the study offers across industries have been aimed at facilitating green transition.

Mapped MCs evolving outside of formal education and training systems

Examples of learning experiences from outside of formal education and training systems are mapped from third sector, sometimes in collaboration with formal education, unions or other stakeholder organisations.

In the **Faroe Islands,** small learning courses for teachers are provided by Nám, the public publisher of educational material, in cooperation with relevant stakeholders, such as school leaders, union representatives and the ministry. These courses have various contents and lengths, covering different subjects, such as introduction to new teaching materials for teachers and more general competence development courses for particular learning subjects in public schools and the gymnasiums. The purposes for these small courses are mainly to inform and inspire teachers in their daily work.

In **Finland**, Universities' Open Studies can be studied in summer universities and folk high schools (liberal adult education institutions).

Courses for voluntary work:

Across the Nordic countries and regions, third sector organisations develop and provide courses for volunteers.

In **Denmark,** The Danish Emergency Management Agency provides a wide range of small courses for preparing citizens to handle crises and emergency situations. The courses are carried out in local communities with assistance from municipal departments and organisations, such as Technical Administration and the local fire station. The courses typically have a duration of a couple of hours and often include hand-out security plans for individuals, families and local communities. The course selection also includes courses on how to teach the courses.

The courses are developed for various target groups, including adolescents and school classes. The courses are free.

The Danish Emergency Management Agency is experiencing a significant increase in the population's interest in crisis management due to an unstable global situation and the climate crisis. The courses for citizens form part of the national crisis response. A credential is issued only for a minor number of courses.

In the **Faroe Islands,** First Aid courses are provided for both volunteer and professional workers, by different private companies and associations. These courses follow international standards for health and safety. The participants obtain a certificate.

Types of MCs – stand-alone, series or add-on

Though not formally referred to as MCs, the mapped examples of smaller learning units and – not least – their connection to further learning, illustrate types of stand-alone, add-on and series of smaller learning units. For series, like Digital Open badges, as in Finland, these are provided with the possibility of building smaller components of a degree programme, which mainly counts for HE.

Other examples of MC series are the three Swedish pilot projects, where the Skellefteå Kraft AB, Maintenance Hydropower course is developed and organised in terms of non-formal learning, while the Fibre Technology series of MCs are linked to formal education. The Skellefteå MC course for migrants to improve language skills is based on formal learning outcomes.

Stand-alone MCs. Add-on learning units are mainly seen as add-ons upon formal qualifications.

In **Denmark**, the University of Aalborg (AAU) has developed MCs to function as additional add-ons to degree programmes. The size of the MCs counts for two ECTS. As an exemption from the overall mapping results, the University applies the name MC.

For the formal labour market education and training, as mentioned for Denmark and the Faroe Islands, the small courses (not officially called MC) can be achieved in series to build a full VET qualification. This is part of the original system and thus works independently of the new MC trend.

MCs in series (non-formal learning or linked to formal education programmes)

Add-on MCs – to formal qualifications. As mentioned above, small learning units in the formal education system – whether they are named MC or not can function as add-ons to formal qualifications.

Open badges – achieved in a validation process (often digital) or open badges as smaller components of a degree programme (mainly in HE).

MC – identical to existing national qualification programmes, typically labour market education and training (however not formally called MCs).

Target groups

As presented above by the mapped examples, MC address a wide range of target groups:

- Adolescents and young people outside job and education
- Employees in work transition
- Employees upskilling to new job requirements in existing job or in new jobs
- Unemployed reskilling for job openings
- Migrants – upskilling for job openings/lack of work force – in combination with language training

SUMMING UP

Together, the examples demonstrate how the MCs intend to meet needs and requirements of the target groups in question. In the analyses section of Good Practice Cases, chapter 4, *how* and *why* the MCs succeed with this is a key focus area.

3.3.2. Where does the MC initiative come from? Legitimacy, Credibility and Recognition

Most of the mapped examples are provider-led, typically by formal education providers. Some of these are described in the previous section as existing small formal courses, or as MCs closely related to formal education, for instance degree programmes.

In this section, more examples are described from the mapping findings and in relation to prioritised themes of this section, *Legitimacy, Credibility and Recognition.*

In **Finland**, the Hygiene Passport is supply-led due to official requirements and standards for handling food. The Hygiene Passport is provided by the Finnish Food Authority, a national governmental agency. Hygiene Passport tests are organised across Finland by Hygiene Passport examiners approved by the Finnish Food Authority. The Hygiene Passport diploma and card are issued by the examiners.

Due to the organisation and stakeholder involvement, legitimacy, credibility and recognition are key factors for ensuring recognition and application of the MC in jobs.

The achievement of the Hygiene Passport is described in legislation and regulations, following a European Union regulation on the hygiene of foodstuffs and a Food Act in Finland.

- The Hygiene Passport is available in several languages including braille and sign language. It provides many kinds of people a possibility to qualify for a job within the food industry.
- The Hygiene Passport ensures the needed skills of people working in the field. As for the credibility of the issued certificate, the national regulatory authority (**Finnish Food Authority**) provides regulation on hygiene proficiency and instructions for the examiners.
- The local control authorities may check the level of food hygiene and Hygiene Passports of people handling food. All employers/food business operators must ensure that their employees have Hygiene Passports and keep a record of them.
- A governmental organisation, the Finnish Food Authority, oversees development of the test.

Similar certificate courses for Hygiene security are provided in the other Nordic countries and self-governing regions.

In **Norway**, another example of supply-led MC comes from Nord University, Bodø.

This example is characterised by the educational response to a more radical change in the Health Sector and Society, which calls for the development of several elements and collaboration across sectors and authorities.

Due to a shortage of nurses in Norway, the initiative was taken by University Nord to further investigate the skills needs and educational responses to help ensure the retention of nurses. In collaboration with stakeholders, i.e. management of municipalities, healthcare organisations –

national and regional – hospital administration and employees in the health sector, survey responses from nurses revealed skills needs within several disciplines.

A series of MCs for the education offer, "Improving the Generalist Competences", was developed in terms of stand-alone subjects with the possibility of stacking/integrating them into a master's degree. Learning outcomes of stand-alone subjects are described in reference to the National Qualification Framework.

Demand-driven MCs

Mapping results also include many examples of demand-driven MCs with a strong cross-stakeholder involvement.

An example of this is from **Sweden.**

From the Swedish project, Kompetenspasset, a MC was developed with the aim of upskilling for fibre technologies. In this case, focus has been on developing a MC for the skills needed to repair optical fibre (internet infrastructure) in a crisis. The skills, based on public skills needs forecast, are in demand by the Swedish government to ensure the internet infrastructure in a crisis.

Several stakeholder organisations have collaborated on developing the MC. The stakeholder organisations are:

Sobona: Employers' Organisation of Municipal Companies, **The Swedish Local Fibre Alliance**, a non-profit trade association for network owners, actively involved in the development of broadband infrastructure. As Sobona has developed skill and competency profiles for different occupations and tasks over several years based on a modularised system, they already had the modules, that – combined with a theory package – provided a MC with the complete set of skill requirements. Hence, this MC is created by combining existing modules from a non-formal system which is part of an industry standard.

SUMMING UP

In general, in most of the reported examples, the learning units are based on skills needs anticipation, though the status of the assumptions for the skills needs in question differs. Thus, skills needs/requirements are reported in relation to: **International standards**, e.g. hygiene in food-handling, safety and security, in maritime and building and construction, as well as public, national, regional or branch- and sector-specific skills needs surveillance.

The development of MC in the Swedish example of Fibre Technology is based on a public skills forecast for the sector and requested by the Swedish Government.

The Norwegian example of MC for the retention of nurses is based on national skills

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needs identification, and supplemented with the skills needs identification of health personal.

Taken all together, systems for skills needs identification, forecast and surveillance have an impact on the legitimacy and credibility of the provided MCs and, furthermore, for the questions of the added value of MCs and benefits for end-users. These aspects are described in Section 3.3.4.

3.3.3. Validation, recognition and transparency

In this subsection, themes and aspects relating to validation and recognition of the mapped examples are described to gain an understanding of how transparency is ensured for the MCs.

While addressing transparency as a key-concern for the learner and employer engaged in MC learning, several associated aspects become important.

First and foremost, it should be stated that, despite the large amount of mapped small learning units in this project and in similar international research studies, MCs do not – with few exemptions – appear in policy documents for a skills strategy for labour market learning, education and training. This applies to the Nordic countries and self-governing regions.

However, other factors of importance for developing a strategy or a support structure for the development and application of MCs demonstrate a proliferation of MCs also in terms of quality assurance and possibilities for ensuring the recognition, portability and stackability of MCs– all together factors of importance for the impact of MCs, added value and benefits for end-users.

Kompetenspasset has been carried out as an exploratory project, in which five pilot projects have tested the development of MCs for various sectors in the workforce, to see if and if so, how MCs can be integrated into the system. There was a specific focus on the investigation of the relationship between MCs, qualifications and part qualifications.

The Swedish National Agency for Higher Vocational Education (MYH) is responsible for coordinating the pilots' work. As MYH is the national coordination point for EQF, it represents a special resource for investigating the relationship between MCs, qualifications and part qualifications. This issue is a key concern for validation and recognition in terms of the legal framework for Validation of Prior Learning in Sweden and for the possibilities of having MCs recognised with reference to the National Qualification Framework (SeQF). The SeQF is open to inclusion of non-formal qualifications in terms of the possibility of levelling non-formal learning. The procedure of levelling non-formal qualifications is regulated in the ordinance for the National Qualifications Framework for Lifelong Learning.

The project is funded by Vinnova (Sweden's innovation agency). It is a collaboration between the Research Institutes of Sweden (RISE), the Swedish public employment service, the Swedish national agency for higher vocational education and the Swedish council for higher education.

In **Finland**, as part of a Lifelong Learning Strategy/Continuous Learning Reform, 8 Pilots on non-formal and informal learning for the development of a new framework for MCs are tested and evaluated by Centre for Continuous Learning and Employment (CECLE).

https://eurydice.eacea.ec.europa.eu/national-education-systems/finland/lifelong-learning-strategy

For all countries and self-governing regions, specifically the issue of the openness of National Qualification Frameworks for either inclusion or referencing non-formal learning is a determining factor for the recognition of MCs and for the possibility of building MCs and/or part qualification to a full qualification, i.e. the principle of Stackability.

Considering also the associated aspects of transparency, such as description of learning outcomes, the reference to standards and QA, the entire field of criteria and prerequisites are set so as to ensure options and benefits intended by the MCs.

The following illustrates how and to what extent options and benefits are potentially assured among the mapped examples:

Iceland, ETSC, Project, Professional certificate (Fagbréf) in **working life.** In collaboration with social partners, validation of prior learning is carried out against occupational profiles. The target groups are employees and employers to match job profiles of companies with employees/jobseekers, and for employees to make visible more skills and competences. Hence the Professional Certificate is meant for various purposes: upskilling and reskilling, for employment and recruitment as well as for empowerment.

The Project is rooted in industries; company involvement and targeted information and awareness raising is a key factor, based on the stakeholder collaboration in the process. Lifelong Learning Centres market the MCs locally, thereby spreading knowledge and credibility to them.

All jobs and job profiles are analysed before the process and learning outcomes are defined on ISQF levels by the steering group of stakeholders. A quality-assured process is coordinated by the ETSC. Public education funding is available for the users – employees and employers.

The validation processes rely on the national regulation for validation, issued by the Icelandic Ministry of Education, Science and Culture. Results are assessed against formal curricula and recognised when applicable. Individual gap training, based on the validation results are organised and provided by ETSC.

In **Denmark**, in collaboration with a local company, the Vocational Education and Training Institution in Northern Jutland, EUC Nord, has developed a flexible educational programme consisting of several MCs targeted at a specific group of employees for upskilling to the job profile of industrial technician. Based on recognition and validation of prior learning, it may be possible to shorten of the entire programme duration and have individual education plans drafted for each student. Hereafter, the employee's education plan is carried out in a blended form alternating between theoretical learning at the VET Centre and skills training in the workplace.

The Certificate for the Industrial Technician Education is identical to the formal certificate, having followed this in the traditional way. The certificate is issued by the VET Centre or the professional committee for the industry technician education and stored in a digital version in the national e-guide, *My Skills and Competencies Folder*, upon acceptance from the owner.

In **Greenland,** the application of VPL according to the legal framework of VPL (RKV in Greenland) is spreading across educational areas to motivate people to take an education and to make it more accessible. One of these areas is social and health care, an area in great need of a qualified workforce. Due to Greenlandic geography, particularly on the east coast, accessibility to education is difficult. Based on the validation and recognition process with shortening of duration, teaching and learning for remaining educational components are carried out by Peqqissaanermik ilinniarfik – The VET programme for Health Care Education.

Issuance and storage of MCs is a key-question for the principles of portability and stackability.

Among the examples presented in the sections above, digital storage of the issued credentials is included in:

Finland, Hygiene Passport, based on a successful test is issued by the examiner. The credential is stored in the national database, KOSKI.

Denmark, the Certificate is issued by the VET Centre or the Professional Committee for the education and stored in a digital version in the national e-guide, *My Skills and Competencies Folder*, upon acceptance from the owner.

Iceland, Professional Certificate in working life (Fagbréf). The certificate is owned by the individual and stored by the ETSC.

Greenland, Health and Care education. There is no digital storage of the certificate

Åland, Emmaus OCN. The certificates are gathered on the website called Merit forum, which is linked to Nordiskt Valideringsforum website.

3.3.4. Added value and benefits for end-users

A specific focus and interest must be prioritised for the issue of whether an added value of MCs – compared to existing options for skills development – can be identified and described? Furthermore, in addition to this question, if and how foreseen benefits for end-users are achieved?

In this section, the two key questions are focused on the mapping examples.

In **Denmark**, individualised and a flexible education programme for the profession of Industrial Technician. The programme is based on validation of prior learning, in accordance to the national legislation for VPL (RKV). After recognition and shortening of the entire duration, the employee's individual education plan is carried out through minor education units in a blended learning approach. All parts of the education refer to formal education standards and learning outcomes, whether these are reached by practice learning in the individual workplace or achieved – for theory components – at the VET Centre.

The programme serves two user perspectives and interests; for employees to ensure job retention due to new job requirements and for employers to retain and attract a qualified workforce in an area of Denmark with increasing difficulties for recruitment.

The flexibility of the education programme is valued by employers and employees, as – in comparison to the formal education – the individual planning makes the achievement more appropriate to individual needs and requirements as well as for the company's production planning. Furthermore, benefits are recognised in terms of a general higher motivation for learning in the company. For the employees, the new professional competence of industrial technician also constitutes an important career perspective within the company for new work areas or within the branch.

In **Greenland,** the application of VPL (RKV in Greenland) is seen as a strongly motivating factor for both personal and employers within the area of health education. In remote areas with small towns, the upskilling from unskilled to skilled employee is difficult due to long distances to the education institution. Often the prospect of a long education duration and travelling away from home for long time deters many employees from starting an education. Furthermore, there is a high dropout rate among students. As a new initiative is taken by the government in cooperation with the health education programme to develop an educational model that accommodates the difficult conditions for fulfilling an education. Thus, the application of VPL due to the legal framework of VPL (RKV in Greenland) is spreading across educational areas to motivate people to take an education and to make it more accessible. One of these areas is social and health care, an area in great need of a qualified workforce. Based on the validation and recognition process with individual shortening of duration of the remaining education, in smaller parts of learning is carried out by Peqqissaanermik ilinniarfik – The VET programme for Health Care Education.

For the Social and Health Care Centre in Sisimiut, the programme has been a success, having increased the educational level of skilled personal from 25% to 75%. It is reported that the initial application of RKV is a main motivation for the employees to take the education. The employees, primarily women, having worked for many years within health care in their local areas, value the personal development gained through the education programme.

Furthermore, it is noticed at the Health Care Centre that collaboration in the workplace has improved, not least because of the achievement of a new, shared professional communication.

In **Sweden,** as part of the Swedish Kompetenspasset (The Skills and Competence Passport) project, a series of 24 MCs have been developed for the target group of employees in the company, Skellefteå Kraft AB, Maintenance Hydropower. Together, the MCs are aimed at the evaluation and validation of knowledge and skills for safety and security in work. Based on the validation results, gap training, when required, is carried out as non-formal learning in the workplace.

The initiative for the application of MCs for this purpose had its starting point in a situation of high-risk work tasks. To cope with the situation of accidents at work, the series of MCs was developed to validate knowledge and skills for safety and security and to identify needs for gap training. This was carried out afterwards for the individual employee.

A few of the MCs are dedicated to training teachers to carry out the validation in face-to-face communication with the employee. The teachers were selected from among staff.

For the success of the initiative, the company points to the high priority of meeting the individual employee in a respectful and appreciative manner – not to reveal deficient knowledge and skills – but to identify where training is required to assist the development of a safe work environment.

Similar to the above example from Greenland, Skellefteå is a town situated in the North of Sweden that had faced difficulties in recruiting for years.

The manager responsible for the MC development evaluates the outcomes in terms of more openness about the working environment and a positive focus on the shared responsibility for safety at work.

Furthermore, the interest in workplace learning has increased as well as job retention and more interest from outside to have a job in the company.

Issuance of a credential has not been part of the pilot project.

In **Finland,** smaller courses for Open University studies (commonly named Open Studies) are provided for the aim of supporting coming students in the educational choice.

Open Studies are a low-threshold option for young people who are e.g. unsure which field to choose for longer studies or for those who are outside of education for various reasons.

Furthermore, Open Studies address a main target group of people who wish to improve the skills required in work life. Here, Open Studies are aimed at deepening already existing skills or at learning a new field of interest. Participation in Open Studies does not have age or prior education criteria and usually have no entrance examinations either.

Open Studies enjoy good credibility in formal higher education**.** Though not providing the possibility of achieving a degree with Open Studies alone, the fact that Open Studies are identical or very similar to courses that are included in studying for a degree means they can be accredited directly to studies in higher education institutions. There is even an "open studies path" to university: a quota of study places for people who have completed certain modules of Open Studies.

Most Open Studies courses are associated with ECTS credits. Certificates of studies are stored in the national digital study register where all Finns can see and share their own certificates and in higher education institutions' own databases.

SUMMING UP

In various ways the selected examples in this section illustrate perspectives of

1. added value and
2. benefits for end-users

Both perspectives can be seen on their own and combined.

Added Value is seen in the examples in terms of possibilities and supportive elements, which are not available in the same sense in the equivalent formal education offers.

Denmark, the model for upskilling to Industrial Technician is based on a previous VPL process. This element also applies to the same education when attending in the traditional format. What is different in the developed model is the remaining part of education, which is here split up in smaller components and achieved in a blended form, alternating between two learning contexts and – not least – at everyone's own pace. The high level of flexibility and individualisation is clearly an added value while executing the education programme in its ordinary form would require team-based teaching with the same content and at a fixed time.

In this way, the education programme provides flexibility and individualisation. Aspects that are often subject to employers' and employees' criticism of formal education.

Motivated by the flexible and individualised approach, benefits for end-users are for *the employee* the possibility of advancing in career opportunities, whether this is realised in terms of new and interesting working tasks, a more secure job perspective and – perhaps – the motivation for further education or learning. And not to forget, the possibility of seeking new jobs with the new qualification. For the employer, the benefits are a more qualified workforce and similarly better perspectives for recruitment of new personnel, while being known as a learning-oriented company.

Greenland with the VPL based model for health care education in the remote areas and split into smaller learning parts form an added value for the group of employees, for whom the perspectives of a long duration education has appeared unmanageable – an obvious added value, which is furthermore reflected in the benefits of end-users. For the employees, a personal development and satisfaction of having succeeded with what used to be seen as unrealistic. For the team of colleagues, there is an improved working environment with better communication due to the new shared professional language. And the employer gains a stable workplace in terms of staff turnover with a high percentage of skilled staff.

Sweden, the company, Skellefteå Kraft AB, Maintenance Hydropower. With the

application of the specially developed series of MCs, the difficult situation of a high-risk work environment was handled with an in-person evaluation on the objectives structured by the MCs. What could have been fragile for the employees was the individual evaluation of their knowledge and skills of safety and security in the job. Would loss of employment be a potential risk?

The approach to this situation was a key-concern in the development of the method. And the fact that employment was not in danger due to the result, but that results were achieved as the necessary way to improve safety and security in the workplace. This is a clear added value to what could have been the alternative for identifying skills gaps and typically carried out by a formal education institution in distance to daily work at the company.

The benefits for end-users are recognised by the company, from employee and from employer perspectives in terms of an openness towards communication of knowledge and skills needs in the company, upskilling to the safety and security objectives and a higher level of understanding the safety and security implications of work performance, individually and across colleagues. For the company, benefits include the employees' – and a general – increased motivation for workplace learning and development.

Finland, Open Studies for different target groups, provided as smaller learning units, are characterised by flexibility for the students and a high credibility in the sector of HE. Open Studies are associated with ECTS. The courses are stackable, though not with the option of achieving a full degree, through the courses alone. But, as open study courses are built on similar modules, they can be included later in the study of a degree programme. Open Studies are free, and tutoring is available.

The combination of these factors is determining for added value as well as for the prospects of realising benefits for end-users. *Added value*, because the studies attract and motivate a target group for whom attending a long academic study is not at hand, right now. Likewise, the possibilities of combing the open studies with work makes participation in open studies accessible.

While benefits for end-users in this learning format are most obviously seen from the learner perspective, employer- and societal perspectives for benefits could be regarded as an increased level of knowledge relevant for the workplace – when employers attend Open Studies for this purpose. For society, the wide spread of Open Studies, over the years, provides a strong base for lifelong learning in Finland.

3.4. Summing up all mapping sections

This overall summing up finalises the presentation and discussion of mapping examples. At the centre of this final assessment due to the mapping themes and aspects is the **Definition of MCs** as it appears from the EU initiative on microcredentials (see chapter 1.2.).

The examples from mapping demonstrate the variety of smaller learning units across sectors and areas and concern target groups and aims of the learning. They also demonstrate an increased focus and interest in providing small learning units as well as demonstrating a perspective on options of existing education and supportive frameworks and tools which might not have been in focus previously. Examples of this are the application of validation, while extending this to other functions than *'just'* acting as a tool for recognition of prior learning to formal education.

One example is from Greenland where adolescents and young people outside of education complete a VPL and achieve a documentation of knowledge and skills from work and interests. In the mapped example from Greenland, the documented content is regarded as a MC, applicable for moving closer to education or applying for a job. Thus, the documentation is associated with a credential for achieved learning, skills and knowledge, despite not necessarily having been assessed against formal education standards and requirements.

Moreover, Validation of Prior Learning is practiced as a **learning approach** for young people outside of jobs and education. On production school courses in Greenland for this target group, validation is used as a pedagogical tool for the self-evaluation of progress and for empowerment (for young people below age 25, based on practice work and production).

For the models practised within the OCN model (Åland Islands) and within ETSC, Education and Training Support Centre, (Iceland) validation as a learning approach is an important tool to support the individuals' self-evaluation and broadening their understanding and reflection of their skills and knowledge, thus increasing self-confidence and empowerment, motivation for education and job.

Furthermore, to quite a large extent, validation of prior learning is applied in combination with MCs. This appears in terms of the potential of stackability to a full, formal qualification or it appears in terms of models in the non-formal sector to assess a person's prior learning against occupational profiles, as it is applied in ETSC, Iceland and OCN, Åland.

They are underpinned by quality assurance following agreed standards in the relevant sector or area of activity.

(EU Definition)

The mapped examples demonstrate, to varying degrees and extent, how the MCs provided are supported by the determining factors of linkage to formal systems, education, NQFs, other

standards, like Industrial standards and ECTS, *or,* how stackability is provided outside formal education as the Individual's own learning-pathway.

Furthermore, credibility, dependent on the validity of skills-needs anticipation for the provided MCs is crucial for added value of MCs and benefits for end-users. Generally, the mapped examples demonstrate a high awareness of these factors, applied in the development of the MCs for non-formal learning as well as for formal learning.

However, the linkage between MCs and formal education systems must be a specific concern, as the principle of stackability – so far as this is foreseen as an option in the development of the provided MCs – because lacks among these determining factors risk limiting the option of stackability.

Restrictions are still encountered in the meeting with VPL to formal education system, where legal frameworks, NQFs and tools limit the possibility of utilising the documented non-formal learning.

These learning outcomes have been assessed against transparent and clearly defined standards.

(EU Definition)

For MCs provided and achieved in non-formal contexts, the option of ensuring *stackability* of MCs to a full qualification is limited, *if* the National Qualification Framework is not open to non-formal learning. Likewise, concerning the principle of *portability,* the issued credential and the storage of it, risk facing limitations, when 1) description of learning outcomes for the credential is not following officially recognised standards and systems. 2) systems, like national databases for credentials to storage of issued credentials are not applied. In this case, the principle of portability may be limited, at least in the digital form.

In the mapped examples, applied as non-formal learning, these risks of limitation are considered by a cross-stakeholder involvement in development and application of the models. The issue of determining factors is addressed in more detail in the Analysis of Cases to identify precisely the options or limitations for benefiting from the achieved MCs and furthermore to form the basis for Recommendations.

Societal, personal, cultural, or labour market needs

(EU MCs definition)

Mapping of MCs in the Nordic perspective demonstrates the occurrence of MCs in various sectors, and with various aims. Labour market needs seem to be the highest prioritised purpose for all target groups. This counts for upskilling and reskilling purposes for employees and jobseekers, while also an extensive group of MCs are aimed at preparing target groups for labour market inclusion, employment and education. The target groups for these MCs are manifold, i.e.

young people with weak basic school prerequisites and outside of jobs and education, adults outside of jobs and education, migrants with insufficient language skills.

A group of the mapped examples concern small courses, provided by third sector and for a broad target group. Some of these are aimed at achieving skills and knowledge to be applied in leisure time or in jobs, for instance courses within hygiene, first aid and safety and security in communities.

Hence, looking at the total picture of the mapped examples of small learning units, whatever they are named, it is clearly evident that they occur in all sectors of society. Some of them are clearly defined for labour market needs, others address personal, cultural and societal needs.

Taken all together, this variety could be defined as contributions to national cohesion.

Use of the term 'microcredentials'

(EU MCs Definition)

Like conclusions of the Cedefop research on MCs for Labour market Education and Training, it also counts for the MCs research in the Nordic perspective, *that,* the term of MC is not formally used, even when there is a longstanding practice to offer shorter learning experiences across sectors. Small courses/education for labour market education and training exist – and for many years – in all Nordic countries and self-governing regions. Hence, when reporting small learning courses as MCs in the Mapping, this might be regarded, mostly, as a backward-looking and reflective perspective, when searching for learning examples, which, in various respects, match the EU MC definition. And there is no doubt, that exactly the aspect of *small sized* has become leading for the search. However, it must be mentioned, that there are few exemptions; in the Swedish Kompetenspasset project, the name, Mikromeritter is formally used for the small learning units developed in some of the Pilot projects. In Denmark, MCs have recently started being offered by Aalborg University (AAU) and University College of Northern Denmark (UCN). They can either be an add-on or stand-alone MC. The education organisations' websites offer presentations of the available MCs.

Anyway, the amount of identified smaller learning units, prove a proliferation of this new trend, whatever it is named. Megatrends and drivers for increasing awareness of small learning units with the option of applying them in a flexible manner, fits into the situation in many countries of formal educational systems being criticised for less flexibility, unsatisfactory to requirements of timeliness of provision and with a learning content that insufficiently reflect actual skills needs due to fast-changing labour markets and societies.

One could say that entitling the smaller learning units as MCs is not a key concern. However, setting the definition of 'small' highest might bear the risk that *too much* is named so, regardless of the other defining aspects of MCs. The result – to be avoided – could be that the specificity of MCs might appear relatively vague.

Finally, it is important to stress that occurrence, proliferation and further development of MC as

a new format are gaining momentum in the Nordic countries and self-governing regions as also reflected in Europe and elsewhere in the world. The awareness of requirements to make MC supplementary to formal education and training, or linked to, is similarly increasing.

What is needed right now – and which should have a strong focus – is, that evidence of benefits for end-users is scarce.

The Study on MCs in A Nordic perspective takes that focus, while examining individual cases by means of identified determining factors for added value and for benefits of end-users, with the aim to form a knowledge base for a set of Recommendations on development of MCs.

3.5. Categories of cases, types and characteristics

Number	Category	Provider and Stakeholder cooperation	Target groups	Country
1.	MCs in Validation and recognition of skills and competences for inclusion (access to education and/or job)	Education institution, PES, agencies, municipalities, labour market organisations, third sector	Young people and adults outside jobs and education	Greenland, the Åland Islands
2.	MCs for upskilling, reskilling or retention, formal or non-formal	Education institutions, companies, labour market organisations, PES.	Adults from age 18 (or from age 25)	Finland, the Faroe Islands, Iceland, Denmark, Sweden
3.	Adult learning, open badges for documentation of skills and competences Voluntary work	Liberal adult education institutions, national agency for education, third sector organisations	Adults regardless of age	Finland, Sweden, the Faroe Islands, Denmark
4.	MCs for Twin Transition	Universities in collaboration with branch and sector organisations, PES	Employees and students	Norway, Denmark
5.	MCs for HE, short formal courses and Open University courses for motivation, selection of study or for a part qualification, for job transition	Universities and University Colleges (UCs) Agencies in collaboration with branch and sector organisations	Employees and Students in HE in access to HE	Finland, Norway, Denmark

Figure 3. Categories of cases, types and characteristics.

3.6. National Context Descriptions

National context descriptions are presented for each country and self-governing region. By the descriptions, the frames are set for 1) legal legislation and frameworks of importance for development and implementation of MCs and 2) Short overview of mapped results.

Denmark

The Danish Qualification Framework is not open to non-formal learning. The legal framework for VPL (in Denmark RKV) is carried out in relation to formal education. This means that non-formal and informal learning are not formally recognised. However, due to the tripartite agreement, 2022, private education providers can have their education level assessed by the NQF

In **Denmark,** a new order for Vocational Academy and Diploma Programmes (NQF 5 and 6) gives the opportunity to offer 2.5 ECTS courses.

An ongoing Erasmus project, Microcredential (subject-specific course) for a target group of unskilled employees in pedagogical daycare.

1. Short formal learning courses for target groups of employed and/or unemployed adults.

The category of **specially designed subject-specific courses** is largely provided in the sector of university colleges. This course type has specifically proven its value in situations where it has not been possible to provide a full course or a diploma degree module. These courses are often provided in collaboration with a municipality as the employer with the aim of upskilling a group of employees. The courses are the equivalent of up till 5 ECTS. It must be noticed that the specially designed courses are not named MCs.

EUC-Nord is a Vocational Education and Training Institution in Northern Jutland. EUC-Nord caters to young people and adult learners with youth education programmes, vocational education, AMU courses, etc. EUC-Nord has collaborated with a local company to develop a flexible educational programme consisting of several MCs targeted at a specific group of employees upskilling to become industrial technicians.

1) Adult Vocational education & training (AMU)

The development of Adult Vocational Education & Training (AMU) occurs in collaboration of different actors/stakeholders. The social partners are responsible for developing AMU and associated tests. The Board of Education and Quality approves that the description of the courses complies with applicable regulations. Finally, the AMU providers play an important role

when they ensure that the courses are organised and offered in an appropriate way.

AMU courses are small size courses (EQF, levels 3 and 4) for employed as well as unemployed (unskilled and skilled) with the aim of upskilling and reskilling to a wide range of occupations within the labour market.

Examples

1. Introduction to sustainable transition (formal education, level 3)
2. Conflict management (formal education, level 3)
3. Development of new dishes (formal education, level 4)

The Faroe Islands

The Faroe Islands are a Nordic archipelago in the North Atlantic Ocean between Scotland and Iceland. The population counts for about 55,000 people. The Faroe Islands are a self-governing territory of the Kingdom of Denmark with its own parliament and government, Løgting and Landstýri respectively.

The Faroese education system is comparable to the other Nordic countries' education systems, covering all levels of education from kindergarten to university. The labour force accounts for about 32,500 people. 30% of the labour force have a vocational education as their highest education, 10% a gymnasium education, 10% a higher national diploma, 10% a university degree, 8% a maritime education and 16% (25+ years old) have no formal education after public school.

The law on validation in the Faroe Islands is from 2014. It is covering all the different aspects of the Faroese education system. The purpose for validation is to give adults the opportunity to shorten their education or to give admission to enter an education.

All kinds of competence validation in the Faroe Islands – both formal, informal and non-formal – are weighted up against and compared to the education law and its goals as well as the national curriculum learning outcomes.

The Faroe Islands have not yet obtained a National Qualification Framework. Although the Faroese authorities are preparing for a Faroese National Qualification Framework.

MCs are still not used as a common term for small learning units in the Faroe Islands. However, there are many short and small courses related to various business sectors and professions, for

instance the maritime area and the building and construction sectors. Often, these courses are part of a full qualification or CVET, mostly in connection with security and safety requirements.

The courses are mostly provided by the formal Faroese education system and educational institutions. A few of the courses are provided by private companies.

The target group is mainly employees with a relevant education within the respective area, however this is not always the case. Various types of safety courses (e.g. fire, hygiene, first aid) are offered for all employees. Some of the courses are provided by private providers.

Short courses within administration, HR and ICT are also provided by private companies. The target group is staff in private and public companies.

Third sector education offers a wide range of non-formal courses, ranging in duration from a couple of weeks and up to one or two teaching semesters (2–4 hours a week). These courses mostly relate to creative activities such as music, film, cooking, textile, photography, drawing, painting etc. Also, non-formal courses in language and mathematics are provided by the third sector.

In addition to several CVET courses for teachers, one-to-two-day courses in newly developed teaching material, such as inspiration courses in creative school subjects, are provided. These courses are typically non-formal, arranged by Nám, the public publisher of educational material, in cooperation with relevant stakeholders, such as school leaders, union representatives and the ministry.

As a new offer, language courses in the Faroese language for migrants are provided.

None of the abovementioned short courses are entitled as MCs or with similar designations.

Examples

- Maritime courses, one day to four weeks length
- Safety and security courses for building workers
- Upskilling courses at upper secondary school level
- Demanded course for farmers
- Short upskilling courses for employees, such as safety, hygiene, HR and ICT
- Volunteer workers at Red Cross and different unions

Finland

Currently, in Finland, a cross-ministerial working group for validation of prior learning is looking at the possibilities of opening up the Finnish National Qualifications Framework. This also concerns MCs and other smaller learning units, such as the courses provided by the Liberal Adult Education.

In **Finland**, as part of a Lifelong Learning Strategy/Continuous Learning Reform 8 Pilots on non-formal and informal learning, for development of a new framework for MCs are tested and evaluated by Centre for Continuous Learning and Employment (CECLE).

https://eurydice.eacea.ec.europa.eu/national-education-systems/finland/lifelong-learning-strategy

The national learning database KOSKI provides the opportunity to Liberal Adult Education institutions to make learning outcomes gained through their courses or programmes visible in the database. Badges can be seen in learners personal account in connection with all other educations (studyinfo.fi).

Digital open badges/Open badges for digital skills refer to some smaller contents of a course. In this way learners are able to better show their skills. Badges can be identical with some smaller parts of studies; one badge is not identical with a whole course. If you get **all** the digital badges, you can show enough skills to skip entire course/s. This is something a teacher or a school can decide.

Digital basic skills can be required in any context. There is no need to e.g. attend to a specific course – learning can take place in many fields. The recognised learning outcome (a set of digital open badges) can be used especially in working life or in formal education.

Open University Studies: Open studies at universities and universities of applied sciences *(in short: open studies)*. Formal education, tertiary education.

Target groups: One main target group of open studies are people who wish to improve their skills required in working life. One can deepen their already existing skills or get to know a new field of interest. The variety of open studies is enormous: most academic fields of study offer at least some courses, and in several branches, it is possible to study whole study modules of basic and intermediate studies.

Open studies are a low-threshold option for young people who are unsure which field to choose for longer studies or who are outside education for various reasons. Open studies may also provide skills and knowledge highly relevant for work life.

> "Higher education institutions offer the possibility of completing modules in the form of open university or open university of applied sciences studies or other types of separate studies. Modules can include the completion of individual courses or broader entities. Higher education institutions can form integrated education programmes from these modules for the needs of working life, the completion of which will entitle the participants to a higher education diploma." (Finnish Ministry of Education webpage)

Open badges for digital skills: The Hygiene Passport is provided by the Finnish Food Authority, a national governmental agency. Hygiene Passport tests are organised around Finland by Hygiene Passport examiners approved by the Finnish Food Authority – right now, there are 1400 of them. The Hygiene Passport diploma and card are issued by the examiners.

The target group of Hygiene Passport training are people who need knowledge of food hygiene and seek employment in e.g. cafés, restaurants, institutional kitchens and food industry. Employees must have a hygiene passport if they work on food premises and handle unpackaged perishable foods. The requirement is to get a Hygiene Passport within three months of employment.

There is legislation and regulations which describe the level of food hygiene: a European Union regulation on the hygiene of foodstuffs and a Food Act in Finland. The Hygiene Passport ensures the needed skills of people working in the field.

The national regulatory authority (Finnish Food Authority) provides regulation on hygiene proficiency and instructions for the examiners. The local control authorities may check the level of food hygiene and Hygiene Passports of people handling food. All employers/food business operators must ensure that their employees have Hygiene Passports and keep a record of them.

Greenland

MCs in **Pilersitsiviit** (schools with focus on learning in labs for young people) is a new initiative at an implementation stage.

In Greenland, the legal Framework for Validation of Prior Learning, RKV, is available for application of access to formal education.

Officially recognised MCs are existing in Greenland as for instance Validation of Prior Learning (Realkompetencevurdering, RKV). Furthermore, there are non-official MCs in private businesses, as employees are employed due to documented skills.

The legal framework for RKV is grounded in ACT of Adult Education & Training (AMU and VET), (2001)

Due to legislation, adults above 30 years are permitted access to VET, based on individual assessments of applicant's prior learning, work experience as well as education.

Access to VET based on an RKV is possible at:

Peqqissaanermik Ilinniarfik / Vocational Health Care, NUUK, providing various health care educations.

Perorsaanermik Ilinniarfik / Social pedagogic University College – Ilulissat, providing the social-carer education programme

Niuernermik Ilinniarfik/ Greenland business school – Nuuk, The Academy degree programme in Economy and Resource management

Imarsiornermik ilinniarfik/Grønlands maritime Center – Nuuk, Coastal and fishing skipper of 3rd degree.

Another official approach to MCs – mostly targeted young people below 25, are production school-like courses. In 2023, Naalakkersuisut approved the working groups recommendations on the establishment of production school-like courses. The aim of these is to provide more possibilities for young people with a preference for practical learning – and hence to motivate young people outside of jobs and education to choose an education or job.

Example

the Retail Concern, KNI A/S employ staff, recruited on their practice skills and competences and hence acknowledging the lifelong learning of the individual employee.

Professional certificate in working life, provided by labour market organisation (ETSC)

The Education and Training Service Centre (ETSC) targets people with little formal education, offering suitable training and educational pathways, guidance and support. The centre is owned by the social partners, and the core work is based on a service agreement with both the Ministry of Social Welfare and Labour and the Ministry of Education and Children. It also works according to the Adult Education Act from 2010. In summary, there was a need to recognise and give value to learning at work. Hence, a process was developed for identifying and certifying skills and competences based on specific job criteria and mapping them to ISQF levels.

All jobs and job profiles are analysed before the process and learning outcomes are defined on ISQF levels by the steering group of stakeholders. A quality assured process is coordinated by the ETSC. Public education funding is available for the users – employees and employers.

The validation processes rely on the national regulation for validation, issued by the Ministry of Education, Science and Culture. Results are assessed against formal curricula and recognised when applicable. Individual gap training, based on the validation results are organised and provided by the ETSC.

Model for achievement of a professional certificate

The model is provided by the Education and Training Support Centre (ETSC) for working life. Provider is a labour market organisation, owned by the social partners in Iceland.

The process of having your prior learning and skills recognised is based on a primary validation of knowledge and skills related to requirements for professional skills in a certain branch and companies.

All jobs are analysed before the process and learning outcomes defined on ISQF levels **by the steering group of stakeholders**. A Quality assured process coordinated by the ETSC.

All learning outcomes are mapped in relation to the ISQF.

As a next phase in the process after validation of the persons knowledge and skills, a gap training is initiated, if needed.

The model has been in development in cooperation with stakeholders (working life) since 2019, and now the social partners are agreeing on using the model to make visible and validate job-related skills, enhancing practice-oriented skills and competence development. It is however being discussed whether the Fagbréf (as a confirmation of skills for a specific job) should be categorised as a MC or if it is "bigger" than that.

The learning process in relation to gap-training is tailor-tailored based on the results of the validation of the competences in the job at hand. It can also comprise education and training connected to formal education, that is the case within the trade and service sector where the Fagbréf can stand alone or be a part of a study path.

Norway

MCs as such are not established in Norway. While some providers have got further ahead than others in their MC development efforts and have a few ready MC offers, many others are at a sense-making, consideration, planning and development stage. Thus, there are only a handful of examples of study offers bearing the actual name "microcredential".

There is no common system for validating, storing and sharing MCs in Norway.

The National Qualification Framework is not open to non-formal learning.

Examples of reported MCs

- Digital student – Online course in digital tools, methods and technology to enhance learning (DIGI100-117; eight modules). HE, undergraduate level
- Circular Economy (Branch programme) for engineers and managers in construction trades
- "Improving the generalist competencies" for nurses in the health sector (formal education)

Under development

Mini qualification for the UH sector (mini qualifications are meant to contribute to further development of flexible and modularised learning opportunities within education, upskilling and working life):

- Digital Norway and the University in Bergen (UIB) have developed a free 10-hours course on data, (datareisen.no)
- Stavanger University in collaboration with European University Alliance (ECIU), is the first Norwegian University to offer its students digital mini qualifications from a common ECIU platform, (uis.no).
- A series of MCs for the education offer, Improving the Generalist Competences of nurses

was developed in terms of stand-alone subjects with the possibility of stacking/integrating them into a master's degree. Learning outcomes of stand-alone subjects are described in reference to the National Qualification Framework.

Sweden

The Swedish education system is already greatly modularised, but there are other types of learning that are not recognised currently. Moreover, not all skills needs are met through contemporary education programmes in the formal system. One way to tackle these challenges is to develop further on the use of non-formal qualifications, the SeQF (Swedish Qualification Framework) and the use of existing models of sectors VPL. In Sweden, there is more than 100 professional occupations within the systems of sector VPL.

SeQF is an open and inclusive qualifications framework, where there is no requirement for a qualification to have a certain "size" in order to be included.

This means that it is entirely possible to apply for a levelling decision even for so-called MCs to determine which level in the SeQF they correspond to. However, the recommendation on MCs has not been formally adopted in Sweden.

The new validation regulation

The new validation regulation, valideringsförordning (2022:1549), came into force in January 2023. It states that validation must be able to lead to:

1. a qualification that corresponds to a level in the qualification framework for lifelong learning according to the regulation (Förordning (2015:545) om referensram för kvalifikationer för livslångt lärande [Regulation on the qualifications framework for lifelong learning]) or part of such a qualification; *or*

2. eligibility for education and training that can lead to such a qualification or part of a qualification referred to in point 1.

Valideringsförordning: https://www.riksdagen.se/sv/dokument-och-lagar/dokument/svensk-forfattningssamling/valideringsforordning-20221549_sfs-2022-1549/

From September 2021 to June 2024**,** the Kompetenspasset project, concerning the development of MCs in Sweden, was carried out in a collaboration between Research Institutes of Sweden (RISE), the Swedish public employment service, the Swedish national agency for higher vocational education and the Swedish Council for Higher Education. The project was funded by Vinnova (Sweden's innovation agency).

Other collaborative partners

- **Sobona**, the municipal businesses employers' organisation, together with the Swedish urban protection network
- **Proteko/NTA**, stakeholders in the textile industry
- **Arbetsförmedlingen**, the Swedish Public Employment Service
- **The Swedish Retail and Wholesale Council**

Skellefteå municipality:

- MCs in the Swedish language for immigrants working in the field of elderly care
- MCs concerns skills for maintenance work in hydropower plants

Kompetenspasset has been carried out as an exploratory project, in which five pilot projects have tested the development of MCs for various sectors in the workforce, to see *if* and if so, *how* MCs can be integrated into the system. There was a specific focus on the investigation of the relationship between MCs, qualifications and part qualifications.

Åland

Digital open badges

Provider and stakeholder collaboration: Third Sector, Emmaus Åland, OCN (Open College Network), Sweden in collaboration with Nordic Validation Forum.

Process of collaboration: AMS requests a Validation

The open digital badge is aimed for upskilling, inclusion and empowerment, based on skills needs anticipation in combination with other policy areas for the following target groups:

- Young people outside job, education
- Young people between primary and vocational school
- Marginalised adults outside of jobs and/or education.
- Long-term unemployed people

Targeted information about Open Digital Badges is provided to clients within AMS or KST (municipal association of social care). AMS orders a validation service for the client at Emmaus Åland.

Besides, the learning outcome of the open badge can be achieved in terms VPL. The learning modules for Open Digital Badges are provided online and can also be attended by presence.

4. Good Practice Cases – MCs in a Nordic perspective

4.1. Analytical approach and focal points

4.1.1. Model for case description

The cases have been selected with a focus on the inclusion of themes and aspects, which are estimated to support added value and benefits for end-users and thus valued as Good Practice Cases.

The cases for this purpose are described by a combination of mapping findings, examples and categories. Together, the individual cases form core units for the analysis as they also provide a coherent and firm basis for Recommendations on the development of MCs.

NLL partners have selected the cases for description, based on a developed model with a three-part structure:

A *WHAT* section, a *How* section and a *WHY* section. The three-part structure provides case descriptions, applicable for explaining content and mechanisms of the MC to ensure the intended results, added value and benefits for end-users.

The cases provide a complexity of knowledge and understanding of development, provision, application and benefits of the specific MC, while addressing the WHAT, HOW and WHY questions:

The aim of the **WHAT** section is to provide an understanding of WHAT constitutes frameworks, conditions, context and so on for this specific MC – *or in other words*: to set the stage for a closer exploration of the MC.

The aim of the **HOW** section is to provide an understanding of HOW the MC in terms of content, aim, application, methods and so on is developed.

Together, these two previous sections form the basis for description of **WHY** the expected results of added value, benefits of end-users are considered likely to be achieved by the user.

Thus, the cases demonstrate coherent perspectives and indicators, identified in terms of single perspectives and aspects from the mapping examples while also contributing to reflect the analysis of cases within coherent multi-perspectives.

The cases are analysed based on an assessment of two questions:

1. Benefits and challenges
2. Possibilities of further development

Both questions are relevant for assessing the two key focal points of the study:

- Added value of the MCs
- Benefits for end-users

The analysis of cases takes place with the application of 1) Models of Coherent Factors and 2) National context descriptions.

4.1.2. Models for Coherent Factors

Three models have been developed for the illustration of built-in complexities in the development, application and achievement of benefits of MCs.

The primary focus of each of the three models is:

1. The Learner
2. Legitimacy and trust
3. Transparency and reference to systems

The models of Coherent Factors are constructed by themes from the mapping matrix (chapter 3.2.). The models provide an analytical frame for the cases and, together, they form a consistent starting point for identification of Recommendations for development of MCs.
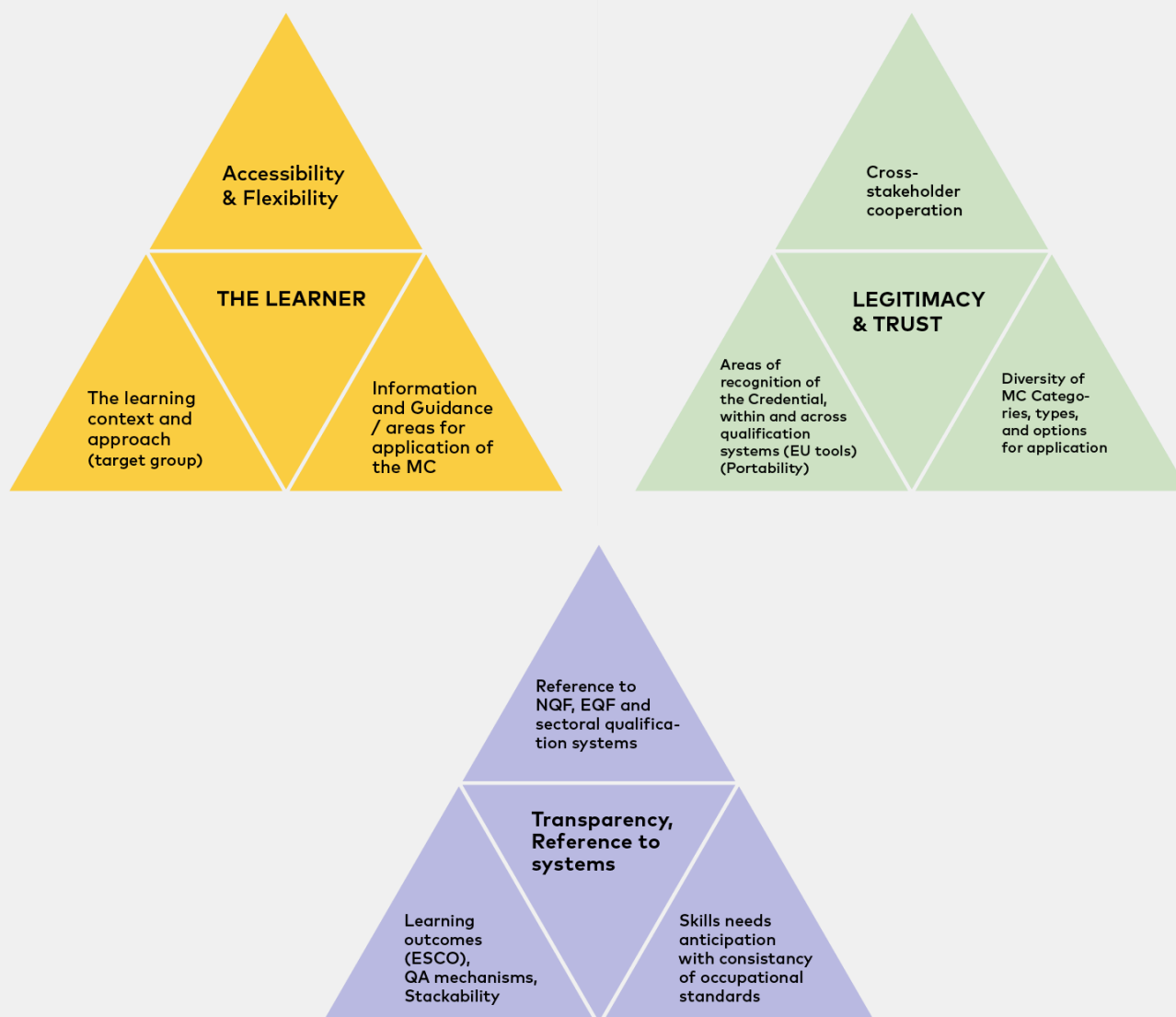
Figure 4. The models of Coherent Factors.

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4.1.3. National Context Descriptions

For each NLL partner country and self-governing region, an introduction about the national context for MCs is provided with a short description of what has or could have an impact on the opportunities for further development and proliferation of MCs. A special element of the context descriptions are new national initiatives for MC in combination with legal frameworks, NQFs and other support structures.

National context descriptions (chapter 3.6.) thus provide a resource for the analysis of cases – as well as for the development of the Recommendations.

4.2. Good Practice Cases – overview

No.	Title	Country	Category
1.	Upskilling by MC to industrial technician	DK	**Category 2.** MCs applied for formal education and training
2.	Formal and non-formal short courses	FO	**Category 2.** MC, linked to formal education, individually or in new settings, for upskilling, reskilling of retention. Stackable to a full qualification
3.	National badges for basic skills	FI	**Category 3.** MC for validation of non-formal learning
4.	Learning labs for young people	GL	**Category 1.** MC in Validation and recognition of skills and competences for inclusion (access to education and/or job)
5.	Professional Certificate for Work Life	IS	**Category 2.** MC in Validation and recognition of skills and competences for upskilling or reskilling (for jobs and education).
6.	Circular Economy	NO	**Category 4.** MC for Twin Transition
7.	MC for safety and security skills	SE	**Category 1.** Microcredentials for assessment of skills, non-formal.
8.	Upskilling to elderly care	SE	**Category 2.** MC, linked to formal education, individually or in new settings, for upskilling, reskilling of retention. Stackable to a full qualification
9.	OCN for young people	AX	**Category 1.** MC in Validation and recognition of skills and competencer for inclusion (access to education and/or job

Figure 5. Good Practice Cases – overview.

4.3. Analysis of Good Practice Cases

Case 1: Denmark

Upskilling by MCs to industrial technician (category 2)

WHAT

EUC-Nord is a Vocational Education and Training Institution in Northern Jutland. EUC-Nord caters to young people and adult learners with VET programmes and Adult Vocational Education and Training (AMU). EUC-Nord has collaborated with a local company to develop a flexible educational programme consisting of several MCs targeted at a specific group of employees upskilling to become an industrial technician. The entire programme can take up to 40 weeks to complete, but many employees can receive shortenings for parts of the programme. The employees already work at the company but are classified as unskilled. They have various educational backgrounds from other industries but currently they work as unskilled employees in the specific company. Through a Validation of Prior Learning process (in Danmark, RKV), employees' skills and competencies have been mapped as to formal, non-formal, and informal skills. Several employees have received shortening for parts of the training programme, allowing them to participate in a programme lasting for about 20 weeks.

HOW

The company needs to retain a qualified workforce. While located in a peripheral area of Northern Jutland, attracting skilled industrial technicians can be challenging. The programme targets employees with education and experience from other Industries. It's an opportunity for the employees to obtain a certification as an industrial technician. This Vocational Education is valued both by the specific company and within the industry.

WHY

Through an educational agreement with the company and the employees, EUC-Nord has organised a flexible programme where employees participate in theoretical training at EUC-Nord and practical training at the company. All parts of the programme are provided as short-defined education units that can be tested and completed along the way. A primary point is stackability because it allows employees to join the training program whenever it is possible to participate. Between 20–25 employees have completed the programme so far, with high satisfaction from all three parties.

Benefits and challenges

The flexible model for upskilling to industrial technician can be beneficial for both the employee and the employer/the company

For the Employee

- Visibility of competences, recognised skills and knowledge
- Flexibility and individualisation can be motivating for education
- Parts of the education programme are carried out at the workplace
- Motivation for learning in the workplace and for job development
- Mobility in the labour market

For the Company

- Flexibility of the model accommodates requirements for work planning in daily production
- The education is based on actual as well as future skills requirements for the company and the sector
- The model, based on VPL for each participant, allows for shortening of the entire duration of the education thus making the upskilling process more manageable for the company
- Retention as well as recruitment of new employees is optimised especially in areas of recruitment difficulties
- Possibly increase of learning culture in the company after the upskilling of employees eventually for innovation in production performance

Possibilities of further development for added value and benefits for end-users

The Danish Qualification Framework is not open for non-formal learning. Legal framework for VPL (in Denmark RKV) is carried out in relation to formal education. This means that non-formal and informal learning is not formally recognised. However, recently (2022) the NQF has been opened for level assessment of private education programmes. Maybe this forms a first step.

The benefits of having non-formal learning recognised could have a significant impact on learning motivation – from both employer and employee perspectives and thus contribute to a general motivation for lifelong learning.

Based on skills needs forecasts at sector level, more attractive job opportunities could improve recruitment as well as mobility across industries in step with further development of flexible and individualised educational models.

The high degree of flexibility

All MCs are short-defined education units that can be tested and completed along the way. A primary point is stackability because it allows employees to join the training programme whenever possible to participate. Hence, this aspect of accessibility for both employees and company addresses a frequently expressed criticism of formal education provision for being less flexible.

For end-users – the Employees, the Company and the Local Industries, benefits are regarded in terms of the positive perspectives of the model to be applied also in other areas and industries. Thus, providing impacts concerning:

- The image of interesting jobs with development perspectives
- A general upskilling of workforce with a positive impact on the individual user's self-confidence and job-security and with a possible increase of motivation for learning
- For the company an increase of skill and competence level with a possible impact on innovation in business
- For the regional labour market, there is a positive impact on the labour market skills balance

Case 2: the Faroe Islands

Formal and non-formal small courses (category 2)

WHAT

Title: "Come and sign the Faroe Islands"

Target group: Unemployed people, registered as unemployed in the Employment Agency (ALS – Arbeiðsloysisskipanin).

Context for development: strengthen skills development aimed at the labour market

The small courses are demand-driven, the initiative comes from the Office for Unemployed (ALS), aimed for the Tourism Branch (based on skills needs identification)

Context for provision, the employment agency (ALS) is preparing, implementing and providing the course, the Employment Agency (ALS) selects unemployed people from their client list to participate in the course.

The courses are developed as small size courses/MCs of 15 weeks, each of 30 hours. ECTS are not associated with the MCs. They are stand-alone, combined into a series and include practical tasks.

Information is provided by the job counsellor at the Employment Agency (ALS)

HOW

Approach and learning context: The courses are provided face to face, in classrooms and out in the field of practice. The focus is on the labour market (to give people a new job) and education, and the learning context is classroom teaching and field learning with different teachers and professional skilled workers.

QA standards and tools are ensured in terms of job standards and best practice.

Learning outcomes for the small courses are described in terms of:

- Knowledge about sustainable tourism
- Knowledge and skills in English for tourism
- Service skills in the tourism sector
- Skills and knowledge in project work
- Skills in teamworking and collaboration
- Garuda personal test and interview about further opportunities based on the Garuda test
- Knowledge about how to write applications, making a CV and having a job interview
- Practical working skills to make signs and find out places in the Faroe Islands that need information signs for tourists
- Skills in making movies, video and audio cutting for documentation

Assessment & recognition; There is no formal assessment.

WHY

Expected outcome / benefit for end-users. After completion of the MCs, the individual is more certain about how to seek a job or choose education or further skill and competence development. The individual gains a better knowledge about the Faroe Islands from a tourist perspective.

Stakeholders involved: There are many stakeholders involved: municipality, travelling agencies, visiting centres, museums, education institutions, hotels etc.

Credential system, Portability and stackability:

No formal credential is issued, however based on the learning, the individual obtains skills and competences that are useful for different job sectors. These types of small courses or MCs are not aimed at being stackable even if it should be possible to make them as such.

Evidence for benefits for end-users. It is not possible yet to find evidence for this, there is no ECO-system for MCs and no consistent system either.

Stakeholders are involved, but the course is not connected to a recognised credential system. However, there is a VPL system for validation of both theoretical and practical experiences in connection with further education.

A Faroese NQF is not yet available.

Benefits and challenges

For the learner

- Learning outcomes are defined in terms of key areas of identified knowledge and skills requirements for the branch and areas for personal development, as the series of non-formal MCs are aimed at both. They are combined in a pedagogical approach and tested – or evaluated during the courses.
- For further application of the acquired skills and development, future perspectives of job or education, it might form a challenge that no credential is issued after completion of the courses. The courses are non-formal and hence, there may be obstacles to benefiting from what has been learned while later applying for formal education.
- The context for development of the small courses and the provision in terms of the Faroes Public Employment Agency, (ALS) act as the guarantee for target group's access to information and guidance, as well as QA is secured in terms of involvement of stakeholders, relevant for job standards and identification of best practice for the branch of tourism.

For the branch

- The model constitutes a strong coherence of perspectives: target group, purpose and course aim, stakeholder involvement, the focus on the branch addressed with identification of skills needs and learning outcomes. This consistency is of key importance for the success of the small courses.
- The cross-stakeholder involvement in development as well as for the practical training parts of the courses, assures that essential skills and knowledge for the branch are identified and built into aim of learning and the description of learning outcomes.

Possibilities of further development for added value and benefits for end-users

The model, aimed for supporting unemployed people to find job or to access education is based on non-formal learning. Education institutions are not involved in the provision of teaching.

Approach and learning context: The courses are provided in person, in classrooms and out in the field of practice. The focus is on the labour market (to help people get a new job) and education, and the learning context is classroom teaching and field learning with different teachers and professional skilled workers. This blended learning contexts opens for meeting individuals' various learning preferences.

There is no formal assessment connected to the achievement of learning results, and no credential is issued.

Together, the possibilities of further development could be to develop a credential in one or the other format – to give the person a possibility to document achieved skills and knowledge. As the model is not based on formal assessment and recognition, the credential/document could have the form of a testimony provided by counsellor and teacher for the individual person.

As an initiative aimed for inclusion of unemployed to job or education, the model is placed in between two sectors – unemployment and job and education. The model could be broadened out to potentially all branches. If so, one point for further development could be to include an education institution in the cross-stakeholder collaboration to pave the way for VLP for an education perspective.

As this model is dedicated to initiatives for supporting unemployed people in their inclusion to labour market and education, the question of added value is regarded in terms of the model structure of small courses in a blended learning environment. The model does not provide formal learning with the possibility of having this assessed against formal education standards and criteria. However, the strong stakeholder cooperation secures a relevant and consistent focus on skills required for the Tourism branch with Quality Assurance in terms of job standards and best practice.

No formal credential is issued, however based on the learning, the individual obtains skills and competences that are useful for different jobs and branches. This should be documented in some kind of credential to contribute to the achievement of benefits for the end-users – the individual and the employer.

While formal recognition of achieved learning outcomes is not part of the model, an assumption from a Lifelong Learning perspective could be that no formalisation of recognition is not necessarily an obstacle for the achievement of benefits by the learner. First and foremost, the benefit should be to support the unemployed persons in gaining self-esteem and motivation for job and or education – as for the next steps on their leaning pathway.

National badges for basic skills (category 3)

WHAT

Badges for basic skills are meant for adult learners and described to help people improve their basic skills. The National Agency for Education is the developer of badges, in co-operation with liberal adult education institutions and NGOs. Badges are based on EU framework for key competencies and basic skills. The expectation is that people who are interested in and would benefit the most from getting recognition for their basic skills are unemployed or otherwise in a disadvantaged position in the labour market.

Badges can only be provided by liberal adult learning institutions. Learners can demonstrate their skills in courses or in other ways. Badges are rewarded after learners have met the set criteria. The database enables individuals to showcase their accumulated learning via a personal account (studyinfo.fi).

Skills need identification: Badges for basic skills are based on supply-driven approach. Key competences and basic skills are needed by all for personal fulfilment and development, employability, social inclusion and active citizenship. The Council of the European Union adopted a recommendation on key competences for lifelong learning in May 2018. The recommendation identifies eight key competences essential to citizens for personal fulfilment, a healthy and sustainable lifestyle, employability, active citizenship and social inclusion. The council's recommendations have been a source of inspiration for developing badges.

Purpose: In Finland, there are significant numbers of adult learners without necessary basic skills. At the same time, there is a lack of methods to validate transferable skills of adults. Multiple ways to learn and demonstrate basic skills are needed.

The badges are provided by the Adult Liberal Institutions. Regarded as MCs, they are stand-alone, organised due to key areas.

At the liberal adult education institutions, badges are rewarded after achieving set criterion. Skills demonstrations can be organised as part of a course, or as special demonstration events or days. The assessors or organisers have autonomy in organising demonstrations on the fit for purpose approach.

Target groups are defined as Adult Learners.

Information and guidance: The learner is informed about the process before the evaluation. The badge system allows individual choice of badges, if trainer/assessor has resources to accommodate personal learning pathways.

HOW

There are multiple ways to achieve a badge in basic skills. This can be done online, face-to-face or in a hybrid setting.

QA – standards and tools, Badges are based on competency-based approach, which has not been tradition in liberal adult education. The badge criteria are described in an equal manner as formal education, allowing transparency and comparability between educational sectors. It was decided that these badges are not referenced to a certain level or ECTS.

Assessment & recognition: The Finnish National Qualification Framework is not open for non-formal/informal learning. Right now, there is no data available if the badges are recognised by employers or education providers.

WHY

Expected outcome/benefit for end-users, there is little information from the individuals' viewpoint of the benefits, but in general it can be said that making all competences visible can benefit the individuals in many ways in the labour market, formal studies or as a means for personal development. The database enables individuals to showcase their accumulated learning via a personal account (studyinfo.fi).

Transparency: The national learning database KOSKI provides the opportunity to Liberal Adult Education institutions to make learning outcomes gained through their courses or programmes visible in the database. This is also the case with badges for basic skills. Learner shows skills in courses or in other ways and can achieve badges (after assessment), if the set criteria are met. Badges can be seen in learners personal account in connection with all other educations (studyinfo.fi).

Benefits and challenges

For the learner

- Possibility of making basic skills visible

- Accessibility in terms of various forms of attendance –and supported by teachers and counsellors, considering the individual's learning preferences
- Trust and legitimacy to the documentation is secured in terms of the developer of badges, National Agency of Education, in collaboration with the provider, Adult Liberal Education Institutions and NGOs
- Demonstration and documentation of skills are based on EU Framework for 8 Key Competencies and basic skills

- Badges are issued to the learner, when set criteria are met

- Regarded as MCs, they are stand-alone, organised due to key areas. Thus, of great importance for relevance and flexibility purposes, because the issued badges clearly address competences, relevant for key areas as well as the model offers an ongoing process of demonstration of basic skills and key competences
- The National Learning Database, KOSKI enables individuals to showcase their accumulated learning via a personal account (studyinfo.fi)

For the Liberal Adult Learning Institution

- The provision of a sustainable model for Liberal Adult Education Institutions is further qualifying for the institutions' image, learning activities, and support of their learners
- The badges are based on a competency-based approach, which has not been a tradition in liberal adult education. The badge criteria are described in an equal manner as formal education, allowing transparency and comparability between educational sectors. It is a decision, that these badges are not referenced to a certain level or ECTS
- The model adds an important dimension to the credibility of adult learning institutions as to the contribution of models for sustainability of Lifelong Learning and social inclusion
- The Sector of Liberal Adult Education achieves a clear position within the context of other education areas, social institutions and labour market

Possibilities of further development of added value and benefits for end-users

The model is estimated to possess the consistency in development and provision, required for the possible achievement of benefits: relevant stakeholder involvement, legitimacy in terms of key competencies and basic skills frameworks. Furthermore, various forms of attendance for the learning secures the accessibility, preferred by the individual learner. Portability of the issued badge is secured in terms of storage at the National Learning Platform, KOSKI, in learner's individual account.

Badges are based on a competency-based approach, which has not been tradition in liberal adult education. The badge criteria are described in an equal manner as formal education, allowing transparency and comparability between educational sectors. It was decided that these badges are not referenced to a certain level or ECTS.

The Finnish Qualification Framework is not open for non-formal learning. However, if this happens in the future, level of ECTS to the issued badges could form an asset for application to formal education, thus further improving coherency of learning and education areas. Another option – if national Qualification Framework opens for levelling of non-formal qualifications could be to apply other criteria and standards than ECTS to the assessed basic skills and key competencies, for instance industrial standards. This to keep the area of non-formal learning separate – though also part of the entire landscape of learning and education.

As already stated above, the possibilities of benefits for end-users are clearly recognised for Learners and for the Adult Learning institution. Other end-users to benefit from digital badges could also be regarded for Labour Market and for Society. By the perspective of making visible transferable skills of great importance for occupational profiles and standards in the Knowledge Society, and for the development of coherent and sustainable societies, recognition of transferable skills should be of key concern.

Right now, there is no evidence for the achieved benefits of the badge. For further development, an evidence based on broad investigation of how end-users value this could identify more potentials – as well as limitations for achieving benefits, whoever the end-users are.

Case 4: Greenland

Learning Labs for young people (category 1)

WHY

The Validation Sheets are applied for validation of students' transversal skills in a feature to visually illustrate stage and development. The validation sheets are to be used in a student-teacher dialogue as an ongoing process. The validation sheets must be integrated into the didactic planning of the learning process, and the trainer is trained in how to use the sheets as a pedagogic tool. The parameters to be evaluated and visualised in the validation sheet are self-esteem, self-management skills. Networking and engagement skills.

Furthermore, the validation sheets are used for validation of professional skills achieved in working with specific subjects specified in the validation sheet.

Hence, the pedagogical and didactic tool supports both a formative evaluation of the student's development of transversal skills and a summative evaluation of achieved professional skills. These sheets will be developed in close collaboration with the local vocational schools. For example: If the student has worked and learned in a kitchen workshop in Narsaq, an evaluation will be focused on how they have worked with hygiene, healthy food, how to handle meat, fish or birds, etc.

In a dialogue with the vocational education institutions, it has been legitimised that the validation sheets for achieved professional skills, are qualifying for access to the relevant vocational education, if the student apply for the education.

Benefits and challenges

This example of development and application of MC is still within the implementation process, which means that experience with and evidence of the learning approach and results are not yet

available. However, an estimation of aims and context for development is relevant due to the implementation stage. Firstly, of importance for the perspectives of meeting the identified needs and problems concerning young people outside job and education, the initiative comes from the Greenlandic Government and development and implementation takes place in collaboration with municipalities and vocational education institutions. Thus, policy and administration at central and local levels provide the legislation and framework for establishing the schools in relevant areas.

The initiative addresses a generation issue in the labour market with an imbalance of generations. This problematic situation furthermore addresses the demographic issue of remote areas with a small number of citizens on the one side and – on the other side – a tendency towards moving to the bigger cities. For the young people with insufficient preconditions from primary school, the government and municipal initiative is developed for meeting young people from the target group with the provision of a model that is built on validation and recognition of the individual's skills, interests and progress of learning. This model with the tool, Validation Sheet, represents an application of the MC format in terms of pedagogic learning approach.

To ensure results and benefits of the learners, a validation sheet has been developed for participants to support the individual's involvement in the learning process and development of career skills and empowerment.

For the Pilersitsiviit teachers, courses are developed for pedagogic and didactic skills and competences in Project Based Learning and Adult Learning.

Together, tools for the individual learner's involvement and self-evaluation of progress are in clear accordance with the development of teacher skills and competences to ensure realisation of the aimed learning approach.

Possibilities of further development of added value and benefits for end-users

The legitimacy of the model – based on coherency of policy and administrative framework at central and local levels constitutes a sustainable model and paves the way for a continued process towards formal education, because vocational education institutions are situated in the same areas of the new Pilersitsiviit schools. Geography and large distances to education very often constitute obstacles for attending education. Here, the local collaboration of preparation for education or job and the education institutions forms a benefit of great importance.

In Greenland, the legal Framework for Validation of prior learning, RKV, is available for application of access to formal education. To secure this option after completion of the learning process it could improve this possibility of the individual educational career, *if* the final validation sheet results – at the end of the process – incorporate systematics and requirements of the RKV documentation to ease assessment and – if possible – recognition of transversal skills and learning.

Professional Certificate in working life (Fagbréf) (Category 2)

WHAT

The Education and Training Service Centre (ETSC) targets people with little formal education with suitable training and educational pathways, guidance and support. The centre is owned by the social partners, and the core work is based on a service agreement with both the Ministry of Social Welfare and Labour and the Ministry of Education and Children. It also works according to the Adult Education Act from 2010. In summary, there was a need to recognise and give value to learning from work. Hence, a process was developed for identifying and certifying skills and competences based on specific job criteria and mapping them to ISQF levels. Clearly defined skill and competence criteria are used in close collaboration with stakeholders for identifying the skills required to perform essential functions of particular jobs. The process of making skills visible, validating existing skills and providing gap training when needed leads to certification for a specific job. The jobs that have been in focus until now have been mapped on ISQF level 2 (EQF level 3).

This case is demand driven, as it is now linked to collective agreements and the social partners have a high interest in the certificate. The certificate recognises and confirms that an employee is fully skilled and competent and meets the set skills and competence criteria (in the form of learning outcomes) for the specific job.

The process was developed in close collaboration with the Confederation for Employers and the Confederation of Employees and tested in five pilots in close cooperation with companies and several Lifelong Learning Centres. The model for financing has been set up by an agreement with the educational funds (company shares), allowing companies to apply for financing for the certification process (validation, gap training, certification). Accredited educational providers can also apply for funding from the educational fund for people with low qualified background. Coordination of the process (project management) can be in the hands of the companies themselves, educational providers and independent consultants. Quality criteria for the process have been developed (coordination, aims and administration; information, data security and publishing of certificates; preparation of VPL and gap training) and guidelines, for project coordinators, too. The Education and Training Service Centre has the role to secure quality, value of results, disseminate information about the process, revise competence criteria, publish the certificates, train VPL staff and accredit coordinating bodies. During the process guidance and support is available. Project management is based on quality measures.

HOW

Core elements and procedures in the certification model

Companies or accredited bodies apply for funding. The ETSC supports the development of job profiles, assessment tools and training of VPL staff. Validation takes place and gap training is provided if needed. On completion, Fagbréf in the specific job is issued and handed out to participants. The process provides structure and coherence in skill and competence profiling and provides a foundation for the development of skills and competence standards for specific jobs. Within companies, the process makes existing skills and competences visible for validation and can identify where training is needed (gap training). Processes of in-company training become more formalised, and the employees can better understand their own competences and what is required of them, in addition to being able to identify how to improve (upskilling/reskilling).

Assessors usually come from the company where the employee works. Assessors participate in a workshop at ETSC on VPL methodology and they also review and finalize the assessment criteria. Assessment tools are developed in the workshop for specific jobs and interview techniques are trained. The employee fills out a self-assessment list against the set skills and competence standards under guidance. An assessment interview then takes place, based on cases and may take place on the job. Strengths are identified and confirmed, and gap training also if needed. Skills and competence standards are developed through a skills and competence analysis method that is standardised and conducted with several companies. All skills and competences are formulised in learning outcomes and set on ISQF level. The focus is on a specific job in a specific sector/industry. In most cases, it takes place in a company – but in a recent project there is now a set up where a professional training centre can also take in freelance workers, whereas the assessors come to the centre to assess. That pathway will be tested in the coming months. The methodology is adjustable to the needs and landscape of variable sectors.

The professional certification (Fagbréf) is now a part of the social partner agreements and will be scaled up in various sectors in the coming years, with high interest from the social partners. The scope is always a specific job, but the specialisation is generalised to the level that it can be used in all companies that offer that job.

The value of the professional certificate is still to be tested. It is however considered as a strength that the social partners are taking part in developments and experience shows that companies that have used the method and offer a professional certificate to their employees can have a more accurate and swifter move forward in competence development based on that competences required become transparent to the employee and motivation to learn more is raised.

WHY

Evidence shows that employees become aware of their own skills and competences, have a stronger idea of what is needed from them and develop a vocabulary to be able to discuss where they need to strengthen themselves or even become of greater assistance in the company. Through the collective agreements, a professional certificate can even have the effect of higher salary.

VPL is embedded in the process and learning outcomes on ISQF levels (and the job itself).

All social partners are involved. The certificate is owned by the individual and stored by the ETSC. Stackability has not yet been tested, but if the professional certificate is also recognised by the educational system, it has the potential to possibly shorten studies related to the job concerned.

The system is sustainable as funding has been made available. There is still to see if the system can work on a larger scale. If not, it will need adjustments.

Due to feedback from employees, they express that they are more self-confident in their job and more eager to do better. For employers the process gives them much more insight into the actual skills and competences of employees and where there are opportunities for training. It can serve as a mapping of current skills and competences where employees take part in creating that overview.

Benefits and challenges

The ETSC is based on a demand-driven initiative from social partners for dealing with the need to the recognise and give value to learning from work for a target group of people with little formal training

The ETSC model constitutes a coherent and consistent model in terms of coherency of contexts for development, provision and application of the issued professional certificate. Social partners own the ETSC. The learner's skills and knowledge are identified and certified against occupational standards with specific job criteria. They are identified using the ISQF levels. Core work of the Centre is based on a service agreement with both the Ministry of Social Welfare and Labour as well as the Ministry of Education and Children. ETSC works according to the Adult Education Act from 2010. The ETSC is linked to collective tripartite agreements.

Clearly defined skills and competence criteria are used in close collaboration with stakeholders for identifying the skills required to perform essential functions of particular jobs. Quality criteria for the process have been developed for coordination, aims and administration, information, data security and publishing of certificates.

The validation and mapping process is carried out by assessors who has been trained in VPL, the system and methods.

These elements clearly constitute a model with benefits for end-users:

For the employee

- The validation and recognition processes are carried out in an appreciative approach to support the individuals in making their learning visible
- Certification of skills and issuance of the Professional Certificate for a particular job
- The Certificate is owned by the employee and stored in ETSC, thus securing portability
- More self-esteem and motivation for workplace learning
- A developed vocabulary for communication and job development
- More secure in job retention
- By the linkage to collective agreements, also the aspect of negotiating higher salary is a benefit

For the company

- For formalised processes for in-company training
- A higher level of skills and competences of employees
- A clearer overview of skills and competences
- Retention of employees
- Motivation for learning, training and innovative approach to development of work performance
- Recruitment of staff
- Company assessors, trained for the assessment and recognition processes in ETSC, provide a resource for the company in terms of learning and development at the workplace

For the sector

- A general increase in skilled workforce for development of the sector
- Mobility across companies

For labour market

- Increase of Labour market balance

Possibilities of further development for added value and benefits for end-users

In the mapping process of skills and competences, the scope is always a specific job, but the specialisation is generalised to the level that it can be used in all companies that offer that job.

The jobs that have been in focus until now have been mapped on ISQF level 2 (EQF level 3).

A consideration for further development and expansion of the model, hence addressing an increase of added value and benefits, could be an additional mapping of skills and competences to specific work tasks and functions. As job profiles and job development must reflect changes and trends in labour market situations, work duties, responsibilities and performance are typically getting more complex with more aspects of requirements. Hence an aspect for further application of the model could be to reassess skill and competence profiles in order to address the levels of some skills and competencies for specific work tasks in terms of horizontal as well as vertical directions. When the identified competencies for occupational profiles are mapped in relation to ISQF level 2 (EQF level 3), a future development of job tasks and requirements might demonstrate requirements for some parts of the daily work in the company that need to be developed for higher levels.

An expansion of the model to this perspective could be interesting for further skill and competence development and learning in companies.

Case 6: Norway

Circular Economy (category 4)

WHAT

The Norwegian Directorate for Higher Education and Skills (HK-dir) is responsible for and serves as the secretariat for the allocation of support for educational offerings through the Tripartite Sector Programme for Skills Development. The allocation is managed by specific programme area boards composed of the Social Partners and the State, who work together to identify areas in various sectors that require skills development. Through dedicated calls for proposals, providers and collaborators can apply for the scheme, following clear guidelines and criteria from the Ministry of Education.

The case from Norway is drawn from the sector programmes within Circular Economy and is described in more detail below.

Circular Economy (Branch programme) for engineers and managers in construction trades. Developed at NMBU University in collaboration with companies, workers' organizations, employer organisations and Ministry of Education and Research (KD), the Norwegian Directorate of Higher Education and Skills. Requirements for passing the course: A minimum of 75 per cent participation in sessions and other mandatory activities, as well as submission and approval of the project assignment. Passing the course will provide 5 ECTS credits. The purpose of the course is to provide skills enhancement to strengthen employees in their current job situations and thereby reduce the risk of job loss.

The target group is people who are engineers and project managers in the construction trades. Participants in the continuing education courses will typically have a bachelor's or master's degree. Most participants will have prior education in relevant fields (engineering, economics, natural sciences, law, etc.). Potential participants seek to gain new knowledge related to the circular economy because they either have recently entered the industry with limited knowledge/experience, wish to update their existing knowledge, or simply want a "breather" to think innovatively about their own job.

There will be no specific admission requirements for the courses, and it will be possible to participate based on an assessment of prior learning and work experience (validation of prior learning). The requirement for this assessment at NMBU is as follows: The applicant must be at least 25 years old and have at least two years of relevant work experience (assessed individually by the course instructor). Information about this opportunity is informed by the course website.

HOW

Many parties are involved in the application to HK-dir for this course. Fredrikstad Municipality, Stene Stål Gjenvinning, and Vesar AS will participate in the project.

This course consists of standalone courses, each equalling 5 ECTS. The long-term ambition for NMBU is for the courses to be part of a 30 ECTS continuing education programme, with some mandatory courses and various elective courses. This aims to ensure a dynamic, broad and relevant skills enhancement offering.

Good analyses and descriptions in the planning of the course launch demonstrate that thorough groundwork was done during the planning phase. As mentioned earlier, a competency mapping in the industry was conducted in the industry earlier this year in collaboration with NCCE and Avfall Norge. The courses we aim to develop here are based on the areas that the industry identified as having the greatest need. Through collaboration with industry representatives in both the working group and the reference group, as well as maintaining a good general dialogue with the industry, we believe we are well-positioned to meet the target audience's skill and competency needs.

WHY

All courses will be tailored to the waste and recycling industry, as well as other relevant companies within the circular economy. The development will take place in close collaboration with representatives from businesses in the industry. Relevant case studies will be used in the teaching, industry representatives will contribute with lectures during the sessions, and the case studies will be selected by/together with representatives from the industry. Independent work will be related to case studies from the participants' own workplaces. Where applicable, visits to specific facilities will be arranged. In this way, we aim to ensure that the learning outcomes are

tied to real tasks that need to be solved in the participants' own businesses. A strong emphasis will also be placed on practical, hands-on teaching in the course, with the goal of providing participants with skills they can immediately apply in their own companies.

The EU's Circular Economy Action Plan from 2020 is the key driver towards circular value chains in areas such as food, plastics, textiles, construction, batteries, etc. and will require significant adjustments in Norwegian companies and businesses by 2030.

The learning outcomes for the various parts of the courses are well described, but there is no reference to the NQF or other standards. Norway does not have an established system for recognising non-formal education outcomes within the NQF system.

Benefits and challenges

The small course, Circular Economy within construction trades and tailored to the waste and recycling industries are developed by NMBU University in collaboration with companies, workers' organisations, employer organisations and Ministry of Education and Research (KD), Norwegian Directorate of Higher Education and Skills (HK-dir). The course is developed and financed within the Tri-partite sector programme. The course is still in the development stage, which means that there is yet no evidence in terms of evaluation from course participants nor for added value and benefits for end-users.

However, elements from the case description point at important conditions and prerequisites for constituting a solid base in terms of key stakeholder involvement together with thorough skills needs identification in construction companies.

The learner

- The course is organised to provide relevant, new and current knowledge within the sector, thus meeting expectations of potential participants that seek new knowledge, either because they have recently entered the industry with limited knowledge and experience or because they wish to update their existing knowledge
- Relevance as to actual needs, required by companies
- Legitimacy in terms of stakeholder involvement in the course planning
- Skills enhanced by the course strengthen employees in their current job situations and reduce the risk of job loss

The company

- Employees who are upskilled with new and current knowledge relevant to the industry can bring innovative thinking into job performance
- The company gains an image of being an innovative and learning-oriented workplace, thus improving recruitment of new employees and retention of staff

The recycling sector

- Upskilling in accordance with the EU's Circular Economy Action Plan from 2020 with requirements for significant adjustments in Norwegian companies and businesses by 2030

- Improving business conditions when meeting international requirements for chain-responsibility

Possibilities of further development for added value and benefits for end-users

The small course for circular Economy, at the size of 5 ECTS, is developed as a stand-alone course though with the intention to make the course aimed for inclusion into a series of other small courses, each of 5 ECTS and, all together, as a Continuing Education Programme of 30 ECTS. The course is not named MC, though fitting, in many respects, into the definition of MC.

The entire development process – the approved application to the Tri-partite sector programme, and the provider, NMBU University in collaboration with key stakeholders, constitutes a solid base for trust and legitimacy of the course.

However, some points of consideration for further development could be suggested:

It is said in the case description, that there will be no specific admission requirements for the courses, and it will be possible to participate based on an assessment of prior learning and work experience (validation of prior learning).

While the 'open' admission to the course does not exclude any interested applicants in advance, the next part of the sentence in fact might 'obscure' conditions as the results of an assessment of prior learning and work experience is no guarantee for gaining admission to the course. It is thus a suggestion that admission criteria are more clearly described with the possibility of having these criteria met in the VPL process.

Furthermore, the fact that the learning outcomes are described without a reference to the NQF or other standards, might form a limitation for having the course recognised outside the context of provision. Following standards for descriptions of learning outcomes in accordance with the ESCO or other recognised standards widens the perspectives of recognition within in a broader area – also by other industries and similarly for the option of stackability.

MCs for safety and security skills in industry production (category 1)

WHAT

Microcredentials are developed as part of the National Kompetenspasset project, funded by Vinnova (Sweden's innovation agency). The project is a collaboration between Research Institutes of Sweden (RISE), the Swedish public employment service, the Swedish National Agency for Higher Vocational Education, MYH, (project coordinator**)**, and the Swedish Council for Higher Education.

The project, Kompetenspasset included development of five pilot projects, of which two of them developed MCs connected to different sectors of the labour market.

The pilot project of MCs, developed for the company, **Skellefteå Kraft AB, Maintenance Hydropower** concerns safety and security skills for maintenance work. The initiative comes from the production manager, based on experience of negative situations concerning lack of important knowledge of safety and security in the production. A series of 24 MC's are developed with the purpose of evaluating by face-to-face conversations if the maintenance staff has the right skills concerning safety and security in the production.

The evaluation takes place in the daily work at the company.

Each of the 24 MCs has a duration of approximately 4 hours, while size is not indicated in terms of ECTS. Before starting the evaluation conversation, the employee is informed about the process, approach, purpose and expected learning outcome.

HOW

The evaluation takes place at the workplace, as a conversation, in a quiet surrounding between the employee and the assessor. In the testing period of the MCs, the assessor role has been carried out, either by the production manager or by a trained assessor/team leader from the workplace.

The importance of the learning context as well as the approach, characterised as safe and appreciative, is stressed, as the purpose of the evaluation is to identify skills as well as gaps to – thereafter – plan and organise the individual learning. The evaluation/conversation is structured by small learning pieces, named MCs (Mikromeritter), defined in terms of required skills and knowledge concerning security – not to check out gaps as negative but to make sure, that the employee achieves the full understanding of requirements and necessity of security in the maintenance job with potentially dangerous situations.

The required security skills for maintenance work refer to the standards and tools for the sector.

The individual learning following evaluation results are carried out in accordance with standards and objectives for the relevant formal qualifications, by reference to NQF and the ESCO systematic.

WHY

Having tested the MCs for evaluation of safety and security skills – and the individual skills gaps training – it is the assessment of the company, that employees appreciate the method for identification of skills and skills needs. They appreciate the learning approach and moreover, it is the impression of manager, assessors, and workplace that the learning approach motivates the employees for more learning as well as for knowledge share. Thus, the benefit of a general learning approach in the job and in the workplace is now regarded an added value for the entire organisation.

Competence development of assessors is included in the development of MCs. A few of the total amount of 24 MCs are earmarked for skills and competence development of assessors – to perform the evaluation process/conversation. This also supports the learning culture at the workplace.

Information of purpose, method and approach are regarded important transparency aspects for making the employee feel comfortable in the evaluation situation. It is the impression of the responsible manager and assessors that this transparency of the process is necessary and important for the benefit of the employee's learning outcome.

In Sweden, the NQF is open to recognition of non-formal learning by the principle of levelling. Though recognition of MCs has not been a topic for the testing, the inclusion of informal learning in SeQF, in principle, provides support for employees to include their MCs in the documentation for Validation of prior learning if the person decides for this later. The Swedish National Agency for Higher Vocational Education (MYH) has been responsible for coordinating the pilots' work. Since MYH is the national coordination point for EQF, investigation of the relationship between MCs, qualifications and part qualifications has been obvious in development of MCs in the concerned pilot projects.

It has not yet been tested if the issued MCs, based on evaluation results, are recognised by the legal framework.

There is yet no evidence for recognition of the achieved MCs outside the company.

Benefits and challenges

The application of MCs for validation of security skills and knowledge addresses a highly important aspect of employees' security in work. However, making skills and knowledge gaps visible in a face-to-face situation could potentially form a fragile situation for the employees, when exposing gaps.

This concern is taken care of in various ways to make the employee feel safe and comfortable in the conversation. Information about the initiative, the process and further steps in the process is provided in a clear and transparent manner. To ensure this, competence development of assessors is included in the development of MCs. Benefits are regarded as shared for the company, though also with a specific notion of individual interests and perspectives.

The employee

- A safe context for the face-to-face conversation of security skills and knowledge, set by a transparent information of purpose, process and expected outcomes
- A positive and appreciative learning approach
- Competence development of assessors as part of the model provides consistent and transparent conversations
- Identified needs for gap training is carried out at the workplace
- Skills and knowledge as well as the individual learning are based on recognised standards and objectives for the relevant formal qualifications, by reference to NQF and ESCO systematic
- Higher motivation for education and learning in daily work
- Job retention

The company

- More safety and security in the workplace
- Employees are more open for knowledge share and for expressing needs and concerns of work performance
- Employees are more motivated for learning in the workplace
- Development of a learning culture with further possibilities for organisational learning
- The image of a positive learning culture improves the company's position for recruitment and retention of employees

The local labour market

- As one the biggest companies in the region, the local labour market also benefits from the outcomes of the Skellefteå Kraft AB, Maintenance Hydropower MC model and the result of recruitment and retention of employees in a region, having earlier faced difficulties of this

Possibilities of further development for added value and benefits for end-users

To make further use of the tools and recommendations developed as part of the Kompetenspasset project, a tool for storage of issued credentials for completed MCs could be an important added value for the employees. Besides, key prerequisites for further benefitting from the MCs is the fact that the National Qualification Framework, SeQF is open for non-formal learning by a levelling procedure. As the identification of possible skills and knowledge gaps are based on recognised job standards and criteria like also the individual gap training, following together the ISCO and ESCO systematics, the links to national qualification framework is already a possibility.

Regarding also the impact of a more positive learning approach and motivation for learning in the company, structures, tools and systems for accumulation of credentials would form important aspects of benefits for end-users.

To follow up and to benefit from the increased motivation for learning in the workplace, there could be important knowledge potential in the provision of evidence for achieved benefits for end-users. Important information, targeted groups of end-users, may demonstrate options for further development of the model, while recognition of the credentials could also be of general interest for other industries and sectors, thus supporting the individual's lifelong learning and career pathway.

Skellefteå Municipality, Upskilling of migrants for Elderly Care (category 2)

WHAT

MCs are developed as part of the National Kompetenspasset project, funded by Vinnova (Sweden's innovation agency). The project is a collaboration between Research Institutes of Sweden (RISE), the Swedish public employment service, the Swedish national agency for higher vocational education, MYH (project coordinator), and the Swedish Council for Higher Education.

Kompetenspasset has been carried out as an explorative project where five pilot projects have tested the development of MCs for various sectors in the workforce, to see *if* and if so, *how* MCs can be integrated into the system.

The pilot project of MCs, Skellefteå Municipality, concerns Swedish language skills for employees who work as elderly care assistants in Skellefteå Municipality. The initiative comes from the elderly care to make sure that employees in the elderly care possess the language skills, required for the work.

By the application of MCs, developed for security the aim is to support employees with insufficient Swedish language to be able to do their work in a secure and effective way for the elderly people in need for elderly care.

The MCs are provided by the adult education centre, Skellefteå Municipality.

Type of MCs; 15 different types of MCs with starting point in *Individens behov i centrum* (The Individual Citizen's Needs at the Centre, IBIC), which is a working method provided by the National Board of Social Affairs and Health.

HOW

The municipality developed 15 MCs. Educators from the adult education produced a material for education and testing according to the MCs.

The three most central MCs for the work were tested in a test-group with employed care assistants employed by the municipality and who received recognition of those. This was done during 4–5 days over a five-week period.

Overall, 6 credentials were issued in the project to those who had demonstrated the acquisition of required skill according to the described learning outcomes.

Assessment and recognition/legal framework or other; It has not yet been tested if the MCs issued based on evaluation results are recognised by the legal framework. Hence, there is no evidence for recognition of the achieved MCs outside the municipality.

WHY

Expected outcome/benefit for end-users; The municipality employ elderly care assistants with sufficient skills in the Swedish language to provide safe and efficient care according to IBIS,

Transparency, NQF – open to recognition of non-formal learning, stakeholders involved, credential system. portability and stackability

In Sweden, the NQF is open for recognition of non-formal learning. Though recognition of the MCs has not been a topic for the testing, the inclusion of informal learning in NQF, in principle provides a support for employees to include their MCs in the documentation for Validation of Prior Learning, if the person decides for this later. The Swedish national agency for higher vocational education (MYH) has been responsible for coordinating the pilots' work. Since MYH is national coordination point for EQF, investigation of the relationship between MCs, qualifications and part qualifications has been obvious in development of MCs in the two concerned pilot projects.

According to what has been highlighted above, it seems possible that employees will have their MCs recognised in a broader area of occupation in the sector. Thus, it is a matter of portability. Likewise – though not yet tested – stackability of these microcredentials, developed in accordance with standards and objectives for the formal qualifications – full or part – provide the potential to stack these to a part or full formal qualification at the relevant NQF level.

Benefits and challenges

The initiative to development of MCs comes from Skellefteå Municipality, the department for elderly care, requesting language skills development for security reasons in daily caretaking jobs. The development of the MCs is led by the focus on learning support to employees with insufficient Swedish language skills to be able to carry out their work in a secure and effective way for the elderly people in need of elderly care. The Municipality and their department for elderly care has developed 15 MCs taking its starting point in the principle of *Individens Behov i Centrum* (The Individual Citizen's Needs at the Centre, IBIC) the working method provided by the National Board of Social Affairs and Health. The education, in the form of the developed 15 MCs are provided by the Adult Education Centre of the Municipality including development of teaching material and testing.

The education for development of language skills, based on the series of 15 MCs provides a consistent model in various respect for different end-user perspectives:

For the employee

- Development of key skills required for quality in job performance
- Better communication skills for cooperation with the individual citizen
- Self-esteem and empowerment due to completed education/MCs
- Credentials to be used, potentially also outside the municipality
- Job retention
- Basis for further learning and education by the recognition of the completed course and the issued credential

For citizens in need of elderly care

- More safety in the delivered care taking and communication with the caretaking assistant
- Comfortable in being met due to the principle of IBIC

For the municipality (Elderly Care Unit)

- Development of staff in a flexible way and with a course content which makes clear the working method of IBIC and the application of the employees' increased language skills
- Provision of safe and efficient elderly care (IBIC) – satisfied citizens
- Future application of the tested model for upskilling in terms of MCs for other purposes

Possibilities of further development of added value and benefits for end-user

The education model is developed in a consistent manner due to skills needs identification, target groups prerequisites, pedagogic approach and more.

15 MCs are developed as a demand-driven initiative from Elderly Care Unit, Skellefteå Municipality. The education institution for Adult Education has contributed with teaching material and provision of the MC teaching and test. The Kompetenspasset project is carried out in a cross-stakeholder collaboration of national education agencies and councils, national research and the public employment service. As the primary focus in the development of MCs for Elderly Care upskilling purpose, the principle of IBIC forms the overall approach. Thus, the developed series of MCs provides a consistent model in many respects to build trust and legitimacy to the learning outcomes.

Quality assurance in the form of testing of the developed MCs have been part of the process. Six employees received a credential for satisfactory completion of the MCs.

It is an open question whether the MCs could be recognised outside the Skellefteå Municipality. This has not been part of the testing. Due to the benefits for end-users listed above, some of the

benefits are relying on the option of having the MCs recognised also in terms of inclusion in the NQF, as, in principle, support is provided for employees for including their MCs in the documentation for VPL, if the person decides for this later. Hereby, this also opens for the option of stackability of MCs, developed in accordance with standards and objectives for the formal qualification – full or part qualification.

Finally, it is a suggestion to take further the MCs to storage by a technical solution.

Case 9: Åland

The Emmaus OCN Model for Inclusion of young people by mapping and validation of professional skills (Category 1)

WHAT

Participants/individuals are all within some kind of project to become employable on the labour market. The projects are funded by the government and others e.g. EU. Some projects are a joint between the Åland employment agency AMS and the social and welfare institutions, and some are strictly from AMS. The service is supply driven. Emmaus Åland provides the set-up and framework according to the OCN model. The model is created and organised by Nordiskt Valideringsforum in Sweden. Emmaus Åland is the only organisation in Finland who uses this framework. Emmaus Åland provides this as a sales service. OCN model is structured in different programmes and Emmaus have taken on two programmes on the basic level: Retail and Shop work and Warehouse work and Mounting. All programmes include the basic work life skills-modules: employee ship; communication, service and treatment; ergonomics, safety and risks; collaboration/ teamwork; digital tools for communication and information. To use the OCN model the assessors have undergone training. The training for the internal assessors takes about 2 weeks or 80 hours. This training is organised by Nordiskt Valideringsforum and includes both theoretical and practical training. At this moment, there are two internal assessors **(IN)** at Emmaus. In addition to these there are 6 educated assessors and a group of external assessors. Training is not required for the external assessors, but they must have experience in the field of the specific programme/work. Nordiskt Valideringsforum is the head assessor. There are two assessment groups connected to each programme. All training, assessment, information etc. is done in Swedish. Mapping tools and self-assessment tools are provided both online and IRL. About 25 people do MCs at Emmaus each year. Emmaus started using the model in 2022, so it is still early days. The knowledge about the model is still quite low. The guidance and information are improving – especially among the counsellors at AMS.

Purpose: From that view you have everyone from long-term unemployed to persons who wants to learn something new for professional reasons. The case: young male, 23 years old. According to the informant, this persona is quite common – poor grades, social problems, no work experience and lack of self-esteem. Context for development: learning basic skills and professional skills. Context for application: the service is provided to individuals that are part of some kind of employment project. In this case the person has star * grades from primary school. This means that he has not been able to apply to the next step on the educational ladder, EQF 4. There have been problems with both addiction and criminality during his younger years. Has a blank CV. The individual feels lost. (*star signed grades refers to grades that are not on a normal grade scale and therefore not approved when you apply further)

HOW

The process starts with a meeting when the IN meets the learner to set the stage and to create a relation and trust. IN does mappings in collaboration with the learner to get information. This information is important in the process and is also a part in creating the relation with the learner. The first sessions focus on everyday routines, hobbies and interests, skills and competencies. The learner does self-assessment mapping online. The focus is always on the future and the way forward. After the mapping stage the IN and the learner creates a validation plan depending on which programme or MC the learner wants to do. An assessor is connected to the plan. The plan can be very concrete e.g. cash register training, joinery, warehouse work, customer service. The first part in the programme is always job training and a learning programme that is an online course. A plan to reach the learning goals is made in collaboration with the IN, the learner and the assessor. The assessor evaluates the tasks done in the learning programme. It can be written tasks, films and/or sound files. There are checklists that the assessor uses depending on the programme or MC. Everything (assessments, discussions and tests) is registered online, and the learner owns his/her certificates. The certificates are gathered on the website called Merit forum, which is linked to Nordiskt Valideringsforum website (https://valideringsforum.se/). Assessment and recognition: To get a MC approved the learner follows the plan/tasks, the assessor fills in the information online. It is the assessor's responsibility to gather all information from the learner, external assessor(s) and files online. There is a template and structure for this on the OCN webpage. Assessors and the learner can see the template, so it is transparent. When all parts are in place the basis is sent to the IN for approval. She reads through all material and checks the plan. After she has done her assessment and approved the MC the material is sent to Nordiskt Valideringsforum representative who does the final assessment and approves the MC. The MC is now approved, and the learner can see it on their place on Meritforum. Depending on the MC and or program the process can take a couple of days up to several months.

WHY

Expected outcome/benefit for end-users: the aspect of life-long-learning is the strongest benefit for all participants. Through the network Bärkraft.ax The Åland region has created the slogan *Everyone can flourish on the islands of peace*. **Stakeholders involved:** the learner, the Åland region, society and labour market. **Credential system**: the credentials are at a EQF 3-4 level. The base of the OCN-model is competencies that are needed in working life. There are checklists and plans for every programme. **Portability**: the MCs that are assessed are portable to other regions, though perhaps easier the closer, the learner is to the region or the Nordic countries. Stackability: the OCN MC model is stackable. The learner can follow their own progress on the Merit Forum website. **Evidence for achieved benefit for end-users.** The learner owns the mc and the certificates and can see and access them on Meritforum. The learner can now put these MCs on his/her CV. The learner is a bit more confident. The learner is still taking MCs in retail and shopwork programme.

Links:

- [Åland Employment Agency](#)
- [OCN Sweden (Emmaus)](#)
- [Bärkraft.ax](#)

Benefits and challenges

For the target group of individuals in need for support to become employable at labour market two programmes, mapping of skills at basic levels for Retail and Shop work and Warehouse work and Mounting are provided by Emmaus Åland. The programmes include the Basic work life skills – modules: employee ship; communication, service and treatment; ergonomics, safety and risks; collaboration/teamwork; digital tools for communication and information. However, target groups also comprise employers who wish to learn more for professional reason. The plan, agreed of the individual and the assessor reflects the learner's aims and situation/preconditions.

Emmaus Åland is responsible for the set-up and framework according to the OCN model. The model is created and organised by Nordiskt Valideringsforum (Nordic Validation Forum), in Sweden.

There is a strong stakeholder collaboration involved in the Emmaus Åland OCN projects: Åland Employment Agency, AMS and Social and Welfare institutions of Åland, OCN Sweden and Nordic Validation Forum, Sweden (Nordiskt Valideringsforum). A plan for the individual's process is developed and agreed by the individual and the internal assessor (IN). The first part in the programme is always job training and a learning programme followed as an online course. Mapping tools and self-assessment tools are provided both online and by attendance. The learner makes the self-assessment online.

Based on the assessment of the individual's process results, due to the plan, and the final assessment, carried out by Nordiskt Valideringsforum, Sweden, a credential is issued to the learner, to be owned by the learner and to be stored at the website, Meritforum, linked to the website of Nordiskt Valideringsforum.

Two groups of assessors are involved in the model: 1) The internal assessors (IN) with the task and responsibility to support, inform and guide the learner to finalise the agreed plan. Internal assessors are trained to the role, tasks and pedagogic approach and methods; 2) external assessor are recruited on the basis of experience within the field of the specific programme/occupation.

The application of the model is anchored in a strong stakeholder collaboration, ensuring priority and funding, quality assurance, not least in terms of competency requirements of assessors, the consistency of pedagogic support and approach to the individual's process. Hence, benefits are regarded in terms of:

The individual learner

- The positive assessment and the issued credentials for recognised skills
- Learning in a safe and appreciative learning environment, supported by the relation to the internal assessor is motivating
- More confidence and self-esteem motivate to more learning, possibly also upgrade of basic skills missing from school
- A feeling of isolation and negative expectations to future is broken
- A sense of belonging
- For employees, already in job, completed learning and skills development, possibilities for new job or new job tasks are improved

Labour market and society

- Individuals are moving from being outside job and education towards inclusion
- The size and costs of target groups outside labour market is getting reduced
- Towards a positive labour market balance
- An inclusive society

Possibilities of further development for added value and benefits for end-users

While the principle of portability is ensured in term of ownership and storage at the website, Meritforum, linked to the website of Nordiskt Valideringsforum, it remains unclear, how the principle of stackability is ensured. Considered, that the learning provided is non-formal it is unclear if expectations of stackability is linked to formal education and training? Or is it so that

stackability is ensured within the framework of learning, provided by Emmaus Åland?

For the possibilities of further development, a suggestion is for companies to be included in the stakeholder collaboration to contribute with an important learning context for the individuals' continuing learning, inclusion and development for inclusion to labour market.

4.3. Overall assessment of Good Practice Cases

This section sums up, assesses and concludes the analyses of Good Practice Cases.

Regarding the questions asked throughout this study: *How are added value and benefits for end-users of MC identified and which factors are important for this achievement?* a set of models developed for this purpose of the survey will be applied as reference perspectives for this assessment.

Learning Theory perspectives on practice learning will also be included in the assessment of characteristics and potentials for Good MC Practice.

A discussion of linkages across MC and Formal Education systems contributes to future perspectives for development of MC. By which distinguishing features of MC and possibly in terms of a 'system' or a Paradigm, would MC function as a beneficial offer for the individual and for other end-users involved in the MC learning format?

Among numerous and various characteristics, Good Practice Cases also allow for consideration of certain ongoing aspects – across the cases. One dominant aspect among these is Validation. How is validation included in the cases and by what priority, importance and aim? Below, this is described to highlight the application of Validation of Prior Learning (VPL).

1. Cases with the aim of supporting target groups, outside job and education and preparing them for getting closer to the labour market and inclusion in society. The courses are primarily built on a validation process to make visible the individual's prior learning – basic and transversal skills and professional experience of importance for further skill and competence development. The learning approach is individualised and appreciative in its focus to support the learner in recognising their own skills and knowledge and to support self-confidence and motivation for development towards job and/or education. The target groups for these cases are quite homogeneous as regards age and life situation.

2. Cases with the aim of mapping individuals' prior learning against occupational standards and criteria and against requirements to individual job tasks to make relevant skills visible with the perspective of identifying gap training for job and/or further education. Validation, assessment and recognition are carried out and an individual plan for gap training is developed. Target groups for these cases are diverse regarding age and life situation.

3. Validation and recognition as the final process for issuance of the credential based on an

assessment due to standards and criteria. The target groups for these cases are more diverse in terms of age, life situation, prior learning and aims for development. The cases are about learning and training for a specific job-related purpose, or for making decisions about study and career choice. For job-related purposes, this is typically for upskilling or reskilling to new job tasks or for transition to a new job. For educational and career purposes, this is typically for CVET and for Higher Education and for target groups fulfilling access criteria. In these cases, Validation of Prior learning in advance might play a role for attending the course and potentially with a shortening of the education due to recognition of prior learning.

4. Validation, assessment and recognition based on online testing for certain skills requirements, for instance the Hygiene passport, Finland, issued as a digital badge, by successful completion of the test.

Other characteristics of the Good Practice Cases concern

- MC types and formats
- Recognition
- The credential
- Transparency
- Skills needs identification/anticipation
- Stakeholder involvement

The individual cases are developed on the basis of mapping examples, while including individual perspectives from the mapping, to form combined perspectives in the cases. In other words, a process from mono-perspectives to multi-perspectives has been performed.

The mono-perspectives listed above appear in various ways in the cases. This summing up concerns the perspectives **across** Good Practice Cases.

While not formally named MC, the cases reflect these perspectives in various ways and forms and with different priority.

All cases are presented in terms of MC type, being either stand-alone, add-on or a series of MCs.

Small courses, either already existing as formal or non-formal courses are mapped due to their size, and labour market focus. Recognition is part of the MC, and the area and the range of recognition define various grades of recognition, *from* forming a relatively narrow area of recognition, within a company or in numbers of similar companies, *to* a recognition that potentially covers a branch or a sector. When this is the situation, recognition is based on other aspects as skills needs anticipation within a larger entity than the company, i.e. a branch or a sector, while skills need identification more often concerns a local level – one or more companies. For the broader range of recognition and skills need anticipation, based on formal, national or regional forecast and surveillance systems, a multi-stakeholder involvement is often part of the

collaboration of development of the MC in question or they may act as guarantors for legitimacy and trust to the provided MCs.

The credential issued after completion of the learning objectives of the MC differs in various respects concerning design, content description and accompanying measures for securing ownership and further application of the MC. While for some cases, learning outcomes are described due to systematic standards and criteria, for other cases aiming at a more preparatory and supportive outcome for the learner, other levels of description are applied. What makes the difference – though not always explicitly mentioned in the cases – could be, if the learning outcomes are addressing the potential of further education. Hence, the development of these MCs, being either a stand-alone, an add-on type or a series of MCs are aimed at making them ready for stackability.

Generally, for the cases, digital storage of the credential or certificate is secured by the application of various online systems, allowing the owner to benefit for the use of it for jobs and/or education, thus acknowledging the principle of Portability.

As a VPL might be part of this kind of formal education, requirements must be fulfilled and documented by demanded transparency, required for assessment and recognition in the legal system of VPL.

For other cases, providing non-formal learning, the necessity of transparency is also very important, if the MCs are aimed for the potential of stackability, thus being dependant on the situation of the NQF – is it open for *inclusion* of non-formal qualifications? or is open for *referencing* of non-formal qualifications in terms of *levelling* to the NQF?

Use of the term MCs

For the mapping, there has been a focus on identifying units of learning experience regardless of format, type and learning outcomes – formal, non-formal and informal.

A wide variety of learning experience are identified across the entire Nordic Region.

However, the term MC is not formally used in any of the countries and self-governing regions. As stated earlier in this report, the mapping has been carried out with a reflective focus aiming at identifying what fits into the EU definition of MC – though not necessarily to all aspects of the definition.

In the analysis of findings – in terms of Good Practice Cases – it is not considered a determining aspect what the units of learning experience are entitled. What is important is to consider whether these identified learning formats – being new or having already existed for a long time – add something new to the entire understanding and availability of learning models. Hence, a clear benefit of the mapping is the wide diversity and extent of learning formats, types and aims for various target groups that has been made visible as a high availability of Lifelong Learning possibilities in the Nordic Region.

This current NLL study points at the obvious benefit of considering learning in terms of multiple contexts and constellations, aimed at various target groups, with the individual learner at the centre, and with different priorities and purposes, thus contributing with this important view on realising and concretising Lifelong and Lifewide Learning.

A theoretical perspective on practice learning

As another relevant perspective for the discussion of the MC phenomenon and its future role and location in the overall learning landscape, a theoretical perspective on learning is here included for the understanding and the expectations of MCs. Which are the distinguishing features of MCs, seen from a theoretical learning perspective?

The many examples from the mapping and the Good Practice Cases illustrate a strong awareness of learning approach, the learner and contexts for application. MCs are often provided as blended learning, alternating between learning contexts – the educational institution and the workplace, as seen in the examples of MCs by formal learning. Obviously, the learners/employees as well as employers appreciate this as learning taking place in the company makes it easier to apply new knowledge and achieved skills to the workplace and job tasks. Theory and practice become closely related.

Learning *in* practice – and learning *from* practice is not new. This has taken place as a primary learning form for very long time.

Likewise – from a theoretical point of view – Learning Theories are concerned with the aspects of learning, options and obstacles for learning in practice.

Some examples

- Learning in Communities of Practice (*Jean Lave and Etienne Wenger*)
- Development of Self-efficacy, (*Albert Bandura)* and Zone for Proximate Development *Lev Vygotsky*). Bandura and Vygotsky also address the requirements of Assisted learning
- Organisational learning: *Donald Schön and Chris Argyris*

From time to time, criticism has been expressed about the nature of learning that takes place under the auspices of the workplace. In particular, the criticism has been about company training for being conservative and not open for looking with new eyes upon existing practices and routines at the workplace. However, it does not need to be like that. Throughout recent decades, a new focus on learning in practice has spread and not least regarding target groups of

employees with short education background and – perhaps – less motivation for formal education; fear of not being able to live up to expectations – maybe most of all, relying on the expectations of the employee themselves.

Without going more deeply into a presentation of the theories, it should, in short, appear that knowledge exists for assessing the aspects of impact for developing MCs for learning, including both contexts in accordance with the described learning outcomes in question.

When benefits for the learner are described in the cases for the achieved MC, this is often expressed in terms of a higher self-esteem, increased motivation for learning and for contributing with ideas to the development in work-task performance. As benefits for the employer and for the company, these are listed as the acknowledgement of employees showing more interest in innovations and development in daily work, besides the benefit of the company appearing at the local labour market as a development-oriented company. This implies clear advantages for staff retention as well as for recruitment. However, reaching this image poses demand to the company as for providing a safe learning context. What is important for the company is to establish and to maintain a positive and appreciative culture for employee's involvement. MC provided as classroom and workplace blended learning constitute this option.

Jean Lave and Etienne Wenger have developed their theory on *Communities of Practice* in terms of learning at the workplace. What is important in this theory is the principle called *Legitimate Peripheral Participation*, by which is expressed – the acknowledgement by the company, the employer and the colleagues – that the learner is allowed to and recognised as being a learner – not yet fully competent to carry out key tasks but on their way.

Albert Bandura and Lev Vygotsky mention the concept of *Assisted Learning* with an awareness of the importance of Social Learning. Among the Good Practice Cases, this is seen in learning arrangements, which include mentors to the individual's learning and training of teachers with a certain role and responsibility for supporting the learner in the learning process. In some of these cases, concerning aims at supporting and preparing individuals in their approach to labour market and education, competence development and training of mentors, teachers and assessors illustrate an awareness of requirements to be met to help the individuals succeed in their learning. While mentioning the benefit, increase of the learner's self-esteem, Bandura's learning theory provides the concept, **Self-efficacy**, defined as the individual's sense of *knowing* that he or she is **capable of doing** and hence also more motivated for further learning and to overcome challenges.

This knowledge of Self-efficacy precedes the sense of self-confidence and self-esteem as these are rooted in *knowing by yourself*, that you can do what is required. Lev Vygotsky provides the concept, **Zone for Proximate Development**, which similarly expresses the demand of a more experienced person to assist the learner in achieving learning results at the next level, and thus acknowledging that learning progress must take place at the individual's own pace.

Finally, looking at MC for learning in workplaces, Good Practice Cases demonstrate added value as well as benefits for end-users in terms of interest for more learning, development of a learning culture and awareness in the company. With the theory about **The Learning Organization**, *D. Schön and C. Argyris* offer a perspective on how to motivate and manage learning to deal with changes and risks in the company. A learning culture characterized by openness, transparency in work and management processes, and a safe learning environment are important elements for learning and development *at* the workplace – and *for* the workplace.

The perspectives of Coherent Factors for added value and benefits for end-users

A set of three models has been developed for the purpose of assessing requirements of coherency to support added value and achievement of benefit for end-users.

The rationale of models is that, if the MC is not supported by accompanying measures, the learner and the employer as well, risk delimitation of options for application and recognition outside a narrow context and for the options of portability and stackability.
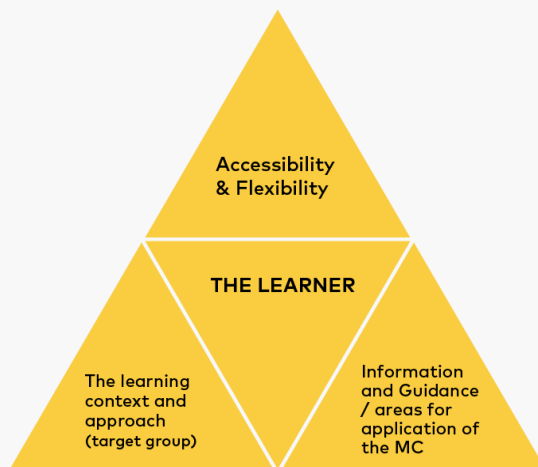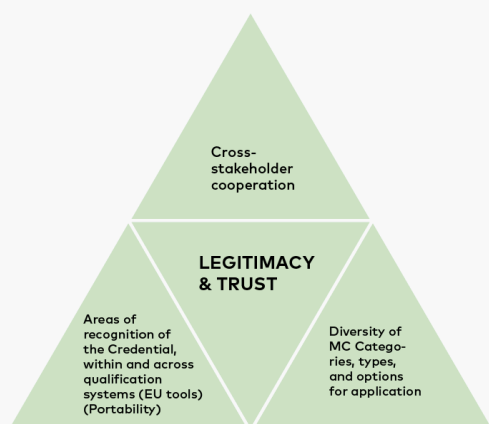

MODEL 1

The Learner perspective of this model concerns the coherence of the factors: accessibility, learning context and approach and Information and Guidance about the areas of application.

Ad model 1) Is *Information and guidance* about the MC and the application available in terms of an easily accessible overview?

Accessibility to MC implies a learning approach, suitable for the target group and for the individual learner. MCs are provided in various contexts as digital attendance with self-directed learning for the entire MC or for parts of it, physical attendance in a classroom or

at the workplace. The context sets the frames and conditions for various approaches and for learning. For instance, digital learning might pose obstacles for some learners. It is of most importance for the learner that learning approach is addressing the expected learners, based on providers' and teachers' awareness of learning preferences and prerequisites. Accessibility also concerns the model and structure of the MC. Does the model provide flexibility and options for adapting to individual needs – or does it appear as a fixed format and model?

MODEL 2

The Legitimacy and Trust perspective of this model concerns the coherence of the factors: availability of MCs; diversity of categories and types, options for application; areas of recognition, the principle of portability and cross-stakeholder involvement.

Ad model 2) Selection of the most appropriate MC depends on the availability of *a variety of provided MCs*, encompassing all relevant information of content and areas for recognition of the achieved MC and for application. This information and guidance should be available; for instance, in terms of websites of providers, stakeholder organisations or included in a national website for Education and Guidance. This perspective addresses a possible future situation of MC having proliferated and being implemented as a new option for learning in a variety of formats, models, aims and areas of application. *Stakeholder involvement*, whether in demands for skills, development of the MC or for collaboration on information and guidance, adds important aspects to the legitimacy and trust to the MC, especially in terms of a cross-stakeholder involvement due to various aspects of interest.
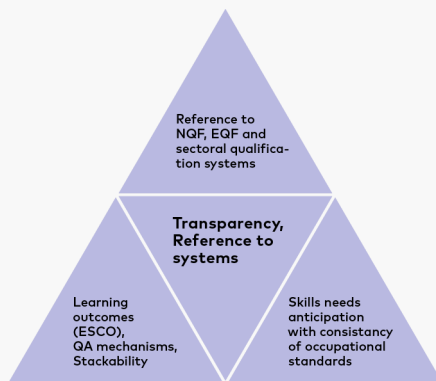
MODEL 3

The Transparency perspective of this model concerns the coherence of the factors: skills need identification or anticipation – consistency of standards; learning outcomes described in accordance with standards (ESCO or other kind of standards), Quality Assurance (QA), the principle of Stackability; Reference to NQF/EQF or to sectoral qualification systems.

Ad model 3) The Transparency perspective of this model concerns coherency of the factors: skills need identification or anticipation – consistency of standards; learning outcomes described in accordance with standards (ESCO or other kind of standards), QA, the principle of Stackability; Reference to NQF/EQF or to sectoral qualification systems.

As model 2 concerns factors for importance of legitimacy and trust, *the transparency perspective* for model 3, adds similarly to the legitimacy as for identifying systematic, standards and criteria, behind the product of the given MC. Standards and criteria for *skills need identification and anticipation,* applied for the development of MCs, constitute evidence for the relevance of the provided MC and for the probability that the learning achieved is in demand and recognised within the given areas of application.

Likewise, the reference to established and recognised *standards for the description of learning outcomes,* thus also an aspect of *QA,* is a factor which moreover secures a *reference to NQF/EQF and sectoral qualification systems* with the possibility of *stacking* MC to a full and formal Qualification.

4.4. Partial conclusion

The point of illustrating these coherent factors of importance for added value and for the achievement of benefits for end-users is to stress the importance of all the aspects that contribute to making MC a valid and legitimate new format for learning and skills development. Potentially, two perspectives of this awareness of coherent factors could be applied to the future situation of MC.

One perspective is for developing the MC in terms of small learning formats and with a labour market focus for the benefit for end-users in achievement and application in the relevant context. Hence, this perspective offers MC being developed in terms of an infrastructure, securing quality in various means and aspects and to securing also the image of MC, being a valid and legitimate

complementary offer, provided for flexible and just-in-time learning – so to say, MC in its own right.

The other, and a more future oriented, perspective, concerns development of a MC System, addressing the idea of an ECO-system. This perspective is already discussed, for instance as part of the extensive research project on MC, carried out by Cedefop for the EU MC initiative.

However, the idea of a MC System similarly raises a corresponding discussion about the status of MC versus Formal Qualification Systems. Parallel, independent systems? or two – mutual – permeable systems for a) securing the option of individual learning pathways and b) systems for formal education which probably also includes the provision of MC?

As a supplementary perspective to one overall system, with the inclusion of MC into the formal qualification system, the principle of permeability between systems would secure the option of stackability from part qualifications in terms of MC to a full, formal qualification. Thus, MC forming a complementary learning way within a structure for building your own learning pathway, from the MC system to be enhanced by the achievement of full qualifications, when needed and prioritised by the individual.

These perspectives are future oriented and require considerations within a multi-stakeholder collaboration and decisions taken by policy makers:

How should relations of MC and formal education be established?

- By development of a MCs system, referencing to formally agreed standards, criteria, systems for VPL and NQFs?
- By the application of other standards and criteria, agreed outside formal education, to form a coherent MC system and infrastructure and developed as a complementary way of learning?
- By a solution of two parallel systems, characterised by permeable openings for the learner, when relevant and desired?

Of importance for the solution of two parallel systems, characterized by permeable openings for the learner when relevant and desired, MC as a new format would demonstrate that Lifelong Learning and Continuing Education is not the same – but they can benefit each other.

The point is, that there is a risk for loosing profile and characteristics of MC while *prioritising* formalisation to formal systems and tools for the aim of securing recognition and the potential of Stackability. As for the formal educations, an approximation to MC – with the provision of small size learning units – risk fragmentising the coherent focus of education programmes when splitting up existing modules into several smaller modules, thus losing a distinct focus and profile.

In the mapping part of this project as well as in the Cedefop Survey on MC, it is seen as one of the dominating findings, that formal education, CVET, provide small learning units of modules split up into smaller units.

In the Nordic countries, modularisation of formal education has been a reality for many years. Modules forming a part qualification of the full programme are described in terms of delimited units, which thematically constitute a coherent and independent learning outcome. In some Nordic countries, it has recently become possible to provide a further modularisation into small size modules of 2.5 ECTS – formalised in the educational act.

To avoid fragmentation of the module –it being split into smaller units – some precautions must be made so to ensure a holistic and coherent profile of the small module. In previous evaluation of benefits of formal education programmes, it has been expressed that students may be challenged as to transferring learning outcomes from the education learning context to the context of application in job and daily work. This challenge might be even more difficult, while leaving it to the learners themselves to connect and to build the cohesion of learning outcomes of the entire programme when based on small size, individual modules.

Pointing at this risk is not for excluding the provision of small formal learning modules, *but* to advocate for the availability of guidance for the learners to develop their individual Learning Pathways – while benefitting, potentially, from all learning possibilities.

5. Recommendations for the development of MCs

This set of Recommendation for the development of MCs is based on the overall results of the NLL investigation on MCs in a Nordic perspective.

The investigation, financed by The Nordic Counsil of Ministers, has been carried out, during the period of 2023–2024 in the NLL, expert network on validation of prior learning.

The recommendations are based on the analysis of Good Practice Cases. A methodological approach for the systematisation process of the investigation results has been developed in terms of various steps:

Mapping findings, identified by perspectives and aspects aimed at a broad and a wide range of mapping to encompass learning forms that fits into the EU definition of MCs – in various respects but not necessarily by all mapped examples.

From mapping results, **examples** are selected as for showing, in a first-step systematisation, how mono-perspectives and aspects are included in the examples. Perspectives of the examples are analysed with a focus on:

- Context, formats and target groups
- Legitimacy, credibility and recognition
- Validation and recognition
- Added value and benefit for end-user

Categories of learning formats – mapped as MCs – are formed as the following step of systematisation. Categories are defined in terms of shared commonalities and distinguishing

features and with a particular focus on Coherent Factors of importance for added value and achievement of benefits for end-users.

Based on these previous steps of systematisation, **Good Practice Cases** are described with the combination of perspectives and aspects – multi-perspectives – to provide Cases to illustrate the functions and outcomes, added value and benefits for end-users. Good Practice Cases form the basis for analysis and assessment of the ongoing focus of the MC Investigation: How does added value and benefits for end-users appear and by which elements and precautions are they secured?

The **Recommendations** for development of MCs in a Nordic perspective are based on the analysis results of Good Practice Cases.

The Recommendations are elaborated on in relation to the overall situation of megatrends, affecting societies and labour market. At national and regional level, challenges are anticipated in skills forecasts and already appearing as evolving in societies and labour market, in terms of:

Demographic disbalances across generations emphasise the already occurrence of coherent challenges. At labour markets, changes are happening in an ever-increasing pace posing high demands on businesses, employees and employers for adapting to new task profiles and skills requirements. Ways of working and living are influenced by an increase of implications regarding global competition, twin transition – digital and green transition – global crisis as climate change, international political instability and potential pandemics.

These megatrends pose demands to societies and labour markets to be responsive to major changes. This is particularly in an EU agenda – and hence also in national agendas for ensuring stable and inclusive societies – seen as a priority of education and learning possibilities, provided in terms of distinct labour market and societal focus; timeliness, responsiveness and flexibility for adapting to a future, marked by continuous change – at ever increasing speed and extent.

The Recommendations for development of MCs, elaborated as part of the NLL MCs Investigation, are prepared within an overall focus on further development of the format of MCs and by the anticipation, that systematisation of initiatives for this purpose would benefit from a shared responsibility and by the inclusion of various interests and priorities.

The Recommendations address five levels of key concern for development and application of microcredentials:

- The learner
- The educational instititution and other providers in collaboration with stakeholders
- Social partners
- Policy makers
- Society

The Learner

- Choose a MC that align with your carrier aspirations and skills gaps
- Seek information and guidance relevant for the process of your choice
- Consider the time and financial investment required for the MC
- Consider area of recognition of your achieved learning outcomes of the MC
- Pay special attention to the question of validation of prior learning, to have your prior learning recognised as part of the MC
- Explore pathways to stack MCs towards a larger qualification – professional certification or a degree programme
- Discuss and agree with your company, what benefits the achieved MC means for your job, tasks and future development in the company
- Stay informed about new and emerging MC opportunities in your field

The educational institution and other providers in collaboration with stakeholders

- Concerning organising of communication, Education providers should plan the interaction between MC stakeholders, so that each can have their voice heard, and participate at a stage that is useful for the development and update of the MC
- Ensure information is available for learners and employers to know exactly which learning outcomes and benefits they can expect from the specific MC
- Distinguish among benefits as professional skills aimed for specific jobs and tasks, personal development, inclusion in the labour market, admission to education and job, job retention and recruitment
- Learning approach to MC should be considered with a focus on

learning forms to fit learning preferences and prerequisites of learners

- Include support structures for the learners, especially for MCs aimed at inclusion of individuals outside of labour market or education
- MCs should be designed in a way that the first step of learning process should always be the individual's existing knowledge for development of personal/organisational learning goals. Validation is a key element of this
- Ensure that each MC addresses a distinct skill or competency
- Develop rigorous assessment criteria to ensure learner meet the desired skills and competences
- Collaborate with industry partners to identify in-demand skills
- Regularly update MCs to reflect current trends and skills anticipated
- Collaborate with employee/learner, company and employer to develop learning approaches that include practical, real-world applications and projects
- Offer online, hybrid, and in-person options to accommodate diverse learner needs
- Incorporate asynchronous learning to allow self-paced progress
- Seek accreditation from relevant bodies to enhance credibility
- Ensure MCs are recognised by employers and can be stacked into greater qualifications
- To provide evidence of added value and benefits for end-users, put into system a regularly follow-up due to expected outcomes of the provided MCs
- Adjust development of MCs in terms of regularly follow-up-based evidence
- Create step-by-step learning pathways with MC; create pathways by MC based on part degrees and full degrees and visualise them for the public
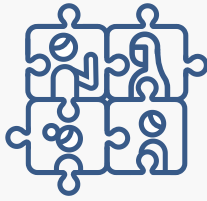
Social partners

- Based on skills need forecast, social partner organisations should take initiative to development of MC in collaboration with stakeholders and providers
- Labour market organisations at local, regional and national levels should spread information about MC
- What determines the added value of the MC should be discussed for the characteristics of the MC
- A systematic and regularly follow up on added value of MC and achieved benefits should be carried out within a stakeholder collaboration
- To develop sustainable MCs, skills needs and requirements should be surveyed at various levels: company, local companies, branch, sector, society
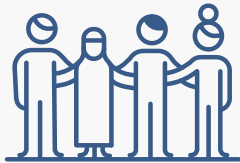
Society

- It is important to work on the increase of awareness of MC to show how it can be beneficial, not only for the individuals but for the society as well. This will hopefully open more eyes and possibilities and gain support from stakeholders
- Develop MCs that support the inclusion of an individual into society with a special attention towards an increased number of individuals feeling outside of communities.
- Motivate and promote MC for volunteering in society
- It should be communicated by Volunteering Organisations how citizens, when taking part in volunteering activities and learning from this, make an important contribution to the development of Inclusive Communities (Nordic Vision 2030)
- To understand aims and characteristics of MC, it should be communicated and made visible how the provided MCs address trends, megatrends and challenges in society, challenges like demographic imbalances in the labour market and in society, green transition, technological requirements
- Social innovation with MCs should be encouraged by experimenting and bridging learning and social activities
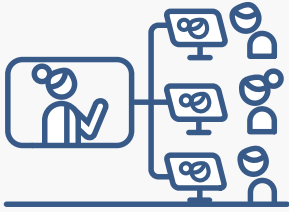
Policy makers

- Policy makers should address the potential of MCs to respond to challenges in terms of trends and megatrends in societies and labour markets
- The term MCs should be defined in order to clarify what it meant by MCs, what are their characteristics and potentials
- Policy makers should initiate a discussion on how the relations between MCs and formal education could be established
- Policy makers should make decisions about development and provision of a digital infrastructure for storing of MCs obtained by learners
- Requirements for the development of MCs should be addressed, by simultaneously highlighting the potentials of providing a complementary way of valuing learning
- To value non-formal and informal learning in national databases for learning opportunities, non-formal learning should be made visible adjacent to the formal degrees, parts of degrees and qualifications. This way both non-ECTS and ECTS-bearing learning opportunities can be seen of value to learning
- Sources for informal learning should be discussed in a popularised way, to encourage the lifelong learning culture
- National legal systems for VPL and Qualification Frameworks should be further developed to encompass recognition and application of non-formal learning in education and skill and competence development

6. Conclusion

When it comes to future challenges in a global perspective, the Nordic region similarly faces challenges for securing inclusive societies, global competitiveness at labour markets, and for adapting to the situation of changes derived from megatrends. Demographic imbalances, shortage of skilled workforce, implications of climate changes and the requirements of the twin transition – the digital and green transition – call for responses that, in several ways, exceed previous models. Not least because changes are occurring at a speed not envisaged before.

The Nordic Vision 2030, concerns measures for securing a sustainable Nordic Region. Several goals are defined for this purpose, among which, **Sustainable Development Goal (SDG) 4. Quality Educations, SDG 8, Decent jobs and economic growth** and **SDG 11, Sustainable cities and communities** have been of special relevance to the MCs investigation in the Nordic perspective. Inspired by the spread and proliferation of MCs – worldwide – however with a special awareness of the EU MC initiative – the NLL investigation of MCs in a Nordic perspective has been carried out with the aim to identify and to assess *if* and *how* this trend is also becoming a trend in the five Nordic countries and three self-governing regions.

The investigation has mapped that learning in the entire Nordic region takes place in a large and wide diversity of learning formats, aims and purposes, target groups, contexts and learning approach.

The provision of formal education is characterised by a high level of accessibility (with the exemption of areas with a low number of populations), funded by national or municipal bodies, a low fee for participants, and with the involvement of social partners for development and maintenance of education programmes.

However, in some respects, these coherent models for provision of skills development, upskilling and reskilling are no longer the only answer to fast changing needs for competence development and learning. Criticism is raised on the issues of responsiveness, timeliness and flexibility.

With the occurrence of MC, defined by the EU initiative, MC is spreading in countries as a new format. Many questions call for consideration and decision making as to the future placement of MC in the entire learning landscape.

Moreover, the investigation shows that third sector non-formal learning is provided and applied to a wide and even an increasing extent. Third sector organisations for voluntary work across the Nordic region confirm this.

Examples are mapped for formal education institutions developing new learning and skill and competence development formats, targeted changes and developments in society and working life – often addressing changes caused by megatrends.

Higher education institutions provide small learning units to address learners for changes in career and working life.

For the inclusion of individuals, facing barriers to the labour market and education, small learning formats are developed to meet these needs.

Together, the Investigation shows that this diversity of learning possibilities is developed in a direction of new forms and constellations and in combinations of formal education as well as non-formal learning. Besides, the investigation shows that Validation is included in terms of various functions and with different aims, depending on the target groups in question as well as the overall purpose of the learning experience.

Perhaps of most importance, the investigation shows that – if the goal of MC as a complementary way of valuing learning – is to make available these new learning formats that live up to requirements of validity, quality, legitimacy and trust, this calls for the development of MC in a structure, which also include consideration of and decisions for linkages to the formal education system.

As part of the investigation, a set of Recommendations for development of MC are prepared. With the recognition of the complexity of key issues for development of MC, in terms of considerations and decisions, the recommendations address five different levels for development concern. While some of the recommendations could be addressed already now, others require decision making at an overall level, by social partners and policy makers for the labour market and society.

For the possibility of securing recognition of MC as for admission to formal education and for a possible shortening of formal education programmes, Legal systems for VPL and Qualification Frameworks need to be developed with an opening to non-formal learning outcome, achieved in practice contexts of learning.

Concerning placement of MC in the overall learning landscape, this implies consideration of how MC as a complementary way of valuing learning should be elaborated and designed to allow individuals to collect and to stack learning experiences in a flexible way at their own pace and

throughout the course of life. Such perspectives for a MC paradigm call for an understanding of a landscape of formal qualifications and MC to constitute – together a more dynamic and inclusive landscape of learning, accommodating diverse learning styles and prerequisites.

To reach this dynamic system of qualification and learning options, the acknowledgement of MC should form a flexible structure to accommodate individual learning pathways with options of stacking learning credentials to full qualifications, while standards for VPL and NQFs are developed for these requirements.

Considering formal qualification systems and a system for MC as parallel systems, not integrated but providing doors that are open in both directions, the two systems could be developed for mutual benefits and especially for the benefits of the individual's Lifelong Learning.

Finally, to conclude on the title of this investigation: **MCs in a Nordic perspective**, the investigation shows that MCs are not yet part of the formal national systems. However, the diverse and extensive mapping results for learning across learning types and contexts illustrate that a strong tradition of learning exists in all the Nordic countries and self-governing regions and with the emphasis on the awareness of the individual as the learner. Considering the proliferation and development of the MCs format and the interest it has gained, it is a possibility, that the new MC format could form a driver or a lever for a more systematic, consistent and targeted application of the diversity of learning forms and learning experiences, mapped and described in this Investigation to form new options and benefits for responsive, timely and flexible learning – for the added value and benefits of learners and for other end-users involved in learning.

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Nordic Vision 2030

norden.org/en/our-vision-2030

Acronyms

NQF – National Qualification Framework

EQF – The European Qualification Framework for Lifelong Learning

VET – Vocational Education and Training

CVET – Continuing Vocational Education and Training

ESCO – European Skills, Competences, Qualifications and Occupations

ISCO – International Standard Classification of Occupations

VPL – Validation of Prior Learning

RKV – Realkompetence Vurdering

ECTS – European Credit Transfer System

ETSC – Education and Training Support Centre (Iceland)

MC/MCs – Microcredential/Microcredentials

NLL – Nordic Network for Lifelong Learning (before January 2025 known as NVL, Nordic Network for Adult Learning)