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Paper

Title: Evaluating the Labour-Market Relevance of Micro-Credentials: Evidence from QA Agencies' ESG Aligned Practices

Abstract: This paper examines how EQAR-registered quality assurance (QA) agencies evaluate micro-credentials, with particular focus on labour market elements, using methodologies aligned with the Standards and Guidelines for Quality Assurance in the EHEA (ESG). Against the backdrop of swiftly evolving labour-market needs and the growing policy emphasis on upskilling and reskilling, the study investigates how external QA contributes to the cross-sector relevance and credibility of short learning opportunities.

The research adopts an exploratory design based on the systematic analysis of publicly available agency reports in the Database for Quality Assurance Results (DEQAR), complemented by an examination of the ESG-aligned methodologies used by the QA agencies as well as panel composition. Using qualitative text analysis software, the study focuses on single micro-credentials and identifies recurring evaluation patterns and thematic foci.

The first analytical component maps the characteristics of the micro-credentials included in the sample, considering disciplinary fields, the profile of the providers offering them – ranging - from higher education institutions to sector-specific training organisations and private companies, as well as target groups.

Building on this descriptive foundation, the paper analyses how agencies assess labour-market alignment, both within their formal methodologies and in the judgments made by review panels. This analysis is structured around three key phases in the lifecycle of a micro-credential: design, delivery, and post-completion. It examines how panels evaluate needs analyses, employer involvement, and the articulation of skills and competences; how they assess delivery aspects such as work-based learning and practitioner-led teaching; and how they consider post-completion elements including learner tracking, graduate surveys, and employability outcomes.

Across these phases, the study highlights good practices identified by agencies and synthesises the recommendations issued, pointing to areas where provision can be strengthened.

At the end, the paper considers some critical points and advocates for balance between the addressing of labour market needs with educational quality.

1. Introduction

Relevance to the labour market is not an incidental feature of micro-credentials but the core of their promise: they are expected to enable fast, targeted upskilling and reskilling in response to changing skills needs. Micro-credentials that draw on skills anticipation or are co-developed with industry show higher credibility and uptake; the OECD (2026) calls employer involvement "emerging as the gold standard". How far external quality assurance examines these links is therefore a question of direct relevance to higher education providers, QA agencies and learners alike.

As the literature reviewed in Section 3 suggests, the labour-market link cannot be secured at a single point. It has to be built into the design of a micro-credential, sustained during delivery and verified after completion, when graduates take their skills into work (Cedefop, 2022, 2023a; ENQA, 2023; OECD, 2023, 2026). This paper therefore adopts a life-cycle perspective, distinguishing the design, implementation and post-completion phases. The distinction makes it possible to see not only which tools providers use, but also where in the life cycle the link is established, and where it tends to remain weak.

This orientation towards the labour market is, however, not free of tension. Consequently, it places particular demands on external quality assurance, which has to judge not only whether a micro-credential is linked to the labour market, but also whether that link is pursued without compromising the educational quality and the academic autonomy of the provider. The critical points raised in the review reports are presented in Section 5 and discussed in Section 6.

The analysis draws on reports published in the Database of External Quality Assurance Results (DEQAR)[1]. DEQAR is currently the only database that gives access to external quality assurance results on micro-credentials reviewed by agencies working in line with the Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG). It therefore offers a unique window onto how ESG-based quality assurance approaches micro-credentials in practice.

For the purpose of this paper, the key terms follow the definitions of the DEQAR handbook.[2] A micro-credential is understood as a certified small volume of learning, with a workload of less than 60 ECTS, that does not lead to a full recognized degree. A higher education institution is an entity that holds full degree-awarding powers at higher education level (EQF levels 5 to 8; QF-EHEA first to third cycle), recognised by at least one national authority. An other provider, by contrast, offers learning opportunities at higher education level (EQF levels 5 to 8; QF-EHEA short to third cycle) but does not itself hold full recognised degree-awarding powers.

2. Aim

Micro-credentials are often valued due to their presumed responsiveness to labour-market needs, yet the extent to which external quality assurance (QA) scrutinises this claim remains largely unexplored. This paper offers an exploratory textual analysis of published review reports of EQAR-registered agencies, guided by four aims:

1. To explore how QA agencies address the connection of micro-credentials with labour-market needs, both in their methodologies, panel compositions and in their review reports.

2. To learn more about the methods and tools that higher education institutions and other providers use to link micro-credentials to the labour market.

[1] The Database for External Quality Assurance Results is available at: https://www.eqar.eu/qa-results/
[2] See here: https://docs.deqar.eu/stable/

3. To share good practices and enable peer learning among agencies and providers.

4. As a first study of its kind, to offer conceptual considerations for external quality assurance and agencies on what to pay attention to, and what to be careful of, when assessing the labour-market link of micro-credentials in the future.

3. **Previous studies**

Several studies examine how institutions use skills intelligence and partnerships. The tools they identify range from quantitative instruments, such as skills assessment and anticipation, vacancy data and the monitoring of graduates' employment outcomes, to qualitative and relational ones, such as employer consultation, co-design of learning outcomes, industry review of content, teaching by industry experts and work placements. More formal mechanisms, such as alignment with occupational standards and recognition by employers or professional bodies, complete the repertoire (Table 1). The evidence base consists mostly of mappings, policy reviews and case studies by international organisations; peer-reviewed empirical work is, however, limited, and evidence on actual labour-market outcomes is scarce (OECD, 2023).

In the QA literature, attention to the labour market has grown. IMINQA (2023) advocates that providers should show that labour-market expertise contributes to every stage of the life cycle, and agencies should check how far micro-credentials serve upskilling and reskilling needs, involve labour-market stakeholders in designing procedures, and include sector expertise on panels. The project findings showcased that stand-alone micro-credentials in higher education are often developed on demand from labour-market representatives and in partnership with them, through joint design, teaching by industry experts, professional mentoring or compulsory work placements, and recommended that quality assurance agencies should consider whether they respond to labour-market needs (Cirlan, 2023). The accompanying reflective questions for QA agencies identify responding to labour-market needs as one of the most common aims of providers, and ask whether micro-credentials are offered in partnership with professional bodies or businesses (IMINQA Working Group, 2023).

These documents are, however, largely normative: they set out what providers and agencies should do rather than what they actually do. Recent empirical studies have begun to map how quality assurance systems approach micro-credentials, comparing regulatory frameworks and the standards and practices of agencies and institutions (Brown & Duart, 2024; Hou et al., 2025), but they remain at the level of systems and policies. None examines how QA agencies address the labour-market link in practice, how deeply they scrutinise it and what their panels observe, which is the gap this paper addresses.

Table 1. Tools linking micro-credentials to the labour market, by phase (literature)

Phase	Tools	Main sources
Design	Labour-market intelligence (skills anticipation, vacancy data, sector analyses); employer consultation and advisory boards; co-design of learning outcomes; evidence of employer support as an approval condition; alignment with occupational standards	Cedefop (2022, 2023a); ENQA (2023); OECD (2026)
Implementation	Teaching by industry experts, work placements, work-based assessment; provider–employer partnership agreements; industry review of content; labour-market stakeholders in QA bodies and on panels	Cedefop (2024); Cirlan (2023); ENQA (2023); Ha et al. (2024); OECD (2026)
Post-completion	Employer and professional-body recognition; monitoring of employment and career outcomes, alumni follow-up; employer and alumni feedback used to adjust or close provision	Cedefop (2023b); ENQA (2023); ILO & UNICEF (2025); OECD (2023, 2026)

4. Methodology

Design and sample. The study adopts an exploratory, qualitative design. Its corpus consists of all reports in DEQAR on micro-credentials evaluated as stand-alone offers; micro-credentials assessed only within programme or institutional accreditation are not included. The download comprised 51 files, covering 69 micro-credentials[3].

The reports were issued by six agencies – five based in Germany (FIBAA, 10 reports; EVALAG, 9; ACQUIN, 2; AHPGS, 2; ECTE,1) plus HAKA in Estonia – and are written in English and German.

They concern 18 providers based in seven countries: Germany (7), Kazakhstan (3), the United States (3), Switzerland (2), and Ethiopia, the Netherlands and Tajikistan (1 each). Of these, 10 are higher education institutions and 8 other providers. Annex provides an overview of the types of providers, the fields of their micro-credentials and whether these were developed by the providers themselves or in collaboration with labour-market actors such as employers, professional associations, ministries or industry partners.[1]

[3] Since the corpus is small relative to the body of reports held in DEQAR (>130 000 reports), the findings should be read as indications of how QA engages with the labour-market link, not as representative of micro-credentials or their QA across the sector.

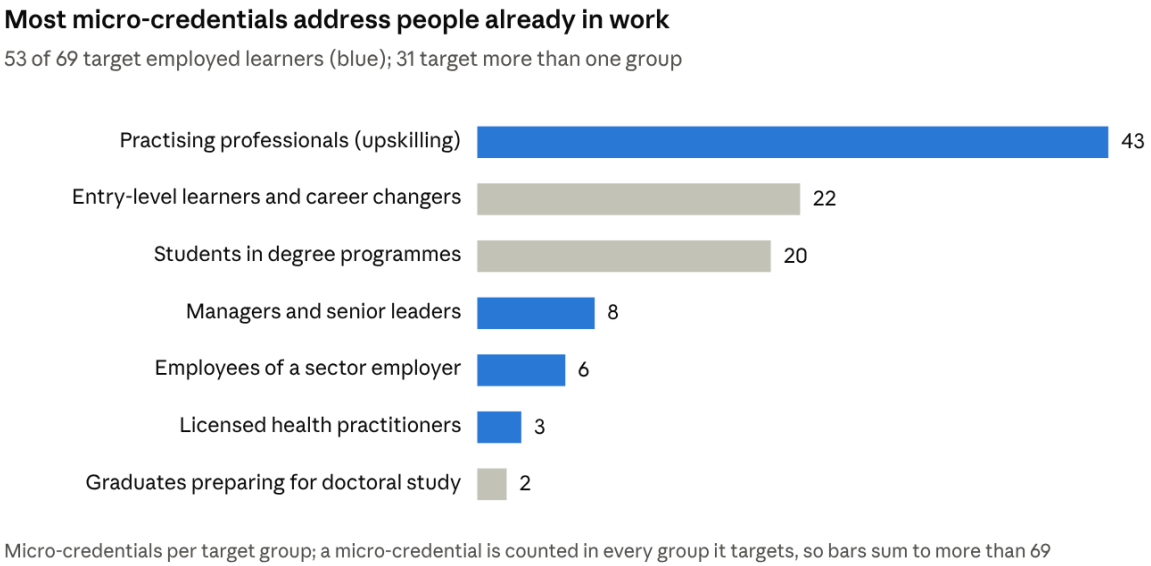
To better understand the unit of analysis, the micro-credentials were also characterised by field of study and target group.

Regarding the first metric, the corpus is concentrated in two fields: business and administration (ISCED-F 041, 22 programmes) and information and communication technologies (ISCED-F 061, 21). Together, these two fields account for nearly two thirds of the 69 micro-credentials, followed by engineering (ISCED-F 071, 8) and health (ISCED-F 091, 7).

Regarding the second metric, many micro-credentials address several groups at once (31 of 69), so each was counted in every group it targets (see Figure 1). Most offers (53 of 69) address learners already in employment: 43 target practising professionals seeking to upskill, eight managers and senior leaders, six employees of a sector employer and three licensed health practitioners. At the same time, 22 are open to entry-level learners or career changers without prior experience, often alongside professionals. Here, practices for establishing the profile of learners vary: some providers ask applicants for a CV as part of their application, while one provider asks applicants to describe their situation and needs and groups them into four categories: those seeking a first job, those changing careers, those progressing in their current role, and those learning out of personal interest.

Students in degree programmes are among the target groups of 20 micro-credentials, almost always alongside working professionals; only two, conceived as bridges to doctoral study, target students alone. In conclusion, in most of the assessed micro-credentials in this study, the labour-market link is thus not peripheral but constitutive of the purpose these micro-credentials claim.

Figure 1. Target groups of the micro-credentials (n = 69; multiple groups possible)



Analytical procedure

The reports were analysed in MAXQDA. Segments referring to the labour market were coded manually[4] by type of tool, by phase of the micro-credential life cycle (design, implementation, post-completion). Recommendations were also singled out[5].

[4] The following keywords were searched in English and German, and the corresponding paragraphs marked: labour market, employer, skills, survey, forecasting.

[5] As a side exercise, the study also examined the depth of the recommendations using Claude Anthropic. They were classified as basic (introduce or formalise a tool), intermediate (specify what

In a second step, Claude (Anthropic) was used as an assisted reading tool to identify further patterns and uncoded tools in the full texts; all suggested passages were verified against the source reports. The software was also use in detecting the ISCED-F of the micro-credentials, as well as the affiliation of the panel members.

The same procedure was applied to the agencies' published methodologies to detect each labour-market requirement. In addition, in order to determine the profile of the reviewers and their links to the labour market, their affiliation was extracted and classified.

5. Results

5.1 Labour-market references in agency methodologies

Five of the six methodologies contain explicit labour-market requirements (see Annex 2). Their coverage of the life cycle varies: FIBAA and HAKA address all three phases, from market analysis in design through practice orientation in delivery to employer and alumni feedback after completion, whereas EVALAG focuses on design and post-completion monitoring, ACQUIN's guideline for international certification touches on design and graduate employment only implicitly through the ESG, whereas its guideline for the certification of continuing-education offers addresses the labour market explicitly at the design stage. AHPGS concentrates on design, with only indirect links to delivery and post-completion.

The methodologies also differ in how many criteria they devote to the topic and in whether they look at processes or at outcomes. FIBAA distributes the topic across nine of its 42 criteria, three of them mandatory; EVALAG concentrates it in two of its 27 standards; HAKA addresses it in five of its 24 requirements and is the only methodology that formulates an outcome standard, requiring that graduates and their employers be satisfied with the preparation received. ACQUIN relies on the guidelines of five of the ten ESG Part 1 standards alone in its international certification procedure. Its guideline for the certification of continuing-education offers names the labour market in one of its 14 criteria, requiring that qualification objectives cover qualified employment and reflect labour-market requirements; two further criteria, on programme-related cooperations and the monitoring of study success, relate to it only indirectly, while the guiding questions for the self-evaluation ask providers to define occupational fields and describe practice components. AHPGS names labour-market relevance explicitly in one of its ten criteria, the profile of the offer, which must respond to the needs of a defined target group and set qualification objectives of high labour-market relevance; three further criteria, on admission requirements (named practical qualifications), the currency of the academic content and the monitoring of study success with relevant stakeholders, relate to it only indirectly. For ECTE, the labour-market requirements could not be established.

5.2 Expert involvement

Results show that labour-market expertise on review panels is the norm rather than the exception: a practitioner sat on 21 of the 26 panels, and FIBAA and ACQUIN included one in every case. The two AHPGS panels were purely academic, and in one EVALAG procedure no practitioner was appointed despite the agency's own requirement. Practitioners were drawn from corporate management and recruitment, training and consultancy, the public sector and clinical practice.

a tool should capture) or advanced (interrogate the content, granularity or validity of existing evidence). The results are presented in Annex 1.

Notably, further analysis demonstrated their presence does not appear to predict the depth of labour-market scrutiny, which varies more with the agency (see Annex 1) and its methodology, rather than with panel composition.

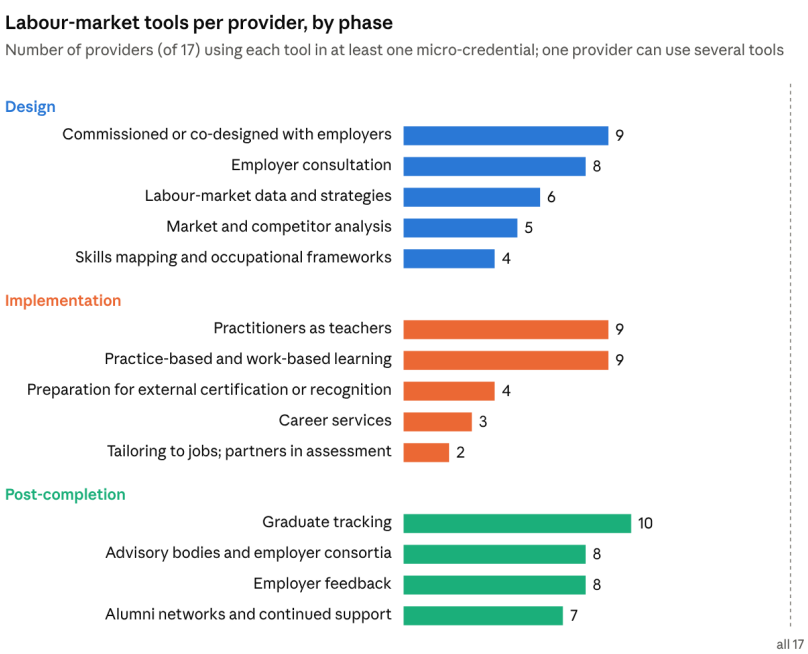
5.3 Tools across the micro-credential life cycle

The reports describe a varied repertoire of tools that providers use to connect micro-credentials with the labour market. Overall, most tools relate to the design phase, followed closely by post-completion, while implementation is described least often. Figures 2 and 3 offer complementary perspectives. Figure 2 counts the micro-credentials (out of 69) to which each type of tool is applied, while Figure 3 counts the providers (out of 18) that use it, showing which tools providers favour regardless of how many micro-credentials they offer.

The two pictures differ because providers with large portfolios weigh heavily in the first: labour-market data, for instance, inform 42 micro-credentials but are used by only six providers, whereas co-design with employers, which reaches fewer micro-credentials, is the design tool most frequently chosen by providers.

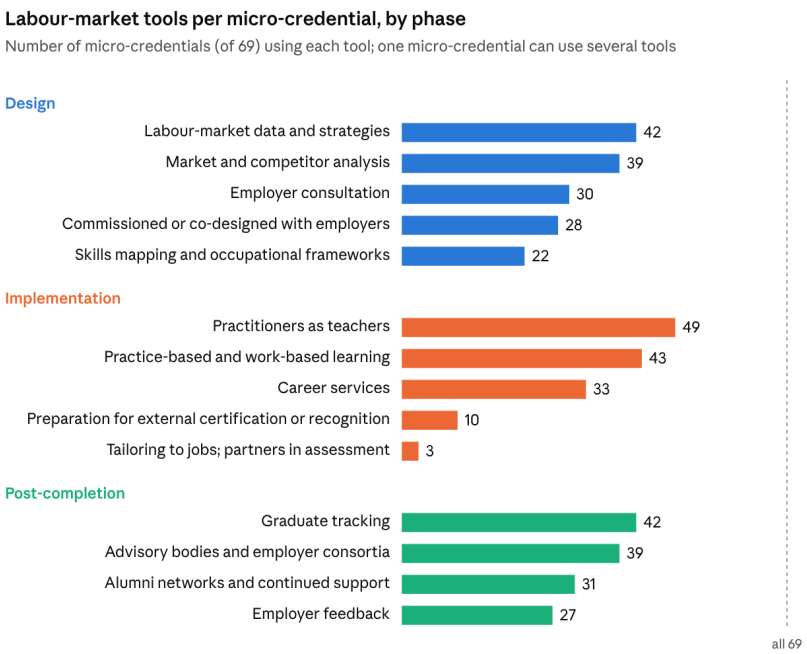
Most micro-credentials combine several tools. Counted per micro-credential, some implementation tools are among the most widespread, notably practitioners as teachers and practice-based learning, even though the reports discuss them in less detail than design andpost-completion tools. Across all phases, the choice of tools appears to follow the type of provider and its relationship to employers more than the discipline.

Figure 2. Tools linking micro-credentials to the labour market, by phase (number of micro-credentials, n=69)



Includes tools described in the reports as planned. Coded segments and full-text reading combined.

Figure 3. Tools linking micro-credentials to the labour market, by phase (number of providers, n = 18)



Includes tools described in the reports as planned. Coded segments and full-text reading combined.

The text further discusses the tools by phase and type, with examples drawn from the reports as illustrations for peer learning. Where available, the review panels' recommendations for strengthening these tools are also presented, which gives the paper a distinctive perspective on the topic.

Design: grounding the offer in labour-market evidence

Labour-market intelligence

Some providers justify their new offers with published labour-market statistics and national or regional strategies. Some examples include documents such as the World Economic Forum's Future of Jobs report, LinkedIn job-posting analyses, the German Federal Employment Agency's analysis of shortage occupations and sectoral qualification frameworks; a full overview is provided in Annex 3. Some complement this with, or rely mainly on, their own analyses. One private higher education provider for example prepares a market positioning and a SWOT analysis for each course, including competing offers on the market.[6] One online learning platform generates its own demand data for each candidate job role, looking at recent job openings, openings accessible without a degree or with little experience, starting salaries and hiring difficulty, and later checks these signals against what learners search for on the platform and enrolments. A more modest but transferable variant is found at one research university, which records enquiries from interested organisations and feeds them into course development.

It should be noted that the published figures in the review reports, however, are often global or national rather than specific to the course, some measure market value rather than jobs, and several passages taken from the self-evaluation reports of the providers appear to be taken over from marketing material with little adaptation. Even where providers generate their own data, the outcome evidence tends to cover a whole portfolio of certificates rather than the individual course.

Skills mapping and occupational frameworks

Where a provider works closely with the organisations that define the target jobs, design often starts from an analysis of the job itself. For example, the corporate partners of an online platform derive learning outcomes from job-task analyses that set out target job titles and key skills, and validate each learning objective against them. An intergovernmental staff college builds on a sectoral qualifications framework based on extensive job mapping.[7] Other providers align with existing occupational profiles: one university of applied sciences defined an occupational profile of ten task areas together with the relevant professional association, and a banking-sector academy aligns its course goals with national chamber framework curricula.[8]

It should be noted, however, that such structured analyses remain the exception, concentrated among micro-credentials that involve the actors that define the target jobs themselves; for most providers no comparable analysis is described in the reports.

[6] Such as AI bootcamps, free online courses or more widely recognised certifications like PMP or PRINCE2 for project management.

[7] The Sectoral Qualifications Framework for Border Guarding, published by Frontex, the European Border and Coast Guard Agency, which sets out high-level learning outcomes for all education and training in the border-guard field.

[8] The framework curricula (Rahmenlehrpläne) of the Association of German Chambers of Industry and Commerce (DIHK) for the respective further-training qualifications (e.g. Fachwirt/-in für Marketing, Fachwirt/-in für Büro- und Projektorganisation, Personalfachkaufleute), which also prepare participants for the public chamber (IHK) examinations.

Commissioned and co-designed offers

As described earlier, more than half of the providers offer micro-credentials that originate from the labour market itself. A business university developed specialisations at the request of individual companies; a national teacher-development centre runs a programme commissioned by the ministry; and the intergovernmental staff college trains staff nominated by participating states. One public university co-designed its course with international product-development partnerships in health, as part of a wider, continent-wide, initiative to build clinical research capacity.

In other cases, employer influence over the programme is informal: one banking-sector academy states that its position within the banking group keeps it informed of changing labour-market requirements at all times. The link is in fact structural: employment in the group is an admission requirement for the short programme, course concepts are adapted in close consultation with the savings banks, every change must be approved by the association's personnel committee, and practitioners from the group teach.

Close industry involvement can also raise questions of independence, particularly where an industry partner supports materials and logistics and a single product system is used in practical training. In one such case, the panel acknowledged the provider's intention to keep the curriculum independent of the company and, to strengthen the objectivity of academic oversight, recommended involving an external, institutionally independent advisory body to review the curriculum, examination procedures and evaluation results.

Implementation: bringing the workplace into learning

Practitioners as teachers

Providers bring current practice into the classroom by recruiting lecturers who work in industry or applied research. According to the results, most of the micro-credentials involve this approach. At one research university, the majority of teachers on an engineering programme come from an applied research institute. Others invite business leaders as speakers or run dedicated skills weeks with guest speakers and workshops.

At one private higher education provider, however, the panel notes that such cooperation with industry, including quarterly skills weeks with guest speakers and company visits, is not geared to specific courses but open to the institution's whole range of programmes. Where such events are designed mainly for degree students, they may be less attractive to professionals and learners in advanced stages of their careers

Practice-based and work-based learning

Another popular tool is the practice-based or work-based learning as part of the course. The online platform ends its certificates with a capstone or portfolio project that learners can showcase to potential employers, and uses assessments that simulate real-world scenarios. At the research university, participants complete a project chosen from their own work context; at the teacher-development centre, they carry out practice projects in schools; and a business university perform practical job-related research. Company visits offer a further point of contact with practice: a business university organises industry visits, and a private higher education provider runs visits and workshops at companies and political institutions in its metropolitan region. Simulations are also common: at the private training provider participants act as bank credit officers, while a banking-sector academy uses case studies built on the sector's own analysis tool. In health, supervised hands-on training, live surgery and simulation are combined. Reports tend to describe these practices rather than assess them, so little is said about how employers perceive the resulting projects.

Preparation for external certification

Several providers prepare learners for recognised credentials beyond their own. Certificates on the online platform prepare for industry certifications in IT security and project management, partly through practice exams or co-branded certificates. A banking-sector academy prepares participants for public chamber examinations and uses the pass rate, benchmarked against the national average, as a success indicator. Since the chamber examination is not part of the course and not all graduates take it, the panel recommended adding success indicators independent of it, such as completion rates, study duration and final grades.

Career services

Career centres offer coaching, career days, job fairs and job platforms, and advise on internships, interviews and CVs. This approach was implemented by three providers only.

The online platform, for example, provides career-readiness resources tailored to each target job role.

At one private higher education provider, however, the career centre's services appear to be mostly set up for degree students, and it often remains unclear whether micro-credential learners use them. Even where dedicated services exist, uptake is not guaranteed: at one online platform, all completers gain access to a community offering career services, CV support and interview practice, yet the panel recommended measures to make sure completers actually know about these services. A related review of the same platform suggested adding questions on the career resources to the completion survey, so that their use and usefulness can be monitored and improved.

Tailoring to participants' jobs

One of the least common approaches, found at only two providers and in three micro-credentials, is tailoring the course to the particular learners and their jobs and involving partners in assessment. The private training provider shares participants' professional backgrounds with lecturers so that seminars can be adapted to their work. At the research university, partner organisations attend participants' project presentations and question them, adding an external perspective to assessment. Such practices surfaced mainly in the descriptive parts of the reports and were, unfortunately, not discussed explicitly by panels.

Post-completion: following graduates into work

Graduate tracking

Providers follow their graduates through alumni surveys, ranging from a single survey six months after completion to long-standing annual surveys and follow-ups at one, five and ten years after completion. One national university tracks employment and career paths through its alumni office using telephone surveys.

Reports note, however, that several surveys are announced rather than operational, or carried out only sporadically, and panels observe that procedures designed for degree students are not fully applicable to professionals. One panel therefore recommended adding job-impact questions to alumni surveys and adapting survey templates to working professionals rather than degree students. Where instruments are mature, they tend to operate at institutional rather than programme level: the business university has run employer surveys every four years since 2007 and alumni surveys since 2005, but breaks the results down only by college, not by programme; the panel suggested programme-

specific analysis for the micro-credential. Similarly, one online platform reports career outcomes across its whole portfolio of certificates, and the panel could not confirm that it holds data on what happened to completers of each individual course, such as whether they found a job, changed the profession or the job position. On online platforms, post-completion tools mostly capture learner satisfaction rather than labour-market outcomes, through ratings, beta testing and quarterly reviews.

Employer feedback

Overall, employer feedback is less common than graduate feedback. A business university has surveyed employers on graduates' performance every few years for over a decade and uses the results to improve programmes. The intergovernmental staff college sends an impact questionnaire to the agencies that delegated participants and alumni six months after the course. Together with other stakeholder feedback, this led to documented curriculum change: content shifted towards new security threats, new topics were added and modules were reordered. The teacher-development centre goes beyond questionnaires: a post-course study observed graduates in their schools and compared the results with input from colleagues, students and parents, complemented by school visits and follow-up workshops.

The clearest feedback loops arise where the employer is also the one sending the participants. In a banking-sector academy embedded in its employers' group, a separate employer survey is arguably less needed, since participants are already employed by the member banks and feedback flows through the group's own committees; the panel nonetheless recommended an anonymised tracer study of graduates' careers, as the banks are not obliged to share data such as salaries. One online platform considers a large-scale employer survey "currently unfeasible due to the vast number of learners".

Advisory bodies and consortia

Several providers involve employers in standing structures. A business university's advisory council of industry experts meets regularly on the curriculum, and its recommendations have led to changes. The corporate partner of the online platform maintains a consortium of more than 150 employers that consider completers for hiring. A private higher education provider plans to set up a corporate advisory board to review its courses twice a year, and a specialised medical institute holds regular planning talks with chambers, professional societies and regional practitioners.

Results show that several such bodies are planned rather than established, some serve the institution as a whole rather than the micro-credential.

Networks and continued support

Support often continues after completion. The online platform offers completers a community with a job board, interview practice, CV workshops and career coaching, as well as digital badges that employers can verify. Alumni networks give access to recommendations and job opportunities, connect alumni as mentors to current learners, or are used to follow how learning is transferred into practice. Some of these networks are informal, and panels recommended formalising them or using them more systematically to track graduates.

6. **Discussion**

This section discusses the findings against the four aims set out in Section 2. With regard to the first aim, the results show that agencies address the labour-market link in their methodologies, panels and reports, though with different intensity. Five of the six methodologies contain explicit labour-market requirements, but only two cover the whole life

cycle and only one formulates an outcome standard. Practitioners take part in most panels, yet their presence does not appear to predict how deeply the labour-market link is examined; the depth of scrutiny varies more with the agency and the way its methodology structures the assessment. This suggests that the design of methodologies and assessment guides, more than panel composition alone, shapes how critically the labour-market link is examined. This is why proper training of reviewers matters, and it has to work in both directions. Academic reviewers need to be able to judge whether labour-market evidence is specific, operational and actually used, rather than generic or taken over from marketing material. Labour-market representatives, in turn, need to be prepared to assess the educational standards too, such as learning outcomes and their level, assessment and the coherence of the curriculum. Otherwise their expertise risks validating employer demand rather than scrutinising it within the broader framework of educational quality.

With regard to the second aim, the tools used by providers, two observations stand out. First, providers use tools in every phase of the life cycle, and the repertoire broadly confirms what the literature describes (Table 1): labour-market intelligence, employer consultation and co-design in the design phase; practitioner teaching and practice-based learning during delivery; graduate tracking, employer feedback and advisory bodies after completion. The reports, however, also bring to light tools that the literature mentions rarely or not at all. These include market and competitor analyses that position a course against competing offers; demand signals generated from learners' own behaviour, such as platform searches or enquiries from organisations; preparation for external industry certifications and chamber examinations; tailoring of seminars to participants' professional backgrounds; career services and completer communities offering interview practice, job boards and digital badges that employers can verify; and post-course observation of graduates in their workplaces, cross-checked with colleagues and other stakeholders.

Second, the strongest links tend to arise where the labour market is built into the offer from the outset: where employers, ministries or professional associations commission the programme, where participants are sent by their employer, or where the provider works with the organisations that define the target jobs. In such cases feedback can visibly change the curriculum, and formal instruments such as employer surveys become less necessary. At the same time, the closer the labour market is built into a micro-credential, the greater the risk that its curriculum is shaped by the immediate needs of particular employers rather than designed independently by the provider. When employers define the target jobs, the learning outcomes and even the assessment, the academic autonomy of the provider and the broader educational purpose of the offer can be weakened. External quality assurance therefore needs to check not only whether labour-market actors are involved, but also whether the provider keeps ownership of the curriculum and its academic standards.

With regard to the third aim, peer learning, the paper outlined several tools and practical examples used by providers, Annex 3 further outlines the labour market studies used per profile and

the distinctive contribution of the review reports is that peer reviewers add a critical layer that provider documentation alone does not offer. Panels repeatedly observe that some post-completion tools are announced rather than operational, that survey procedures designed for degree students do not fit working professionals, and that outcome data are collected at institutional or portfolio level and cannot be traced to the individual micro-credential. They question whether learners actually know about and use the career services on offer, and caution against independence risks where industry partners supply products used in training. Their recommendations translate these concerns into concrete suggestions for improvements: job-impact questions in alumni surveys, anonymised tracer studies of career and salary development, programme-level analysis of results, success indicators that do not depend solely on external examination pass rates, and independent advisory bodies. Taken

together, these suggestions form a practical guidance for providers seeking to strengthen the labour-market relevance of their micro-credentials.

With regard to the fourth aim, some of the findings of the panels raise further conceptual considerations that have to be taken in consideration in the current discussions on the changing nature of external QA. Close involvement of employers in defining learning outcomes may constrain the curricular autonomy of providers and blur the boundaries between higher education, vocational education and training and corporate training. Learning outcomes derived narrowly from current job tasks risk neglecting the broader purposes of higher education and the transferability of skills across employers and sectors. Labour-market signals are themselves volatile and of uneven quality, and evidence that a micro-credential has in fact improved learners' employment prospects is often scarce, aggregated at institutional level or held by private platforms. Data protection rules and the reluctance of providers and their corporate partners to disclose information they treat as business secrets, such as enrolment figures, completion and employment outcomes or the terms of their partnerships, further limit what panels can see, so that claims of labour-market relevance often cannot be verified. For external quality assurance, the mere presence of labour-market tools can therefore not be taken as evidence of relevance. Agencies are expected to judge the credibility and specificity of the evidence used, the independence of curricular decisions, the accuracy of the claims attached to the credential and whether the offer remains anchored at higher education level, and to do so within procedures light enough to suit the short life cycle of micro-credentials. How agencies balance labour-market relevance against these wider quality considerations is thus as much part of the question as whether the link to the labour market exists at all.

The methodologies examined in this study suggest that, at least for now, this balance holds. Even in the methodologies with the most explicit labour-market requirements, these criteria remain a minority of the overall framework, ranging from roughly a fifth to a quarter of all criteria or standards, and they sit alongside requirements on learning outcomes and their level, curriculum coherence, teaching and assessment, staff, learner support and internal quality assurance. Labour-market relevance is thus treated as one dimension of quality rather than as its defining criterion. This can be read as a positive sign: it anchors the assessment of micro-credentials in the ESG and in the educational purposes of higher education, and it guards against external quality assurance becoming a mere legitimation instrument for corporate training or for offers whose main justification is market demand. Maintaining this balance is likely to become more demanding as the number of micro-credentials developed with or for employers grows, and as pressure increases to demonstrate their immediate value on the labour market. Methodologies, panel briefings and decision rules will therefore need to make explicit that strong labour-market links cannot compensate for weaknesses in educational quality, while weak labour-market links should be scrutinised as closely as any other shortcoming.

For providers, the picture is more mixed. Several providers in the corpus develop their micro-credentials themselves and draw on labour-market actors as advisers, teachers or partners, which keeps the curriculum in their hands. Others co-design their offers with professional associations, employers or industry partners, have them commissioned by ministries or participating states, or, in the case of the online platform, take over curricula developed entirely by corporate partners. In these cases the balance between labour-market relevance and educational quality depends less on the provider itself and more on how carefully the external review examines learning outcomes, assessment and the independence of curricular decisions.

7. **Conclusions**

This exploratory analysis shows that review reports on stand-alone micro-credentials are a rich, and so far little used, source of insights on the practices for linking short learning offers to the labour market. Providers use tools across the whole life cycle, with the strongest links arising where the labour market is built into the offer from the outset, and peer reviewers add a critical layer by asking whether these tools are operational, specific to the micro-credential and actually used. At the same time, labour-market criteria remain one dimension of quality among others in agency methodologies, which keeps the assessment anchored in the broader purposes of higher education.

Given the size and composition of the corpus, these observations are indications for peer learning rather than generalisable findings. Comparative work on a larger and more diverse set of reports, including micro-credentials assessed within programme and institutional procedures, would help to test whether these patterns hold across the sector.

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Declaration of AI use:

Claude (Anthropic, 2026) was used as an assisted reading tool to identify further labour-market-related passages and tools in the review reports beyond the manual MAXQDA coding; all suggested passages were verified against the source reports. It was also used to classify the micro-credentials by ISCED-F field, to classify panel members' affiliations, and to classify the depth of labour-market-related recommendations (Annex 1). In addition, it supported the analysis of agency methodologies, the search for relevant literature, the cross-checking of figures against the underlying data, and the language editing of the text. The author reviewed all outputs and takes full responsibility for the content, analysis and conclusions of the paper.

Annexes

Annex Providers in the corpus and the development of their micro-credentials

Provider type	Field of the micro-credentials	Developed by the provider or co-designed	Partners involved in development
Research university	Engineering; sustainability; ethics	Mainly developed by the provider; ethics offers co-designed	Applied research institute; corporate training academy (ethics)
University of applied sciences	Climate-protection management	Co-designed	Professional association (programme initiated at its request; joint occupational profile)
University of applied sciences	Public-sector taxation	Developed by the provider	– (responds to an identified market gap; practitioners teach)
National university	Project economics	Developed by the provider	n/a
Public university	Clinical trial operations	Co-designed	International product-development partnerships in health
Business university	Business administration	Developed by the provider; specialisations co-designed	Individual companies; industry advisory council
Private higher education provider	Business and digital topics	Developed by the provider	Corporate advisory board reviews courses

Provider type	Field of the micro-credentials	Developed by the provider or co-designed	Partners involved in development
Private university institute	Business, IT, engineering, psychology	Developed by the provider	n/a
Specialised medical institute	Performing arts medicine	Co-designed	Ministry (initiative); medical chambers and professional societies
Dental education foundation	Implant dentistry	Co-designed	Clinical specialists; industry partner
Theological education institution	Theology	Developed by the provider	n/a
National teacher-development centre	School leadership	Commissioned	Ministry
Intergovernmental staff college	Border security	Commissioned	Participating states; sectoral qualifications framework
Banking-sector academy (2)	Banking and business administration	Co-designed	Savings banks group and its association
Private training provider	Green energy finance	Developed by the provider	Donor support for curriculum adaptation
Online learning platform	ICT	Developed by corporate partners	Technology companies

Annex 1. Depth of labour-market-related recommendations, by agency

Agency	Labour-market recommendations (n)	Basic	Intermediate	Advanced
FIBAA	17	24%	29%	47%
EVALAG	3	67%	33%	0%
AHPGS	3	100%	0%	0%
ACQUIN	3	0%	50%	50%
ECTE	2	100%	0%	0%

Agency	Labour-market recommendations (n)	Basic	Intermediate	Advanced
HAKA	2	50%	0%	50%
Total	**29**	**41%**	**24%**	**34%**

Note: Basic = introduce or formalise a tool; intermediate = specify what a tool should capture; advanced = interrogate the content, granularity or validity of existing evidence. One optional HAKA recommendation on survey design is counted as advanced. Percentages may not add up to 100 due to rounding. Exercise done with use of AI

Annex 2. Labour-market requirements in agency methodologies

Agency	Methodology	Labour-market standards and their focus	Practitioner on panel required
FIBAA	Assessment Guide, Certification of Continuing Education (2025)	1.1 objectives and alumni findings*; 1.2.2 job-market positioning; 3.1.3 curriculum adequacy for the job market*; 3.2.2 career requirements; 3.2.5 employability*; 4.1.4 staff practical experience; 4.2.5 networks and career counselling; 4.3.2 cooperation with enterprises; 5.2. evaluation by alumni and employers	Not stated
HAKA	Accreditation of continuing-education programmes (2017)	5.1 market research; 5.3 employer feedback in development; 5.4 outcomes linked to professional practice; 7.2 practitioners in teaching; 8.2 satisfaction of graduates and employers	Yes (employer representative)
EVALAG	Certification of continuing-education offers (2024)	1.3 professional requirements, labour-market demand, employability; 6.3 monitoring with graduates and employers	Yes (practice representative)
ACQUIN	Guideline for International Certification (2021)	No own standard; ESG 1.1, 1.2, 1.7–1.9 guidelines	Typically
	Guideline for the certification of continuing-education offers (2025)	Objectives: qualification objectives include qualified employment and reflect labour-market requirements; indirectly: programme-related cooperations, monitoring of study success	Yes (representative of professional practice, as a rule)
ECTE	Criteria and Procedures for Accreditation	Standards in a separate document; reports address stakeholder community and graduate profiles	Not stated
AHPGS	Handbook for the	Profile (one of ten criteria): the offer meets the needs of a defined target group, and its	Yes (representativ

Agency	Methodology	Labour-market standards and their focus	Practitioner on panel required
	accreditation of continuing-education offers (2025)	qualification objectives are highly relevant to the labour market. Indirectly: admission (practical qualifications); academic and content design; study success (monitoring with relevant stakeholders)	e of professional practice)

* Mandatory (asterisk) criterion.

Annex 3. Labour-market evidence and reference documents cited by providers

Type	Document or source	Provider type	ISCED Field of the micro-credential
Global and industry studies	World Economic Forum, *Future of Jobs Report* (2023)	Private higher education provider	Information and Communication Technologies
	State of AI Report (2024)		
	Burning Glass Technologies, job-posting data on analytics roles		
	LinkedIn Jobs Insights (2023)		
	IDC (2024), IoT spending forecast		
	Seeing is Believing report; market studies by PwC, Accenture and Meta on immersive-technology jobs		
	Job-posting analysis (openings in the past 12 months, openings without a degree or with 0–2 years' experience, starting salaries); *Learner Outcomes Report* (2023)	Online learning platform with corporate partners	Information and Communication Technologies, Business, administration and law
	Annual reports of IRENA, BloombergNEF and the IEA, used to keep content up to date	Private training provider	Business, administration and law; Engineering, manufacturing and construction
International evidence	OECD TALIS; UNESCO and OECD recommendations on management capacity in	National teacher-development centre	Education

Type	Document or source	Provider type	ISCED Field of the micro-credential
	education		
National studies and strategies	German national AI strategy (KI-Strategie Deutschland)	Private higher education provider	Information and Communication Technologies
	Bitkom surveys (2024) on AI and chatbot use and on the shortage of Python skills		
	Federal Employment Agency (BA), analysis of shortage occupations (*Engpassberufe*)		
	Stifterverband, analysis of data skills shortages in SMEs		
	Plattform Industrie 4.0; *Digital Jetzt* and GAIA-X programmes		
	Deutsche Bundesbank and BaFin work on blockchain governance		
	Energiewende and skilled-labour shortage	Private higher education provider; research university	Engineering, manufacturing and construction; Natural sciences, mathematics and statistics
	Kazakhstan's regulatory and legal framework for education	National teacher-development centre	Education
European and international policy	EU Green Deal, Corporate Sustainability Reporting Directive (CSRD), UN SDGs	Private higher education provider	Business, administration and law
Skills mapping and occupational frameworks	Frontex Sectoral Qualifications Framework for Border Guarding	Intergovernmental staff college	Services
	DIHK framework curricula (*Rahmenlehrpläne*)	Banking-sector academy	Business, administration and law
	Occupational profile of municipal climate-protection managers, developed with the Bundesverband Klimaschutz	University of applied sciences	Environment & Business, administration and law
	Job-task analyses of target roles	Online learning	Information

Type	Document or source	Provider type	ISCED Field of the micro-credential
		platform with corporate partners	and Communication Technologies
Regional and continental initiatives	digiS (Berlin) and XR Hub Bavaria; regional technology hubs	Private higher education provider	Information and Communication Technologies
	Task force to establish 250 clinical research centres across Africa	Public university	Health and welfare