

D3.6 – ECSA Implementation and Validation Plan

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1. Introduction

The main goal of Work Package 3 (WP3) is to establish the European Chips Skills Academy (ECSA). WP3 therefore covers the skills strategy as well as the ECSA institutional arrangements, operational features, educational aspects, and implementation and validation of the Academy.

This deliverable defines the implementation and validation framework for the European Chips Skills Academy (ECSA) respectively the European Chips Skills Alliance, further referred to as the Alliance. The document provides guidance and practical instruments for implementing the Alliance's operations and continuously validating its effectiveness. This includes test and evaluation mechanisms, feedback forms, key performance indicators (KPIs), and quality assurance procedures. The guidelines will be used by partners to involve users (teachers, learners, administrators) to gather feedback and inputs on the implementation of the Alliance and to monitor financial contributions and in-kind tracking.

This document is organised as follows: In section 2, we describe guidelines to implement the Alliance and launch its features and a continuous improvement cycle. Therefore, we apply the European Quality Assurance Reference Framework for Vocational Education and Training (EQAVET), that was established in 2009 and updated in 2020. In section 3, we present feedback and validation mechanisms for all major activities of the Alliance. In section 4, we describe financial implementation, tracking, and validation procedures. Finally, in section 5, we present conclusions and next steps.

This document is strongly linked with the project task "Operational aspects: legal statute, MoU, costing and financials for ECS-Academy" (project identifier T3.5) and the deliverables "ECSA Institutional Arrangements (Governance and Functioning)" (project identifier D3.3), "ECS-Academy Operational Features and Tools" (project identifier D3.4), and "ECS-Academy Educational and Pedagogical Aspects" (project identifier D3.5) of the project proposal.

Executive Summary

Purpose

This deliverable establishes the implementation and validation framework for the European Chips Skills Alliance and its integration with the European Chips Skills Academy (ECSA) and the European Chips Diversity Alliance (ECDA). The deliverable provides the operational foundation for how the Alliance will monitor, evaluate, and continuously improve its activities and performance during the project phase and beyond, ensuring sustainability and stakeholder satisfaction.

Key Results

- **Implementation Framework:** Establishes guidelines based on the EQAVET continuous improvement cycle (Plan-Do-Check-Act) adapted to the governance structure of the Alliance, including all stakeholders from industry, higher education, VET, research, and social partners.
- **Key Performance Indicators (KPIs):** Defines 14 quantifiable KPIs to monitor the success of the Alliance across membership growth, platform engagement, educational activities, job opportunities, and stakeholder participation.
- **Feedback and Validation Mechanisms:** Develops differentiated feedback forms and validation instruments for educational activities, networking events, dissemination activities, platform usability, and certification and micro-credentials, ensuring quality across all Alliance services.
- **Financial Tracking and Validation:** Implements procedures for tracking direct costs, in-kind contributions, activity and service mapping, and validation of member commitments to ensure financial sustainability and fair distribution of responsibilities.
- **Quality Assurance:** Establishes a comprehensive quality assurance plan aligned with EQAVET reference indicators, adapted to the Alliance context, to systematically assess and improve educational, networking, and operational activities.
- **Annual Review Cycle:** Operationalizes a recurring annual cycle of Planning (October-December), Implementation (January-April), Evaluation (May-July), and Review (August-September) to ensure continuous alignment with EU policies, industry needs, and member capabilities.

Next Steps

- Deploy feedback forms and validation mechanisms across all Alliance activities starting with the pilot implementation phase (February 2026 onwards).
- Establish baseline measurements for all KPIs at the launch of the Alliance to enable tracking of progress and impact.
- Implement financial tracking systems and in-kind contribution templates across all member organizations.
- Conduct the first evaluation and review cycle at the end of the first academic semester (July 2026) to identify improvements and refine procedures.
- Validate the implementation framework through stakeholder feedback and prepare refined operational procedures for the post-project sustainability phase of the Alliance.

2. Guidelines to Implement the Alliance

In this section, we describe the guidelines on how to implement the Alliance and launch its features and a continuous improvement cycle. Therefore, we apply the European Quality Assurance Reference Framework for Vocational Education and Training (EQAVET), that was established in 2009 and updated in 2020. EQAVET provides a flexible reference framework for quality assurance (QA) in vocational education and training (VET). We adapt this framework to the governance structure of the Alliance and include all stakeholders from industry, higher education, VET, research and social partners.

2.1 EQAVET Definitions

EQAVET is built on a continuous improvement cycle of four recurring phases, as shown in Table 1. This cycle is based on the Plan-Do-Check-Act cycle, that can be applied to business and management processes, but also to learning processes.

Phase	Focus	Key Activities
Planning	Goal-setting and stakeholder engagement	Define objectives linked to labour market needs; engage stakeholders; identify resources required
Implementation	Executing planned actions	Allocate resources; support staff development; deliver programs; ensure stakeholder involvement
Evaluation	Assessing outcomes and processes	Conduct self-assessment and external evaluation; collect data; measure against indicators
Review	Using findings for improvement	Analyse evaluation results; gather feedback; revise actions; communicate transparently

Table 1: EQAVET phases of improvement cycle.

EQAVET offers 10 reference indicators¹ to assess the quality of trainings:

- Indicator 1: Relevance of quality assurance systems for VET providers
- Indicator 2: Investment in training of teachers and trainers
- Indicator 3: Participation rate in VET programmes
- Indicator 4: Completion rate in VET programmes
- Indicator 5: Placement rate of graduates from VET programmes
- Indicator 6: Utilisation of acquired skills at the workplace
- Indicator 7: Unemployment rate in the country
- Indicator 8: Prevalence of vulnerable groups
- Indicator 9: Mechanisms to identify training needs in the labour market
- Indicator 10: Schemes used to promote better access to VET and provide guidance to (potential) VET learners

Along with the reference indicators, there are indicative descriptors per cycle phase on provider level associated to them². In the following we adapt the reference indicators and the associated indicative descriptors to the needs of the Alliance and its members and stakeholders.

¹ https://employment-social-affairs.ec.europa.eu/policies-and-activities/skills-and-qualifications/working-together/eqavet-european-quality-assurance-vocational-education-and-training/about-eqavet/eqavet-framework_en

² <https://ec.europa.eu/social/BlobServlet?docId=25471&langId=en>

2.2 Alliance Guidelines and Improvement Cycle

In the following, we describe the phases of the continuous improvement cycle from EQAVET. This cycle recurs every year and starts with the planning phase, that is kicked-off with the annual General Assembly, that is in temporal proximity to the publication of the results of the latest skills strategy. The skills strategy is defined in the deliverable “Skills Anticipation Methodology” (project identifier: D3.1). We show an overview in Figure 1.



Figure 1: Continuous improvement cycle.

2.2.1 Planning

In the planning phase, we align with relevant EU policies defined in the EU Chips Act, the Pact for Skills, and other current and upcoming relevant policies to match the goals of the Alliance with the goals of the EU. Furthermore, we align with well-established frameworks, such as ESCO, EQF or EQAVET. We define how educational and networking activities should be mapped to ESCO or EQF and how these are validated using EQAVET.

The skills strategy monitors the status of the labour market in the semiconductor industry on an annual basis. This is done through surveys or interviews with representatives of the semiconductor industry. The main focus is on identifying the most critical occupations, skills and competences, whereas critical means that an occupation or competence is in high demand and difficult to find. We use this information to derive recommendations for action and training, that are relevant to the stakeholders in the microelectronics industry. The skills strategy survey takes place yearly from April to August, and the results are consolidated until October and published in the Skills Strategy deliverable (project identifier: D3.2).

Within the planning phase, internal and external partners suggest new educational activities. These proposed educational activities need to be approved by the Educational Board based on the flow proposed in deliverable “ECS-Academy Pedagogic Model, Guidelines and Learning Outcomes” (project

identifier: D5.1).

Furthermore, we plan which new tools and features need to be implemented on the learning and networking platform and which resources are required for this.

Another aspect in the planning phase is the implementation of the QA plan, that is established in this deliverable. This defines the general conditions for a comprehensive QA analysis. This includes transparency and accessibility of data between the relevant stakeholders, but also data protection for learners and teachers, complying to the General Data Protection Regulation (GDPR).

The final point in the planning phase describes resource planning in order to achieve the set goals and implement the educational activities. This includes questions such as task and budget allocation, the platform used, but also collaborations and staff training. With regard to the budget and financial aspects, we distinguish between direct costs and in-kind contributions of partners.

2.2.2 Implementation

In the implementation phase, we develop educational and networking activities for learners. We do this in two ways. On the one hand, new activities are developed based on the planning phase and the critical occupations, knowledge, skills and competences derived from it. On the other hand, ideas for improvement are implemented and put into practice in existing activities.

When implementing educational activities, we define in detail the learning objectives and learning outcomes that learners must achieve. In addition, we define and implement applicable assessment methods to ensure validity and fairness of assessment whether the students have understood the teaching content and the learning objectives. Based on the type of certificate, the assessment can be either unsupervised and automated, or supervised and non-automated, as described in the certification section in deliverable “ECSA Educational and Pedagogical Aspects” (project identifier: D3.5).

Additionally, we define the methods and tools that we use for the education and networking activities. We use the digital tools developed in the ECSA project, such as the learning and networking platform and the SkillsHub. Additionally, we apply best practices that partners have suggested and that we have summarised in deliverable “ECSA Educational and Pedagogical Aspects” (project identifier: D3.5). Such best practices could be the use of virtual labs, challenge-based learning, simulations among others.

2.2.3 Evaluation

During the evaluation phase, we focus on gathering feedback from learners, alliance partners and external stakeholders. To this end, we develop surveys to evaluate all aspects of the Alliance: the courses, the platform, the networking activities, the certification and recognition, etc. We summarise these surveys in section 2.4.

Additionally, we consider the different working groups: The working group on education can evaluate the didactic quality of the content and provide suggestions for improvements. The working group on skills can validate, whether the developed activities fit the skills gaps derived from the skills strategy. The working group on diversity, equity and inclusion (DEI) can propose how to make the contents language more accessible and inclusive. The results are consolidated for the review phase.

The delivery of new educational activities needs to be approved by the Educational Board based on the flow in deliverable “ECS-Academy Pedagogic Model, Guidelines and Learning Outcomes” (project identifier: D5.1).

The Alliance Board and the Management Director consolidate the results of the monetary and in-kind contributions and prepare them for the subsequent review meeting. This meeting evaluates whether partners are fulfilling their commitments as envisaged in the planning phase and whether these estimates match the actual expenses. In addition, the ratio between cash and in-kind contributions is examined to see whether the minimum requirements for membership are met.

2.2.4 Review

During the review phase, the results of the evaluations are analysed and discussed. The management director presents the results at the general assembly meeting, which takes place once a year. The results are also presented to the advisory boards. The alliance board, general assembly and advisory roles can all contribute their suggestions. Finally, a decision is made as to which educational activities will be retained and continued in their current form, which need to be updated and which will be removed. The same applies to events and platform features.

Furthermore, in the review phase we examine the results and performance of the individual members. We consider how the planned activities match the reported activities, with regard to costs and in-kind contributions. Based on this, we update and adapt the cost card for the following year.

The results and agreements from the review phase are then worked out in detail in the planning phase and subsequently implemented.

2.2.5 Summary

	Planning (October-December)	Implementation (January-April)	Evaluation (May-July)	Review (Aug-Sep)	Responsible
Educational Activities	Align course objectives with EU policies (EU Chips Act, Pact for Skills) and with European, national and regional goals and objectives. Allocate resources and budget by working groups. Review of Skills Strategy findings from previous year.		Validate skills alignment together with Skills WG and Educational WG.	Recommend curriculum updates aligned with emerging skills needs. Decide which courses to continue, update, or discontinue.	Alliance Board and Management Director
	Prepare skills strategy survey.	Collect responses for skills strategy survey.	Identify critical occupations, skills and competences.	Analyse changes to critical skills and occupations.	Skills WG Skills Monitoring
	Approve proposed new courses by Educational Board. Define learning objectives and learning outcomes for new activities. Refine learning objectives and assessment methods.	Develop and deliver newly approved courses. Implement improvements to existing courses based on feedback from prior cycles. Develop and deploy assessment methods aligned with course type and certification level.	Collect feedback from learners via course feedback forms. Consolidate course completion and satisfaction metrics. Assess inclusion and accessibility by DEIB Working Group.	Analyse course evaluation and learner feedback. Analyse pedagogical quality by Education Working Group. Analyse inclusion and accessibility of courses Discuss pedagogical improvements in EDU WG.	Educational WG
Networking Activities	Identify target audiences and desired outreach impact. Allocate resources for community engagement initiatives.		Evaluate follow-up engagement intentions and relationship-building outcomes.	Analyse networking event outcomes and community impact. Discuss event effectiveness and follow-up results. Assess how networking activities support Alliance goals.	Alliance Board
	Propose new networking and community-building events. Plan events, workshops, webinars, and study visits.	Execute planned networking events and community-building activities (workshops, study visits, mentoring activities). Engage with learners, teachers, and industry professionals in facilitated exchanges. Document event attendance and participant feedback. Disseminate event outcomes to Alliance members.	Gather feedback from participants on event relevance, quality of interaction, networking outcomes, and overall satisfaction using dedicated feedback forms. Report networking effectiveness and community impact.	Recommend adjusted formats, frequency, or focus areas. Plan new initiatives based on stakeholder feedback.	Alliance Board and Management Director Skills WG Educational WG

	Planning (October-December)	Implementation (January-April)	Evaluation (May-July)	Review (Aug-Sep)	Responsible
Platform	<p>Plan roadmap for new platform features.</p> <p>Define usability improvements and integration enhancements e.g. with ESCO and EUROPASS.</p> <p>Prioritise features aligned with member feedback.</p>		<p>Analyse user engagement metrics and feature utilisation.</p> <p>Evaluate integration effectiveness with ESCO and Europass.</p>	<p>Analyse platform evaluation results (user satisfaction and usability findings, etc.)</p> <p>Identify priority of improvements.</p> <p>Discuss integration outcomes with ESCO and Europass.</p>	Alliance Board and Management Director
		<p>Deploy new platform features and user interface improvements.</p> <p>Integrate learning activities with EU frameworks.</p> <p>Provide access to courses and networking communities.</p> <p>Support onboarding for learners and members.</p> <p>Monitor platform usage and technical performance.</p>	<p>Collect platform feedback from learners, educators, and industry partners.</p> <p>Review technical performance.</p> <p>Assess usability, accessibility, and perceived added value.</p>		Platform Responsible
Alliance Governance	<p>Review annual strategy by General Assembly.</p> <p>Define strategic objectives and KPIs for the coming year.</p> <p>Set membership targets and governance meeting schedules.</p> <p>Align Alliance goals with EU policies and industry needs.</p> <p>Assess working group leads and responsibilities.</p>	<p>Coordinate Management Director with working group leads and teams.</p> <p>Process of membership applications.</p> <p>Track and approve resources and financials.</p> <p>Track KPIs.</p>	<p>Evaluate member contributions and commitment.</p> <p>Consolidate financial tracking and in-kind contribution data.</p> <p>Analyse the activity and the service mapping results.</p> <p>Assess KPI progress against targets.</p> <p>Prepare evaluation report for General Assembly.</p>	<p>Present evaluation results to General Assembly and Advisory Boards.</p> <p>Review KPI achievement and member performance.</p> <p>Analyse financial sustainability and cost structure.</p> <p>Discuss governance effectiveness and decision-making processes.</p> <p>Recommend adjustments to membership fees or structures.</p> <p>Confirm Alliance direction and approval of next year's planning priorities.</p>	

2.3 Key Performance Indicators (KPIs) to Monitor Success

We develop Key Performance Indicators (KPIs) to monitor and track how sustainable and successful ECSA and the Alliance are. In Table 4, we summarise the proposed KPIs. Each KPI consists of a short name, a specific, measurable, achievable, relevant and time-bound goal and a description to define the KPI. The KPIs are selected to engage various types of stakeholders and partners. Most of the KPIs can be supported by all types of stakeholders. A few others can be fulfilled best by industry partners e.g., networking and job offerings. Yet others can be fulfilled best by educational partners e.g., training courses. By introducing these KPIs we can track the success of ECSA after the project and give a guideline, to keep ECSA sustainable.

We define or adapt the KPIs in the planning phase based on the latest needs and requirements in the semiconductor value chain and based on the lessons learnt from the previous review phase. We then aim to achieve these KPIs throughout the full annual cycle. In the evaluation phase, we assess the KPIs and determine to what extent we achieved them etc. In the review phase, we analyse whether the goals were properly defined or were too easy or too difficult to achieve and identify the key factors that were responsible for achieving these goals.

KPI	Name	Goal	Description	Pr. KPI ³
1	New members in the network per year.	20	The number of organisations and/or individuals, that are registered as members of the Alliance or ECSA should rise each year.	4
2	Net promoter score (NPS) of the ECSA platform.	> 20	A metric derived from user surveys that measures the likelihood of users recommending ECSA to others, indicating overall satisfaction. See “ECSA Implementation and Validation Plan” (project identifier D3.6).	
3	Unique visits to the ECSA platforms per month.	1000	The count of distinct users accessing the Alliance online platforms each month, serving as a measure of platform visibility and user interest.	
4	(Networking) events organised per year	4	The annual total of events (such as workshops, webinars, fairs, or networking sessions) organized by ECSA to foster community and collaboration.	
5	Social media posts per year.	50	The number of posts published on ECSA’s official social media channels within a set timeframe, reflecting outreach and communication activities.	
6	Collaborative outputs.	2	The count of documents produced through ECSA collaboration, such as policy documents, frameworks, or reports etc.	
7	Skills survey responses.	100	The number of completed responses to surveys assessing skills needs, gaps, or satisfaction among stakeholders. This ensures, that the for the yearly update of the skills strategy is sufficiently large.	
8	Skills Strategy Reports per year.	1	The Skills Strategy report should be updated every year, based on the skills survey responses.	6
9	New/updated training courses per year.	10	The number of newly developed or updated educational courses available on the Alliance platform per year, to reflect content growth and relevance.	9
10	Active learners per year.	1000	The number of learners who have attended at least one training course in a year.	12
11	Job offerings.	100	The count of job postings or career opportunities listed on the ECSA platform, indicating the platform’s value for career development and industry engagement.	
12	Offered internships.	20	The number of internships that are offered by industry partners, to allow inexperienced learners to real-life experience.	
13	Users reporting positive career impact pear year.	100	The number or percentage of user who, after participating in ECSA activities, report beneficial career outcomes such as employment, promotion, or skill advancement, to track effectiveness of ECSA.	
14	Management board meetings per year.	4	The number of governance meetings held by the management board per year, reflecting the frequency of oversight and decision-making activities.	

Table 4: Key Performance Indicators (KPIs) to measure success of ECSA.

³ KPI number as defined in the project proposal.

2.4 Risk Mitigation Strategy

We implement a structured risk-mitigation strategy for not achieving KPI values can follow four steps: early detection, root-cause analysis, corrective actions, and adjustment of KPIs and processes in the next cycle.

2.4.1 Early Detection and Thresholds

For each KPI, we define a warning threshold to be at 50% of the target value and a critical threshold to be at 30% by the mid of the yearly cycle. This ensures, that we detect possible problems in not reaching certain KPIs early and that we can propose countermeasures.

2.4.2 Root-cause analysis procedure

When a KPI passes the warning threshold, we assign a KPI owner, e.g. Education WG for training KPIs, platform team for usage KPIs, Management Director for governance/financial KPIs. Within this procedure the KPI owner analyses the KPI performance in detail already before the evaluation phase checking data quality, external and internal factors (e.g. promotion, learner engagement, platform usability) using information from surveys and feedback forms.

2.4.3 Corrective actions by KPI type

For each KPI cluster, we define standard mitigation options that can be activated when underperforming.

- For engagement and growth KPIs (new members, active learners, platform visits, survey responses), we intensify communication campaigns, cross-promotion with partners, and targeted outreach to underrepresented groups. Further on, we could simplify onboarding and reduce barriers on the platform or for event/course sign-up.
- For educational KPIs (new/updated courses, active learners, positive career impact), we adjust course formats, expand online offerings, and reuse successful formats from the best practices described in deliverable “ECSA Educational and Pedagogical Aspects” (project identifier D3.5). Further on, we can target co-branded courses with strong industry partners to increase attractiveness and relevance.
- For networking and career KPIs (networking events, job postings, internships), we can bundle smaller activities into thematic campaigns, schedule more online events to reduce cost, and actively seek postings from industry members. Further on, we introduce incentives for partners (visibility on the platform, highlighted partner status) for providing internships or job offers.
- For governance and sustainability KPIs (board meetings, financial and in-kind targets, cost-sharing), we rebalance responsibilities and cost categories using the activity/service mapping, and discuss minimum contributions in the Board and General Assembly. If in-kind contributions are too low, we clarify reporting templates, provide examples, and recognise contributions more visibly.

Each mitigation action specifies the responsible body, the timeline (within the current cycle), and expected impact on the KPI.

2.4.4 Escalation and KPI Adjustment in Review phase

If, after corrective actions, KPI values still fall below the critical threshold by the review phase, we treat this as a strategic issue: the Management Director presents the situation and the attempted

mitigations to the Board and General Assembly, using evidence from evaluation and financial tracking.

We then collectively decide whether to:

- Keep the KPI but lower or phase the target (e.g. ramp-up over several years).
- Redefine the KPI (e.g. replace absolute numbers with ratios per active member, or focus on trends).
- Redirect resources (budget, staff time, partner tasks) to the underperforming area in the next planning phase.

We document all decisions and rationales so that in the next planning phase the KPI set and targets are updated based on the lessons learnt from the previous review phase.

3. Feedback and Validation Mechanisms

The validation of the ECS-Academy during the implementation phase follows a differentiated approach, reflecting the diversity of activities carried out within the Alliance. For some activities we reuse QA instruments, that we already developed within the project. For others we introduce validation mechanisms.

In this way we evaluate all important aspects of the Alliance, such as:

- Educational activities and courses,
- Networking, community building activities,
- Dissemination activities,
- the platform,
- the certification and micro-credentials process and recognition, and
- the Alliance self-evaluation.

We collect all responses anonymously and analyse them in an aggregated form only.

3.1 Educational Activities and Courses

For courses, trainings, summer schools, and other structured educational activities, we reuse the validated feedback forms developed in deliverable “Validation Plan to Test the ECS-Academy Content” (project identifier: D5.3).

The feedback forms cover:

- achievement of learning outcomes,
- pedagogical quality and workload,
- relevance for professional practice,
- learner satisfaction, and
- platform usability aspects (for online delivery).

Therefore, we do not introduce any additional course-specific feedback forms in this deliverable.

We implement the operational flow as follows:

- Course providers deploy the course feedback form from deliverable “Validation Plan to Test the ECS-Academy Content” (project identifier: D5.3) via the ECSA learning and networking platform or their learning management system (LMS) or massive open online course (MOOC) platform.
- Learners complete the form at the end of the activity.
- Results are consolidated and stored by the course provider and summarised annually.
- Aggregated feedback is reported to the Education Working Group and the Management Director as part of the Academy’s annual review.

3.2 Networking and Community Building Activities

Activities related to networking and community building are not covered by the pedagogical feedback instruments of D5.3. For activities, such as Networking events, workshops, study visits, ambassador meetings, career guidance events etc., we introduce a dedicated, lightweight feedback form.

The core validation aspects of the are:

- Relevance of the activity for the participant's role,
- Quality of interaction and networking opportunities,
- Clarity of objectives and organization,
- Intention for follow-up engagement,
- Overall satisfaction (Net Promoter Score, NPS).

We show the proposed feedback form to assess networking and community building activities in Appendix A – Feedback Form: Networking and Community Building Activities.

3.3 Dissemination Activities (for Organisers)

For dissemination actions (campaigns, videos, conference presence), we perform tracking and validation via a short activity report that is completed by the organising partner. This feedback form captures:

- the activity type and target group,
- quantitative reach indicators (participants, viewers, impressions, clicks),
- qualitative outcomes and lessons learned, and
- links to follow-up actions.

We show the proposed feedback form for dissemination activities for organisers in Appendix B – Feedback Form: Dissemination Activities (for Organisers).

3.4 Platform

To validate the usability, perceived value, and networking impact of the ECSA platform and its community features, we develop a separate feedback form.

The form focuses on key content blocks:

- Stakeholder profile (student, industry, HEI, VET, other)
- Usage context (learning, networking, skills intelligence)
- Usability and accessibility (Likert scale)
- Perceived added value (networking, information, opportunities)
- Outcome indicators (e.g. new contacts established, follow-up planned)
- Open qualitative feedback

We update the feedback form once per year or after significant platform interactions. We distribute the form on the learning and networking platform and on the Skills Hub. In the review phase we centrally consolidate and analyse the inputs of all stakeholders and derive targets and goals for the next planning phase.

We show the feedback form for the platform in Appendix C – Feedback Form: Platform.

3.5 Certification and Micro-Credentials

We also develop a feedback form to validate the certification and micro-credential issuing process and the recognition of micro-credentials.

In this form we focus on:

- the clarity of requirements,
- transparency of assessment,

- recognition of certificates,
- perceived usefulness of certificates/badges, and
- ease of storage and sharing (e.g. Europass).

We deploy this form after issuing a certificate. It complements, but does not replace the course feedback form. The management director consolidates the results and discusses them in the Alliance Board and in the educational working group. The outcomes are then used to suggest adjustments to the certification procedures, alignments with EUROPASS tools and employer recognition strategies.

We show the feedback form for certification and micro-credential processes in Appendix D – Feedback Form: Certification and Micro-Credentials.

3.6 Alliance Self-Evaluation

The self-evaluations questionnaire is intended for all Alliance members to internally evaluate the functioning, governance, and added value of the Alliance. It supports continuous improvement and informs strategic adjustments of the Alliance structure and services. The target groups are all Alliance partners and active stakeholders, including:

- Alliance members (General Assembly),
- Working Groups and Alliance Board members,
- all advisory roles (e.g. Educational Board, Pact for Skills for Microelectronics Executive Board etc.)

This feedback form evaluates the following aspects of the Alliance:

- Governance,
- Collaboration and Engagement,
- Added Value, and
- Sustainability and Future Orientation.

We show the template of the feedback form in Appendix E – Feedback Form: Alliance Self-Evaluation.

4. Financial Implementation and Validation

The financial validation in this deliverable does not aim to produce a final budget or enforce membership fees. Instead, it validates whether the financial and in-kind contribution models defined in deliverable “ECSA Institutional Arrangements (Governance and Functioning)” (project identifier: D3.3) and operationalised in deliverable “ECSA Operational Features and Tools” (project identifier: D3.4) are workable in practice, and whether they provide a sound basis for post-project sustainability.

During the funded project phase, core operational costs are covered by project resources. We use the project phase to observe, measure, and estimate real operational effort and costs, combining monetary expenditures and in-kind contributions. It is therefore necessary to develop a simple yet effective **financial tracking model**.

We base the model on three main aspects:

- Financial tracking,
- In-kind contribution tracking, and
- Activity/Service Mapping.

The tracking is organised and maintained by the Management Director, whereas the entries are provided by the respective partner or contributors. Within the Alliance, we define the following cost categories, based on the value propositions from section 3.1.1 in deliverable “ECSA Institutional Arrangements (Governance and Functioning)” (project identifier: D3.3) and an additional governance/coordination and a platform service category:

- Networking/Community Building,
- Education/Training,
- Skills Intelligence,
- Career Guidance/Job Opportunities,
- Competence Synchronisation/Micro-Credentials
- Auditing Services
- Governance/Coordination
- Platform Service

If necessary, these categories can be further divided into subcategories. The categories will be used in the evaluation and review phase to obtain a comprehensive overview of costs, with regard to total costs (monetary, in-kind), as well as the ratio between monetary and in-kind.

4.1 Financial Tracking

The financial tracking records all actual monetary expenditures related to the operation of the Alliance. This includes, among others:

- external services and subcontracting,
- events and workshops,
- tools, platforms, and infrastructure,
- administrative and coordination costs.

These monetary contributions can come either from Alliance members via membership fees, additional monetary contributions or from external partners in the form sponsorships, advertisement fees for courses, internships etc.

We show the template of a single financial tracking entry in Table 2. Each financial tracking entry consists of the following items:

- the date,
- the cost category,
- a description,
- the provider of the financial contribution,
- the amount of financial contribution, and
- the funding source.

Date	Cost Category	Description	Provider	Amount (€)	Funding Source
YYYY-MM-DD	Networking/ Training/etc.	Short description	Partner/Member/ Company/etc.	1.200,00	Project/ Sponsor

Table 2: Template of a financial tracking entry.

This financial tracking should give transparency on cash-based costs and serves as a baseline for future cost estimations.

4.2 In-Kind Tracking

The in-kind tracking consolidates all non-monetary contributions provided by Alliance members or other associated partners. In-kind contributions are reported via the in-kind contribution reporting template defined in deliverable “ECSA Operational Features and Tools” (project identifier: D3.4). The management director approves the in-kind report and approves the in-kind tracking entry as shown in Table 3.

Each in-kind tracking entry consists of the following items:

- the date,
- the cost category,
- a description,
- the provider of the in-kind contribution,
- the time invested,
- the monetary equivalent of the in-kind contribution, and
- the in-kind credit value claimed.

Date	Cost Category	Description	Provider	Time Invested	Monetary Equivalent	In-Kind Credit Value Claimed
YYYY-MM-DD	Networking/ Training/etc.	Short description	Partner/Member/ Company/etc.	16 h	1.280 €	16

Table 3: Template of an in-kind tracking data entry.

This in-kind tracking documents all in-kind contributions and therefore helps to estimate costs of future contributions and supports resource planning for the next Alliance cycle. The monetary equivalent estimation is indicative only and used solely for cost estimation and validation. It does not imply reimbursement or any contractual remuneration.

Based on the aggregated data, we could create a reference rate card to serve as a consistent and transparent basis for valuing in-kind contributions. The monetary equivalent indicative rates would then depend on the cost category and the staff role (administrative, expert, etc.).

4.3 Activity/Service Mapping

The activity and service mapping links monetary and in-kind contribution entries to the cost categories of the Alliance. It therefore enables a structured validation of operational effort and cost distribution.

Within the activity and service mapping, we put the monetary contributions and the in-kind contributions in relation to each other. Therefore, we sum all monetary contributions per cost category and the monetary equivalent of all in-kind contributions per cost category. We show an exemplary activity/service mapping in Table 4.

Cost Category	Financial Contribution (€)	In-Kind Contribution (€)	Total Effort (€)	Share of In-Kind Contributions (%)
Networking/Community Building	5.000,00	18.000,00	23.000,00	78%
Education/Training	12.000,00	6.000,00	18.000,00	33%
Skills Intelligence	4.000,00	7.000,00	11.000,00	64%
...
Platform Service	7.000,00	3.000,00	10.000,00	30%
Total	28.000,00	34.000,00	62.000,00	55%

Table 4: Exemplary activity/service mapping data entry.

This overview table allows the management director to estimate the total operational efforts, it provides a comparison between monetary and in-kind based contributions, and it allows to analyse the contributions across partners and partner types.

4.4 Validation

The aim of the review phase is to validate the sustainability of ECSA's governance and organisational structure. An important aspect of this is the financial part. In this final phase of the validation cycle, the contributions of the partners are consolidated, validated and compared with the expectations from the planning phase and the feedback from the evaluation phase. To this end, the management director carries out random checks to assess how well and sensibly the financial and in-kind resources have been used based on the activity/service mapping and on the reported contributions.

Overall, we use the results from the review phase for the next planning phase. This helps in resource allocation, distribution of responsibilities, organisation of event, definition of learning tracks and trainings, etc.

4.5 Data Set Template

We provide an Excel file, as a template for all entries as Appendix F. This excel file will be used as a data set to track the financial and in-kind contributions, the share of in-kind contribution per cost category related to the total effort and the in-kind credit tracking for each partner with regard to the full membership. We will provide the updated data set on a yearly basis.

5. Conclusions and Next Steps

This deliverable establishes a comprehensive implementation and validation framework for the European Chips Skills Alliance. Based on the EQAVET quality assurance approach adapted to the Alliance context, the document provides clear guidelines and practical tools for monitoring, evaluating, and continuously improving the Alliance's activities and performance.

The framework encompasses three key components. First, it establishes a continuous improvement cycle for implementing the Alliance, guided by the Plan-Do-Check-Act methodology, that aligns with EU policies (EU Chips Act, Pact for Skills), incorporates stakeholder feedback, and ensures responsiveness to evolving industry needs. This cycle recurs annually and involves all stakeholders: members, working groups, advisory boards, and the Management Director.

Second, the deliverable defines differentiated feedback and validation mechanisms tailored to the diverse activities of the Alliance. These mechanisms ensure quality across educational activities (online courses, summer schools, internships), networking and community building events, dissemination activities, platform services, and certification and micro-credentialing processes. By engaging learners, teachers, administrators, and industry professionals in systematic feedback collection, the Alliance can continuously enhance its value propositions and stakeholder satisfaction.

Third, the document establishes financial implementation and tracking procedures, including direct cost monitoring, in-kind contribution valuation, and activity and service mapping. These procedures ensure transparency, fairness, and financial sustainability of the Alliance by clearly documenting member contributions and demonstrating the value delivered.

The Key Performance Indicators (KPIs) defined in this deliverable provide quantifiable targets across fourteen critical success factors, ranging from membership growth and platform engagement to educational delivery, job offerings, and career outcomes. These KPIs serve as management tools during the implementation phase and as sustainability metrics for the post-project Alliance.

This deliverable, in conjunction with deliverable "ECSA Institutional Arrangements (Governance and Functioning)" (project identifier D3.3) and "ECS-Academy Operational Features and Tools" (project identifier D3.4), fulfils the milestone "ECS-Academy Governance and Functioning" (project identifier MS8). Together with deliverables D3.3, D3.4, and D3.5, this deliverable also contributes to the KPI "ECS-Academy established with operational configuration of teaching, learning, professorships, WBL, mobility, etc." (project identifier KPI 8).

Next Steps and Future Work

The implementation of the validation framework is scheduled to commence at the launch of the ECS-Academy in February 2026 (M29). The following concrete next steps are envisioned:

Immediate Implementation (M29-M30, February-March 2026)

- Deploy all feedback forms and data collection tools across the Alliance platforms and partner systems.
- Train working group leaders, coordinators, and partner representatives on the use of feedback forms and validation procedures.
- Establish baseline data for all KPIs at the launch of the Alliance.
- Implement the financial tracking systems and in-kind contribution templates across all member organizations.

Pilot Validation Phase (M30-M34, March-July 2026)

- Conduct the first full evaluation cycle based on feedback collected from educational activities, networking events, dissemination initiatives, and platform usage during the initial pilot semester.
- Collect and analyse feedback from learners, teachers, industry representatives, and administrators to assess the quality of activities and satisfaction with the Alliance.
- Monitor KPI progress and identify any significant deviations from targets.
- Review and consolidate financial contributions and in-kind tracking data.

First Review and Refinement (M35-M36, August-September 2026)

- Present evaluation results to the General Assembly and Advisory Boards for strategic review and decision-making.
- Identify improvements and adjustments needed based on pilot feedback and evaluation findings.
- Refine operational procedures, feedback mechanisms, and KPI targets based on actual experience.
- Prepare recommendations for the next planning cycle and communicate decisions to all members.

Transition and Sustainability Planning (M37-M42, October 2026 onwards)

- Continue the annual cycle of planning, implementation, evaluation, and review in subsequent academic years.
- Adapt the validation framework based on lessons learned and evolving priorities of the Alliance.
- Prepare financial sustainability planning for the post-project phase, including membership fee calibration and alternative revenue stream development.
- Validate the long-term viability of the Alliance governance model through stakeholder commitment surveys and membership renewal processes.
- Document best practices and lessons learned for dissemination to the European microelectronics education and skills ecosystem.

The validation and implementation framework defined in this deliverable provides the Alliance with a systematic, evidence-based approach to achieve its mission of connecting educational institutions, industry, research, and policy makers to address skills and talent gaps in the European microelectronics sector. By embedding continuous improvement, stakeholder engagement, and transparent performance monitoring into the Alliance's operations from its launch, the foundation is established for a sustainable, credible, and impactful institution that serves the diverse needs of the microelectronics ecosystem across Europe.

Appendix A – Feedback Form: Networking and Community Building Activities

The following feedback form is intended to evaluate the networking and community building activities within the Alliance. Mandatory fields are marked with an asterisk (*).

General Information

1. Networking Activity/Event Title*:

<free text>

2. Date:

<free text>

Respondent Profile

3. Stakeholder type (select one)?* (single choice)

- Student / Learner
- Industry representative
- VET provider
- Higher education institute
- Research institute
- Other: <free text>

4. Which country are you based in?*

<free text>

5. How did you hear about this event?

- Newsletter
- LinkedIn
- Colleague
- Other: <free text>

Relevance and Quality

		Very Relevant	Relevant	Neutral	Irrelevant	Very Irrelevant
6.	Relevance of the event for my role or interests	<input type="radio"/>				
		Very High	High	Neutral	Low	Very Low
7.	Quality of content and speakers	<input type="radio"/>				
8.	Quality of Interaction and networking opportunities	<input type="radio"/>				

Outcomes and Follow-Up

9. Did the event support networking for follow-up actions?

- Yes, new contacts established
- Yes, follow-up planned
- No immediate outcome
- Not applicable

10. Overall Satisfaction

0	1	2	3	4	5	6	7	8	9	10
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Not at all satisfied

Extremely satisfied

Open Feedback

11. What was the most valuable aspect of the event?

<free text>

12. Which future events would you be interested?

<free text>

13. Suggestions for improvement.

<free text>

Appendix B – Feedback Form: Dissemination Activities (for Organisers)

The following feedback form is intended for organisers to evaluate and document dissemination activities of the Alliance. Mandatory fields are marked with an asterisk (*).

Activity Overview

1. Partner organisation:*

<free text>

2. Activity title:*

<free text>

3. Activity type*:

- Conference participation
- Online campaign
- Video / media content
- Outreach workshop
- Other: <free text>

4. Date(s)*: <free text>

5. Target audience: <free text>

Quantitative Indicators and Outreach

6. Number of participants / attendees*: <free text>

7. Online reach (views / impressions)*: <free text>

8. Clicks / registrations generated: <free text>

Qualitative Outcomes

9. Key messages communicated:

<free text>

10. Observed impact or feedback

<free text>

11. Follow-up actions planned (e.g. contacts, registrations, collaborations):

<free text>

Resource Estimation

12. Estimated effort (hours): <free text>

13. Staff profile involved (optional): <free text>

Further Material

Link(s) to evidence/materials:

<free text>

Appendix C – Feedback Form: Platform

The following feedback form is used to evaluate the learning and networking platform within the Alliance. The feedback form is designed for different types of stakeholders.

Respondent Profile

1. Stakeholder type (select one)?* (single choice)

- Student / Learner
- Industry representative
- VET provider
- Higher education institute
- Research institute
- Other: <free text>

2. Which country are you based in?*

<free text>

Platform Features

3. Which features of the platform did you use? (multiple selection)

- Learning / courses
- Networking / community
- Skills information / career orientation
- Mentoring / matchmaking
- Other: <free text>

4. Which feature of the platform did you primarily use? (single choice)

- Learning / courses
- Networking / community
- Skills information / career orientation
- Mentoring / matchmaking
- Other: <free text>

Usability Access

		Very Easy	Easy	Neutral	Difficult	Very Difficult
5.	Ease of access and login	<input type="radio"/>				
6.	Ease of navigation	<input type="radio"/>				
7.	Ease of finding relevant information	<input type="radio"/>				

8. Please share your thoughts if you selected "Difficult" or "Very difficult" at any of the above points.

<free text>

Perceived Value and Outcomes

		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
9.	The platform provides added value for my professional or educational needs.	○	○	○	○	○

10. Did you achieve at least one of the following through the platform?

- Established new professional contacts
- Identified learning or training opportunities
- Found relevant skills or career information
- Initiated or planned follow-up collaboration
- None of the above (yet)

		Very Likely	Likely	Neutral	Unlikely	Very Unlikely
11.	How likely is it that, you will continue to use the platform?	○	○	○	○	○

12. Please share your thoughts if you selected “Disagree”, “Strongly Disagree”, “Unlikely” or “Very Unlikely” to any of the above questions.

<free text>

Qualitative Feedback

13. What worked particularly well?

<free text>

14. What should be improved or added?

<free text>

Appendix D – Feedback Form: Certification and Micro-Credentials

The following feedback form is used to evaluate the certification and micro-credential aspect within the Alliance, from the process, to recognition and perceived value including trust aspects among stakeholders.

Respondent Profile

1. Your role:*

- University Student / Learner
- VET Student
- Other: <free text>

2. Country of affiliation:

<free text>

3. Type of credential received (select one):

- Certificate of attendance
- Digital badge
- Full certificate/Micro-credential
- Other: <free text>

4. Context in which the credential was issued:

- Online course
- Blended course
- Face-to-face course
- Event/Summer school
- Other: <free text>

Transparency and Process

		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
5.	The requirements for obtaining the certificate or micro-credential were clearly communicated.	○	○	○	○	○
6.	The assessment or completion criteria were fair and transparent.	○	○	○	○	○
7.	The process of receiving the certificate or micro-credential was timely and well organised.	○	○	○	○	○

Usability and Recognition

		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
8.	The certificate or micro-credential is easy to store, access, and share (e.g. PDF, digital wallet, Europass).	<input type="radio"/>				
9.	I consider this certificate or micro-credential useful for my professional or educational profile.	<input type="radio"/>				
10.	I am likely to reference or share this credential (e.g. CV, LinkedIn, Europass).	<input type="radio"/>				
11.	The micro-credential is recognised by other stakeholders.	<input type="radio"/>				

Perceived Value and Trust

		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
12.	The credential reflects a meaningful learning achievement.	<input type="radio"/>				
13.	I trust the ECS-Academy as a credible issuer of certificates and micro-credentials	<input type="radio"/>				
14.	Other stakeholders (e.g. my employer) trust the ECS-Academy as a credible issuer of certificates and micro-credentials	<input type="radio"/>				

15. What worked well in the certification or micro-credential process?

<free text>

16. What should be improved (e.g. clarity, format, recognition, tooling)?

<free text>

17. Any additional comments or suggestions regarding the ECSA certification?

<free text>

Appendix E – Feedback Form: Alliance Self-Evaluation

The following feedback form template will be used to self-evaluate the Alliance including governance, its functioning etc.

Respondent Context

1. Your organisation type:*

<input type="checkbox"/> Industry (large enterprise)	<input type="checkbox"/> Research organization
<input type="checkbox"/> Industry (SME)	<input type="checkbox"/> Cluster/Association
<input type="checkbox"/> Higher Education Institution	<input type="checkbox"/> Other: <free text>
<input type="checkbox"/> VET provider	

2. Your role within the Alliance (select one):

<input type="checkbox"/> Management Board
<input type="checkbox"/> Working Group member
<input type="checkbox"/> Active partner (not in governance bodies)
<input type="checkbox"/> Observer / associated stakeholder

3. Duration of involvement in the Alliance:

<input type="checkbox"/> less than 6 months
<input type="checkbox"/> 6 to 12 months
<input type="checkbox"/> more than 1 year

Governance

		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
4.	The governance structure of the Alliance (roles, bodies, responsibilities) is clear to me.	○	○	○	○	○
5.	Decision-making processes within the Alliance are transparent.	○	○	○	○	○
6.	The balance between efficiency and inclusiveness in decision-making is appropriate.	○	○	○	○	○
7.	My organisation feels adequately represented in the Alliance governance.	○	○	○	○	○
8.	The Alliance actively promotes Diversity, Equity, and Inclusion (DEI) in its activities and decision-making.	○	○	○	○	○

Collaboration and Engagement

		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
9.	The Alliance provides meaningful opportunities for collaboration across partners.	○	○	○	○	○
10.	Communication within the Alliance (meetings, updates, coordination) is effective.	○	○	○	○	○
11.	The workload and engagement expectations for partners are reasonable.	○	○	○	○	○
12.	I understand how my organisation can actively contribute to the Alliance	○	○	○	○	○

Added Value

		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
12.	Participation in the Alliance provides added value for my organization.	<input type="radio"/>				
13.	The Alliance effectively connects education, research, and industry.	<input type="radio"/>				
14.	The Alliance supports addressing current and future skills needs in microelectronics.	<input type="radio"/>				
15.	Overall, the Alliance contributes positively to the European microelectronics ecosystem.	<input type="radio"/>				

Sustainability and Future Orientation

		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
16.	The long-term model of the Alliance is realistic and sustainable.	<input type="radio"/>				
17.	The balance between financial contributions and in-kind contributions is appropriate.	<input type="radio"/>				

18. My organization is willing to continue engaging in the Alliance:

Yes

No

Depends (please explain): <free text>

19. The Alliance should focus on the following future topics:

<free text>

Overall Assessment

		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
20.	I would recommend participation in the Alliance to other organisations.	<input type="radio"/>				

21. Overall satisfaction with the Alliance

0	1	2	3	4	5	6	7	8	9	10
---	---	---	---	---	---	---	---	---	---	----

Open Feedback

22. What aspects of the Alliance work particularly well?

<free text>

23. What aspects should be improved (governance, communication, services, engagement)?

<free text>

24. Any additional comments or suggestions for the future development of the Alliance?

<free text>