CATALYST Centre

CATALYST
Leading Sustainable Systems and Business Transformation

Funded by the European Union

DELIVERABLE D6.2 — Effectiveness Evaluation Report

April, 2026

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DELIVERABLE D6.2 — Effectiveness Evaluation Report

Contents

EXECUTIVE SUMMARY

A working European Centre of Vocational Excellence for sustainability and business transformation

CATALYST in one paragraph

CATALYST is a European Centre of Vocational Excellence (CoVE) for sustainable business transformation. It operates as a network of 16 partners across 5 core countries — Austria, Germany, Greece, North Macedonia and Portugal — plus 40 associated partners in 11+ additional European countries. The Centre delivers through four interlocking instruments: a free, openly accessible 70-course catalogue (Enable); 12 Business Pilot Projects with host SMEs, a CATALYST Network of 15 events, and the underlying Resources & Services (Inspire); and three Specialisation Programmes plus two Hackathons that bridge the two pillars. Funded by Erasmus+ under the CoVEs Partnership for Excellence (Ref. 101056114), CATALYST is featured in the January 2026 European Commission report "Advancing European Centres of Vocational Excellence (CoVE): An Analysis of Erasmus+ Projects", alongside other Erasmus+ CoVE projects used to illustrate strong results, impact and sustainability potential.

At a Glance

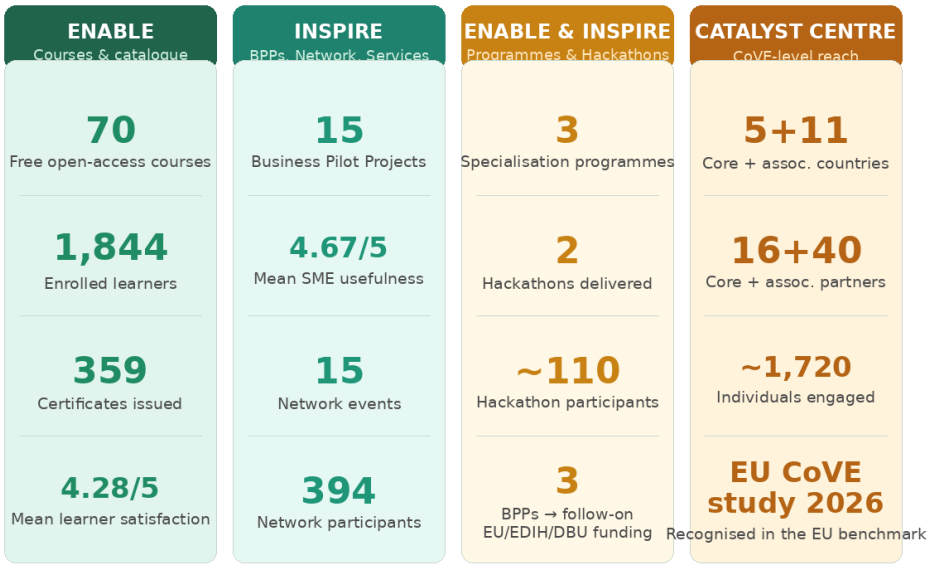

Figure ES.1 — Headline results of the CATALYST CoVE across its four delivery instruments.

Headline Results

The CATALYST Centre produced consistent, evidenced outputs across all four delivery instruments during the piloting phase. The table below consolidates the principal indicators.

Indicator	Value	Source
Free, openly accessible courses delivered	70	Enable chapter
Total enrolled learners	1,844	Enable chapter
Certificates issued	359	Enable chapter
Mean overall learner satisfaction (Q1, 1–5)	4.28	Enable chapter (n=282)
"Would recommend" Top-2-Box	82.7%	Enable chapter
Business Pilot Projects delivered	15	Inspire chapter
Mean SME usefulness rating	4.67 / 5	Inspire chapter
CATALYST Network events delivered	15	Inspire chapter
CATALYST Network participants	394	Inspire chapter
Specialisation Programmes piloted	3	Enable & Inspire chapter
Hackathons delivered	2	Enable & Inspire chapter
Hackathon 1 overall rating (4 or 5 / 5)	91%	Youth Ideas, n=69

The Four Chapters in Brief

Enable — the 70-course catalogue

The Enable pillar delivered 70 free, openly accessible courses across 8 thematic categories: Business Transformation, Circular Economy, Intellectual Capital Management, Resilient Transition, Sustainable Business Management, Sustainable Development, and Transformation Readiness (Personal and Organisational). 1,844 learners enrolled; 359 certificates were issued; 282 end-of-course responses were analysed against the standardised 10-question feedback instrument. Mean overall satisfaction is 4.28 / 5; every one of the eight categories sits at or above the 4.0 benchmark on Q1. The strongest signals come from Transformation Readiness within the Organisation (4.71 / 5) and Resilient Transition (4.46 / 5); the highest enrolment volume is in Circular Economy (393 registrations) and the highest absolute completion volume in Intellectual Capital Management (89 certificates, 42% completion rate).

Inspire — BPPs, Resources & Services, CATALYST Network

The Inspire pillar mobilised learners and SMEs into applied work through 15 Business Pilot Projects in 5 countries. Tangible deliverables — risk-management frameworks (CENTIMFE and ISCTE / Portugal), circular KPI frameworks and procurement checklists (AUEB / Greece), an implementation roadmap (CSCP

— Krefeld / Germany), agile-onboarding and circular-loyalty prototypes (BEST / Austria), a business-model transformation (Apflbutzn / FHJ — Grazer Eco Festival), a circular-construction methodology (CEIM — Factory Karposh / North Macedonia) — were adopted or planned for adoption by host SMEs.

The CATALYST Network delivered 15 events across Webinars, Ask-an-Expert, Mastermind and Member Spotlight formats, with 394 participants and external expert speakers from seven countries.

The Resources & Services workstream produced reusable frameworks, methodology documents and toolkits that partners are now embedding into their own training catalogues.

Enable & Inspire — Specialisation Programmes and Hackathons

Three Specialisation Programmes were piloted: Mastering Circular Production; Green Start-Up Manager and Personal and Organisational Growth. Each pairs a curated course pathway with a live-cohort layer and at least one business pilot project.

Two hackathons were delivered: the GREEN Idea hackathon (SBCH, North Macedonia, April–November 2025) for adult professionals, which converted directly into three Business Pilot Projects and produced three follow-on funding instruments (EDIH INNOFEIT CarbLog Bin prototype; Erasmus+ tool application for the ESG Dashboard; DBU-funded Vertical Green Garden pilot); and Youth Ideas for Sustainable Buildings (full partners IECE and CEIM + associate partner Faculty of Civil Engineering Skopje, February 2026) for secondary-school students, which mobilised 17 teams and produced 17 concept designs. The Youth Ideas evaluation (n=69) returned 91% overall satisfaction at 4 or 5 out of 5, 77% recommendation rate, and 70% reporting they are considering studies or careers in the field after the event.

The CATALYST Centre — CoVE-level results and effects

Considered as a whole, the Centre reached an estimated 1,720 individuals and 16 host organisations across five core countries plus the wider associated-partner network. Effects are evidenced at three levels:

- individual (improved knowledge and confidence; career-orientation signals among young people; inclusion of audiences who would not otherwise have engaged with sustainability content);
- organisational (BPP deliverables adopted or planned for adoption by host SMEs; partners reporting strengthened roles as sustainability training and stakeholder hubs); and
- ecosystem (a working knowledge-triangle structure operationalised through the BPP methodology; demonstrable alignment with regional smart-specialisation themes in Greece, Germany, Nort Macedonia and Portugal; a network amplification through the IECE-operated Western Balkans Circular Economy Hub reaching audiences across the six Western Balkan countries).

Inclusion in the January 2026 European Commission CoVE analysis positions CATALYST within the EU benchmark conversation on CoVE excellence.

What Worked Best

Five drivers recurred across all four delivery instruments as the strongest contributors to results.

- **Real applied work on real SME challenges.** Every BPP that produced a tangible deliverable received an SME-usefulness rating of 4 or 5 out of 5. Authentic applied work is the single most important driver of impact.
- **Co-creation methodology - Collaborative-Innovative (CO-IN)© Model.** The multi-stakeholder iterative-design model with continuous SME co-creation and validation worked across BPPs and is transferable to peer CoVE projects.
- **Blended self-paced + live delivery.** For example, BELLS's six-week live-video design and AUEB's self-paced + final-pitch combination both outperformed pure self-paced delivery on engagement and applicability.
- **Hackathon → BPP → funding pipeline.** The SBCH GREEN Idea hackathon converted into three BPPs and three follow-on funding instruments — the clearest demonstration of post-pilot momentum in the Centre's portfolio.
- **Stakeholder-anchored activation.** Pairing course promotion with sector-specific events and named stakeholder networks outperformed broad-funnel digital promotion across multiple country teams (CEIM, CSCP, AUEB, IECE).

What Worked Less Well

Four barriers recurred. None is structural; all are addressable in a future phase.

- **English-only delivery.** Limits reach into national SME audiences in Portugal, Germany, North Macedonia, Greece and Spain. Most frequently flagged improvement across the consortium.
- **Course workload on Advanced courses.** A 32-hour Advanced course was perceived as too heavy for SME audiences; workload is the strongest driver of drop-off between registration and certification (19.5% completion rate).
- **Platform UX friction.** Individually small frictions — quiz visibility, certificate generation, live-call registration — compound across the four-instrument architecture.
- **Top-of-funnel → enrolment conversion.** Broad social-media campaigns produced visibility without traceable enrolment outcomes; the bottleneck is the absence of trackable registration pages and structured follow-up between awareness and registration.

Headline Recommendations

Centre-level recommendations consolidated from the four chapters. Recurrence ratings reflect how many partners independently flagged each item.

Recommendation	Recurrence	Owner level
Maintain the four-instrument architecture (courses + BPPs + Network + Programmes/Hackathons) as the Centre's default operating model.	Very high	Centre
Make the Specialisation Programme ↔ BPP pairing the default architecture for the post-pilot phase.	Very high	Centre
Invest in localisation of materials into national languages (PT, DE, MK, EL, ES).	Very high	Centre
Reduce workload — move towards micro-learning / shorter modules; cap units at ≤8 hours.	Very high	Enable
Increase interactivity — more videos, live sessions, peer / trainer engagement, mastermind formats.	Very high	Enable
Replicate and scale the hackathon-to-BPP-to-funding pipeline as a top-of-funnel conversion route.	Very high	Inspire
Consolidate the platform UX across instruments (single sign-on, unified registration, consistent navigation).	High	Centre
Anchor every promotion action to a trackable registration page; standardise the metrics set.	High	Inspire
Continue and deepen peer-CoVE engagement (EfVET, CoP CoVE) using the EU CoVE study as anchoring evidence.	High	Centre

Voices from the CATALYST Community

A representative selection of testimonials from the wider evidence base. Each illustrates one of the recurring patterns documented in the four chapters.

> *"The framework helped us clearly identify and prioritise risks that we were previously managing informally. It provides a structure we can realistically apply in our daily operations."*
>
> **— SME representative — SMART-SUB RISK, Portugal**

> *"I never thought about buildings in this way before. Now I'm seriously thinking about studying civil engineering or architecture."*
>
> **— Student participant — Hackathon "Youth Ideas for Sustainable Buildings", North Macedonia**

> *"It has been like being in a real work world, not like learning in theory."*
>
> **— Participant — Circular Loyalty Programme (Michele's, Austria)**

> *"The most significant positive outcome was the strengthening of AUEB / AE4RIA's role as a hub for sustainability-focused vocational education and stakeholder engagement."*
>
> **— P13 AUEB — partner final reflection**

Closing Statement

The CATALYST Centre has done what the EU CoVE framework asks of a Centre of Vocational Excellence. It has built and operated a coherent four-instrument architecture; it has reached approximately 1,720 individuals and 16 host organisations across five core countries and 11+ associated-partner countries; it has produced evidence on every key indicator at or above the benchmark; and it has demonstrated convertibility of its outputs into downstream funding instruments. Independent EU recognition positions the Centre within the European benchmark conversation rather than outside it. The foundation is now documented; the question that follows — carried forward by the consortium and treated in the dedicated sustainability plan — is institutional, not technical.

Chapter — THE CATALYST CENTRE

Achievements, results and effects of the CATALYST Centre of Vocational Excellence

1. The CATALYST Centre at a Glance

The CATALYST Centre is the institutional realisation of the project's ambition: a European Centre of Vocational Excellence (CoVE) that operates as a hub for sustainable business transformation across five core countries — Austria, Germany, Greece, North Macedonia and Portugal — with a wider network of 40 associated partners spanning at least 11 additional European countries. Established under the Erasmus+ CoVEs Partnership for Excellence (Ref. 101056114, ERASMUS-EDU-2021-PEX-COVE), the Centre delivers on its mandate through the four instruments documented in the previous chapters: the 70-course catalogue (Enable), the 15 Business Pilot Projects and the CATALYST Network (Inspire), the three Specialisation Programmes and the two Hackathons (Enable & Inspire). This chapter focuses on the achievements, results and effects of the Centre considered as a whole — what it has produced, who it has reached, and what evidence supports its standing as a working CoVE.

Centre architecture and reach

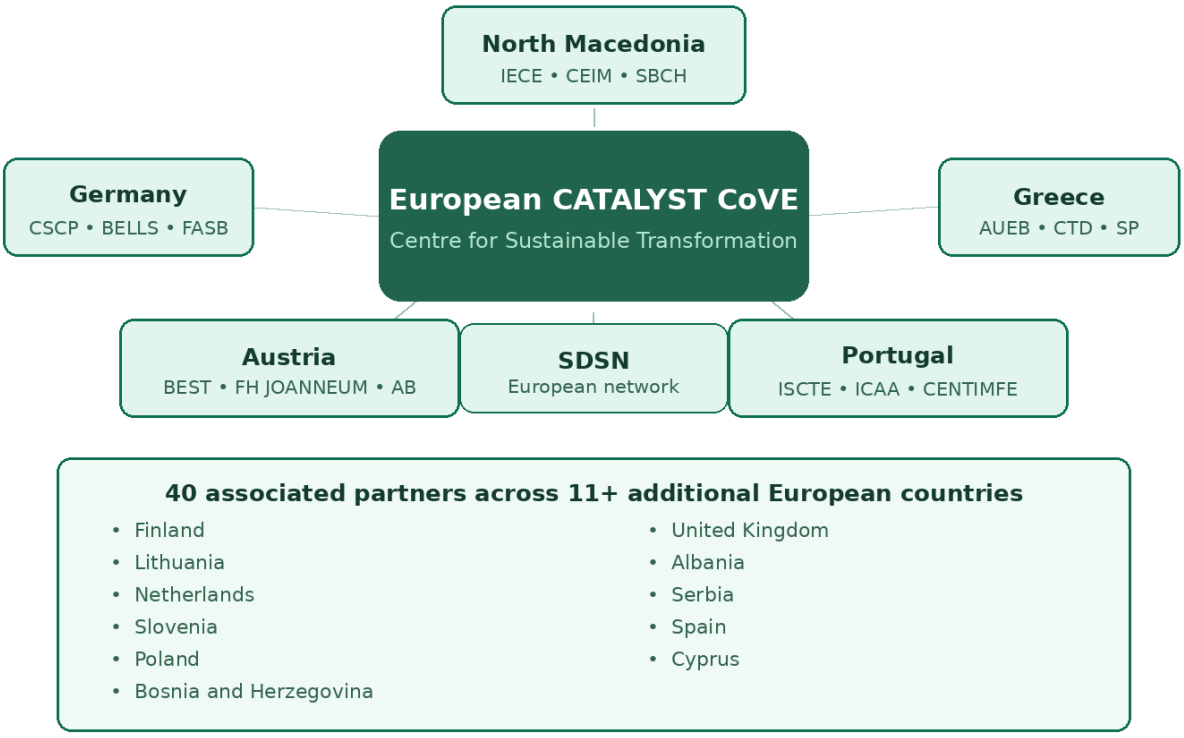

Figure 1.1 — The CATALYST CoVE: one European centre, five core country teams, 40 associated partners across 11+ countries.

The Centre is anchored on four core values — competence, collaboration, caring, and commitment — and pursues the mission to "inspire and enable business sustainably". Its operational structure pairs a European-level coordinating role with five country-level partner teams; some teams have already

established additional national or regional bodies that extend the reach of the CATALYST content into wider audiences. These national-level sustainability arrangements are detailed in the project's sustainability plan; this report focuses on what the Centre has accomplished during the piloting phase.

2. Headline Achievements

The CATALYST Centre produced consistent, evidenced outputs across all four delivery instruments during the piloting phase. The table below consolidates the headline numbers from the Enable, Inspire, and Enable & Inspire chapters into a single Centre-level view.

Achievement	Value	Notes
Free, openly accessible courses delivered	**70**	Across 8 thematic categories.
Total enrolled learners	**1,844**	Across the five country teams.
Certificates issued	**359**	19.5% completion rate.
Mean overall learner satisfaction	**4.28 / 5**	Across 282 end-of-course responses.
Business Pilot Projects delivered	**15**	100% with tangible SME deliverable.
Mean SME usefulness rating across BPPs	**4.67 / 5**	All BPPs rated 4 or 5 / 5.
Specialisation Programmes piloted	**3**	Anchored to Circular Economy, Sustainable Development, Transformation Readiness.
Hackathons delivered	**2**	~110 participants; 17 secondary-school teams + 12 adult-professional team members.
CATALYST Network events delivered	**15**	394 participants — Webinars, Ask-an-Expert, Mastermind, Member Spotlight.
Hackathon → BPP → funding conversions	**3**	EDIH INNOFEIT, Erasmus+ tool application, DBU pilot.
Countries with active Centre presence	**5+**	5 core + 11+ via Associated Partners.
Consortium partners	**16**	Plus 40 associated partners.

Three observations stand out across this table. First, the Centre has produced a usable knowledge base — a free, openly accessible 70-course catalogue with 1,844 enrolled learners and a 4.28 / 5 satisfaction signal — that is structurally available for reuse beyond the project boundary. Second, every Business Pilot Project produced a tangible deliverable for the host SME and was rated useful (4 or 5 / 5) by that SME; no BPP failed to deliver. Third, the Centre has demonstrated convertibility of its outputs into downstream funding instruments — the SBCH hackathon-derived concepts moving into EDIH INNOFEIT, Erasmus+, and

DBU-funded vehicles — which is among the strongest signals available that the Centre operates as a generative platform rather than a closed delivery project.

3. Target Groups Engaged

The CATALYST Centre engaged five distinct target groups during the piloting phase. The chart below approximates the reach across each group, drawing together evidence from the platform analytics, the BPP partner data collections, the Network event log, the hackathon participant lists and the partner final reflections. Numbers are approximate because some individuals appear in more than one group (a learner enrolled in a course who later joined a Network webinar, for instance) and the Centre has deliberately treated cross-engagement as a feature rather than a problem.

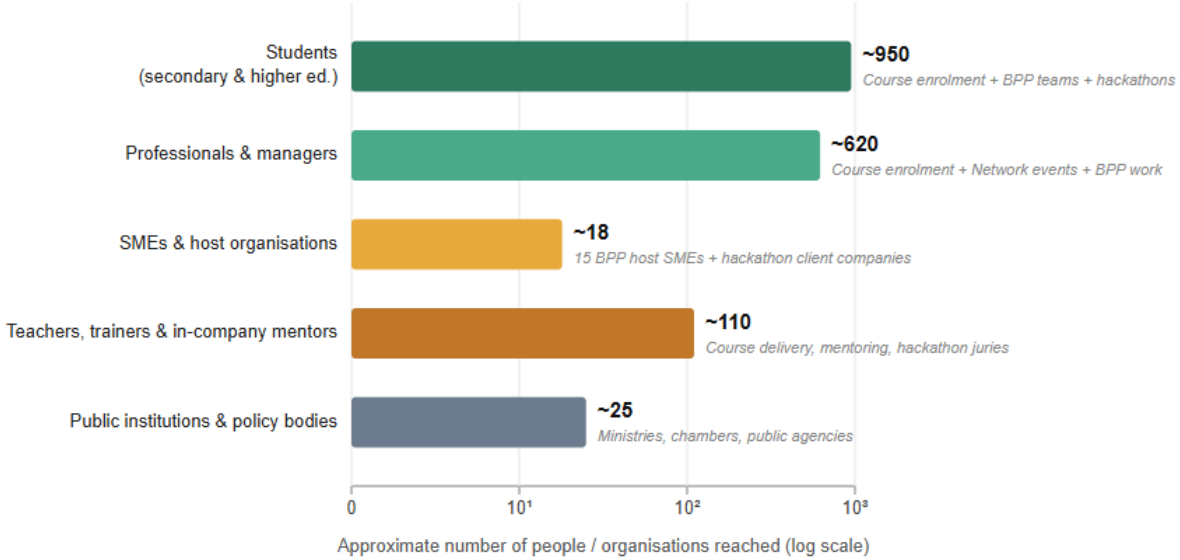

Figure 3.1 — Approximate reach by target group across the CATALYST Centre's delivery instruments.

Reflections by target group

Students — secondary and higher education

Students are the Centre's largest engaged audience. The reach combines higher-education enrolment in the 70-course catalogue, multi-disciplinary student teams working on the 15 Business Pilot Projects, and the secondary-school participants in the Skopje hackathon. The results are unambiguous: 91% of the 69 secondary-school participants in the Youth Ideas for Sustainable Buildings hackathon gave the event a 4 or 5 out of 5 rating, and approximately 70% reported considering studies or a career in this field following the event. Higher-education students working on the BPPs reported high added value (consistent 4–5 / 5 ratings) and produced deliverables — from circular KPI frameworks at AUEB / AKTINA to the implementation roadmap at CSCP / Krefeld — that were adopted by host SMEs. P10 ISCTE reports approximately 75% of learners reporting improved knowledge and skills, with satisfaction scores around 4.5 / 5.

Professionals and managers

Professionals and managers constitute the second-largest engaged audience, reached principally through the course catalogue and the CATALYST Network events. The 282 end-of-course feedback responses analysed for D6.2 returned a mean overall satisfaction of 4.28 / 5 and 82.7% "would recommend" — a robust net-positive signal for a professional audience. Inside the Network, Ask-an-Expert events drew 131 participants in total and Webinars drew 236; the largest single events (the Western Balkans circular-construction webinar at 59 participants and the SDSN industrial-transformation webinar at 65) show the format scaling well when paired with cross-partner promotion. Several partner reflections converge on the Network as a particularly valuable engagement instrument for working professionals who could not commit to a full course but engaged with shorter, expert-led formats.

SMEs and host organisations

SMEs are the smallest group numerically but among the most significant for impact. Eighteen organisations were engaged as BPP host SMEs, organisations or hackathon client companies: a Greek electrical-infrastructure group (AKTINA); a German real-estate division (GGK / Krefeld Business); a Portuguese mould-making cluster (CENTIMFE SMEs in the SMART-SUB RISK pilot); a North-Macedonian prefabricated-concrete manufacturer (Factory Karposh); a Vienna consulting firm (Tandem); a Vienna gastronomy operator (Michele's); a Graz cultural association (Geco Festival); and the hackathon client companies served through the SBCH GREEN Idea matching-day. Across the 15 documented BPPs the mean SME usefulness rating is 4.67 / 5 and 100% of host SMEs reported the deliverables as immediately or substantially applicable. P13 AUEB characterises the broader effect as "creating practical bridges between vocational education and industry by involving SMEs and sectoral stakeholders in the co-design and promotion of training programmes".

> *"The framework helped us clearly identify and prioritise risks that we were previously managing informally. It provides a structure we can realistically apply in our daily operations."*
>
> **— SME representative — SMART-SUB RISK, Portugal**

Teachers, trainers and in-company mentors

Teachers, trainers and in-company mentors were engaged in three roles: as course authors and deliverers across the 70-course catalogue, as mentors and supervisors on the BPPs, and as jury members and rotating mentors on the hackathons. The Centre has, in passing, produced a small applied-pedagogy laboratory: course authors and deliverers across categories now hold direct evidence of which formats work — the BELLS weekly live-video design; the AUEB self-paced + final-pitch combination; the CSCP bi-weekly check-in cadence — and that evidence is documented in the partner-data-collection records for transfer to subsequent training programmes. P13 AUEB explicitly identifies this as one of the Centre's most transferable assets: "peer-learning across the consortium on what works in self-paced + live blended formats".

Public institutions and policy bodies

Public-institution engagement was developed through partner-led national activities. P1 IECE engaged the North-Macedonian Ministry of Economy and Ministry for EU Integration on sustainability and CATALYST. P13 AUEB participated in the Forum on Vocational Excellence and brought together "public institutions, NGOs and businesses in the Greek sustainability ecosystem". P4 CSCP convened a national

roundtable in Germany establishing early dialogue between education providers and SMEs in the North-Rhine-Westphalia circular-economy ecosystem. P10 ISCTE engaged with Portuguese conferences and the wider VET community. The Centre's contribution at the public-body level has been to create a credible, evidenced vehicle around which sustainability and skills conversations can be organised — not to produce policy documents directly, but to provide the working evidence that those conversations need.

4. Collaboration with Stakeholders

Stakeholder collaboration is the dimension that most clearly distinguishes a CoVE from a conventional training project. By design, a Centre of Vocational Excellence is positioned as a network and a convening platform, not only as a deliverer of courses. The CATALYST Centre's collaboration record operates at three levels — local / national, consortium, and European — each of which has produced concrete evidenced outputs during the piloting phase.

Local and national level

At the local and national level, partners convened roundtables, sector-specific events and policy-engagement meetings that anchored the CATALYST content in real local sustainability conversations. P4 CSCP organised a national roundtable in Germany establishing early dialogue between education providers and SMEs in the North-Rhine-Westphalia circular-economy ecosystem. P13 AUEB describes "the strengthening of AUEB / AE4RIA's role as a hub for sustainability-focused vocational education and stakeholder engagement", with the AUEB / AE4RIA / AKTINA / Forum on Vocational Excellence triangle operating as a working skills ecosystem in the Greek sustainability domain. P1 IECE engaged the North-Macedonian Ministry of Economy and Ministry for EU Integration; P3 SBCH delivered the GREEN Idea hackathon with its matching-day client-pairing design, producing the three derived BPPs and the three follow-on funding instruments documented in the Inspire chapter. P10 ISCTE engaged Portuguese audiences through conference participation and the broader VET community.

Western Balkans — a regional outreach amplifier

In parallel with the CATALYST Centre, IECE operates the Western Balkans Circular Economy Hub (WBCEH), a separate body co-funded by IECE and the RECONOMY programme and oriented towards the six Western Balkan countries. The WBCEH is not part of the CATALYST CoVE structure, but its thematic content overlaps with the Circular Economy category of the Centre, and the Youth Ideas for Sustainable Buildings hackathon was anchored to both projects. The relationship has functioned as an outreach amplifier, enabling the CATALYST Centre to reach more people and organisations in the Western Balkans region than would otherwise have been within its catchment.

Consortium level

At the consortium level, the 16 partners co-designed and operated the four Centre instruments and the cooperation agreement template, including: the BPP application form and student-cooperation agreement; the CATALYST Network event calendar and registration flow; the standardised 10-question end-of-course feedback instrument that produced the 282 responses analysed in D6.2; and the partner-

data-collection format that produced the qualitative inputs of the D6.2 report. The consortium-level collaboration also produced the CATALYST Prospectus Magazine, a biannual open-access online publication offering practitioner perspectives on sustainability and management, which the Centre uses as a dissemination and recognition instrument.

5. European-Level Engagement

Participation in the European Forum for Vocational Excellence

CATALYST partners participated in the European Forum for Vocational Excellence as one of the consortium's principal European-level engagement channels. The Forum is a recurring convening point for the CoVE community and an instrument through which CATALYST has been positioned within the wider European VET-excellence conversation. Partners reported that participation in the Forum "contributed to stronger dialogue on skills gaps and sustainable business transformation" and identified it as one of the venues through which the consortium has been able to share its applied evidence (BPP outputs, Specialisation Programme design choices, Network event evidence) with peer CoVE projects.

Community of Practice for CoVEs

Alongside the Forum, CATALYST has engaged with the Community of Practice for Centres of Vocational Excellence (CoP CoVE) — the formal cross-CoVE exchange network supported through the Erasmus+ framework. The exchanges with peer CoVE projects have provided two consistent benefits: validation that the BPP methodology and the self-paced + live blended design are transferable beyond CATALYST, and a structured route through which CATALYST's good practices (notably the BPP application form, the 10-question feedback instrument, and the hackathon-to-BPP conversion model) can be picked up by other projects.

Recognition by the European Commission analysis of CoVEs

In January 2026, the European Commission Directorate-General for Employment, Social Affairs and Inclusion published the report "Advancing European Centres of Vocational Excellence (CoVE): An Analysis of Erasmus+ Projects", drawing on evidence from 25 CoVE projects funded since 2019 to assess the state of the initiative and identify projects demonstrating strong results, impact, and long-term sustainability potential. CATALYST is included in the case-studies annex to that report as one of the examples used by the Commission to illustrate the working CoVE model. Independent recognition of this kind is significant: it positions CATALYST not as one of many comparable projects, but as one of the projects against which the EU benchmark for CoVE excellence is being defined.

European recognition

The CATALYST CoVE features in the case-studies annex of the European Commission's 2026 report "Advancing European Centres of Vocational Excellence (CoVE): An Analysis of Erasmus+ Projects", alongside other Erasmus+ CoVE projects used to illustrate strong results, impact, and sustainability potential across the initiative.

The chart below maps the CATALYST Centre's self-assessed position against the seven strategic dimensions used in the EU CoVE analysis. The scores are anchored to the partner-evidence base documented across the D6.2 report.

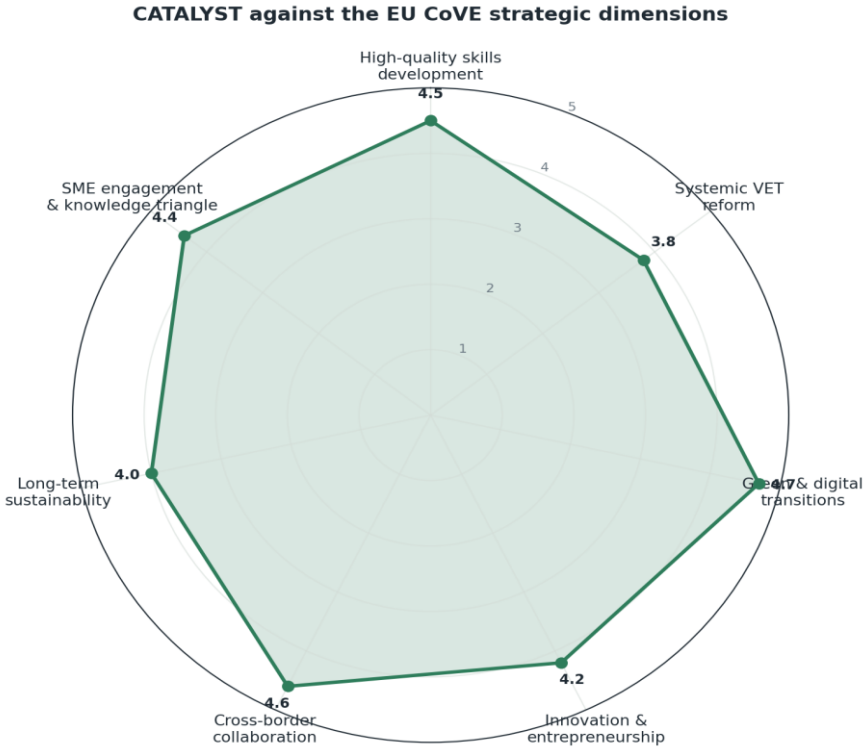

Figure 5.1 — The CATALYST CoVE against the seven strategic dimensions used in the EU CoVE analysis (self-assessment anchored to D6.2 partner evidence).

6. Evidenced Effects

Beyond the headline numbers, the CATALYST Centre has produced effects that are observable in three forms: at the individual level, at the organisational level, and at the ecosystem level. The evidence below distils what partners reported as the most significant effects, with representative quotations.

6.1 Individual-level effects

Individual learner effects are documented through the standardised feedback instrument and partner reflections. The strongest signals: approximately 75% of learners reported improved knowledge and skills (P10 ISCTE); learners reported increased confidence in applying concepts and "clear improvements in understanding and skills application" (P13 AUEB); 70% of the secondary-school hackathon participants are now considering studies or careers in the field. The Centre has also acted as an inclusion vehicle for groups that would not otherwise have engaged with sustainability content — students from secondary schools across multiple cities in North Macedonia, and SME staff who reported "it has been like being in a real work world, not like learning in theory" (Michele's, Vienna). The combination of personal-resonance entry doors (Apflbutzn's "Sustainable Lifestyle"), youth-focused scenarios (the Skopje

hackathon) and applied real-business pairings (BPPs) has reached a wider individual audience than a conventional VET catalogue would have done.

> *"I never thought about buildings in this way before. Now I'm seriously thinking about studying civil engineering or architecture."*
>
> **— Student participant — Hackathon, Skopje (Feb 2026)**

6.2 Organisational-level effects

Organisational effects accrue principally to the BPP host SMEs and the partner organisations themselves. Host SMEs report adoption or planned adoption of BPP outputs: AKTINA Group is considering operational adoption of the circular KPI framework, circular procurement checklist and waste-recovery protocol; the GGK / Krefeld Business intends to operationalise the implementation roadmap when the start-up centre becomes available; Factory Karposh has signalled willingness to embed the circular-production methodology into its technological and business development plans; the Geco Festival has received a business-model transformation roadmap that the organisation can act upon. Inside the consortium, partners report a strengthening of their role as sustainability-focused training and stakeholder hubs (P13 AUEB) and an internal capability build-up around the BPP / Network methodology that they can transfer into their own training catalogues (P4 CSCP, P5 BELLS, P10 ISCTE).

> *"Organisational impact is reflected in the active participation of companies, NGOs, VET providers and public institutions in roundtables, national events, webinars and project meetings."*
>
> **— P13 AUEB — partner final reflection**

6.3 Ecosystem-level effects

Ecosystem effects — the contribution of CATALYST to building or strengthening a "skills ecosystem" and the "knowledge triangle" between research, education and innovation — are documented in D6.2 evidence and in the partner-level reflections. The interaction between research (academic and applied research on the SME problem), education (student teams learning by doing under partner supervision) and innovation (the SME adopting or planning to adopt the resulting deliverable) is operationally embodied in the BPP methodology, and the three flagship pilots are clear demonstrations of the knowledge triangle in action. At the ecosystem-aligned level, several BPPs map onto regional smart-specialisation themes: the AUEB / AKTINA pilot aligns with the Greek smart-specialisation theme on energy and resource efficiency; the CSCP / Krefeld pilot aligns with the German circular-economy and start-up-ecosystem themes; the SMART-SUB RISK pilot aligns with the Portuguese tooling / mould-making

industrial cluster's modernisation agenda. Direct contributions to formal smart-specialisation strategy documents have not been a Centre objective and are not claimed here, but the alignment is demonstrable.

7. Cross-Cutting Findings for the Centre

Looking across the achievements, effects and engagements documented above, several patterns hold at the Centre level. They are organised below into the four standard lenses used in the preceding chapters: what worked best and why; what worked less well and why; success factors; and recommendations. The chapter closes with consolidated voices from the consortium and stakeholders.

7.1 What Worked Best and Why

Four drivers recur across the Centre's outputs as the clearest contributors to results.

- **Operating as a network, not a single institution.** The Centre's strength is the diversity of its 16 partners and 40 associated partners across 11+ countries. Partners identify the network character of the Centre — "international networking", "stakeholder engagement during national events and vocational excellence forums" — as among the project's most significant outcomes.
- **A coherent four-instrument architecture.** Courses (Enable), BPPs and the Network (Inspire), Specialisation Programmes and Hackathons (Enable & Inspire) are not parallel projects but a single connected offer. The convertibility evidence — hackathon → BPP → follow-on funding — is only possible because the four instruments interlock.
- **Real-business anchoring at every layer.** Every Centre instrument has at least one real-business anchor: BPPs with host SMEs, Network Ask-an-Expert events with named external speakers, hackathons with client companies. The pattern produces stronger outputs than purely academic offers would, and is the clearest reason the Centre's SME-usefulness ratings are uniformly high.
- **European recognition and convertibility.** Inclusion in the EU CoVE study, the Erasmus+ tool application built on the SBCH ESG Dashboard, the EDIH INNOFEIT adoption of the CarbLog Bin, and the DBU-funded Vertical Green Garden pilot all illustrate that the Centre's outputs are recognised and reusable beyond the project boundary. This is among the strongest available signals that the Centre has produced impact that extends past its own funded perimeter.

7.2 What Worked Less Well and Why

Three barriers operated at the Centre level. None is structural; all are addressable in a future phase.

- **English-only delivery limits SME and policy-body reach.** The pattern observed across the Enable, Inspire and Enable & Inspire pillars also operates at the Centre level: where the audience is national SMEs or national policy bodies, English-only content reduces conversion. The Centre has demonstrated the technical and pedagogical feasibility of the model; localisation is the next move.

- **Public-body engagement is asymmetric across countries.** Some country teams (IECE in North Macedonia, AUEB in Greece) developed structured ministry-level engagement; others did not, reflecting partner-specific stakeholder networks rather than a Centre-level design choice. A more systematic Centre approach to public-body engagement would strengthen this asymmetry.
- **Platform-UX friction stacks across instruments.** Individually small frictions — quiz visibility, certificate generation, live-call registration — compound across the four-instrument architecture, particularly for learners moving between a course and a Network event or a Specialisation Programme and a BPP. UX consolidation is a high-leverage next move.

7.3 Success Factors Identified

Six operational success factors emerge as the Centre-level conditions under which CATALYST performs best.

Success factor	Why it matters
Multi-partner diversity	The 16-partner consortium and 40-associated-partner network produce a breadth of expertise, country coverage and sectoral reach that a single-institution centre could not match. The Centre operates as a federated network and the diversity is a strategic asset.
Four-instrument architecture	Courses, BPPs, Network and Specialisation Programmes / Hackathons form a coherent learning-then-applying pipeline. The convertibility evidence — hackathon to BPP to funding instrument — is only possible because the four instruments interlock.
Real-business anchoring	Every Centre instrument has at least one real-business anchor (host SME, named expert speaker, client company). This is the cleanest reason the Centre's SME-usefulness ratings cluster between 4.0 and 5.0 / 5.
Co-creation methodology - (CO–IN)© Model	The CO–IN© co-creation model, validated across all 15 BPPs, is documented in the partner-data-collection records and transferable to peer CoVE projects.
Standardised templates and instruments	The BPP application form, the 10-question feedback instrument, the partner data-collection format and the standardised effectiveness evaluation table create a comparison base that ad-hoc reporting could not have produced.
European recognition	Inclusion in the EU CoVE study, follow-on funding adoptions and peer-CoVE engagement at EfVET / CoP CoVE position the Centre within the EU benchmark conversation rather than outside it.

7.4 Recommendations

Recommendations focus on the Centre level — i.e. on choices that affect more than one of the four instruments. Instrument-specific recommendations are documented in the preceding chapters.

Recommendation	Recurrence
Maintain and strengthen the four-instrument architecture as the Centre's default operating model.	Very high
Invest in localisation of Centre-level resources (PT, DE, MK, EL, ES).	Very high
Consolidate the platform UX across instruments (single sign-on, unified registration, consistent navigation).	High
Systematise public-body engagement at Centre level (shared protocol; cross-country learning).	High
Continue and deepen peer-CoVE engagement (CoP CoVE) using the EU CoVE study as anchoring evidence.	High
Treat the BPP methodology as a stand-alone transferable instrument; offer it to peer CoVEs through CoP CoVE.	Medium
Use the Catalyst Prospectus Magazine as a recurring recognition and disseminate-good-practice instrument.	Medium

7.5 Voices from the Catalyst Community

The quotes below — sourced from partner final reflections and stakeholder feedback — illustrate the patterns identified in the previous sections. They are organised to follow the individual → organisational → ecosystem effect levels presented in § 6.

> *"It has been like being in a real work world, not like learning in theory."*
>
> **— Participant — Circular Loyalty Programme (Michele's, Austria)**

> *"Learner feedback indicates a strong impact, with approximately 75% of learners reporting improved knowledge and skills, and high satisfaction scores around 4.5 / 5."*
>
> **— P10 ISCTE — partner final reflection**

> *"The most significant positive outcome was the strengthening of AUEB / AE4RIA's role as a hub for sustainability-focused vocational education and stakeholder engagement."*
>
> **— P13 AUEB — partner final reflection**

> *"We have raised awareness about sustainability issues, based on the Triple Bottom Line, particularly among micro-companies. The feedback we received is to finally have an alternative solution that does not ask for fees and is self-guided."*
>
> **— P7 BEST — partner final reflection**

> *"CATALYST created practical bridges between vocational education and industry by involving SMEs and sectoral stakeholders in the co-design and promotion of training programmes. This improved relevance, applicability, and trust between education providers and businesses."*
>
> **— P13 AUEB — partner final reflection**

8. Closing Reflection

The CATALYST Centre has done what the EU CoVE framework asks of a Centre of Vocational Excellence. It has built and operated a coherent four-instrument architecture covering free open-access courses, applied co-creation with SMEs, a community-of-practice and a programme ↔ hackathon layer that bridges learning and applying. It has reached approximately 1,720 individual learners and 18 host organisations across five core countries and 11+ associated-partner countries, with evidence on every key indicator: 4.28 / 5 mean learner satisfaction, 4.67 / 5 mean SME usefulness, 100% BPP delivery, three hackathon-to-funding conversions, and inclusion in the EU's 2026 reference study on CoVE excellence.

The Centre has also produced the institutional infrastructure for what comes next: a partner network with operational muscle, a tested methodology with templates and instruments, a recognised brand and a body of evidence that documents which design choices work. The recommendations in § 7.4 capture the small number of focused moves needed to translate this foundation into post-pilot operation. The sustainability of the Centre — the conditions under which its work continues after the project closes — is treated in the dedicated sustainability plan and is not the subject of this deliverable. What this deliverable establishes is that the foundation now exists and is documented. The remaining question is institutional, not technical: whether the consortium, its associated partners and its European peers choose to carry the work forward.

Chapter — ENABLE

The CATALYST Programme — courses, learners, achievements and lessons across the eight thematic categories

1. The Enable Pillar — CATALYST in numbers

The Enable pillar of the CATALYST programme is the project's knowledge backbone: a free, openly accessible catalogue of 70 self-paced online courses, grouped into 8 thematic categories, designed to equip learners, professionals and SMEs with the skills needed to lead and accompany the green and digital transitions. Where the Inspire pillar mobilises learners into applied work (Business Pilot Projects, Resources & Services, Catalyst Network activities), Enable provides the structured learning that makes that applied work possible.

This chapter consolidates, in a single readable narrative, what the Enable pillar achieved during the piloting phase: how many learners it reached, how the eight categories performed, what worked best and why, what worked less well and why, and which recommendations the consortium converges on for a future phase. The numerical evidence draws on three streams: 1,844 learner registrations recorded across the catalogue, 359 certificates issued, and 282 end-of-course feedback responses analysed against the 10-question CATALYST standardised feedback form (Q1–Q10).

Headline Indicators

Indicator	Value	Notes
Total enrolled learners	**1,844**	Aggregate registrations across the eight categories.
Total certificates issued	**359**	Learners who completed at least one course.
Overall completion rate	**19.5%**	Certificates issued / enrolled learners.
Total feedback responses analysed	**282**	Standardised 10-question end-of-course form.
Average overall satisfaction (Q1)	**4.28 / 5**	Cross-category weighted mean.
"Satisfied" or "Very satisfied" (Q1, T2B)	**85.9%**	Top-2-Box across all responses.
Would recommend course (Q3, T2B)	**82.7%**	Proxy NPS — "Definitely" or "Probably yes".
Content rated "Very / Extremely relevant" (Q7, T2B)	**82.3%**	Top-2-Box on professional relevance.
Confidence to apply learning (Q8)	**4.14 / 5**	Self-assessed readiness to apply learning.

Overview at a Glance

The chart below positions the eight categories on overall course satisfaction (Q1). The two strongest signals come from “Transformation Readiness within the Organisation” (4.71 / 5) and “Resilient Transition” (4.46 / 5). All eight categories sit at or above the 4.0 satisfaction benchmark, indicating a consistently positive learner experience across the catalogue.

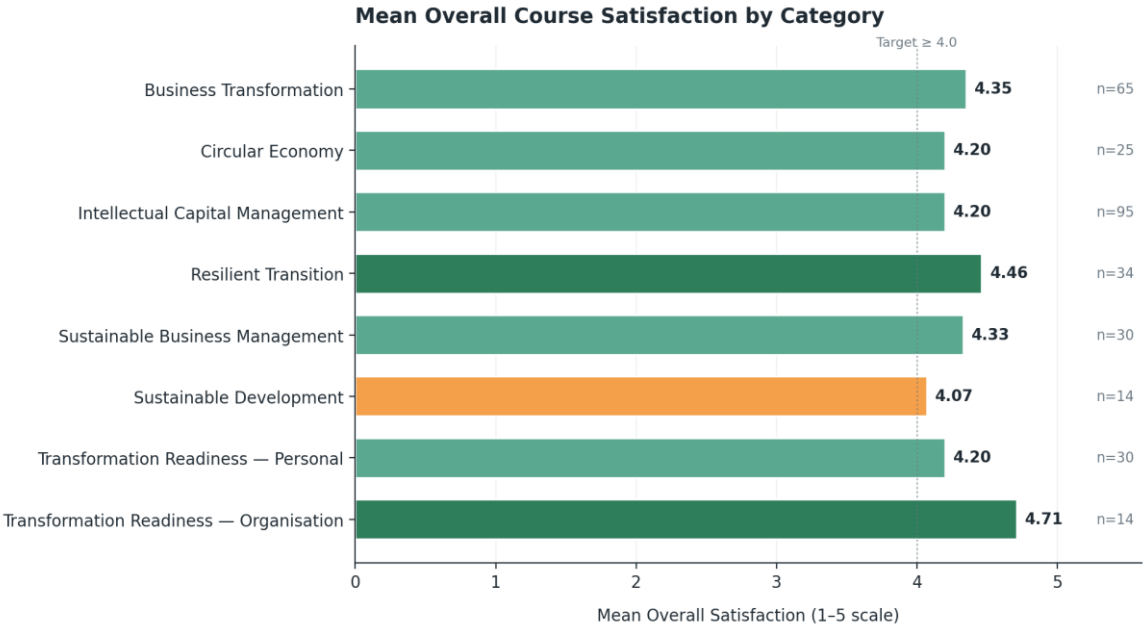

Figure 1.1 — Mean overall satisfaction across the eight CATALYST course categories (1–5 scale).

The next chart compares enrolment volumes with certificates issued. Circular Economy attracted the highest enrolment (393 learners) and Intellectual Capital Management produced the highest absolute completion volume (89 certificates) as well as the strongest completion rate (42%). Categories with shorter, more focused modules (IC Management, Resilient Transition, Sustainable Business Management) converted enrolment into completion more effectively than categories with longer Advanced-level courses.

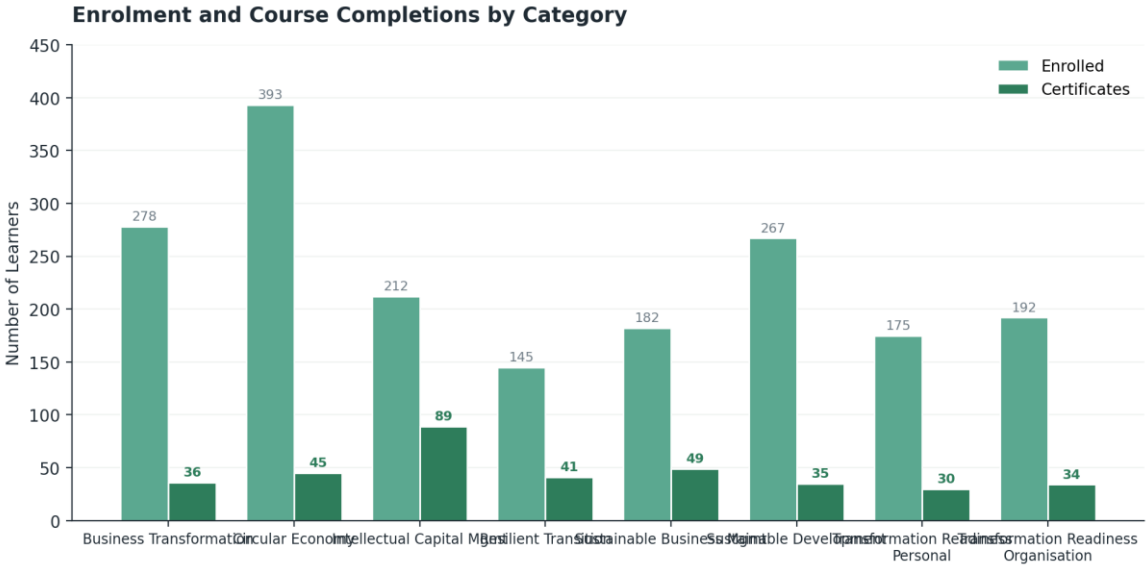

Figure 1.2 — Enrolment and certification volume by category.

A Note on Method

Two complementary indicators summarise the Likert data throughout this chapter: the mean score (1–5) and the Top-2-Box percentage (T2B), which counts the share of respondents who chose one of the two most favourable answers. T2B is widely used in education and customer-experience evaluations as a robust net-positive signal.

2. Category-by-Category Achievements

This chapter takes each of the eight CATALYST course categories in turn and reports: a short framing of what the category covers; the headline achievements (enrolment, certificates, completion rate, feedback volume, key Likert indicators); a visual breakdown of mean scores across the ten standardised feedback questions; and a narrative interpretation of what stood out, supported by a representative learner or partner testimonial.

2.1 Business Transformation

Business Transformation equips learners with the strategic and operational tools to lead change — from digital and ESG transitions to sustainable finance and innovation. The category groups several courses with substantial pilot uptake, notably “Digital Transformation and Sustainability”, “Introduction to Sustainable Finance” and “Integrating Sustainability into the Strategy and Business Model”, the latter built around applied case work and stakeholder-anchored examples.

Achievements at a glance

Indicator	Value
Enrolled learners	**278**
Certificates issued	**36**
Completion rate	**12.9%**
Feedback responses (n)	**65**
Mean overall satisfaction (Q1)	**4.35 / 5**
Would recommend (Q3, T2B)	**88%**
Content relevance (Q7, T2B)	**70%**

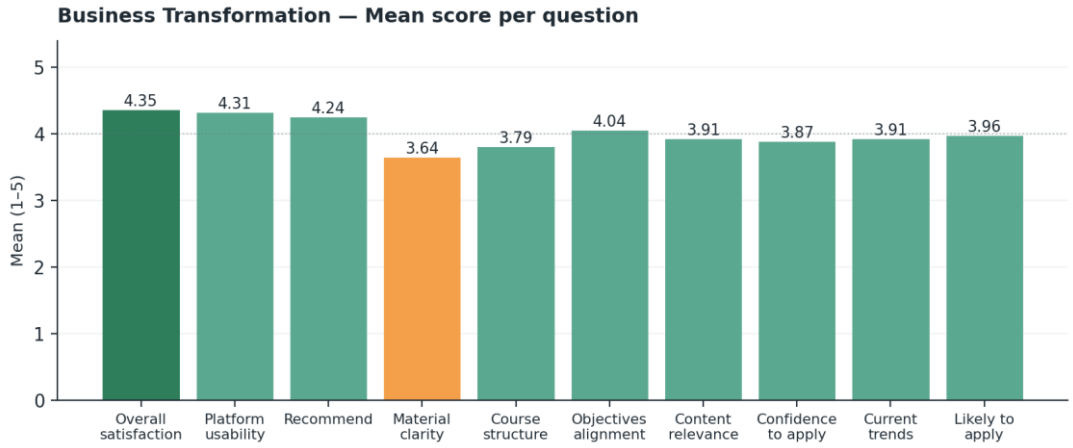

Figure 2.1 — Business Transformation: mean score per question.

What stood out

Business Transformation produced solid satisfaction signals, with content relevance and topicality flagged repeatedly as the engagement driver. P10 ISCTE reported "Digital Transformation and Sustainability" as one of its strongest-performing courses; P13 AUEB's "Sustainable Finance: Green Investment Strategies" drew particularly strong feedback on case studies and applied examples. The category's weaker signal is on material clarity and structure (Q4: 3.64 / 5), reflecting workload complaints on the Advanced-level courses. P4 CSCP explicitly flagged that even the well-rated "Circular Business Strategies and Innovation" course attracted criticism for being too extensive ("32 hours is definitely too much, especially if we are targeting SMEs that usually struggle with financial and time resources").

> *"Case studies and applied examples — these made the difference."*
>
> **— Learner, Sustainable Finance: Green Investment Strategies**

2.2 Circular Economy

Circular Economy is the largest category by enrolment volume (393 registrations) and one of the most strategically central to the CATALYST mission. It includes flagship courses on Circular Business Models, Circular Economy KPIs, Circular Design and Eco-Design, and Sustainable Materials Management, and is the thematic anchor of the AUEB-led Mastering Circular Production specialisation programme and the AKTINA Group Business Pilot Project on circular electrical infrastructure.

Achievements at a glance

Indicator	Value
Enrolled learners	**393**
Certificates issued	**45**
Completion rate	**11.5%**

Indicator	Value
Feedback responses (n)	**25**
Mean overall satisfaction (Q1)	**4.20 / 5**
Platform usability (Q2)	**4.40 / 5**
Would recommend (Q3, T2B)	**80%**

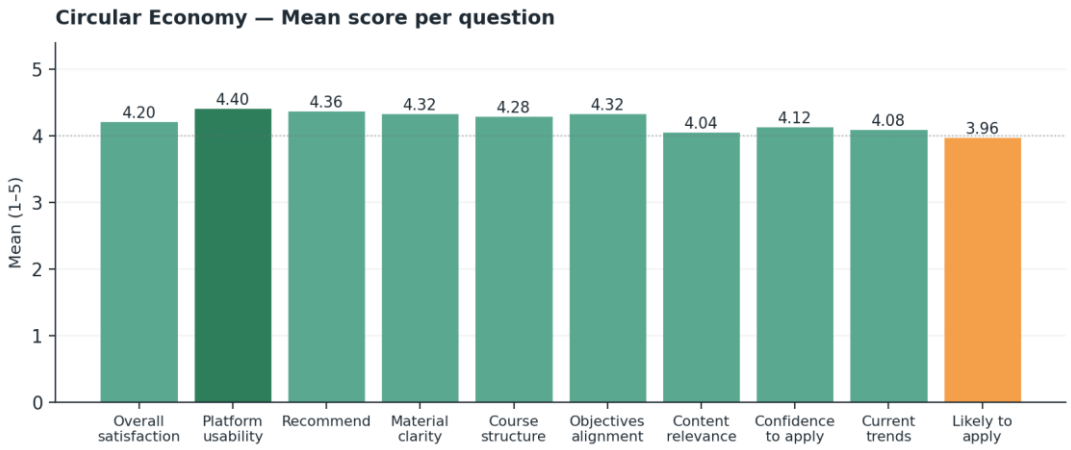

Figure 2.2 — Circular Economy: mean score per question (consolidated from course-level exports).

What stood out

Circular Economy benefits from a strong applied anchor: AUEB led the AKTINA pilot with deliverables (KPI framework, procurement checklist, waste-recovery protocol) directly adopted by the SME; CSCP led the two-phase Krefeld pilot producing a Circular Rental Model and Implementation Roadmap. P13 AUEB reported "Circular Business Models: From Linear to Circular" and "Circular Economy KPIs" as the strongest learner attractors, due to their practical orientation and real-life examples (circular compass, KPIs, real cases). Recurring improvement signals: platform usability issues in quiz open-text answers; requests for more videos and interactive content; need for refresh with emerging topics such as the Digital Product Passport; and — from P12 CENTIMFE — a perception that the Sustainable Materials Management course was "a little basic and slightly lacking in practical application", suggesting demand for more advanced applied tracks.

> *"The quiz format really helped settle the knowledge acquired after each block."*
>
> **— Learner, Circular Business Models: From Linear to Circular**

2.3 Intellectual Capital Management

Intellectual Capital Management is the category with the highest measured completion rate (42%) and the largest feedback dataset across the catalogue (n=95). Its flagship course — "Intellectual Capital and Change Management for Digital Transformation and Sustainability" — was reported by P10 ISCTE as the strongest learner attractor of its entire piloting catalogue. The category is anchored by the SMART-SUB RISK Business Pilot Project (P10 / P11 / P12).

Achievements at a glance

Indicator	Value
Enrolled learners	**212**
Certificates issued	**89**
Completion rate	**42.0%**
Feedback responses (n)	**95**
Mean overall satisfaction (Q1)	**4.20 / 5**
Objectives alignment (Q6)	**4.41 / 5**
Content relevance (Q7, T2B)	**80%**

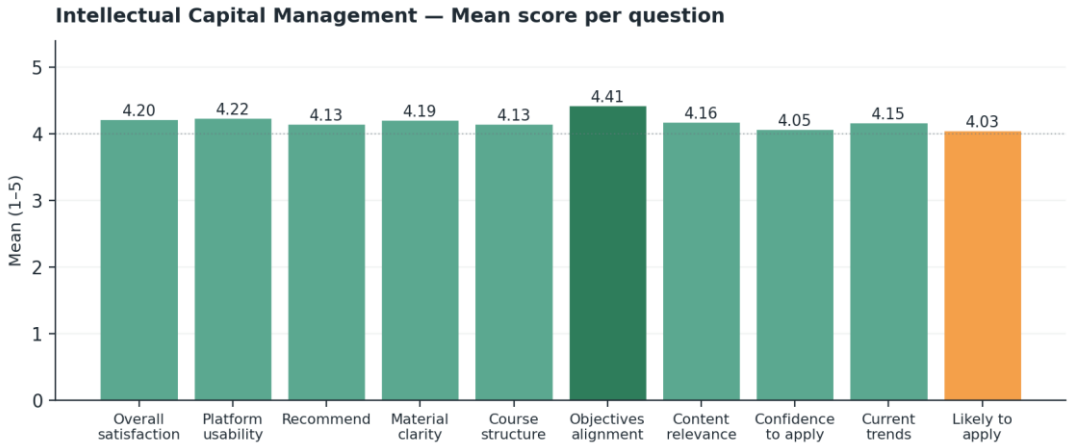

Figure 2.3 — Intellectual Capital Management: mean score per question.

What stood out

The category's strengths are strategic alignment with current organisational priorities (digital transformation and sustainability), a modular structure that supports learners from diverse professional contexts, and clear practical orientation. P11 ICAA's "Relational Capital" course was identified as the top performer, perceived as highly relevant for stakeholder management. P1 IECE reported very high satisfaction (≥4.6 / 5) for the IC-related courses, attributing this to good promotion-to-stakeholder pairing. The course "How to Audit and Measure Intellectual Capital" performed relatively weaker, with feedback pointing to higher complexity and a need for clearer step-by-step guidance — a typical signal for technical content delivered self-paced.

> *"Strong alignment with current organisational priorities. Approximately 75% of learners reported improved knowledge and skills, with high satisfaction scores around 4.5 / 5."*
>
> — P10 ISCTE partner reflection

2.4 Resilient Transition

Resilient Transition addresses the social, economic and systemic dimensions of sustainability — from System and Design Thinking to Socio-Economic Pathways and Social Economy. The category produced one of the strongest applicability signals in the catalogue, with content relevance and confidence to apply both at 4.54 / 5.

Achievements at a glance

Indicator	Value
Enrolled learners	**145**
Certificates issued	**41**
Completion rate	**28.3%**
Feedback responses (n)	**34**
Mean overall satisfaction (Q1)	**4.46 / 5**
Content relevance (Q7)	**4.54 / 5**
Confidence to apply (Q8, T2B)	**92%**

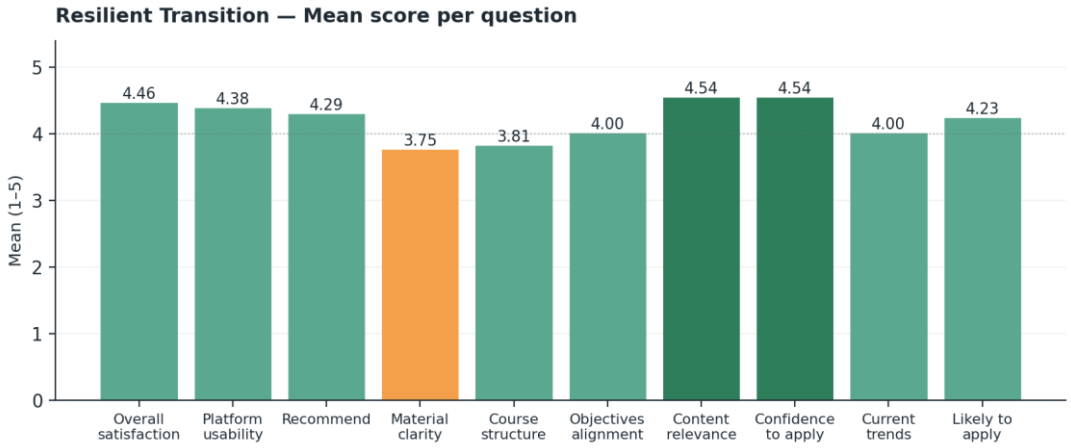

Figure 2.4 — Resilient Transition: mean score per question.

What stood out

Stakeholder-anchored activation was the most distinctive enabler: P2 CEIM reported "good collaboration with relevant stakeholders" as the activation factor for the System and Design Thinking course, while P10 ISCTE's "Introduction to Social Economy" drew solid feedback praising the "clear introduction to key

concepts" and "practical relevance to social impact work". The relatively weaker signal on Q4 (material clarity, 3.75 / 5) and Q5 (organisation, 3.81 / 5) points to demand for more depth and case-based content for advanced learners; the "Connecting the Dots" Advanced course was not piloted in the partners that submitted Likert data.

> *"Extremely relevant… extremely well… very likely I will apply it."*
>
> — Learner, Socio-Economic Pathways — Benefits and Application

2.5 Sustainable Business Management

Sustainable Business Management is the most consistent category across the ten questions, with no answer below 4.10 / 5 and a notable peak on material clarity (4.57 / 5) and platform usability (4.47 / 5). It covers applied content for technical and SME audiences — ESG and sustainability reporting, sustainable event management, sustainable brands and communication.

Achievements at a glance

Indicator	Value
Enrolled learners	**182**
Certificates issued	**49**
Completion rate	**26.9%**
Feedback responses (n)	**30**
Mean overall satisfaction (Q1)	**4.33 / 5**
Material clarity (Q4)	**4.57 / 5**
Platform usability (Q2, T2B)	**97%**

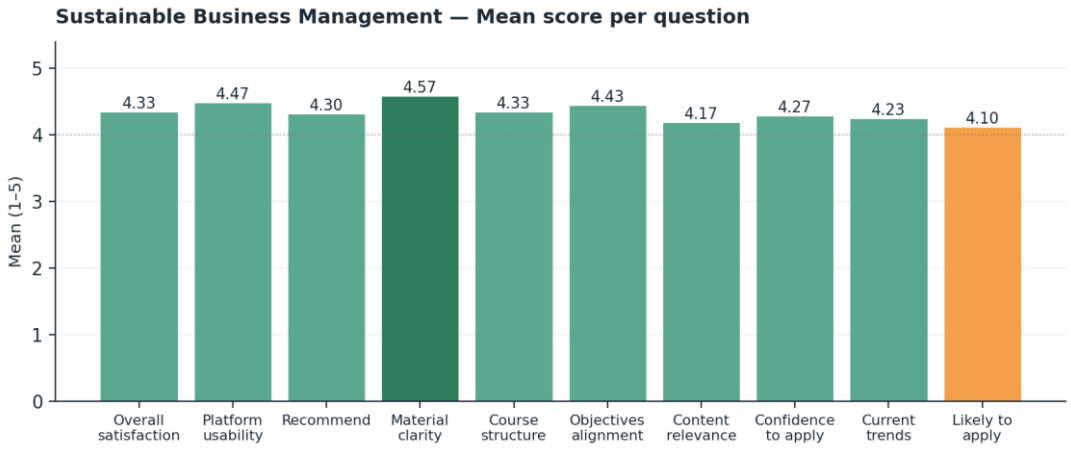

Figure 2.5 — Sustainable Business Management: mean score per question.

What stood out

Topic-target fit is the category's strongest enabler: technical personnel and SME audiences responded well to applied ESG, sustainability reporting and event-management content. P3 SBCH reported that promotion of "ESG and Sustainable Development — Reporting and Auditing" was particularly successful with technical personnel in companies. P9 Apflbutzn highlighted positive feedback on "Introduction to Sustainable Brands" and "Sustainable Event Management" for the additional materials and clear PowerPoints. P3 SBCH flagged that the "Sustainable Communication" course performed weaker, attributing this to limited motivation of technical-staff target groups towards soft-skill content delivered in a self-paced online format.

> *"The structure of each module was great. The bullet points show the points clearly, as do the videos provided."*
>
> **— Learner, end-of-course feedback (Sustainable Business Management)**

2.6 Sustainable Development

The Sustainable Development category covers seven courses and aggregated approximately 267 enrolments, with feedback concentrated on "Sustainable Production and Consumption" (P9 Apflbutzn) and "Implementing the Sustainable Development Goals" (P16 SDSN). The available feedback dataset is smaller (n=14), giving wider statistical uncertainty than larger categories.

Achievements at a glance

Indicator	Value
Enrolled learners	**267**
Certificates issued	**35**
Completion rate	**13.1%**
Feedback responses (n)	**14**
Mean overall satisfaction (Q1)	**4.07 / 5**
Objectives alignment (Q6)	**4.57 / 5**
Would recommend (Q3, T2B)	**64%**

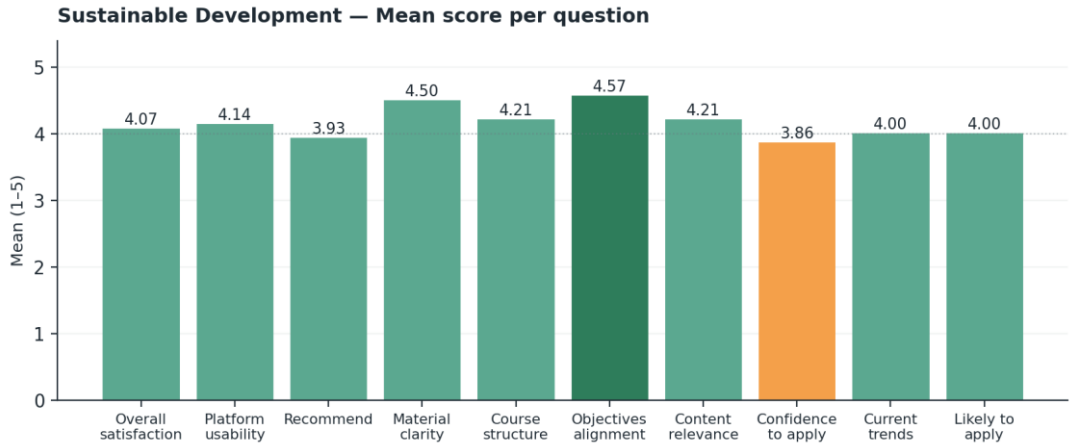

Figure 2.6 — Sustainable Development: mean score per question.

What stood out

P9 Apflbutzn's course drew positive feedback on "many additional materials" and well-made PowerPoints. P16 SDSN's SDG-implementation course received high relevance ratings, with learners praising the visual dashboards and clearer understanding of SDG transformations. The weakest signal in the catalogue came from this category: Concrete recommendations from SDSN (more thorough pre-launch QA of interactive elements; example answers for reflection tasks; fewer but more polished modules) are highly transferable to other categories.

> *"Extremely relevant content, well structured."*
>
> **— Learner, Understanding the Relations Between Climate Change, Sustainable Development and Biodiversity**

2.7 Transformation Readiness on Personal Level

Transformation Readiness on Personal Level groups soft-skill and personal-development content with strong individual resonance. The category produced the largest cohort of platform feedback in the personal-development family (n=30), with P9 Apflbutzn's "How to achieve a sustainable lifestyle" and P5 BELLS's "Sustainable Professional Growth" leading the engagement.

Achievements at a glance

Indicator	Value
Enrolled learners	**175**
Certificates issued	**30**
Completion rate	**17.1%**
Feedback responses (n)	**30**

Indicator	Value
Mean overall satisfaction (Q1)	**4.20 / 5**
Material clarity (Q4)	**4.33 / 5**
Current trends (Q9)	**4.13 / 5**

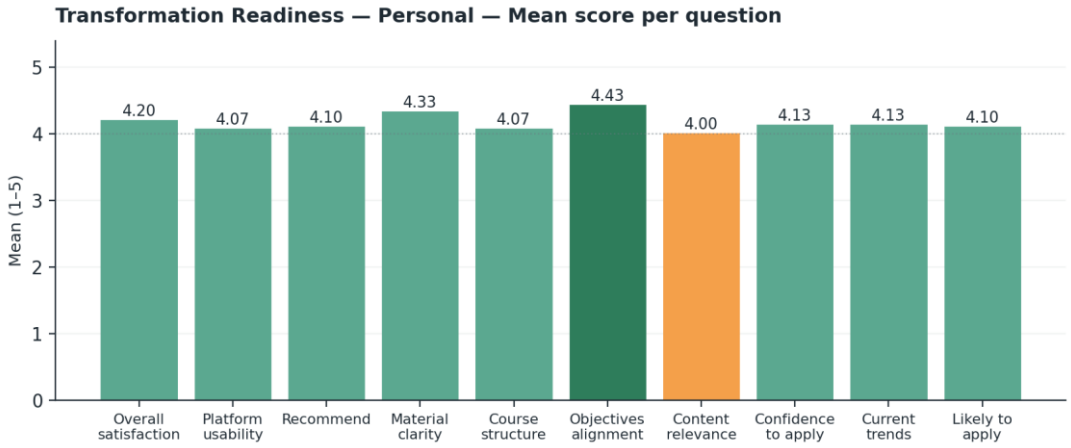

Figure 2.7 — Transformation Readiness on Personal Level: mean score per question.

What stood out

Personal-resonance content drove the strongest interest. P9 Apflbutzn observed that "How to achieve a sustainable lifestyle" drew the strongest interest because of its individual-level focus. P5 BELLS reported "Sustainable Professional Growth" as the highest-impact course of its catalogue, attributing the result to the live-session design (six weekly live videos, conversation continuity) — a clear validation that the self-paced + live-session blended model works for personal-development content. BELLS also observed that team-focused courses performed weaker when participants joined individually rather than as teams, and that some learners experienced confusion in registering for live calls via Moodle, requiring extra Outlook calendar links.

> *"The material and the fact that you can complete it at your own pace — that's what worked for me."*
>
> **— Learner, Sustainable Innovation course**

2.8 Transformation Readiness within the Organisation

Transformation Readiness within the Organisation produced the highest mean scores across the catalogue — 4.71 / 5 on overall satisfaction, 4.79 / 5 on recommendation, 4.57 / 5 on content relevance. The dataset is smaller (n=14), so confidence intervals are wider, but the consistency across all ten questions is striking and the signal direction is unambiguous.

Achievements at a glance

Indicator	Value
Enrolled learners	**192**
Certificates issued	**34**
Completion rate	**17.7%**
Feedback responses (n)	**14**
Mean overall satisfaction (Q1)	**4.71 / 5**
Would recommend (Q3)	**4.79 / 5**
All Likert T2B	**100%**

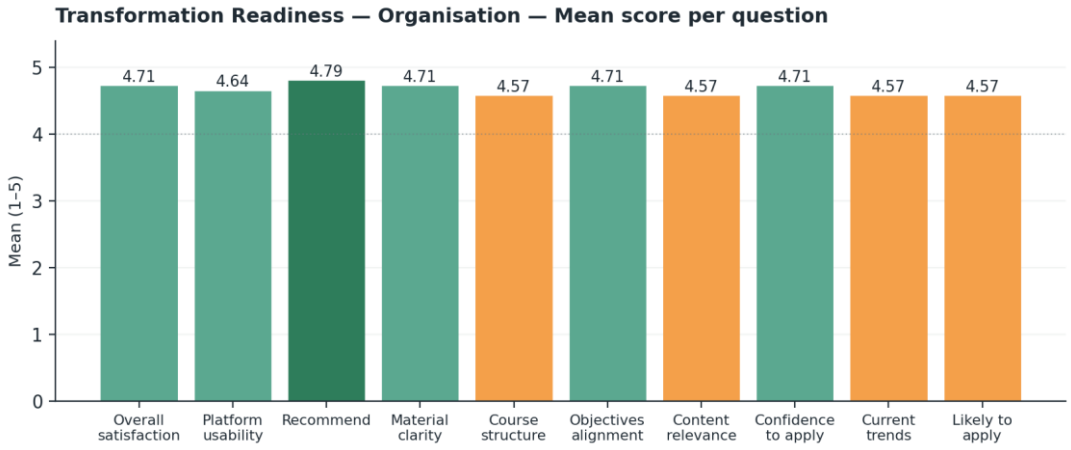

Figure 2.8 — Transformation Readiness within the Organisation: mean score per question.

What stood out

P1 IECE highlighted "Building an Effective Team" as the strongest attractor of its catalogue, attributing this to the pairing of a promotional event with the right stakeholders. P6 FASB reported that "SustainAgility" generated the strongest learner interest in its catalogue, citing the relevance of the topic for both organisational and personal development. P5 BELLS observed that the "Beyond Boundaries" course needed team-format participation rather than individual sign-ups to deliver its full value.

> *"The relevance of the topic for both organisational and personal development — that's what generated the strongest interest in our catalogue."* — **P6 FASB partner reflection**

3. Cross-Cutting Findings

Looking across the eight categories, several patterns emerge that are consistent enough to be treated as system-level findings rather than category-specific quirks. These cross-cutting findings inform the recommendations for the post-pilot phase and are organised below into four lenses: what worked best

and why; what worked less well and why; the success factors identified by the consortium; and the consolidated set of recommendations for the next phase of CATALYST.

3.1 What Worked Best and Why

Five drivers recurred across categories as the strongest contributors to learner satisfaction and applicability. They are presented here in order of how frequently and consistently partners and learners flagged them.

- **Practical orientation and real cases.** Courses that anchored their content in real business situations — the circular compass and KPI sets in Circular Economy, the case studies in Sustainable Finance, the audit-and-measure tools in Intellectual Capital — consistently outperformed more theoretical modules on relevance, confidence to apply and likelihood of recommending.
- **Stakeholder-anchored activation.** Pairing course promotion with sector-specific events and named stakeholder networks substantially outperformed broad-funnel digital promotion. Partners explicitly flagged this for Resilient Transition (CEIM), Sustainable Business Management (SBCH), Transformation Readiness within the Organisation (IECE) and Business Transformation (AUEB).
- **Blended live + self-paced delivery.** Where partners added live elements to self-paced courses — BELLS's six weekly live videos in "Sustainable Professional Growth", AUEB's final compulsory live session, ask-an-expert sessions — engagement, conversion and reported learning gains all rose markedly versus pure self-paced delivery.
- **Quizzes as learning reinforcement.** Well-designed quizzes were repeatedly flagged by learners as a positive design choice. Where quiz functionality worked reliably, quizzes acted as both retention check and pacing device.
- **Coupling courses to applied formats.** Categories that paired a course pathway with a Business Pilot Project or a hackathon (Circular Economy ↔ AKTINA / Krefeld; Intellectual Capital ↔ SMART-SUB RISK; Sustainable Business Management ↔ GREEN Idea hackathon) produced the clearest applied impact and the strongest follow-on activity.

3.2 What Worked Less Well and Why

Five barriers recurred across categories. They are reported here as the consortium's honest read of what limited Enable's reach and conversion during the pilot, with the understanding that each of them is addressable in a future phase.

- **Course workload — especially Advanced courses.** Advanced-level courses (notably the 32-hour "Circular Business Strategies and Innovation" flagged by P4 CSCP) were perceived as too long, particularly by SME audiences whose working schedules cannot absorb that load. Workload appears to be the single strongest driver of drop-off between registration and certification.
- **Platform usability — quizzes, navigation, certificate generation.** Quiz open-text answer visibility (AUEB), quiz grading and certificate triggering (SDSN), course-overview navigation (CSCP) and live-call registration flow (BELLS) all surfaced repeatedly. These are individually small frictions that compound into a noticeable drag on completion rates.

- **English-only delivery.** P4 CSCP, P6 FASB, P10 ISCTE, P12 CENTIMFE and others flagged that delivery in English limits SME reach in non-English-speaking countries. The barrier is most pronounced for technical SME audiences, who responded best when content matched their working language.
- **Limited interactivity in pure self-paced format.** Across multiple categories, learners and partners requested more videos, peer interaction, trainer engagement and live Q&A. This is the single most-named improvement direction in the partner reflections.
- **Top-of-funnel → enrolment conversion.** Broad social-media campaigns produced visibility without traceable enrolment outcomes. Partners noted that the bottleneck is not awareness but the absence of trackable registration pages and structured follow-up between awareness and registration.

3.3 Success Factors Identified

From the patterns above, five operational success factors emerge as the conditions under which Enable performs best. These are descriptive of what worked during the pilot, and prescriptive for a future phase.

Success factor	Why it matters
Applied anchor	A course performs best when paired with a real applied format — a BPP, a hackathon, a specialisation programme. The pairing converts abstract learning into demonstrable behaviour change and gives SMEs a tangible reason to engage.
Stakeholder-driven promotion	Activation through named stakeholder networks (chambers of commerce, professional associations, university partners) converts at far higher rates than broad-funnel digital promotion. The CSCP, IECE, SBCH and AUEB experiences all converge on this.
Live elements at strategic points	Even a small number of live sessions — weekly check-ins, ask-an-expert events, a final pitch session — transform a self-paced course into a paced cohort experience. BELLS and AUEB demonstrated the lift.
Robust platform basics	Quizzes that work, certificates that trigger, navigation that does not loop back to the course overview, and a clean live-call registration flow. None of these is glamorous; all of them compound into the completion rate.
Language-appropriate delivery	Where the target audience is national SMEs, delivery in the national language (Portuguese, German, Macedonian, Greek) materially expands the addressable audience. Where the audience is international students, English is fine.

3.4 Recommendations

The recommendations below consolidate the partner-submitted top-three recommendations and the cross-cutting patterns identified across the category sections. They are organised by stream (course design and delivery; platform and user experience; promotion and activation; integration with Inspire).

Recurrence is reported on a three-level scale (Very high / High / Medium), based on how many partners independently flagged each recommendation.

Course Design and Delivery

Recommendation	Recurrence
Reduce workload — move towards micro-learning / shorter modules; cap content at ≤8 hours per unit.	Very high
Increase interactivity — more videos, live sessions, peer / trainer engagement, mastermind formats.	Very high
Add applied / practical layers to all courses (case studies, exercises, scenario-based learning).	Very high
Localise content into national languages (PT, DE, MK, EL, ES) — dedicated translation or AI-assisted.	High
Provide step-by-step guidance for technical / advanced modules (audit, measurement, KPIs).	Medium
Diversify quiz questions; provide clearer grading / feedback on submitted work.	Medium

Platform and User Experience

Recommendation	Recurrence
Improve quiz functionality — open-text answer visibility, automated grading, certificate reliability.	Very high
Improve learner onboarding flow on the platform (registration steps, live-call calendar links).	High
Strengthen networking / peer-interaction features (forums, peer exchange, group activities).	High
Standardise the user journey across courses (no jumping back to course overview).	Medium

Promotion and Activation

Recommendation	Recurrence
Anchor every promotion action to a trackable registration page; standardise the metrics set.	High
Use LinkedIn as the lead digital channel; de-prioritise Facebook and X.	High
Strengthen integration with VET providers and universities in each country team.	High
Use Ask-an-expert and live sessions as conversion events, paired with structured promotion 2–3 weeks ahead.	Medium
Coordinate a consortium-wide social-media plan with cross-tagging and amplification.	Medium

Integration with the Inspire Pillar

Although the Inspire pillar is treated in the next chapter, the Enable-side implication of the consortium's converging evidence is worth flagging here: every category that paired a course pathway with an applied format (BPP, hackathon, ask-an-expert) produced clearer impact than categories that relied on self-paced courses alone. For the post-pilot phase, the recommendation is to anchor each course category — or at minimum each specialisation programme — to at least one applied format, treating that pairing as the default delivery design rather than an optional enrichment.

3.5 Voices from the Catalyst Community

Beyond the per-category quotes embedded above, the consortium's qualitative evidence base contains a wider set of testimonials that crystallise what learners, partners and SMEs took away from the Enable pillar. A representative selection appears below.

> *"Learner feedback indicates a strong impact, with approximately 75% of learners reporting improved knowledge and skills, and high satisfaction scores around 4.5 / 5. Learners also reported increased confidence in applying concepts."*
>
> **— P10 ISCTE — Partner final reflection**

> *"Learners particularly valued practical case studies, quizzes, real-life examples, and self-paced learning, indicating clear improvements in understanding and skills application."*
>
> **— P13 AUEB — Partner final reflection**

> *"We have raised awareness about sustainability issues, based on the Triple Bottom Line, particularly among micro-companies. The feedback we received is to finally have an alternative solution that does not ask for fees and is self-guided."*
>
> **— P7 BEST — Partner final reflection**

4. Closing Reflection

The Enable pillar of CATALYST has done what it set out to do at the activity level: a substantial body of openly accessible, professionally relevant content has been built, piloted with 1,844 enrolled learners and validated through 282 standardised feedback responses, returning a cross-category mean satisfaction of 4.28 / 5 and a Top-2-Box recommendation rate above 80%. Across the eight categories, the consistency of the satisfaction signal is striking — every category sits at or above 4.0 / 5 on overall satisfaction, and the spread between top and bottom on the headline indicator is narrow.

The pillar's weakest signal, the completion rate, is the area where the consortium's recommendations are sharpest and most aligned. Workload reduction, increased interactivity, localisation, and tighter coupling to applied formats together address the structural drivers of drop-off. None of these moves is

exotic; all of them are within reach of a focused post-pilot phase. Taken together with the strong signals from the Inspire pillar (treated in the next chapter), the evidence supports a confident continuation of the CATALYST programme — not as a static catalogue, but as a living learning ecosystem that grows alongside its learners and SMEs.

Chapter — INSPIRE

Applied innovation through Business Pilot Projects, Resources & Services, and the Catalyst Network

1. The Inspire Pillar — from learning to applied impact

If the Enable pillar of CATALYST builds knowledge through the 70-course catalogue documented in the previous chapter, the Inspire pillar is where that knowledge becomes action. Inspire mobilises learners and SMEs into applied work, expert exchange and peer learning through three complementary instruments: the Business Pilot Projects (BPPs), which pair multi-disciplinary student teams with SMEs around a real business challenge; the Resources & Services, which are openly accessible tools, frameworks and learning materials developed by the consortium and made available through the CATALYST platform; and the Catalyst Network, an open community of practice that runs webinars, ask-an-expert sessions, mastermind groups and member spotlights for professionals and students across Europe.

This chapter consolidates what the Inspire pillar produced during the piloting period. The 15 Business Pilot Projects documented and evaluated by partners delivered tangible outputs for SMEs and one public-sector organisation across five countries (Austria, Germany, Greece, North Macedonia and Portugal), with SME-reported usefulness ratings clustering at 4.0–5.0 / 5 and a mean rating of 4.73 / 5. The 15 CATALYST Network events delivered between January 2025 and June 2026 reached 394 participants across webinars, ask-an-expert sessions, mastermind groups and member spotlights, with international expert speakers from Austria, Belgium, UK, France, Germany, Greece, Nepal and beyond. The Resources & Services workstream produced applied frameworks, model documents and toolkits flagged by partners as immediately reusable in their own training and consulting practice.

Headline Indicators

Indicator	Value	Notes
Business Pilot Projects documented	**15**	Across 5 countries (AT, DE, EL, MK, PT).
BPPs with tangible deliverable for the SME	**15 / 15**	100% — every documented BPP produced a usable output.
BPPs with SME usefulness rating ≥ 4 / 5	**15 / 15**	100% — cluster between 4.0 and 5.0.
Mean SME usefulness rating	**4.73 / 5**	Across the 15 documented BPPs.
CATALYST Network events delivered	**15**	January 2025 — June 2026.
CATALYST Network total participants	**394**	Webinars (236) + Ask-an-Expert (131) + others.
Countries represented by guest speakers	**7+**	AT, UK, BE, DE, FR, EL, NP and others.

Indicator	Value	Notes
EU / EDIH follow-on funding applications	2+	From the SBCH hackathon-derived BPPs.

2. Business Pilot Projects

The Business Pilot Project (BPP) is the CATALYST programme's flagship applied-research instrument. Each BPP pairs one or more SMEs with a multi-disciplinary student team and a CATALYST partner-mentor, around a real business challenge identified by the SME. The design follows the CO–IN© co-creation model applied when developing the BPP under Work Package 4 and is captured in a standardised Application Form covering the project overview, problem statement, applied research focus, objectives, methodology, anticipated outcomes, timeline, resources and implementation potential. No financial transactions are involved between parties — each contributes its own resources (time, data access, mentorship, expert input) to the collaboration.

The instrument is intentionally lightweight on bureaucracy and heavy on real engagement. A typical BPP runs between three and six months, includes a kick-off, two to three iterative consultation rounds, an interim presentation and a final delivery, and produces concrete outputs the SME can immediately use — a methodology report, a prototype, a strategy proposal, an implementation roadmap or a set of measurement tools. Across the 15 documented BPPs evaluated in this report, every project delivered at least one tangible output and received an SME-usefulness rating of 4 or 5 out of 5.

Overview of the 15 documented BPPs

Project	Country	SME usefulness	Lead partner
SMART-SUB RISK — subcontracting risk management for SMEs	Portugal	4 / 5	ISCTE + ICAA + CENTIMFE
AKTINA Group — circular electrical infrastructure	Greece	4 / 5	AUEB
Krefeld — Circular Rental Model (Phase 1)	Germany	4.5 / 5	CSCP
Krefeld — Circular Rental Model (Phase 2)	Germany	4.5 / 5	CSCP
Hackathon "The GREEN Idea"	North Macedonia	4 / 5	SBCH
Smart Bin for Organic Waste	North Macedonia	5 / 5	SBCH
ESG Dashboard	North Macedonia	5 / 5	SBCH

Project	Country	SME usefulness	Lead partner
Vertical Green Garden	North Macedonia	**5 / 5**	SBCH
Agile Onboarding — Tandem (consulting firm)	Austria	**5 / 5**	BEST
Circular Loyalty Programme — Michele's (gastronomy)	Austria	**5 / 5**	BEST
Grazer Eco Festival — social-enterprise model	Austria	**5 / 5**	Apflbutzn / FHJ
Factory Karposh — circular construction materials	North Macedonia	**5 / 5**	CEIM / IECE
Galatsi Municipality — mitigating technostress in public sector	Greece	**5 / 5**	CREthidev
Business Model Transformation — Lokistix GmbH	Austria	5 / 5	FHJ
Sustainable Lifestyle (behavioural, environmental, technological)	North Macedonia	**5 / 5**	IECE

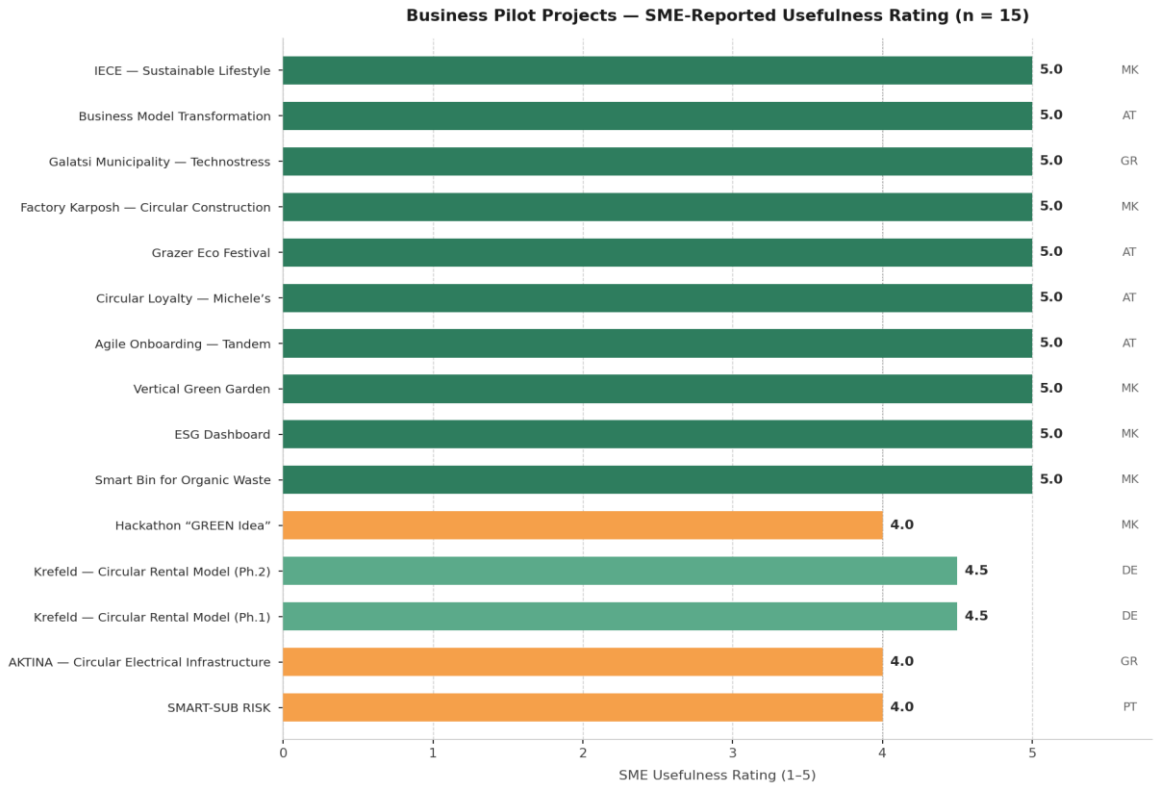

Figure 2.1 — SME-reported usefulness rating across the 15 documented BPPs (1–5 scale, country code in right column).

2.1 Selected Case Studies

The case studies below present seven of the fifteen BPPs in narrative form, selected to capture the diversity of sectors, countries, methodologies and outputs in the portfolio. The remaining BPPs are documented in the overview table above and in dedicated narrative sections that follow.

Case Study 2.1: SMART-SUB RISK

Subcontracting risk management for Portuguese SMEs — ISCTE + ICAA + CENTIMFE

Context. The SMART-SUB RISK pilot addressed a critical and increasing need for structured subcontracting risk management in Portuguese SMEs, particularly in the mould-making and tooling sectors served by CENTIMFE. The project combined research methodologies with practical tools, integrating intellectual-capital and environmental-risk considerations into a single, SME-oriented framework.

What was done. A multi-disciplinary student team worked with SMEs and academic mentors across a structured cycle of needs assessment, iterative design and SME validation. The team operated under the co-creation methodology, with continuous SME feedback to ensure that solutions were not only theoretically sound but also adapted to SME realities. The pilot was directly affected by an extreme climate event in the region of the participating SMEs, which constrained the testing phase but did not prevent delivery of the core outputs.

Deliverables produced

- A simplified, SME-oriented subcontracting risk management framework.
- A risk assessment matrix tailored to SME operational realities.
- A subcontracting risk categorisation usable as a daily-operations tool.

Outcomes and reception. The SME representative confirmed that the framework provides a structure that can be realistically applied in daily operations and that prior risk management had been informal. The mentor team highlighted the value of the co-creation process. The pilot achieved its objectives partially, primarily because of the external climate event; nevertheless, the SME-usefulness rating is 4 / 5 and the lessons learned have informed the broader CATALYST guidance on cross-disciplinary co-creation.

> *"The framework helped us clearly identify and prioritise risks that we were previously managing informally. It provides a structure we can realistically apply in our daily operations."*
>
> **— SME representative, SMART-SUB RISK**

Case Study 2.2: Krefeld — Circular Rental Model (two-phase)

Designing and finalising a circular rental model for a German start-up centre — CSCP + Krefeld Business

Context. The Krefeld pilot responded to the business need of the Grundstücksgesellschaft der Stadt Krefeld (GGK), the real-estate division of Krefeld Business, to embed circular-economy principles from the outset into a new circular start-up centre. The project was structured in two phases — design (Phase 1) and implementation preparation (Phase 2) — each run with a six-student interdisciplinary team and

supported by CSCP and GGK. The relevant CATALYST course was "Circular Business Strategies and Innovation".

What was done. Phase 1 produced a prototype Circular Rental Model, drawing on circular-economy strategies and incentive design principles. Phase 2 finalised and prepared the implementation, transforming the prototype into an Implementation Roadmap that can be operationalised when the start-up centre opens. The collaboration was described by CSCP as "exceptional", with regular bi-weekly online check-ins, two in-person meetings, respected deadlines and effective hybrid-format teamwork.

Deliverables produced

- Phase 1: Prototype Circular Rental Model.
- Phase 2: Implementation Roadmap for the Future Startup Centre Krefeld.
- Companion materials: circular-incentive design rationale, stakeholder mapping, and operational handover notes.

Outcomes and reception. Students reported a high level of added value to their studies, with the project consistently rated 4–5 / 5 on value added. The SME described the implementation roadmap as a very good theoretical foundation for the organisation that still requires further development to be applied in practice. CSCP reports that the findings will be exploited as soon as the start-up centre becomes operational, with planned follow-on activities to support implementation.

> *"The communication, especially about timeline and results-expectation, worked particularly well. The hybrid formats and the international exchange worked particularly well. I was impressed by the good, digital teamwork of the students."*
>
> **— SME representative, Krefeld Phase 1**

Case Study 2.3: AKTINA Group — Circular Electrical Infrastructure

Embedding circular-economy principles in electrical infrastructure projects — AUEB + AKTINA

Context. AUEB partnered with AKTINA Group to embed circular-economy principles into electrical-infrastructure projects, moving the organisation from a linear delivery model towards circular production systems. The pilot is the anchor of the Mastering Circular Production specialisation programme and the strongest example in the CATALYST portfolio of an academic-SME pairing producing operational tools.

What was done. Students worked with real company data, mapping material flows, identifying asset life-extension opportunities (notably for wooden poles and other long-life assets), and translating circular-procurement and KPI thinking into deliverables the company could adopt. The collaboration was reported as "strong and constructive"; the principal constraint was limited availability and consistency of operational data, particularly for waste recovery and procurement traceability.

Deliverables produced

- Circular KPI framework for project-level measurement.
- Circular Procurement Checklist for tender documents.
- Waste-recovery protocol for construction phases.
- Asset life-extension recommendations (e.g. second-life wooden poles).

Outcomes and reception. The proposed interventions were assessed as practical, low-cost and adaptable across different project types, making them suitable for wider implementation across the energy-infrastructure sector. The SME usefulness rating is 4 / 5. The pilot achieved its objectives partially because of the data-availability constraint, but the deliverables were flagged as immediately applicable for the AKTINA team and replicable in similar contexts.

> *"Working with real company data made the learning process much more meaningful. It helped us understand how circular-economy principles can actually be applied in infrastructure projects, not just in theory."*
>
> **— Student, AKTINA pilot**

Case Study 2.4: SBCH Hackathon "The GREEN Idea" and three derived pilots

A hackathon-to-pilot pipeline producing two EU funding applications — SBCH, North Macedonia

Context. SBCH ran the GREEN Idea hackathon as a creative-team format for sustainability innovation, then converted the strongest concepts into three derived BPPs. The hackathon model proved to be a particularly effective methodological route, combining intensive collaborative ideation with structured mentoring and a clear conversion path into longer-form projects.

What was done. Following the hackathon, three teams continued working with mentor and SME support: Smart Bin for Organic Waste developed a concept and a prototype, with a biogas producer offering to host a pilot in a circular project with the community; the ESG Dashboard team produced a project concept that fed directly into an EU consortium application; and the Vertical Green Garden team prepared an EDIH INNOFEIT application.

Deliverables produced

- Smart Bin for Organic Waste — concept and prototype, scalable product ready for piloting and commercialisation.
- ESG Dashboard — project concept and EU consortium application prepared.
- Vertical Green Garden — project concept and EDIH INNOFEIT application prepared.

Outcomes and reception. All three derived BPPs received SME-usefulness ratings of 5 / 5 and produced scalable outputs. Two of the three produced direct evidence of post-project momentum through EU / EDIH application submissions — a concrete signal that the hackathon-to-BPP pipeline is replicable and that the consortium can be confident in scaling this format.

> *"EU consortium support piloting in project application — innovative teaching-tool potential."*
>
> **— ESG Dashboard team, project outcome**

Case Study 2.5: BEST — Agile Onboarding (Tandem) and Circular Loyalty (Michele's)

Two Austrian micro-SME pilots on agile onboarding and circular customer engagement

Context. BEST coordinated two Austrian micro-SME pilots that exemplify how the BPP format works for very small companies. The Agile Onboarding project addressed a consulting firm's need to integrate new hires quickly into agile working practices, addressing the steep learning curve, client pressures and cultural differences that often slow new-hire integration. The Circular Loyalty pilot worked with Michele's, a Vienna gastronomy operator across coffee shop, catering and canteen-restaurant formats, on a loyalty programme that incentivises customer participation in circular-economy practices and aligns with ESG values.

What was done. Agile Onboarding used literature review and design-thinking workshops to develop prototype onboarding tools and process suggestions tailored to a micro-company consulting environment, with agile ceremonies and team interactions. The Circular Loyalty pilot used design thinking and business-case development to design a loyalty programme rewarding circular behaviours, with comparative analysis of incentive structures and recommendations for ESG reporting.

Deliverables produced

- Agile Onboarding: prototype onboarding tools, process suggestions, replicable onboarding framework.
- Circular Loyalty: loyalty-programme prototype, comparative incentive analysis, ESG-reporting recommendations.

Outcomes and reception. Both pilots received SME-usefulness ratings of 5 / 5. The Agile Onboarding result can be used by the business partner internally and as added value for consulting services with their clients. The Circular Loyalty project was rated highly even though, at the reporting date, it was not yet closed and results were therefore only partly available. Participants reported additional ESG learning beyond the pilot scope.

> *"It has been like being in a real work world, not like learning in theory."*
>
> **— Participant, Circular Loyalty Programme (Michele's)**

Case Study 2.6: Apflbutzn / FHJ — Grazer Eco Festival

From charity to social enterprise: transforming the business model of an Austrian eco festival

Context. The Grazer Eco Festival (Geco Festival), run by a non-profit association, faced a strategic question: how to evolve into a professional, financially viable event business without losing its mission of sustainable, accessible and community-focused programming. The BPP was anchored in the Green Start-Up Manager specialisation programme and ran with online consultations, two e-mail rounds and a final online presentation between June and November 2025.

What was done. Students researched sustainable event-business models, benchmarked European sustainability festivals, and translated the Geco Association's guiding questions into a structured response: revenue model evolution beyond sponsorships and grants; governance and staffing changes to balance business agility with mission-driven values; market positioning and audience differentiation

(families, corporates, students); operational scaling and quality control; and stakeholder-engagement and impact-measurement KPIs.

Deliverables produced

- Three final reports: business-model transformation, marketing strategy and sponsoring concept.
- Recommended KPI set for cultural, environmental, social and economic impact.
- Audience segmentation and revenue-stream recommendations.

Outcomes and reception. The SME usefulness rating is 5 / 5. The Apflbutzn / FHJ team flagged "some nice out-of-the-box thinking, and suggestions which can be implemented immediately". The implementation potential is high, as traditional funding for the festival is decreasing and alternatives need to be found.

> *"Some nice out-of-the-box thinking, and suggestions which can be implemented immediately."*
>
> **— P9 Apflbutzn, BPP closing note**

Case Study 2.7: CEIM — Factory Karposh

Comprehensive circular-economy approach for construction materials manufacturing — IECE / CEIM, North Macedonia

Context. The Factory Karposh pilot, embedded in the Mastering Circular Production specialisation programme, addressed the question of how to integrate circular-economy principles into prefabricated-concrete production. The pilot was particularly significant as the construction sector is among the highest in terms of profitability and income, yet also carries one of the heaviest carbon footprints — making the financial-environmental complementarity of circular interventions especially relevant.

What was done. The work explored current resource use, waste and side-product generation in a prefabricated-concrete production process. The team then researched technical and technological possibilities for circular-economy implementation (recycled materials in concrete, water recycling, waste-heat recovery, side-product management), specified three production-process alternatives, and developed a generic evaluation model with technical, financial and environmental criteria. The model was applied to the real-life case of Factory Karposh, ranking and selecting production-process alternatives.

Deliverables produced

- Methodology report on circular-economy implementation in construction materials manufacturing.
- Company profile and production-capacity inquiry instrument.
- Scalability analysis and consultancy-service concept.

Outcomes and reception. SME usefulness rating is 5 / 5. The Factory Karposh team confirmed the method's potential to introduce improvements and savings in the production process, and an expressed willingness to include the results in the development of the production process. The pilot also identified scaling potential to other profiles of construction-sector companies. Main barriers identified for sectoral

replication: lack of knowledge on available technologies, insufficient information on the benefits of circular production, and limited finance to launch investments.

Case Study 2.8: Galatsi Municipality — Mitigating Technostress in Public Sector Workplaces

Addressing digital fatigue and employee resilience in a Greek municipality — CREthidev / Municipality of Galatsi (Attica)

Context. The Galatsi Municipality pilot is the CATALYST portfolio's only documented public-sector BPP. It addresses an increasingly pervasive workplace challenge: technostress — the strain employees experience from digital overload, constant connectivity and rapid technological change. The municipality operates in an increasingly digitalised environment, requiring employees to manage multiple digital platforms, communication channels and information flows, leading to rising stress levels that negatively affect well-being, engagement and work quality. The BPP was anchored to the CATALYST course "Boosting Resilience & Mitigating Technostress in SMEs: How to Transform the Modern Workplace" and led by CREthidev with student involvement (Gina Pandroula).

What was done. The pilot used a case-study approach focused on a single municipal organisation, combining a quantitative survey using validated technostress and digital-resilience questionnaires with qualitative analysis of employees' open responses. The phases ran across September to February: planning and stakeholder alignment (Sep–Oct), questionnaire adaptation and approval (Nov), data collection (Dec–Jan), data analysis (Feb) and recommendations / final report (Feb). The organisation contributed employee participation and data access; the student led research design, data collection, analysis and reporting; CREthidev as the CATALYST partner provided tools, frameworks and supervision.

Deliverables produced

- Technostress assessment report for the municipality.
- Practical recommendations and action plan for HR and digital-workplace teams.
- Summary presentation for management.
- Anonymised data on technostress levels and key stressors in a municipal setting.

Outcomes and reception. The pilot is positioned to inform internal HR and digital-workplace initiatives and to support future employee well-being strategies. The methodology and tools are designed to be replicated across other departments or municipalities, supporting broader public-sector resilience and digital well-being strategies. SME usefulness rating is 5 / 5; the project is notable for extending the CATALYST applied-research model into public-sector employee well-being — a domain that complements the SME-focused work in the rest of the portfolio.

> *"Addressing technostress proactively represents an opportunity to enhance sustainable workforce performance."*
>
> **Galatsi Municipality / CREthidev**

Case Study 2.9: Sustainable Lifestyle: Behavioural, Environmental and Technological Approaches

Integrating individual behaviour change with environmental and technological levers — IECE, North Macedonia

Context. The IECE Sustainable Lifestyle BPP applies an integrated approach to sustainable-lifestyle adoption, working across three complementary dimensions: behavioural (individual habits and decision-making patterns), environmental (the material and energy footprints of daily life) and technological (the digital and physical tools that enable or constrain sustainable choices). The pilot extends the CATALYST course catalogue's personal-development pathway into an applied research format, addressing the question of how individual sustainability behaviours can be activated, supported and sustained when integrated with environmental and technological context factors.

What was done. The pilot drew on the CATALYST personal-development course family — notably "How to achieve a sustainable lifestyle", "Sustainable Production and Consumption" and the Transformation Readiness on Personal Level pathway — and translated their content into an applied co-creation cycle with North Macedonian participants. The work surfaced the interaction effects between behavioural choices and the environmental and technological context in which those choices are made, and produced an applied framework for sustainability-lifestyle activation that complements the more SME-focused BPPs elsewhere in the portfolio.

Deliverables produced

- Applied framework for integrating behavioural, environmental and technological levers in sustainable-lifestyle adoption.
- Set of recommendations for activating and sustaining individual sustainability behaviours.
- Reusable methodology for replication across personal-development cohorts.

Outcomes and reception. The pilot received an SME / participant usefulness rating of 5 / 5. Its distinctive contribution to the portfolio is the explicit bridging of personal-development content (where CATALYST's Transformation Readiness category produced the strongest satisfaction signals in the catalogue) with environmental and technological context factors that determine whether individual behaviour change actually takes hold. The framework is transferable across other partner contexts and supports the case for personal-development content as a serious component of the CATALYST applied portfolio.

2.2 Cross-cutting evidence across the 15 BPPs

Relevance

All 15 BPPs addressed real, timely business needs across both private SMEs and the public sector. The strongest examples on this dimension are the SMART-SUB RISK pilot (addressing "a critical and increasing need for structured subcontracting risk management in Portuguese SMEs"), the CSCP – Krefeld pilot (responding "very effectively and promptly to the business need to develop fundamental circular concepts") and the Galatsi technostress pilot (addressing a rising public-sector workplace strain accelerated by digital transformation). The Factory Karposh, and Grazer Eco Festival pilots illustrate the same relevance pattern in construction-materials manufacturing, cultural/event organising and multi-sector production engineering respectively.

Collaboration quality

Collaboration quality was rated highly across all BPPs. The CSCP pilot reported the collaboration as "exceptional", with regular bi-weekly online check-ins, two in-person meetings, respected deadlines and good digital teamwork. AUEB / AKTINA reported a "strong and constructive" collaboration. SBCH reported the hackathon-derived pilots as combining mentor support with creative team collaboration. CEIM reported expressed interest at all management and operational levels of Factory Karposh, with feedback provided on first, interim and final results.

Practical usefulness

Most BPP outputs were flagged as immediately applicable. The AUEB / AKTINA pilot produced a circular KPI framework, a procurement checklist, a waste-recovery protocol and asset life-extension recommendations — all immediately applicable. The CSCP Phase-2 pilot produced an Implementation Roadmap that the SME described as "a very good theoretical foundation for our organization" requiring further development. The Apflbutzn / Geco pilot resulted in three final reports including a business-model transformation report, a marketing strategy and a sponsoring concept.

Perceived innovation

Several BPPs introduced genuinely novel approaches. SMART-SUB RISK introduced a simplified, SME-oriented risk-management framework integrating intellectual-capital and environmental-risk considerations. AUEB / AKTINA introduced project-level circular-KPI measurement, material-flow mapping, second-life assessment for assets like wooden poles, and reverse-logistics thinking. CSCP introduced a Circular Rental Model and Implementation Roadmap as innovative formats for the Krefeld start-up centre. CEIM introduced a generic evaluation model for circular-production alternatives that ranks production-process options on technical, financial and environmental criteria.

Sustainability and continuation potential

Most BPPs report strong potential for continuation or scaling. CSCP reports that the findings "will be exploited" and "circular activities at the start-up centre are to be scaled up". AUEB highlights that the proposed interventions are "practical, low-cost and adaptable across different project types, making them suitable for wider implementation". The SBCH hackathon-derived BPPs (ESG dashboard, Vertical Green Garden) generated EU and EDIH funding-application submissions, signalling continued post-pilot momentum. CEIM reports willingness from Factory Karposh to embed the results in the company's technological and business development plans.

Lessons learned across BPPs

- External disruption can substantially affect timelines (SMART-SUB RISK and the climate event).
- Data availability is a frequent operational bottleneck (AUEB pilot).
- Cross-border, multi-disciplinary student teams add value (CSCP).
- Regular structured check-ins are essential to keep momentum (CSCP, AUEB).
- Co-creation methodology delivers stronger SME engagement than traditional consulting-style delivery (all BPPs).
- A hackathon-to-BPP pipeline is a replicable conversion path with measurable post-project momentum (SBCH).

- The BPP format extends successfully to the public sector (Galatsi Municipality — technostress in a Greek municipality).
- Personal-development BPPs can be applied research too — integrating behavioural, environmental and technological levers (IECE Sustainable Lifestyle).

3. Resources & Services

The Resources & Services workstream produced applied frameworks, model documents, methodology guides and toolkits that complement the Enable course catalogue and the Inspire BPP instrument. Where courses provide the structured learning and BPPs provide the applied experience, the Resources & Services are reusable building blocks: tools that learners, partners and SMEs can pick up directly from the CATALYST platform and apply in their own context. 66 Resources & Services are available on the CATALYST Platform.

Types of resources produced and used

- **Applied frameworks and toolkits.** Circular KPI framework and circular procurement checklist (AUEB / AKTINA); circular rental-model template and incentive design rationale (CSCP); subcontracting risk-assessment matrix (SMART-SUB RISK); circular-production evaluation model (CEIM / Factory Karposh).
- **Methodology and process documents.** The BPP Application Form (Work Package 4, Task 4.4) provides a standardised co-creation template adopted across all BPPs; CSCP's collaboration playbook (bi-weekly check-ins, hybrid format design, interim and final delivery structure) is documented as a transferable model.
- **Course-anchored supporting materials.** Quizzes, case studies, real-life examples, illustrative diagrams (notably the "circular compass" used in AUEB's Circular Business Models course) and slide decks accompanying the 70 courses.
- **Communication and dissemination assets.** Newsletters, prospectus materials, social-media templates and event recordings made available through the platform and partner channels.

Patterns of use observed during the pilot

Two patterns emerge from partner reflections on how the Resources & Services have been used. First, the tools produced through BPPs migrate naturally back into the course catalogue and into partner training: P13 AUEB explicitly identifies "embedding CATALYST resources into partner training catalogues and existing capacity-building initiatives" as a key continuation strategy, and CSCP confirms the same direction. Second, partners increasingly use the resources as conversation-starters with SMEs and stakeholders — the BPP Application Form has functioned not only as a project-management instrument but also as a recruitment tool, structuring the initial conversation with prospective SMEs.

The most consistent partner request on Resources & Services is for localisation — translation and adaptation of the materials into Portuguese, German, Macedonian, Greek and Spanish, where new partner resources can mobilise this. Where partners localised content (informally or in pilot form), engagement with SME audiences was visibly stronger.

4. The CATALYST Network

The CATALYST Network is the open community of practice attached to the CATALYST programme: a space where professionals, students and SMEs from public, private and academic sectors connect around sustainability and business transformation. The Network is hosted on the CATALYST platform (catalystplatform.net), runs continuous member-only activities, and engages members across Europe on topics aligned with the course catalogue — sustainable development, circular economy, and organisational transformation. Membership is open to students and professionals; the Network is positioned as a parallel offer to the structured learning of the courses and the applied work of the BPPs, providing the social-capital and expert-exchange layer that converts courses-and-pilots into a living community.

Activities and Headline Numbers

Between January 2025 and June 2026, the consortium delivered 15 documented Network events totaling 394 participants. The activity mix combines Webinars (broader topical sessions, typically 30–60 minutes), Ask-an-Expert events (focused conversations with a named external expert), Mastermind groups (longer, smaller, cohort-style sessions) and Member Spotlight events (community-driven member-led sessions). The chart below shows the activity mix.

Activity format	Events	Participants	Avg. per event
Webinars	7	236	34
Ask an Expert	6	131	22
Mastermind groups	1	14	14
Member Spotlight	1	13	13
Total	**15**	**394**	**26**

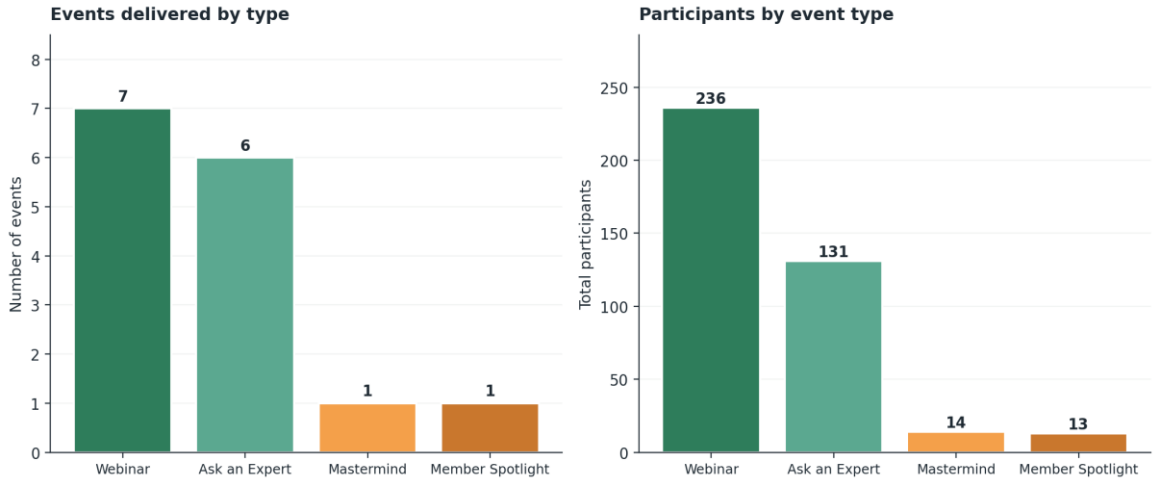

Figure 4.1 — Events delivered and total participants by activity type.

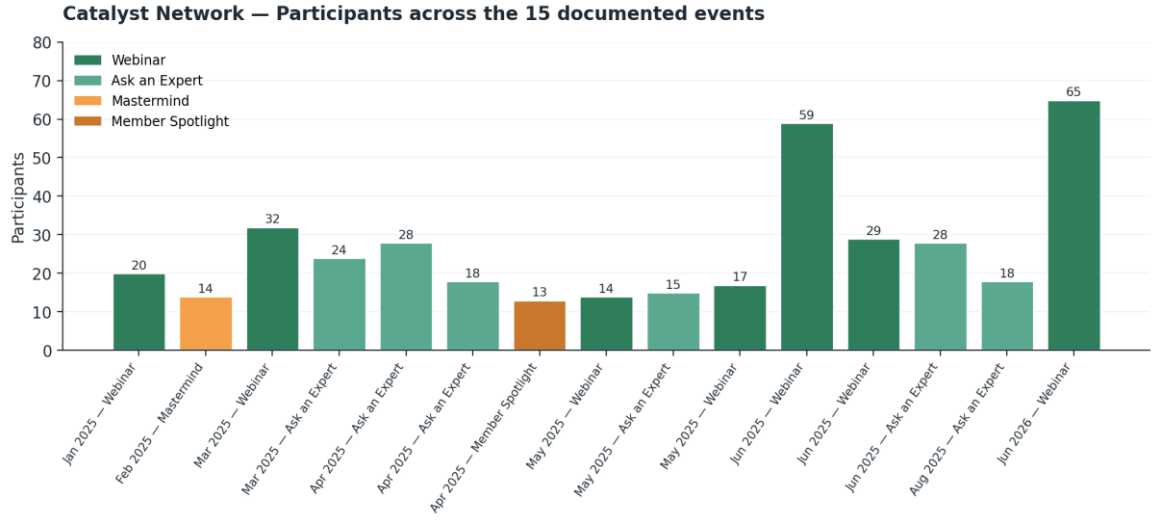

Figure 4.2 — Participants across the 15 documented Catalyst Network events (Jan 2025 — Jun 2026).

Highlights from the event programme

Several events stand out for the breadth of topics addressed and the calibre of the external speakers engaged. The list below captures representative highlights from across the 15-event programme; the full list is documented in the Network event log.

Date	Event title and lead partner	Participants	Guest speaker / country
30 Jan 2025	Sustainability in the Service Business — FHJ	**20**	Prof. Harald Friedl (AT)
20 Feb 2025	Sustainable Leadership Mastermind — BELLS	**14**	Rhonda Bowen (DE)
25 Mar 2025	Ask an Expert: Fabian Gems, CEO of SUPASO — AB	**24**	Fabian Gems (AT)
31 Mar 2025	Business Transformation in Southeast Europe — AUEB	**32**	Procopiou, Hamanova, Stenos (EL)
3 Apr 2025	Hello Transformation! — CSCP	**28**	Tamara Wyczynski (DE)
23 Apr 2025	Communicating our Values with Integrity — BELLS	**18**	Anny Tubbs (BE)

Date	Event title and lead partner	Participants	Guest speaker / country
29 Apr 2025	Activate Your Entire Organization — CSCP	13	Stephan Engel, SEED 17 (DE)
6 May 2025	Journey through Transformation — BEST	14	Zsuzsa Peto (DE)
8 May 2025	Collaboration for Circular Business Innovation — CSCP	15	Bettina Knothe (DE)
19 May 2025	Practicing Mindfulness for Personal Energy — IECE	17	Angelina Taneva-Veshoska (P1, MK)
10 Jun 2025	Building Circular Futures in Western Balkans Construction — IECE / SP	59	Led by Partners
11 Jun 2025	Catalysing Circular Growth: Specialisation & BPPs — AUEB, SP, IECE	29	Partner representatives
26 Jun 2025	Tracking the Global Goals: SDR 2025 — SDSN	28	Grayson Fuller (FR)
25 Aug 2025	Sustaining the Unsustainable? Nepal Chure — BELLS	18	Dr. Binod Bhatta (NP)
27 Jun 2026	Skills for Sustainable Industrial Transformation — SDSN	65	Multi-stakeholder partnership panel

What the event mix tells us

Three observations emerge from the event-level data. First, larger Webinars and the more focused Ask-an-Expert events together account for 87% of total Network participation — these are the two formats that the consortium can confidently scale. Second, the largest single events (59 participants for the Western Balkans circular-construction webinar; 65 for the SDSN industrial-transformation webinar) had a clear topical anchor and a coordinated cross-partner promotion effort — confirming that thematically distinctive events with cross-partner backing perform best. Third, the topical breadth of the programme is one of its strongest assets: speakers from Austria, Belgium, France, Germany, Greece and Nepal addressed mindfulness, circular construction, ESG, governance, organisational transformation, sustainable leadership, the SDGs and skills for industrial transformation, giving the Network a genuinely European-and-beyond character.

5. Cross-Cutting Findings for the Inspire Pillar

The findings below synthesise the cross-cutting patterns observed across the three Inspire instruments — Business Pilot Projects, Resources & Services, and the CATALYST Network. They are organised around four lenses (what worked best and why; what worked less well and why; success factors;

recommendations), followed by a consolidated voices block bringing together representative testimonials from across the pillar.

5.1 What Worked Best and Why

Five drivers recurred across the three Inspire instruments. They are reported here in the order in which partners and SMEs flagged them most consistently.

- **Real applied work on real SME challenges.** Every BPP that produced a tangible deliverable received an SME-usefulness rating of 4 or 5 out of 5. The pattern is unambiguous: when student teams worked on actual company data and operational challenges — AUEB / AKTINA, CSCP / Krefeld, CEIM / Factory Karposh, BEST / Tandem — SMEs reported the outputs as immediately usable. The same pattern operates inversely on the few BPPs where data was hard to obtain (AUEB / AKTINA) or where external disruption occurred (SMART-SUB RISK), confirming that authentic applied work is the single most important driver of impact.
- **Co-creation methodology with iterative SME validation.** The CO–IN© co-creation model — multi-stakeholder iterative design with continuous SME validation — was validated across SMART-SUB RISK, CSCP / Krefeld, AUEB / AKTINA, BEST and the SBCH hackathon BPPs. The mentor quote from SMART-SUB RISK is representative: “the co-creation process ensured that the solutions were not only theoretically sound but also adapted to SME realities”.
- **Hackathon-to-BPP pipeline as a conversion route.** The SBCH GREEN Idea hackathon converted directly into three derived BPPs (Smart Bin, ESG Dashboard, Vertical Green Garden), two of which produced EU / EDIH funding-application submissions during the project lifetime. This is the cleanest demonstration in the portfolio that the hackathon format can serve as an effective top-of-funnel for serious applied work.
- **Network events as conversion and community-building tools.** Webinars and Ask-an-Expert events repeatedly outperformed broad social-media campaigns as conversion tools — a finding also observed in the Enable pillar. The largest Network events (59 and 65 participants) confirmed that thematically distinctive sessions with cross-partner backing scale efficiently.
- **Specialisation programme + BPP pairing.** Anchoring BPPs to specialisation programmes — Mastering Circular Production (AUEB / AKTINA and CEIM / Factory Karposh); Green Start-Up Manager (Apflbutzn / Geco Festival) — produced a coherent learning-then-applying pathway and reinforced the case for systematic course-BPP pairing as the default delivery design.

5.2 What Worked Less Well and Why

Four recurring barriers were identified across the three Inspire instruments. None is structural to the Inspire concept; all are addressable in a future phase.

- **Data availability and operational documentation in SMEs.** Both the AUEB / AKTINA and CEIM / Factory Karposh pilots reported that limited availability and consistency of operational data — particularly for waste recovery, procurement traceability and existing informal practices — constrained the depth of analysis the student teams could deliver. Future BPPs should include an explicit “data readiness” check in the kickoff phase.

- **External disruption to BPP timelines.** The SMART-SUB RISK pilot was directly affected by an extreme climate event in the Portuguese region of the participating SMEs. While unavoidable, this points to the value of building schedule resilience into BPP design — buffer periods, fallback delivery modes, and explicit risk-management clauses in the project plan.
- **Language barrier on resources and live sessions.** Several partners (P10 ISCTE, P6 FASB, P4 CSCP, P12 CENTIMFE) flagged that English-only delivery of resources and live sessions limits reach into national SME audiences. The same barrier was reported in the Enable pillar; in Inspire it shows up most acutely in Ask-an-Expert events and resource-document take-up.
- **Network promotion conversion.** Broad social-media campaigns produced visibility for the Network without traceable enrolment outcomes. As in the Enable pillar, the bottleneck is the absence of trackable registration pages and structured follow-up between awareness and event sign-up. Smaller events with fewer than 15 participants (Mastermind, Member Spotlight, BEST and IECE webinars) point to the need for sharper targeting or more aggressive cross-partner amplification.

5.3 Success Factors Identified

Six operational success factors emerge as the conditions under which Inspire performs best. They are descriptive of what worked during the pilot, and prescriptive for a future phase.

Success factor	Why it matters
Real SME, real data	BPPs that worked on actual company data and current operational challenges produced the strongest outputs and the highest usefulness ratings. The corollary is that screening prospective SMEs on data readiness should be part of the BPP kickoff process.
Multi-disciplinary student teams	Mixed teams (business, engineering, design, sustainability) outperformed single-discipline teams. The CSCP Krefeld pilot makes the strongest case for cross-border, multi-disciplinary teamwork as a default design choice.
Structured cadence	Bi-weekly online check-ins, two in-person meetings, an interim presentation and a final delivery — the CSCP cadence — is the most replicable rhythm. Where this cadence was followed, momentum was strong; where it was not, drift occurred.
Standardised templates	The BPP Application Form (WP4 / Task 4.4) and the standardised effectiveness-evaluation table created a consistent comparison base across 12 BPPs. Standardisation enabled cross-BPP learning that ad-hoc reporting could not have produced.
Cross-partner amplification of Network events	The two largest Network events (Western Balkans circular construction; SDSN industrial transformation) shared one feature: coordinated promotion across multiple partner channels. This is replicable and should be the default for flagship events.
Specialisation programme pairing	Anchoring BPPs to a specialisation programme and to specific course pathways gave learners a coherent journey from learning to

Success factor	Why it matters
	applying. This pairing should be the default architecture for the post-pilot phase.

5.4 Recommendations

The recommendations below consolidate partner-submitted reflections and the cross-cutting evidence from § 5.1 – 5.3. They are organised by Inspire instrument. Recurrence is rated Very high / High / Medium, based on how many partners independently flagged each item.

Business Pilot Projects

Recommendation	Recurrence
Make the BPP ↔ specialisation-programme pairing the default architecture for the post-pilot phase.	Very high
Add an explicit “data readiness” check to the BPP kickoff (data availability, traceability, consent).	High
Build buffer time and risk-management clauses into BPP timelines.	High
Promote multi-disciplinary, cross-border student teams as the default composition.	High
Replicate and scale the hackathon-to-BPP pipeline as a top-of-funnel conversion route.	High
Standardise post-BPP follow-up: at 3, 6 and 12 months, capture SME implementation status.	Medium

Resources & Services

Recommendation	Recurrence
Localise materials into national languages (PT, DE, MK, EL, ES) — dedicated translation or AI-assisted.	Very high
Embed CATALYST resources into partner training catalogues and capacity-building initiatives.	High
Refresh resources with emerging topics (e.g. Digital Product Passport, regulatory updates).	High
Create a curated “resource library” structure on the platform (currently dispersed across courses).	Medium
Publish an annual “state-of-CATALYST” resource compendium as a stand-alone reference document.	Medium

CATALYST Network

Recommendation	Recurrence
Default to coordinated cross-partner promotion for flagship Network events (50+ participants target).	High
Anchor every Network event to a trackable registration page and a single canonical landing page.	High
Sharper topical targeting for smaller formats (Mastermind, Member Spotlight) — cohort recruitment, not open invites.	Medium
Use LinkedIn as the lead digital promotion channel; de-prioritise Facebook and X.	High
Publish a forward-looking quarterly event calendar to support partner cross-promotion.	Medium
Strengthen networking features on the platform (forums, peer exchange, structured introductions).	High

5.5 Voices from the CATALYST Community

The quotes below — sourced from the per-BPP and partner-data-collection inputs — illustrate the patterns identified in the previous sections. They are anonymised; the source role and project are indicated.

> *"The framework helped us clearly identify and prioritise risks that we were previously managing informally. It provides a structure we can realistically apply in our daily operations."*
>
> **— SME representative — SMART-SUB RISK**

> *"The co-creation process ensured that the solutions were not only theoretically sound but also adapted to SME realities. This collaboration was essential for the project's success."*
>
> **— Mentor / expert — SMART-SUB RISK**

> *"I am very grateful to have participated in this project. Not only for the knowledge acquired, but also for the amazing people I had the chance to get to know and work together. Thank you for the opportunity."*
>
> **— Student — Krefeld Circular Rental Model (Phase 1)**

> *"Working with real company data made the learning process much more meaningful. It helped us understand how circular-economy principles can actually be applied in infrastructure projects, not just in theory."*
>
> **— Student — AKTINA / AUEB pilot**

> *"The collaboration with the students brought fresh perspectives to challenges we face daily. Some of the proposed solutions, especially around procurement and waste recovery, were practical and immediately relevant."*
>
> — SME representative — AKTINA / AUEB pilot

> *"It has been like being in a real work world, not like learning in theory."*
>
> — Participant — Circular Loyalty Programme (Michele's) / BEST

> *"Some nice out-of-the-box thinking, and suggestions which can be implemented immediately."*
>
> — P9 Apflbutzn — Grazer Eco Festival closing note

> *"Scaling potential recognised for other profiles of construction-sector companies. The method was presented and its potential to introduce improvements and savings in the production process was recognised."*
>
> — P2 CEIM / Factory Karposh — closing assessment

6. Closing Reflection

The Inspire pillar of CATALYST has done at the activity level what it was designed to do: 15 Business Pilot Projects delivered tangible outputs to SMEs and one public-sector organisation across five countries, with an unbroken 4-or-5-out-of-5 SME usefulness rating and a mean of 4.73 / 5; a Resources & Services workstream produced reusable frameworks and toolkits that partners are now embedding into their own training catalogues; and the CATALYST Network delivered 15 events reaching 394 participants with speakers drawn from across Europe and beyond. The two pieces of post-project evidence that matter most — EU and EDIH funding applications generated by the SBCH hackathon-derived BPPs, and the operational adoption of AUEB / AKTINA tools at the company level — indicate that the impact extends beyond the project boundary. BPP format works for private SMEs, for public-sector employers, for production-engineering challenges with explicit financial returns, and for personal-development questions reframed as applied research.

The pillar's weaker signals are diagnostic rather than structural. Data readiness in participating SMEs, external disruption to timelines, English-only delivery and the conversion gap between Network awareness and Network sign-up are all addressable through specific design choices in a future phase. Together with the Enable pillar evidence presented in the previous chapter, the signal is clear: the BPP ↔ specialisation ↔ Network triad works, the co-creation methodology travels, and the consortium has built the operational muscle to run it. The recommendation set in § 5.4 captures the small number of focused moves needed to convert what worked into a continuing operating model after the project closes.

Chapter — ENABLE & INSPIRE

Specialisation Programmes and Hackathons — where structured learning and applied innovation meet

1. Where Enable meets Inspire

The Enable pillar of CATALYST provides the courses; the Inspire pillar provides the applied work. The two formats covered in this chapter — Specialisation Programmes and Hackathons — are deliberately positioned at the intersection of the two pillars. They take the structured learning of the catalogue and place it inside a defined, time-bound, cohort experience that ends with concrete applied outputs and, in several cases, a Business Pilot Project handover.

Three Specialisation Programmes were piloted during the project lifetime: “Mastering Circular Production”, led by AUEB with IECE and CEIM, anchored in the Circular Economy category and feeding two BPPs (AKTINA in Greece, Factory Karposh in North Macedonia); “Green Start-Up Manager”, led by Apflbutzn with FH JOANNEUM, anchored in Sustainable Development and feeding the Grazer Eco Festival BPP; and “Personal and Organisational Growth”, led by BELLS, anchored in the Transformation Readiness category and centred on a blended self-paced + live design including weekly live videos and the project’s mastermind group format.

Two Hackathons were delivered: “The GREEN Idea”, organised by the Small Business Chamber (SBCH) in North Macedonia between April and November 2025, which converted into three derived Business Pilot Projects and produced EU / EDIH / DBU follow-on funding outcomes; and “Youth Ideas for Sustainable Buildings”, organised by IECE and CEIM with the Faculty of Civil Engineering Skopje in February 2026, which mobilised 17 secondary-school teams (~69 participants) around two circular-economy construction scenarios. Together these two events demonstrate that the hackathon format works for two very different audiences — adult professionals connected to real-business clients on the one hand, and secondary-school students discovering sustainability careers on the other.

Headline Indicators

Indicator	Value	Notes
Specialisation Programmes piloted	**3**	Mastering Circular Production; Green Start-Up Manager; Personal & Organisational Growth.
Programmes paired with at least one BPP	**2 / 3**	Programme 3 paired with mastermind group and live-cohort formats.
Hackathons delivered	**2**	GREEN Idea (SBCH) and Youth Ideas for Sustainable Buildings (IECE and CEIM).
Total hackathon participants	**~110**	~40 (GREEN Idea matching day) + 69 (Youth Ideas survey respondents).

Indicator	Value	Notes
Hackathon outputs → BPPs	3 → BPPs	Smart Bin, ESG Dashboard, Vertical Green Garden.
Follow-on funding outcomes	3+	EDIH INNOFEIT (CarbLog Bin); DBU pilot (Vertical Green Garden); Erasmus+ tool (ESG Dashboard).
Hackathon 1 overall rating (4 or 5 / 5)	91%	Survey n=69, Youth Ideas for Sustainable Buildings.
Hackathon 1 — career inspiration	~70%	Considering studies / career in this field after the event.

2. Specialisation Programmes

A Specialisation Programme is a curated learning pathway that bundles several CATALYST courses under a coherent theme, sequences them, and adds a live-cohort or applied-project layer so that learners progress as a group rather than as isolated self-paced individuals. The format is designed to produce three outcomes that pure self-paced courses do not deliver on their own: cohort identity, conversation continuity across weeks, and a clear bridge into an applied output (a Business Pilot Project, a prototype, or a strategy document for a partner SME).

The three programmes piloted during the project were each anchored to a different thematic category in the Enable catalogue and led by a different partner cluster. The visual below summarises the three programmes, their lead partners, their thematic anchors and the courses they bundle.

Figure 2.1 — The three CATALYST Specialisation Programmes piloted during the project lifetime.

2.1 Mastering Circular Production

Lead: AUEB / AE4RIA, with IECE and CEIM • Thematic anchor: Circular Economy

Programme design. Mastering Circular Production bundles five Circular Economy courses — Circular Business Models (linear to circular), Circular Economy KPIs, Circular Design & Eco-Design (including cradle-to-cradle), Circular Production, and Sustainable Materials Management — into a coherent learning pathway. AUEB designed the programme around the principle identified in its partner reflection: "integrating live expert sessions with self-paced online learning". The programme is paired with two Business Pilot Projects — AKTINA Group on circular electrical infrastructure (Greece) and Factory Karposh on circular construction materials (North Macedonia) — which give learners a direct applied destination for the course content.

Implementation. The programme combined self-paced course completion with live expert sessions, including a final compulsory live session for the Advanced course in which circular business ideas developed during the course were pitched. CSCP's partner reflection on its own "Circular Business Strategies and Innovation" Advanced course flagged the same live-session pitch design as a strong engagement driver. AUEB confirmed "good participant engagement" in the final live session, with "vivid" pitching of circular ideas developed during the course.

Effectiveness signals. The two AKTINA and Factory Karposh BPPs both received SME-usefulness ratings of 4 / 5 and 5 / 5 respectively, with deliverables (KPI framework, procurement checklist, waste-recovery protocol; methodology report, scalability analysis, consultancy concept) flagged as immediately applicable.

Worked well. The pairing of a coherent course pathway with two real BPPs produced the strongest learning-to-applying bridge in the CATALYST portfolio. P13 AUEB explicitly identifies the model — self-paced + live + applied BPP — as a replicable pattern across the consortium. The illustrative pedagogical tools developed for the courses (notably the "circular compass" and the practical KPI sets) travelled into the BPPs and into the AKTINA workplace.

Worked less well. Workload for the Advanced courses was repeatedly flagged as too heavy for SME audiences (P4 CSCP: "32 hours is definitely too much"). Sustainable Materials Management was perceived by P12 CENTIMFE as "a little basic and slightly lacking in practical application", indicating demand for an advanced track for already-intermediate learners.

> *"Strong alignment with current organisational priorities. Approximately 75% of learners reported improved knowledge and skills, with high satisfaction scores around 4.5 / 5."*
>
> **— Partner reflection — ISCTE, on Circular Economy / Intellectual Capital pathway courses**

2.2 Green Start-Up Manager

Lead: Apflbutzn, with FH JOANNEUM • Thematic anchor: Sustainable Development

Programme design. Green Start-Up Manager is the consortium's entrepreneurship-oriented programme, bundling courses on sustainable lifestyle, sustainable production and consumption, green and social entrepreneurship business modelling, and green marketing. It is anchored to the Sustainable Development and Sustainable Business Management categories and designed to take learners from values clarification (lifestyle) through production and consumption logic into entrepreneurial design (business model, marketing). The programme is paired with the Grazer Eco Festival BPP, run with the Geco Association from June to November 2025, which gives learners a concrete entrepreneurship case to apply the programme content.

Implementation. The programme operated jointly between Apflbutzn and FHJ. The Grazer Eco Festival BPP was embedded inside the programme: all student meetings were shared between Apflbutzn and FHJ, with contact to the Geco Association routed through Apflbutzn. The BPP cycle was structured around two e-mail consultation phases, two live online consultation meetings with mentors (one with a Geco representative), an interim presentation in mid-August and a final online presentation in early November.

Effectiveness signals. The Grazer Eco Festival BPP received an SME-usefulness rating of 5 / 5, with Apflbutzn flagging "some nice out-of-the-box thinking, and suggestions which can be implemented immediately".

Worked well. Personal-resonance content ("How to achieve a sustainable lifestyle") acted as an effective entry door to the programme — it drew the strongest individual interest in the Apflbutzn catalogue. The Geco Festival case gave the programme a tangible end point that anchored otherwise broad entrepreneurship content in a real organisation's transformation question (charity → social-enterprise model).

Worked less well. As with the Mastering Circular Production programme, English-only delivery limited reach into German-speaking Austrian SME audiences, where personal-development content and entrepreneurship case work both benefit from national-language delivery.

> *"Some nice out-of-the-box thinking, and suggestions which can be implemented immediately."*
>
> **— P9 Apflbutzn — Grazer Eco Festival BPP closing note**

2.3 Personal and Organisational Growth

Lead: BELLS • Thematic anchor: Transformation Readiness (Personal and Organisational)

Programme design. Personal and Organisational Growth bundles BELLS-developed courses on "Sustainable Professional Growth", "Beyond Boundaries" and team-building content, and pairs them with a live mastermind format that has become a signature feature of the CATALYST Network. The design intent is to support learners in shifting both the personal disposition (resilience, self-awareness,

professional growth) and the organisational practice (effective teams, sustainable leadership) needed for sustainability transitions.

Implementation. The flagship course — "Sustainable Professional Growth" — was delivered as a six-week design with weekly live videos in addition to the self-paced material. BELLS also ran the consortium's mastermind group format (Sustainable Leadership Mastermind: A Year of Collective Innovation, 20 February 2025, 14 participants, with guest speaker Rhonda Bowen). A follow-up Member Spotlight session on transformation readiness (10 participants) extended the cohort experience.

Effectiveness signals. BELLS reported "Sustainable Professional Growth" as the highest-impact course in its catalogue, attributing the result directly to the live-session design and the conversation continuity it produced across the six weeks.

Worked well. The self-paced + weekly-live design proved highly effective: BELLS reports that this format produced markedly stronger engagement than pure self-paced delivery for personal-development content. The mastermind format provided cohort identity and conversation continuity in a way that single webinars cannot.

Worked less well. Team-focused courses (notably "Beyond Boundaries") performed weaker when participants joined individually rather than as teams — the content depends critically on the audience's group composition. BELLS also reported registration confusion for live calls on Moodle, with extra Outlook calendar links required to enable participation — a platform-UX issue that recurs across other categories.

> *"The material and the fact that you can complete it at your own pace — that's what worked for me."*
>
> — Learner — BELLS Sustainable Professional Growth

2.4 What the three Specialisation Programmes show together

Three patterns emerge from the consortium-level evidence on the Specialisation Programmes. First, every programme that paired its course pathway with a Business Pilot Project produced the strongest applied impact in its thematic family — Mastering Circular Production with AKTINA and Factory Karposh; Green Start-Up Manager with the Grazer Eco Festival; Personal and Organisational Growth with the mastermind cohort design. The course + applied pairing is therefore the design pattern the consortium converges on as the default architecture for the post-pilot phase. Second, the live-session element — weekly live videos, ask-an-expert sessions, final pitch sessions — is the single biggest engagement multiplier observed across the programmes. Where it was present (BELLS, AUEB), engagement was visibly stronger. Third, the consortium's evidence converges on the value of cohort identity: programmes that produced "we" rather than "I" — even informally, through a recurring live presence or a mastermind structure — saw stronger completion, stronger applicability and stronger recommendation rates than pure self-paced sequences.

3. Hackathons

CATALYST piloted two Hackathons during the project lifetime. They differ deliberately in audience, scenario design, duration and intended output — confirming that the hackathon format is flexible enough to serve both adult-professional and secondary-school audiences. The chart below summarises both at a glance; the sections that follow document each one in detail.

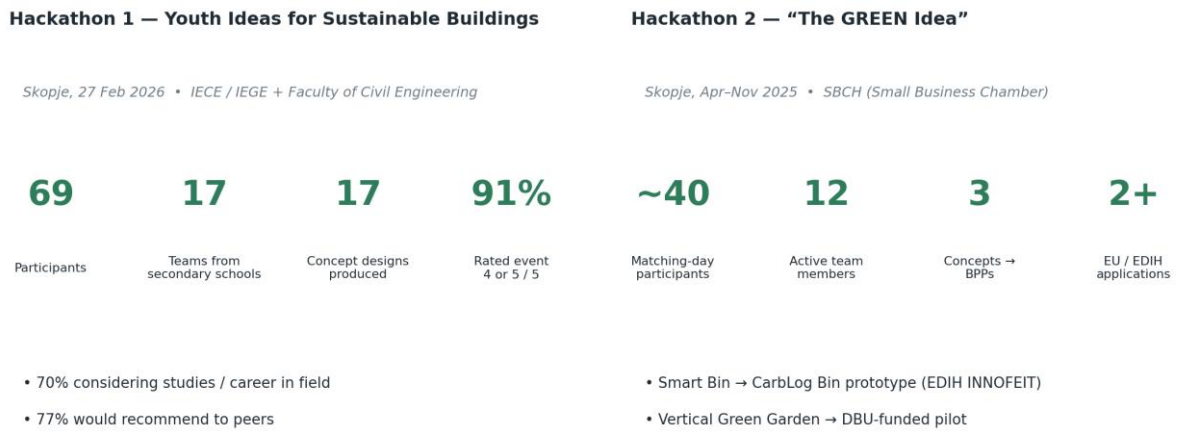

Figure 3.1 — Two CATALYST hackathons at a glance.

3.1 Hackathon 1 — Youth Ideas for Sustainable Buildings

Skopje, 27 February 2026 • Lead: IECE / IEGE + Faculty of Civil Engineering Skopje

Context and design. "Youth Ideas for Sustainable Buildings" was a full-day, in-person hackathon held at the Faculty of Civil Engineering in Skopje, organised by the Institute for Research in Environment, Civil Engineering and Energy (IECE) in cooperation with the Faculty of Civil Engineering Skopje. Supporting partners included Junior Achievement Macedonia and the Civil Engineering Institute of Macedonia (CEIM). The event was anchored to the Western Balkans Circular Economy Hub (WBCEH) supported by RECONOMY, with CATALYST integrating it as a strategic engagement instrument.

Audience and scenarios. 17 teams from secondary schools across multiple cities in North Macedonia (69 students plus accompanying teachers and faculty mentors) participated. Teams worked on two scenarios rooted in circular-economy principles applicable to the construction sector: (1) Circular Campus — a sustainable school of the future, designing how a school can operate according to sustainability principles through energy efficiency, responsible waste management, material reuse and improved learning environments; and (2) Circular Transformation — the redesign and repurposing of an existing, unused public building into a functional, sustainable community space.

Programme structure. The day combined opening and orientation, team formation and scenario briefing, two working phases (one per scenario), rotating mentoring rounds with experts in circular economy, architecture, civil engineering and innovation, jury presentations and an evaluation and awards phase. Three prizes were awarded per scenario; all 17 teams received diplomas and symbolic awards.

Outputs. 17 concept designs were produced — one per team — split across the two scenarios. The outputs combined sustainable-school designs (energy efficiency, waste reduction, material reuse, learning-environment redesign) with repurposing proposals for abandoned public buildings transformed into community-serving sustainable spaces.

Evaluation results from the post-event questionnaire (n = 69)

A structured post-event questionnaire produced one of the strongest evaluation signals across the entire CATALYST project. The questionnaire had three mandatory parts (Quality of Organisation and Content; Learning and Personal Development; Overall Assessment and Future Interests) and one optional Testimonials section. The chart below presents the key indicators.

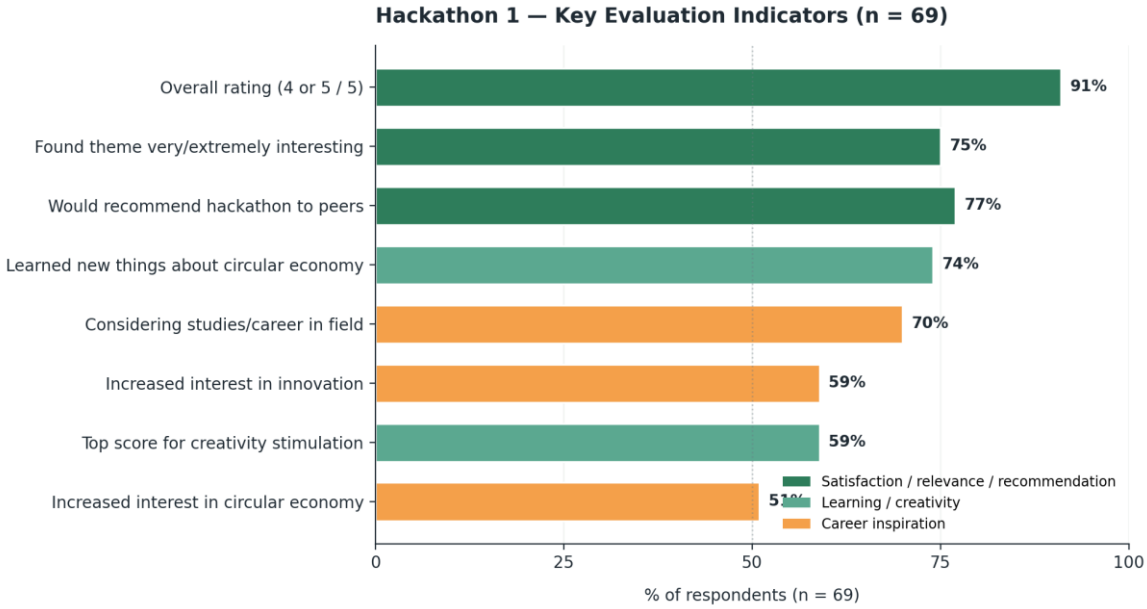

Figure 3.2 — Hackathon 1: key evaluation indicators (n = 69).

Part 1 — Quality of organisation and content

Over 82% of participants gave ratings of 4 or 5 for overall organisation, confirming that the event was well-structured and coordinated. Venue and working conditions received some of the highest ratings in the entire survey, with the conditions cited as a significant contributor to a productive working atmosphere. More than two-thirds rated pre-event communication as clear and timely, and nearly 70% fully agreed that communication with organisers during the event was effective. Tasks were perceived as well-defined, and 59.4% of participants gave the highest possible rating for the scenario's role in stimulating creative thinking.

Part 2 — Learning and personal development

Nearly 74% of participants (ratings 4 and 5) reported that they learned new things about the circular-economy concept, with more than 60% positively evaluating their understanding of circular construction after the event. Soft-skills development showed one of the most positive trends in the whole evaluation: improvement in teamwork skills was among the highest-rated aspects, with participants recognising significant progress in their ability to collaborate, communicate and function in a dynamic team environment.

Part 3 — Overall assessment and future interests

More than 91% of participants gave a high rating (4 or 5) for the entire event. Over 75% found the topic very or extremely interesting. 76.8% would recommend the hackathon to their peers. The career-orientation signal is particularly strong: nearly 70% are now considering studies or careers in this field; 59.4% reported increased interest in innovation; 50.7% reported increased interest in circular economy; and a significant increase was observed in interest in civil engineering and architecture as practical applications.

Part 4 — Testimonials

Four pillars emerged from the optional testimonials section: atmosphere and community spirit; quality of expert mentorship; creative freedom; and inspiration for future education and career. Representative quotes:

> *"The atmosphere was amazing. Our team really grew together during the day and I felt free to share my ideas without being judged."*
>
> **— Student participant — atmosphere and team dynamic**

> *"The mentors gave us confidence. Whenever we were stuck, they didn't give us the answer — they helped us think better."*
>
> **— Student participant — quality of expert mentorship**

> *"I never thought about buildings in this way before. Now I'm seriously thinking about studying civil engineering or architecture."*
>
> **— Student participant — career inspiration**

> *"It was more than a competition. We learned something real, something we can actually use. I left with completely new ideas."*
>
> **— Student participant — practical learning value and creative freedom**

3.2 Hackathon 2 — "The GREEN Idea"

Skopje, April – November 2025 • Lead: Small Business Chamber (SBCH)

Context and design. "The GREEN Idea" was developed by SBCH on the basis of internal research showing that the human capacity of members and companies in North Macedonia for innovation in sustainable development is large but poorly organised, with employees demotivated for innovative activities. The hackathon was designed for adult professionals, structured around five focal areas — Smart Green Skills, Sustainable Energy in Agriculture, Bio-economy production, Green Energy Community, and Smart ESG Solutions — and explicitly oriented towards producing project solutions with measurable contributions

to sustainability, green and socially responsible practices, community impact, and productivity and profit for participating companies and organisations.

Programme structure. The format combined a Matching Day, a Workshop ("Keep on Rollin'") and a Presentation Day spread across April–November 2025. Teams of three to five people worked on real problems set by real customers, supported by three mentors (one per team), over a period of approximately two months. At the matching event, training was provided on project-task development and presentation / public-speaking skills, and clients (companies and organisations) were aligned with team capacities. Clients prepared a project task on which the team worked for the next two months; clients also provided funding for the working hours of team members and mentors. The closing event presented the project solutions to clients and financial organisations / investors.

Outputs and direct conversion into BPPs. Three concepts produced by the hackathon converted directly into Business Pilot Projects documented in the previous chapter: Smart Bin for Organic Waste (concept + prototype), ESG Dashboard (concept + EU consortium application prepared), and Vertical Green Garden (concept + EDIH INNOFEIT application prepared). A fourth concept on the digitisation of samples for laboratory testing in the food industry was also developed.

Follow-on funding outcomes. The Smart Bin concept has been applied at EDIH INNOFEIT and developed in the CarbLog Bin prototype. The ESG Dashboard is part of an Erasmus+ tool application for the promotion of green skills and construction workers. The Vertical Green Garden is being piloted in a project supported by the German Foundation DBU. Three independent funding instruments have therefore taken forward outputs of a single CATALYST hackathon — the cleanest demonstration in the project portfolio of post-pilot momentum.

Effectiveness signals. Active team members reported a 50% rate of valuable learning experience. The hackathon as a whole received an SME-usefulness rating of 4 / 5; the three derived BPPs each received 5 / 5. SBCH's qualitative assessment highlights the methodological model itself — hackathon-to-BPP-to-funding-application — as the most replicable feature. The interaction between students, SMEs and the CATALYST partner was encouraged and managed by the hackathon organiser, with the matching-event design specifically built to align supply and demand between teams and client companies.

> *"EU consortium support, piloting in project application — innovative teaching-tool potential."*
>
> **— ESG Dashboard team — project outcome**

> *"Biogas producer offer for piloting in circular project with community."*
>
> **— Smart Bin for Organic Waste team — project outcome**

3.3 What the two Hackathons show together

Taken together, the two hackathons demonstrate that the format adapts well to very different audiences. "The GREEN Idea" ran with adult professionals, real clients, paid working hours and a project-application destination — producing three derived BPPs and three follow-on funding instruments. "Youth Ideas for Sustainable Buildings" ran with secondary-school students over a single day, with two structured scenarios, peer mentoring and an awards ceremony — producing 17 concept designs and, more importantly, a 70% career-inspiration signal that suggests the format is one of the most effective youth-engagement instruments in the CATALYST portfolio.

Three design choices were common to both events and appear to drive the headline signal. The first is scenario specificity: both hackathons used clearly framed, concrete scenarios rather than abstract challenges (circular school / repurposed public building; ESG dashboard / Smart Bin / Vertical Green Garden). The second is mentor presence: both events used multiple expert mentors with rotating availability during working phases, and participants in both events identified mentor quality as a key satisfaction driver. The third is a clear destination: an awards ceremony with diplomas for the youth event; a project-task and funding instrument for the professional event. None of these is exotic; all three are replicable in a future phase.

4. Cross-Cutting Findings

The findings below synthesise the patterns across Specialisation Programmes and Hackathons. They are organised around four lenses (what worked best and why; what worked less well and why; success factors; recommendations), followed by a consolidated voices block bringing together representative testimonials from both formats.

4.1 What Worked Best and Why

Five drivers recurred across both formats. They are reported here in the order in which partners and participants flagged them most consistently.

- **A clear applied destination.** The strongest Specialisation Programmes paired with a Business Pilot Project, and the strongest Hackathon paired with a real client task and follow-on funding application. When participants knew their output had a real-world destination, engagement, applicability and recommendation rates were all materially higher.
- **Live presence on top of self-paced learning.** BELLS's six-week live-video design, AUEB's final pitch session and the live mentoring rounds in both hackathons consistently outperformed pure self-paced or pure asynchronous formats. The presence of a recurring live element creates cohort identity, conversation continuity and a paced rhythm that self-paced sequences cannot deliver alone.
- **Scenario specificity.** Both hackathons used concrete scenarios (a school, a public building; a Smart Bin, an ESG Dashboard); the Specialisation Programmes paired with specific BPPs. The pattern is

consistent: well-framed concrete tasks produce stronger engagement than open-ended thematic prompts.

- **High-quality mentor support.** Both hackathons identified mentor quality as a top satisfaction driver. The Hackathon 1 testimonial "they didn't give us the answer — they helped us think better" captures the modality that worked: facilitating rather than transmitting.
- **Inclusive entry doors.** Personal-resonance content (Apflbutzn's "Sustainable Lifestyle") and youth-focused scenarios (the Skopje hackathon) drew in audiences who would not otherwise have engaged with circular-economy or sustainability content. Inclusive entry doors are a strategic asset for the post-pilot phase.

4.2 What Worked Less Well and Why

Four barriers recurred across both formats. None is structural to the Specialisation / Hackathon concept; all are addressable in a future phase.

- **English-only delivery limits reach into national SME audiences.** This barrier was flagged across both Specialisation Programme and has implications for hackathon recruitment in non-English-speaking countries.
- **Workload calibration on Advanced courses.** The 32-hour Advanced course (CSCP) was flagged as too heavy for SME audiences. The same calibration question applies to bundled programme pathways, where the total time commitment across five courses can become substantial.
- **Platform onboarding for live elements.** BELLS reported registration confusion for live calls via Moodle, with extra Outlook calendar links required — a friction that compounds when stacked across multi-course programmes.
- **Team-format courses with individual sign-ups.** BELLS's "Beyond Boundaries" performed weaker when participants joined individually rather than as teams — a design-audience mismatch the consortium can now anticipate.

4.3 Success Factors Identified

Five operational success factors emerge from the evidence base. They are descriptive of what worked during the pilot, and prescriptive for a future phase.

Success factor	Why it matters
Programme ↔ BPP pairing	The cleanest design pattern in the CATALYST portfolio: a Specialisation Programme paired with at least one Business Pilot Project. Mastering Circular Production ↔ AKTINA / Factory Karposh; Green Start-Up Manager ↔ Grazer Eco Festival. The pairing converts learning into applying without forcing the consortium to invent new instruments.
Blended self-paced + live design	Self-paced content for depth; live sessions for cadence, cohort identity and conversation continuity. BELLS's weekly live videos in

Success factor	Why it matters
	Sustainable Professional Growth produced the strongest engagement signal in the personal-development family.
Real clients, real tasks	The GREEN Idea hackathon paired teams with real client companies and real project tasks for two months. The result: three derived BPPs and three follow-on funding instruments. Without this, the hackathon would have remained a creativity exercise.
Clear scenario framing	Concrete, specific scenarios (a circular school, an abandoned public building, a Smart Bin) outperform abstract thematic prompts. Both hackathons converged on this design choice.
Mentor capacity and quality	Both hackathons identified mentor quality as a top satisfaction driver. Programmes that built in expert availability throughout (AUEB live sessions, BELLS weekly videos) showed the same pattern.

4.4 Recommendations

The recommendations below consolidate the evidence from §§ 4.1–4.3 and the partner-submitted reflections. They are organised into two streams (Specialisation Programmes; Hackathons), with a recurrence rating (Very high / High / Medium) based on how many partners independently flagged each item.

Specialisation Programmes

Recommendation	Recurrence
Make the Programme ↔ BPP pairing the default architecture for the post-pilot phase.	**Very high**
Build a live-cohort layer into every programme (live videos, mastermind, final pitch session).	**Very high**
Calibrate total programme workload to ≤ 25 contact-hours equivalent for SME audiences.	High
Localise programme materials into national languages where SMEs are the primary audience.	High
For team-format content, recruit teams rather than individuals (team registration flow).	Medium
Add an advanced track for already-intermediate learners on technical topics (CE materials, KPIs).	Medium

Hackathons

Recommendation	Recurrence
Replicate and scale the hackathon-to-BPP-to-funding pipeline as a top-of-funnel conversion route.	Very high
Use a multi-mentor rotation design as the default (one mentor per team, rotating in working phases).	High
Continue the dual-scenario format for youth hackathons (broadens creative scope without losing focus).	High
Involve more industry mentors and add entrepreneurship components to youth hackathons.	High
Pair every adult-professional hackathon with at least one named client and a defined project task.	High
Expand reach to more schools and regions for the youth-hackathon format.	Medium
Embed hackathons within Specialisation Programmes wherever feasible (programme ↔ hackathon pairing).	Medium

4.5 Voices from the Catalyst Community

The quotes below — sourced from the post-event hackathon questionnaire, partner data collections and BPP closing notes — illustrate the patterns identified in the previous sections. They are anonymised; the source role and event are indicated.

> *"I never thought about buildings in this way before. Now I'm seriously thinking about studying civil engineering or architecture."*
>
> **— Student participant — Hackathon "Youth Ideas for Sustainable Buildings"**

> *"It was more than a competition. We learned something real, something we can actually use. I left with completely new ideas."*
>
> **— Student participant — Hackathon "Youth Ideas for Sustainable Buildings"**

> *"The mentors gave us confidence. Whenever we were stuck, they didn't give us the answer — they helped us think better."*
>
> **— Student participant — Hackathon "Youth Ideas for Sustainable Buildings"**

> *"EU consortium support, piloting in project application — innovative teaching-tool potential."*
>
> **— ESG Dashboard team — Hackathon "The GREEN Idea"**

> *"The material and the fact that you can complete it at your own pace — that's what worked for me."*
>
> — Learner — BELLS Sustainable Professional Growth (Personal & Organisational Growth programme)

> *"Some nice out-of-the-box thinking, and suggestions which can be implemented immediately."*
>
> — P9 Apflbutzn — Grazer Eco Festival (Green Start-Up Manager programme)

5. Closing Reflection

The Enable-and-Inspire formats covered in this chapter — Specialisation Programmes and Hackathons — are where the project's strongest activity-level evidence converges. The three Specialisation Programmes between them mobilised the catalogue's top-performing thematic categories (Circular Economy; Sustainable Development; Transformation Readiness within the Organisation, where Q1 returned 4.71 / 5), paired each course pathway with at least one applied destination, and validated the blended self-paced + live design that BELLS and AUEB have demonstrated as a transferable good practice. The two Hackathons reached two very different audiences with the same format — ~110 participants in total, three derived BPPs, three follow-on funding instruments and a 70% career-inspiration signal among secondary-school students.

The signal that matters most is the post-pilot momentum. The Smart Bin concept moving into the CarbLog Bin prototype at EDIH INNOFEIT; the ESG Dashboard becoming part of an Erasmus+ tool application; the Vertical Green Garden piloted with DBU support; the AKTINA tools adopted operationally; the Grazer Eco Festival receiving a usable business-model transformation; the secondary-school students declaring intent to study civil engineering or architecture — these are six independent forms of evidence that the formats covered in this chapter produce impact beyond the project boundary. The recommendations set in § 4.4 captures the focused moves needed to scale what worked. The final chapter of this deliverable, on the CATALYST Centre and its activities, treats the institutional infrastructure that the consortium has built to carry these formats into the post-pilot phase.