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Evaluation of Circular Economy Innovation Communities (CEIC)

Summative Evaluation Report

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Evaluation of CEIC: Final Report

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Glossary

Acronym/Key word	Definition
CCR	Cardiff City Region
CCT	Cross Cutting Themes
CE	Circular Economy
CEIC	Circular Economy Innovation Communities
CoP	Communities of Practice
DRS	Deposit Return Scheme
ESF	European Social Fund
EW	East Wales
HEI	Higher Education Institution
ISL	International Studying Leadership
LA	Local Authority
M&E	Monitoring and Evaluation
NBGOW	National Botanic Garden of Wales
R&I	Research and Innovation
SBR	Swansea Bay Region
WEFO	Welsh European Funding Office
WWV	West Wales and the Valleys

Executive Summary

- i. This executive summary presents the findings of the summative evaluation of the Circular Economy Innovation Communities (CEIC) programme, designed to support public and third sector organisations in Wales to innovate new service solutions, enhance productivity, and advance circular economy implementation. The Operation is a collaboration between Swansea University and Cardiff Metropolitan University. The CEIC programme supported by the Welsh Government and European Social Fund (ESF), funded under Priority Axis 5 and Thematic Objective 11.
- ii. The method for the summative evaluation included:
 - A review of Operation documentation and monitoring data.
 - A feedback session with the CEIC delivery team.
 - Focus groups with participants from the Swansea Bay region (SBR) and the Cardiff City region (CCR).
 - Five in-depth interviews with participants who were later stage cohort attendees from across the participating organisations.
 - Attendance at the SBR 6 and 7 Pendine Cohort Day and the CEIC Summer Conference, held in Cardiff.
 - Analysis and reporting, including an impact and counterfactual assessment.

Operation Context (policy, needs and objectives)

- iii. Since the formative evaluation, a re-assessment of the overarching policy context for the Operation has demonstrated that the strategic fit for the CEIC programme remains strong. Of important note is the close alignment of the programme with updates in policy, legislation, and programmes since November 2022, to include circular economy, the innovation landscape, Welsh Government and European Commission priorities alongside related projects in Wales and across the UK.

- iv. The needs for the CEIC programme identified at the formative evaluation stage remain just as relevant now as they were when the Operation was designed, and these needs continue to serve as key drivers within the sector. However, it is important to note that it was beyond the ability of the Operation to be the sole solution to them.
- v. Members of the CEIC delivery team expressed their confidence in the programme's objectives, and that they remain closely aligned to identified needs and the broader context. This alignment solidified the strong rationale supporting the CEIC programme. Furthermore, operational stakeholders affirmed that the CEIC programme progressed well and remained firmly on track to achieve its objectives throughout the delivery period.

Operation design, delivery, and management

- vi. At the summative evaluation stage, members of the project team expressed overall satisfaction with the successful financial management and resource allocation of the Operation. This is despite facing resource constraints, and Operation stakeholders felt the programme managed to deliver substantial results and had not faced the possibility of failing to meet its objectives.
- vii. In relation to CEIC's management and governance, the project team affirmed the adequacy of its structures for overseeing the Operation, and the steering group had advised they were pleased with the programmes impact. Operational processes encompassed regular management and admin sessions, bi-weekly collaborative team meetings for programme development and knowledge exchange, and quarterly progress reviews submitted to WEFO for transparent oversight. Operation stakeholders acknowledged strong communication between the Higher Education Institutions (HEIs) involved that played a crucial role in ensuring the consistent delivery of programme activities. These comments highlight improvements from the position of the Operation at the formative evaluation stage.

- viii. The CEIC programme has placed a strong emphasis on producing case studies based on the outcomes of the first ten cohorts, which are available on their website. Presentations from each challenge group have been uploaded to the CEIC website, from both SBR and CCR cohorts. Video interviews with participants have also been uploaded to the website and CEIC YouTube channel outlining the impact the programme has had. This effort aims to highlight the transformative shift that has occurred within the circular economy ecosystem in Wales.
- ix. Throughout the programme's delivery, various external factors and challenges were identified, which had both direct and indirect impacts on the Operation. This has included COVID-19, staff retention and barriers to engagement. However, all these external factors and challenges have been successfully mitigated by the project and evident at the summative evaluation stage.
- x. Since the inception of the programme, 14 thematic cohorts have been delivered, engaging 191 participants across 81 organisations. As expected, the programme and participants evolved. The initial focus of Cohorts 1 to 3 was developing the understanding of CE, while Cohorts 4 and 5 shifted their focus to sustainability, influenced by the policy environment.
- xi. The final four cohorts' focus shifted to become aligned with specific organisational goals, such as achieving net zero emissions. In order for participants to fully capitalise on their participation in the CEIC programme, they became more receptive to discussing and integrating external perspectives. Solutions to workplace challenges could be provided and addressed through the approaches offered by the CEIC programme. It was also reported that participants deepened understanding of initiatives such as the Well-being of Future Generations (Wales) Act 2015, and the Zero-Emission Agenda, shaped their approach to CEIC's course content.

Output progress

- xii. The table below summarises current achievement for CEIC in meeting its Operation-level output indicators for both West Wales and the Valleys (WWV) and East Wales (EW).

Table 1: Progress against output indicators (WWV & EV): Current achievement to date, December 2023.

Output	West Wales and the Valleys			East Wales			Project		Achieved %
	Target	Project Forecast	Achieved to date	Target	Project Forecast	Achieved to date	Target	Achieved	
3425: Number of projects targeting public administrations or public services at national, regional or local level	1	1	1	1	1	1	2	2	100%
3426: Number of methods, processes and tools being developed with support	7	7	14	7	7	6	14	20	143%
3427: Number of entities participating in projects target public administrations or public services at national, regional or local level	16	39	39	10	42	42	26	81	312%
3428: Number of new methods, procedures, and tools developed and disseminated	6	7	7	7	7	2	14	9	64%

Source: CEIC Progress, December 2023

- xiii. Considering delays and the ongoing nature of cohorts between the formative and summative evaluation stages, positive progress has been made in achieving operational outputs. The programme has achieved the target for Indicator 3425 and 3426 with 20 outputs claimed in total, of which 14 are in WWV and six in EW. Indicator 3427 has been greatly exceeded, with a total of 81 entities participating in CEIC, surpassing the initial targets by 144 per cent in WWV and 230 per cent in EW. The programme is in the process of submitting further case studies to meet the targets set for Indicator 3428. So far, nine outputs have been approved by WEFO, including seven in WWV and two in EW. It was shared that during delivery of the Operation, evidence requirements for Indicators 3426 and 3428 needed to be developed – adding to the ideas contained in the

programmes original M&E Plan. This resulted in delays to the project team claiming against new methods, procedures and tools. The CEIC team has, in parallel, developed case studies of approaches which have been shared through the conferences.

- xiv. In terms of final outputs, the programme has surpassed two targets (3427/3426), matched on one (3425) and is forecasted to achieve its targets for Indicator 3428 once additional case studies have been approved. Based on these outputs, CEIC has demonstrated an overachievement on an underspend of the original budget. This underspend was caused by delays in starting the programme due to Covid-19 and its subsequent impact on the recruitment of the initial cohorts.

Outcomes and impacts

- xv. The summative evaluation has concluded that the CEIC programme has been instrumental in creating valuable connections and creating networks that promote circular economy principles within participating organisations. Throughout the evaluation process, feedback from all engaged participants, including those interviewed during conferences and workshops, highlighted the significance of the network and the added value it brought to their work.
- xvi. The networking opportunities and support system developed through CEIC have played a crucial role in advancing the Circular Economy agenda and fostering sustainable practices within participating organisations.
- xvii. Another significant outcome of the CEIC programme has been the enhancement of circular economy knowledge for participants in each cohort. Feedback from participants highlighted that the programme provided them with a deeper understanding of circular concepts that they were previously unfamiliar with. Many organisations were new to the concept before joining CEIC, but through their participation, gained insights into the principles and processes needed to

implement circular practices in their workplaces. One notable example has been the collaboration between Bridgend Council and the CEIC team, which has instigated a CE training programme for all senior staff and procurement commissioners.

- xviii. The programme has successfully enhanced regional working in public service entities as well as strengthened capacity for collaborative problem-solving among public sector entities. These relationships vary in strength among different cohorts, but overall, they have contributed to collaborative efforts towards shared challenges / goals. Project challenge groups have facilitated cross-fertilisation of ideas and built partnerships among different organisations across each region, as well as created links to academia. In addition, whilst most local authorities already held partnerships with local level organisations, several participants explained how their CoP has led to additional opportunities across the region to further their collaboration and develop their new service solution beyond the end of the programme.
- xix. A key impact experienced by most participants was the enhancement of their understanding of CE principles and practices, and ways to effectively implement CE in the workplace. Public sector participants reported the ability to now advocate for positive change and integrate CE ideas within their organisations. While it was reported that the nature of organisational change is complex due to ingrained unsustainable practices, it was evident that there was a strong commitment from participants to play a championing role of embedding circular principles at the organisational level. Participants gained not only CE knowledge but also the capacity and capability to apply their newfound knowledge within their organisations – emboldening them to engage with influential individuals to drive change. Furthermore, several participants mentioned the reduced environmental impact of their organisations because of the CEIC programme, developing new processes and encouraging behaviour change. Notable examples included mandates to reduce food waste,

the establishment of waste reduction charters, and increased staff engagement in sustainability training. These impacts collectively demonstrate the programme's success in promoting CE principles and fostering actionable change within public service entities.

Recommendations

- xx. The following recommendations are provided in summary of the summative evaluation findings.
- Exploring accreditation opportunities from the programme – materialising the badge of credibility some participants felt they received through CEIC.
 - Consider ways to ensure the sustainability of the programme beyond the Operation, such as continuing to host CE materials for participants and their organisations to access following the end of the programme.
 - Should the programme be scaled in future, additional resources should be considered specifically focused on recruitment and administrative tasks.
 - Encourage active knowledge sharing and networking among participants to foster inter-disciplinary skills development and innovation, such as the introduction of an alumni network. A linked in group has been established to facilitate alumni discussion and collaboration.
 - The cultivation of softer skills was a key outcome for many participants, who felt this could be emphasised more in the recruitment and marketing of future cohorts and programmes.

1. Introduction

- 1.1 This report presents the findings of the summative evaluation of the Circular Economy Innovation Communities (CEIC) programme, undertaken between April and July 2023.

Background to the CEIC programme

- 1.2 The CEIC programme is a £3.7m Operation supported by the Welsh Government and European Social Fund (ESF). The programme is funded under Priority Axis 5: Public Services Reform and Regional Working and falls under Thematic Objective 11, Institutional Capacity Building, which aims to increase the efficiency of public administration through strengthening institutional capacity.
- 1.3 The programme is designed to support public and third sector organisations in Wales to develop new service solutions that incorporate circular economy (CE) principles, enhance productivity, and advance CE understanding.
- 1.4 The Operation is a collaboration between Swansea University and Cardiff Metropolitan University and is fully funded over a 10-month period for participants. It consists of 14 cohorts, with seven held in the Swansea Bay region and seven in the Cardiff Capital region. These cohorts cover diverse themes, including areas such as decarbonisation of social housing, community growing, water quality, CE in education and health and wellbeing.
- 1.5 The primary aim of the Operation is to encourage the implementation of new processes and innovative approaches in public and third sector organisations across South Wales. This objective is achieved by establishing CE innovation Communities of Practice (CoPs), fostering inter-disciplinary working and knowledge sharing across organisations within Wales. CoPs are groups of individuals with shared goals, shared practices, working together to coproduce new service solutions that implement CE principles and enhance skills of

the entire group. CEIC establishes these CoPs with participants throughout the 10-month programme, nurturing open innovation and exploring circular solutions through collaborative discussions and innovation skills development.

- 1.6 To achieve its goals, the CEIC Operation provides a variety of activities to develop knowledge and skills of participants, including monthly experiential workshops, innovation dynamics such as the design-thinking process as knowledge and practice development, a residential learning event, guest speakers, action learning, peer learning and implementation support.

Background to External Evaluation

- 1.7 The Welsh European Funding Office (WEFO) requires European Union-funded operations to be evaluated by an external party. In February 2022, Miller Research were appointed by Swansea University to undertake a two-part external evaluation of CEIC. This included a Formative Evaluation, completed in November 2022.
- 1.8 Summarised here are the key recommendations proposed from the Formative Evaluation:
- The Operation should consider the development of a targeted recruitment framework for the recruitment of remaining cohorts and future activity.
 - Allocate dedicated resource focused on marketing and recruitment to provide effective implementation of the framework in future activity.
 - Look at potential ways of offering post-programme support to cohorts, potentially in the form of 3-6-month completion check points, to monitor CoP progress and provide light-touch support in the form of signposting or advice to aid future progression.
 - Consider facilitating recap sessions in-between monthly workshops for participants who missed sessions to catch up and maintain engagement / commitment to the programme.

- Consider building in additional time for the practical application of theory, bringing this content further forward into the structure of cohort delivery so that participants have longer time to work on their solutions.
- Explore options for securing accreditation of the CEIC programme, to offer an additional incentive for current and future cohort participants.

1.9 The Operation has successfully addressed some of these recommendations since the formative stage. At the time of the formative evaluation, CEIC had already completed its recruitment process, so although a recommendation on recruitment frameworks was made, it could not be immediately implemented. Nonetheless, the team plans to incorporate these insights in future iterations of the programme. Notably, a dedicated resource for recruitment and marketing has been successfully brought on board. Efforts were also made to establish post-programme support, albeit limited by the constraints of limited resources and a small team. Some sessions were conducted intermittently, serving as catch-up sessions and part of the programme evaluation process. To enhance the cohort delivery structure, the team introduced a defined approach using a platform centred around theoretical toolkits, following the 'double diamond approach'. This structured process ensures stakeholders understand why specific elements are introduced at certain stages. Additionally, Swansea University is actively exploring certification and accreditation possibilities for the programme.

1.10 The purpose of the **Summative Evaluation** is to report on the final contribution that the operation has made to the intended target audience, and on regional collaboration, as well as to assess the performance of CEIC in terms of Value for Money (VfM), sustainability of the impact and wider benefits.

1.11 The summative evaluation aimed to:

- Contribute towards understanding of how CEIC contributes to building regional innovation capacity.
- Identify and disseminate good practice in regional working.
- Contribute to the evidence base that supports the Welsh Government's regionalisation agenda.

Report Structure

1.12 The remainder of this Summative Evaluation Report is structured as follows:

- Section 2 – Methodology focuses on the aims and objectives of the Summative Evaluation. Mapping out the method of how the fieldwork was carried out.
- Section 3 - Operation and Strategic Context - assess the Operations alignment with its policy, objectives, and potential development areas of the operation.
- Section 4 - Operation Delivery and Management – assesses the design and delivery of the operation.
- Section 5 - Programme Facilitation/ Participation – discusses the views of participants on programme participation and facilitation.
- Section 6 – Final Operation Progress – evaluates the final progress of the Operation via indicator assessment.
- Section 7 – Programme Effects assesses the long-term impacts and outcomes of the Operation.
- Section 8 - Conclusions and Recommendations - draws conclusions from the findings of the summative evaluation and presents recommendations on potential changes for future activity and sustainability of the CEIC programme.

2. Methodology

- 2.1 The summative evaluation utilised a theory-based approach of testing the logic model for CEIC, previously reviewed and updated during the formative evaluation¹.
- 2.2 The evaluation included systematic testing of the logic model, ensuring alignment between the updated policy context, needs and objectives, as well as between programme activities and intended outcomes and impacts. Qualitative engagement with operational stakeholders and participants was used to provide in-depth insights into progress and impact. This approach aimed to evaluate the programmes overall effectiveness and make informed recommendations for future interventions.

Aims and objectives of summative evaluation

- 2.3 The summative evaluation aimed to report on the final contribution that the Operation has made to the intended target audience (i.e. public and third sector organisations in the Swansea Bay and Cardiff Capital regions), and on regional collaboration, as well as to assess performance of CEIC in terms of value for money, return on investment, sustainability of the impact and wider benefits (such as wellbeing, or increase in CE take up).
- 2.4 Key questions the summative evaluation aimed to address included:
- Have a total of 14 methods, processes and tools (new service solutions) been developed with support?
 - Have a total of 14 new methods, processes and tools been disseminated?

¹ Appendix A.

- Have 26 entities participated in projects targeting public administrations or public services at national, regional, or local level?
- How is CEIC contributing to regional working and enhancing innovation and circular economy knowledge and skills within public sector entities in the City Regions?
- How has the Operation performed against the delivery of Cross Cutting Themes (CCT) aims, objectives and commitments, as well as CCT case level indicators, including what worked well/what didn't work, problems identified and how these were addressed.

Method

- 2.5 The summative evaluation of the CEIC programme primarily focused on qualitative engagement activities to gather detailed and comprehensive data from both participants and the delivery team.
- 2.6 Before commencing the summative fieldwork, a re-inception meeting was held with the CEIC delivery team. This led to adjustments in the summative methodology to avoid duplication of data and over consultation of participants due to the comprehensive evidence being gathered through CEIC's Monitoring & Evaluation (M&E) Plan. As a result, more resources were allocated to conduct various in-person activities, including one of the cohort days in Pendine and the CEIC summer conference, to collect observational data. This approach enhanced the evaluation process by offering a more holistic view of the programme's impact by capturing real-time participant experiences, behaviours and interactions.
- 2.7 This shift in focus meant that an impact survey and video case studies were not carried out. The entry, interim, and exit surveys conducted by CEIC as part of the M&E plan were felt to already offer valuable information on progress and outcomes, rendering a separate survey with similar questions redundant. To optimise resources and avoid

redundancy, we instead integrated relevant survey findings from CEIC's M&E plan into this evaluation report. Regarding the removal of video case studies, this decision was guided by concerns about data duplication and excessive participant consultation. The ongoing production of videos by CEIC, along with participants' involvement in interviews and case studies for both the program and the evaluation, made the creation of additional case studies redundant. As an alternate to the video case studies, the evaluation team instead gained access to video footage collected by CEIC in feedback interviews with participants, which was also analysed to include in this report².

- 2.8 Within the analysis stage of the summative evaluation, a review of the most recent data was conducted to ensure that the analysis and report planning were based on up-to-date information.

Summative feedback session with CEIC delivery team

- 2.9 A summative feedback session was held with members of the CEIC delivery team, including members from Swansea University and Cardiff Metropolitan University. The aim was to gather qualitative insights on the Operation's performance against objectives, delivery approach, challenges encountered, outcomes and impacts, any implications of external factors on future projects, and project succession and legacy. The session was open to all members of delivery staff, ensuring a broad spectrum of feedback and perspectives were gathered. The session was scheduled during the team's regular weekly delivery meeting to enhance accessibility. A total of six staff members participated in the session.

Focus groups with participants from SBR and CCR x2

² It's important to acknowledge that the use of this footage may be subject to positive bias, given that it was collected as part of the delivery team's process of gathering evidence and feedback on the process and outcomes of the CEIC programme.

- 2.10 After the feedback session with the delivery team, two focus groups were held with representatives of participating organisations recruited from recent cohorts delivered under the programme.
- 2.11 The two focus groups were organised to ensure a balanced representation of participants from across cohorts 4 to 7 and were divided between the Swansea Bay Region (SBR) and Cardiff Capital Region (CCR). Each focus group was sampled to contain a variety of organisational types, such as representatives from LA's, schools and health boards, among others. Initially the aim was to have up to ten participants in each focus group; however, due to recruitment challenges stemming from the fieldwork coinciding with the end of CCR7 and SBR7, participants being pre-occupied with work commitments or transitioning out of their roles, we were unable to achieve this target for each group. Consequently, the SBR focus group comprised of four participants, and the CCR group included three participants.
- 2.12 The focus groups explored participant motivations for joining the programme, their satisfaction with facilitation, outcomes and impacts from being part of CEIC, and the future of the solutions they developed³.

In-depth interviews

- 2.13 In depth interviews with five participants who were later stage cohort attendees from across participating organisations in SBR and CCR were conducted to evaluate the long-term benefits of programme participation. These interviews explored the journey of representatives, the success of CoPs introduced, and any new service solutions co-created within the programme beneficiaries' operational structure.

³ A topic guide for the Focus Groups is included as Appendix B.

- 2.14 Similar to the focus groups, the selection and recruitment of participants was based on gaining representation from across cohorts 4-7, a diverse range of organisations and well-balanced regional representation. The CEIC team actively shared details of the evaluation process and expressed the opportunity for engagement in in-depth interviews to participants. Participants who expressed interest in the evaluation were then contacted by the evaluation team. Those individuals who weren't available for the scheduled focus group dates were also offered the option of an in-depth interview as an alternative, thus accommodating their schedules while still gathering valuable insights.
- 2.15 The interviews provided qualitative evidence of the programme's progress, including structural or delivery changes made and the impact on beneficiaries⁴.

Pendine cohort day attendance

- 2.16 The evaluators (Miller Research) attended a cohort day on the 11th November 2022 for SBR 6 and 7 participants at Pendine Museum of Speed, to gain a further understanding of the experience the participants have had over the course of the Operation and the outcomes. This also provided the opportunity to speak with multiple delivery team stakeholders and associates to gain a sense of reflections/views towards the CEIC programme on a larger scale.
- 2.17 The day brought together both cohorts in a site-visit at their penultimate workshop to facilitate further regional and cross-cohort working, as became standard practice for CEIC in the final ten cohorts.
- 2.18 The evaluators employed a mixed-methods approach during the day, including both direct observations and informal interviews. Through naturalistic observation, the evaluators closely observed interactions

⁴ A topic guide for Interviews is included as Appendix C.

and activities during the site visit, paying particular attention to the dynamics and engagements among participants, delivery team stakeholders and associates. Through conversations with attendees, deeper insights were gathered on the experiences, reflections and perspectives of participants related to the CEIC programme, including skills development, challenges faced, project outcomes influenced by CEIC, collaboration and establishing CoPs.

- 2.19 However, it is important to note that the information gathered during the cohort day might be subject to positive bias, considering the presence of programme coordinators and delivery staff.

Attendance at CEIC Summer Conference

- 2.20 The evaluators attended the CEIC end of programme Conference, held on 4th July 2023, which brought together a mix of participants from Cohorts 6 and 7 across the SBR and CCR regions. Like the cohort day, the evaluators employed a mixed-methods approach, including both the collection of naturalistic observational data and informal conversations/interviews with attendees.
- 2.21 The team strategically positioned themselves at the conference venue to observe various aspects, including participant engagement during presentations, networking dynamics, interactions during breakout sessions, and spontaneous discussions. The goal was to capture a holistic view of the conference, encompassing both formal proceedings and informal interactions. These observations were complemented by informal conversations with attendees using unstructured, open-ended discussions, encouraging them to share their perspectives on the CEIC programme, its impact, and their overall experiences.
- 2.22 Throughout the naturalistic observations and informal conversations, the evaluators remained mindful of the context and environment, ensuring that the observational methods were sensitive to the diverse perspectives and interactions that took place during the conference.

- 2.23 However, as with the cohort day, it is important to note that the observational data collected during this event may be subject to potential bias. The presence of the CEIC delivery team and the promotional nature of the conference could have influenced the participants' responses and behaviours, where they may have been inclined to emphasise positive aspects of their experiences.

3. Operation Strategic Context

- 3.1 This section of the report presents the strategic context for CEIC, including an assessment of its alignment with policy, and considers whether the market need and rationale for the Operation remains the same as it was when the Operation was first developed.

Policy context

- 3.2 At the summative evaluation stage, the project team tested to what extent the programme still aligned with the policy context identified at the formative evaluation stage.
- 3.3 Since the formative stage, a re-assessment of overarching policy for CEIC has demonstrated that the strategic fit for the programme remains strong. Of important note is the close alignment of CEIC with updates in policy, legislation, and programmes since November 2022, including:
- **Circular Economy Package II** (European Commission): The second component of the European Circular Economy Package focuses on enhancing consumer choices for reusable packaging and reducing unnecessary packaging. It also aims to provide clear labelling to support proper recycling. The Commission aims to bring clarity to consumers and the industry regarding biobased, compostable, and biodegradable plastics. The objective is to determine the environmentally beneficial applications of such plastics, and provide guidance on their design, disposal, and recycling processes.
 - **Horizon Europe Strategic Plan 2025-2027 (European Commission)**: This outlines the policy priorities and anticipated impacts for Horizon Europe. It serves as the foundation for the work programme that encompasses Pillar II of Horizon Europe, focusing on Research and Innovation (R&I) efforts in Europe. The strategic plan provides direction for the development of call

topics and initiatives aimed at driving R&I activities across the EU.

- **Innovation Strategy for Wales (Welsh Government):**
Published by the Welsh Government in February 2023, this strategy presents a roadmap for utilising innovation to enhance the well-being of individuals in Wales. The strategy highlights the necessary support for fostering innovation in various business systems, such as waste avoidance, repair, and reuse. It also emphasises digital innovation to address resource inefficiency and promotes material resilience to achieve net-zero goals. The Innovation Strategy for Wales outlines the government's approach to leveraging innovation for the benefit of Wales's communities and economy.
- **The Environmental Protection (Single-use Plastic Products) (Wales) Bill** is a new law which will make it a criminal offence to supply or offer to supply (including for free) specific single-use plastic products to consumers in Wales. Taking effect in autumn 2023, it will give local authorities the power to enforce the offence of supplying or offering to supply the commonly littered items. The law will apply to any business or organisation in Wales that sells or supply's the products under the bill.
- **Deposit Return Scheme (DRS) 2025** (Welsh Government):
The new initiative will see consumers pay a small deposit when they buy a drink in a single use container, which they get back when they return the bottle or can. The materials captured in the deposit return scheme in Wales will be drinks containers made from polyethylene terephthalate (PET) plastic, steel, glass, and aluminium.

Alignment with related projects

- 3.4 Alongside the policies outlined above, the Operation also aligns with several ongoing projects being delivered in Wales and the UK, including:

- **National Interdisciplinary Circular Economy Research (NICER) Programme:** A four-year, £30 million investment by UKRI (UK Research and Innovation) aimed at advancing the UK's transition towards a circular economy. The programme consists of five Circular Economy Research Centres, each specialising in a specific material flow such as textiles, construction materials, metals, technology materials, and chemicals. Additionally, there is a coordinating CE-Hub. Launched in January 2021, the programme involves the participation of 34 universities (including the University of Exeter) and over 150 industrial partners. One of the key goals of the programme is to foster collaboration and outreach activities to expand the circular economy community.
- **SMART Flexible Innovation Support (SMART FIS)** is an initiative that assists Welsh organisations in achieving "Innovation Excellence" delivered by a team of specialist engineers, scientists, industrialists, and intellectual property experts. The programme recognises the growing importance of decarbonisation and the circular economy in line with the Welsh Government's commitment to creating a better world. SMART FIS offers expertise, funding, and specialised advice to organizations, enabling them to pursue innovation that aligns with sustainability and circular economy principles.

3.5 The policies outlined above have remained well-aligned with the overarching objectives of the CEIC programme from the outset, especially relating to strengthening the capabilities and expertise of public sector institutions. This will enable these institutions to provide more guidance and support around implementing circular economy principles in local communities. The ripple effects will extend beyond policy sectors, benefitting Cardiff and Swansea, ultimately aiming to promote widespread adoption of circular initiatives and a deeper understanding of the significance of implementing circular strategies at the regional level.

Needs

- 3.6 The needs for CEIC identified at the formative evaluation stage remain equally as relevant now as they were at the outset of the programme's design. The delivery team felt that the rationale for the programme has remained consistent, due to the CEIC team maintaining a clear understanding of their objectives throughout programme delivery.
- 3.7 Although there have been minor changes in the policy context, the needs outlined for the programme continue to serve as key drivers for organisations in the sector. However, it is important to note that it was beyond the ability of the Operation to be the sole solution to them. Nonetheless, throughout delivery CEIC has demonstrated an effective and relevant approach to address the need to:
- Promote and guide the adoption of circular economy principles in public sector bodies & organisations.
 - Bridge the gap between ambition and capacity in the public sector.
 - Use regional collaboration as the driver for problem-solving.
 - Increase public sector innovation capabilities within these institutions: through learning new knowledge, skills, and solutions related to innovation dynamics.
- 3.8 Participants who were involved in the summative evaluation also recognised that the CEIC programme played a crucial role in meeting the need for acquiring substantial knowledge about the principles of the circular economy. Furthermore, CEIC provided participants with the opportunity to gain practical insights on how to apply those various principles within their respective organisations.

Objectives

- 3.9 For the CEIC programme to address the needs outlined above, several core objectives have served as targets to align with, throughout the duration of the programme's delivery. The objectives

set out in the formative evaluation phase remain relevant in the summative evaluation phase, and they are to:

- **OB1:** Enhance innovation and circular economy knowledge and skills within public sector entities in the City Regions.
- **OB2:** Facilitate and embed closer working relationships between public sector entities within the City Regions.
- **OB3:** Create strategic and collaborative Communities of Practice with the knowledge and skills to co-create solutions to existing and new public sector challenges in City Regions.

3.10 Members of the CEIC delivery team expressed their confidence in the programme's objectives, and that they remain closely aligned with identified needs and the broader context. This alignment solidified the strong rationale supporting the CEIC programme. Furthermore, operational stakeholders affirmed that the CEIC programme progressed well and remained firmly on track to achieve its objectives throughout the delivery period.

4. Operation Delivery and Management

- 4.1 This section of the report presents the summative evaluation findings related to the design, delivery, and management of the CEIC Operation. It covers the allocation of funding and resources; the effectiveness of management and governance; marketing and communications activities; as well as the barriers and challenges encountered throughout the delivery process.

Delivery of Operation processes

Funding, Resources, and Scale

- 4.2 At the summative evaluation stage, members of the project team expressed overall satisfaction with the successful financial management and resource allocation in CEIC.
- 4.3 The Cardiff Metropolitan University team faced specific challenges during the programme due to its smaller size, and smaller intervention rate on East Wales compared to Swansea University WWV intervention rate. These limitations made it more challenging for them to effectively deliver Operation activities. The team encountered difficulties in maintaining consistent engagement with participants and as reported in the formative evaluation, shouldered the burden of recruitment. However, as the programme advanced and more participants joined, it was shared that the delivery process became somewhat smoother.
- 4.4 There was consensus from the team that having multiple participants from the same organisation in a cohort was advantageous. It would aid in implementing the programme within organisations and integrating it into participants' daily work more effectively. The Swansea team observed higher engagement from organisations in this regard, which proved beneficial in efficiently utilising resources for programme delivery.

- 4.5 Overall, the programme appears to have managed its finance and resources effectively. Despite facing resource constraints, Operation stakeholders felt the programme managed to deliver substantial results and had not faced the possibility of failing to meet its objectives. However, the team agreed that if the programme were to be scaled in the future with more resources, it could have an even greater impact. Nevertheless, such a scaled-up program would demand additional resources for recruitment and administrative tasks.

Management and governance

- 4.6 The project team advised the overall management and governance structures of CEIC were sufficient to manage the Operation, and the steering group had advised they were pleased with the impact of the Operation. Processes have included weekly management meetings, weekly admin, marketing, and events meetings, as well as bi-weekly joint team meetings aimed at agreeing upon programme development and sharing best practices. Furthermore, progress reviews were diligently compiled and submitted to WEFO on a quarterly basis, ensuring transparent and accountable oversight.
- 4.7 Operation stakeholders acknowledged strong communication between the Higher Education Institutions (HEIs) involved which played a crucial role in ensuring the consistent delivery of programme activities. This feedback highlights improvements from the position of the Operation at the formative evaluation stage.
- 4.8 All participants engaged during the fieldwork gave positive feedback regarding the support they received from the project team. They appreciated that the project coordination was carried out effectively and met their expectations. More details on this approach can be found in Section 5.

Marketing and Communications

- 4.9 The marketing of the Operation consists of a variety of promotional activities including webinars, conferences, social media, and case studies.
- 4.10 The programme's promotion includes monthly webinars with specialised content focusing on topics related to the circular economy. These webinars feature renowned speakers who deliver presentations and engage in Q&A sessions. The events are advertised to various stakeholders, including the steering group, CCR Challenge Fund, Academi Wales, and all past and current cohorts in both the Swansea Bay and Cardiff Capital regions. Recently, representatives from organisations like Ministry of Furniture, Biosysmic and the Skyline project have been part of these webinars. Past webinar topics and speakers have included examples such as:
- Banc Organics and Room to Grow
 - The Vision for Food Development in Wales
 - Kidd3r
 - Yorkshire Circular Economy Lab
 - Bluestone
 - Simon Wright
- 4.11 The CEIC programme has primarily used Twitter and LinkedIn to promote its activities, drive traffic to the project website, and share good practices. The administration team within CEIC manages these platforms and schedules social media posts multiple times per week. The CEIC Twitter page currently has 630 followers, while LinkedIn has 765 followers. In comparison to comparable Operation's and organisations in Wales, this represents an impressive following nearly 3.8 times larger. So far, monitoring data suggested that 58 posts have been published on Twitter – reaching a worldwide audience with a total of 19,100 impressions. Additionally, they have posted 30 items

on the CEIC LinkedIn page, which receives an average of over 50 views per month.

- 4.12 Since the formative evaluation stage, the programme website has undergone significant improvements, making it much more user-friendly. The content on the [website](#) now includes details of the challenges faced by different Cohorts and videos from the Autumn and Summer Conferences to disseminate the Cohorts' work and share success stories. Currently, CEIC is placing a strong emphasis on producing case studies based on the outputs of the challenge groups from each cohort. This effort aims to highlight the transformative shift that has occurred within the circular economy ecosystem in Wales. These case studies are available on the website, alongside the existing resources that the public can access.
- 4.13 The programme has successfully delivered four conferences during the duration of the programme. All conferences had a significant impact and generated shared activities. The final summer conference, held in Cardiff in July 2023, was attended by 124 in person and 46 online, and had a special focus on showcasing the achievements of the challenge groups from the last six cohorts as well as featuring presentations from the Future Generations Commissioner and Net Zero Industry Wales.
- 4.14 Alongside its own events, representatives of the Operation have also attended several key events and organisations to promote its work, such as the International Studying Leadership (ISLC) Conference, Regional Studies conference (Winter 2022 & summer 2023), British Academy of Management conference, Academi Wales All Wales Continuous Improvement group, Environment Wales platform and Regional Learning & Skills Partnership webinar. The programme has published three research papers during the Operation, including:
- New development: Enhancing regional innovation capabilities through formal public service communities of practice – in Public Money & Management, Volume 42, Issue 8 (2022).

- Future of Innovation Thought Leadership Project: Innovation for a Circular Economy – Innovation Caucus.
- A communities of practice approach to promoting regional circular economy innovation: evidence from East Wales – in European Planning Studies, Volume 31, Issue 5 (2023).

Recruitment of cohort participants: approach

- 4.15 During the formative evaluation, the project team faced challenges in developing a marketing response to recruit participants for the CEIC programme. However, by the summative stage, team members observed significant improvements in the recruitment process, which had evolved into a more effective system compared to its initial design. External marketing support was enlisted by the team in October 2022 to boost participant recruitment numbers and spread awareness about the impact of CEIC. This external organisation's involvement in sending recruitment emails was felt to have been effective.
- 4.16 Project team members reported that in earlier cohorts, recruitment was focused on specific themes. However, from Cohort 5 onwards, the recruitment approach shifted to a broader focus, welcoming participants. This change made the recruitment process easier due to a larger pool of potential organisations. However, it was observed that this shift also affected programme delivery, as it often took longer for participants to agree on specific challenges to work on.
- 4.17 During the fieldwork, it was evident that participants primarily joined the CEIC programme based on recommendations from their colleagues or senior management, either for training or to support new initiatives in their workplace. This indicates that the peer recommendation and 'snowball' marketing approach has proven to be effective in engaging individuals. However, this approach has also led to a certain impact on the participant profile, with some organisations being represented in multiple cohorts.

- 4.18 Additionally, other participants were already familiar with CEIC as brand recognition increased through prior knowledge or were contacted via email, recognising it as a valuable opportunity to explore innovative ideas.

External factors and challenges

- 4.19 Throughout the programme's delivery, various external factors and challenges were identified, which had both direct and indirect impacts on the Operation.

COVID-19

- 4.20 At the beginning of the Operation, the delivery team faced various challenges due to the onset of COVID-19, including project delays and the necessity to switch to online delivery. Recruiting participants also became more difficult because of the pandemic's impact.
- 4.21 However, during the summative evaluation stage, the project team felt that these obstacles were mitigated as far as was possible. The programmes activities are now successfully conducted in person, and as delivery has advanced, the recruitment of cohorts has become considerably easier, as acknowledged by the team members.

Retention of staff members

- 4.22 The Operation has encountered a challenge related to staff retention within its core delivery team, due to the Operation offering fixed term contracts to staff, with six members of the team finding permanent posts during the Operations first two years.
- 4.23 Whilst the team were confident these gaps had now been filled, the consequences of these departures have been particularly evident to newer team members, who witnessed changes in the programme's resources and processes when joining the Operation.

Barriers to engagement

- 4.24 During the formative stage, a barrier discussed was the engagement of participants, with the team facing challenges in retaining organisations in the initial cohorts and convincing them to stay in the programme, due to Covid-19 related issues.
- 4.25 However, in the summative evaluation, the team reported a positive change in engagement among participants in the later cohorts. They noted that the last three cohorts showed improved collaboration, actively meeting outside of scheduled sessions without facilitation. This contrasted with the initial cohorts, where such activities were less consistent, despite encouragement (due to Covid related issues).
- 4.26 One stakeholder attributed this enhanced engagement to better timing. Initially, participants were preoccupied with catching up on work following the COVID-19 era. However, starting from Cohort 4 onwards, participants displayed a stronger commitment and willingness to actively participate.
- 4.27 Additionally, in the later cohorts, some participants had colleagues who had participated in the programme. This prior exposure increased their understanding of what to expect and allowed them to learn from the experiences of others. These factors contributed to the increased engagement and active involvement of participants in the later cohorts.

5. Programme Facilitation / Participation

Motivation for joining CEIC

- 5.1 When asked about the motivations behind each participant engaging with the programme, most participants wanted to learn how to better implement CE into their workplace. Furthermore, some participants sought to learn skills to be able to advance their organisations and be prepared for implementing CE principles.
- 5.2 Participants communicated that they were drawn to the possibilities for networking and knowledge sharing that the CEIC conferences and cohorts offered. This, paired with personal interest in CE, provided a strong incentive to participate in the CEIC programme.
- 5.3 The majority of participants did not have preconceived expectations about CEIC prior to joining the course. Many did not know what to expect from the programme and approached it with an open mind. Upon progress and completion of CEIC, participants voiced that it had surpassed their expectations, and they had a more positive and life enriching experience than they had expected. This was exemplified by CCR participants at the CEIC summer conference, one of which who described the programme as “life changing!”.
- 5.4 One participant shared that they had initially expected the course to be accredited. A similar sentiment was echoed by other participants who mentioned that the course was less academic than they had originally expected. However, this was felt to make the course approachable for everyone and the clear focus on innovation, collaboration, and practical learning approaches was enjoyed by most participants.

Evolution of cohorts

- 5.5 Since the inception of the programme, 14 cohorts have been delivered, engaging 191 participants across 81 organisations. As expected, the programme and participants evolved. The initial focus

of Cohorts 1 to 3 was the application of CE principles to existing shared challenges, while Cohorts 4 and 5 shifted their focus to more general sustainability challenges, influenced by the policy environment.

- 5.6 The final four cohorts' focus shifted to become aligned with specific organisational goals, such as achieving net zero emissions. In order for participants to fully capitalise on their participation in the CEIC programme, they became more receptive to discussing and integrating external perspectives. Solutions to workplace challenges could be provided and addressed through the approaches offered by the CEIC programme. It was also reported that participants deepened understanding of initiatives such as the Well-being of Future Generations (Wales) Act 2015, and the Zero-Emission Agenda, shaped their approach to CEIC's course content.

CoP Approach

- 5.7 The majority of participants provided positive feedback about the CoP (Community of Practice) experience, describing it as enjoyable. They particularly appreciated the group problem-solving dynamics and the opportunity to explore different sectors, discovering how diverse skillsets can benefit a community. The CoP also encouraged accountability, as all team members were encouraged to contribute toward addressing a common challenge.
- 5.8 There was a strong emphasis on the networking and collaborative benefits, which participants found highly valuable. Engaging with individuals from various backgrounds and perspectives opened their eyes to the power of "diversity of thought" in generating innovative solutions.
- 5.9 Some participants expressed reservations, as they did not fully understand how to effectively engage with the CoP or leverage its potential benefits. Additionally, the use of overly academic language

sometimes deterred some individuals from fully embracing the concept.

- 5.10 CoP helped boost confidence as the structure promoted a peer-to-peer learning environment with no hierarchies. They were inspired by practical examples that demonstrated the true value of seeking solutions through collaborative efforts.

Course content

- 5.11 The majority of the participants expressed that the CEIC programme enabled them to better understand complex topics relating to the CE. The programme aided in the development of a new perspective on learning and how to approach different situations. One participant stated that it helped them develop knowledge and skills previously unknown or unaware of.
- 5.12 Participants voiced mixed reviews on the approaches of learning the CEIC programme initiated. Multiple participants discussed that the experiential activities were too frequent and lengthy, often disrupting the project they were tasked with. Despite this, participants also expressed that the practical and experiential activities aided in their social skills development. While the variety in approach to learning styles enabled a more inclusive environment for the range of participants and provided differing useful tools to help participants engage with stakeholders.
- 5.13 The programme's residential experience was received positively by the vast majority of the participants, with discussion of it being an invaluable resource to introduce the cohort groups together and to form relationships to facilitate a better collaboration that helped propel the challenge group projects forward. Participants also noted their enjoyment of the site visits undertaken during their participation of CEIC, which included visiting organisations such as Burns, the National Botanic Garden of Wales (NBGOW), Pendine Museum of Land Speed and CWM Environmental, which made national news.

- 5.14 Some participants voiced concerns regarding the accessibility of the academic aspects of the CEIC programme. Several participants were hesitant about the relevance of certain topics discussed, resulting in confusion during project tasks. As the programme advanced, a few participants found it challenging to manage the volume of content within the given timeframe. They encountered difficulty in grasping the information in order to effectively apply it in real-world scenarios. To address this, a suggestion was made to incorporate more case studies during content delivery to aid participants in understanding various ways to implement CE concepts. Several participants found it beneficial when the CEIC team shared practical examples alongside theory to enhance their comprehension of more complex subjects and their application.

Facilitation

- 5.15 In general, the response towards the facilitators was positive. The facilitators remained consistent in their support and encouragement throughout the 10-month programme. The majority of the participants stated that the facilitators created an open and welcoming learning environment, providing a safe space for the participants to discuss ideas and encourage creativity in their thinking.
- 5.16 Participants voiced that the facilitators provided a wealth of knowledge to them. The facilitators covered multiple specialisms and each facilitator brought a different expertise to the programme. This helped participants access appropriate knowledge to support the development of solutions to their projects.
- 5.17 The limited criticisms received from the participants communicated that facilitators often pushed questions to help with thought and challenge ideas, and while this was useful on occasion, this did cause some participants confusion, with the potential to disrupt the flow of the solution development.

- 5.18 Some of the participants provided feedback on how the exchange of one of their facilitators mid-Programme did create challenges, as the participants had to adapt their communication and work style to the new facilitator. It was recommended that the continuity of facilitators would be beneficial to the delivery of the CEIC programme, to maintain the safe space created. It was however acknowledged by the project team that this is not always possible on a project with staff on fixed term contracts, and this only occurred on one occasion across the 14 cohorts.

Barriers for participants

- 5.19 The main barriers reported by participants was the difficulty in engaging with the programme due to time constraints and the struggle to balance work commitments with the time required to fully engage with the CEIC programme.
- 5.20 A small number of participants perceived the 10-month duration of the programme, with a commitment of 2 days per month (equivalent to 10 per cent of their time) as demanding. These individuals emphasised that given the uncertainty of module topics each month, it led to varying levels of understanding among participants.
- 5.21 Many participants faced work pressures that on occasion caused them to leave the programme, consequently impacting the cohesion and peer support levels within the cohorts. One participant for example, noted how operational difficulties in their sector had meant their challenge group did not finish. Despite this setback, however, they were able to apply the knowledge they gained through their work:

“Due to operational difficulties across health and social care our CEIC challenge has not proceeded. However, I have used the knowledge gained in the programme to develop other solutions both circular economy related and wider work.” –

Participant Quote IMPACT Survey

- 5.22 Pressures on some participants were also increased, as their organisations required the participants to demonstrate the tangible benefits they were gaining from the programme. Additionally, certain participants encountered obstacles related to how challenge groups were organised and variations in commitment levels among team members. One of the participants expressed these sentiments in the CEIC's IMPACT survey:

“The structuring of challenge groups in my cohort was unfortunate. Despite my enthusiasm for the work, the lack of commitment and focus among my challenge group made it impossible to progress a workable solution and as a result, hindered meaningful utilisation and adoption of the tools and innovation processes introduced”

- 5.23 However, despite these challenges, the programme successfully kept participants highly engaged, achieving a completion rate of **92.1 per cent** based on the initial enrolment.

6. Final Operation Progress

Output indicators

- 6.1 To ensure that outputs were adhered to throughout the delivery period, progress was reported on between the formative and summative evaluation stages. Programme progress is measured by four Operational-level indicators, across both the West Wales and Valleys (WWV) and East Wales (EW) regions. The current achievement across both regions is set out in the table below.

Table 1: Progress against output indicators (Total): Current achievement to date and delivery profile to date, December 2023.

Output	West Wales and the Valleys			East Wales		
	Target	Project Forecast	Achieved to date	Target	Project Forecast	Achieved to date
3425: Number of projects targeting public administrations or public services at national, regional or local level	1	1	1	1	1	1
3426: Number of methods, processes and tools being developed with support	7	7	14	7	7	6
3427: Number of entities participating in projects target public administrations or public services at national, regional or local level	16	39	39	10	42	42
3428: Number of new methods, procedures, and tools developed and disseminated	6	7	7	7	7	2

Source: CEIC Project Team, December 2023

- 6.2 Considering delays and the ongoing nature of cohorts between the formative and summative evaluation stages, positive progress has

been made in achieving operational outputs. The following paragraphs summarise the Operation's progress against its output indicators, using data from progress reports submitted to WEFO.

6.3 Regarding Indicator 3425, both WWV and EW regions have reached the target for this output indicator. For Indicator 3426, the Operation has achieved the target of seven methods, processes and tools being developed with support in each region – with a total of 20 outputs being achieved. In WWV, a total of 14 outputs have been approved, while in EW six have been approved against this indicator. The range of tools, methods and processes developed as part of the programme has been diverse, and includes examples such as:

- Hafod Housing developing a Tenants Retrofit [Information Video](#) for social landlords.
- Supporting Circular Water: [Mapping and Development of Water Quality Sensors](#).
- Creating a [Decarbonisation Pledge for Community Engagement](#) – a collaboration between Wales & West Housing, Bron Afon and Caerphilly County Borough Council.
- Development of a '[Recruitment Roadmap for Health and Social Care](#)', using circular economy principles to improve sustainability and continuity.
- Development of a '[Green Champions' initiative](#) and circular economy network throughout Leisure; invited, encouraged, and supported to innovate and affect the sustainability of buildings, service provision, staff and public.
- Implementation of [Climate Change Contract and premises Manager](#) in Swansea Council.
- Promoting Circular Education: [CEIC practice in a primary school "Unused Spaces"](#).

- Development of a standard framework for measuring and recording the impact of community food initiatives to address the cost-of-living crisis for those on very low incomes.
- A charter for schools to [‘Reducing paper waste’](#).
- Using [Welsh Wool as Insulation](#).
- Embedding [Circular Economy principles in Schools](#).
- Finding new ways of [‘Repurposing Cardboard Waste into Animal Bedding’](#).
- [Launching our green plan – Goleudy](#).
- [Solar panel installation for South Wales Police](#).

6.4 Both regions have significantly exceeded the output target for Indicator 3427 – with 81 entities participating in the programme overall. Such entities encompass a broad range of areas including LAs, Housing Associations, Health Boards, Schools, Higher Education Institutions (HEIs), representatives from the police and fire services, NRW, Dŵr Cymru and more. The WWV region had 39 participating entities, significantly exceeding the original target of 16. This is a 144 per cent increase on the original target. The EW region had 42 participating entities, significantly exceeding the original target of 10. This is a 230 per cent increase on the original target.

6.5 The programme is in the process of submitting additional case studies to meet the targets set for Indicator 3428. To date, a total of nine outputs have been approved by WEFO for this indicator, covering both regions. Among these, two outputs have been claimed for EW, while seven have been approved for WWV only. The CEIC team explained that during delivery of the Operation, evidence requirements for Indicators 3426 and 3428 needed to be developed to add to the detail contained in the programmes original M&E Plan. This resulted in delays to the project team in claiming against new methods, procedures and tools.

- 6.6 Due to the unique nature of each cohort and the nature of entities involved, the challenges addressed and solutions they were exploring, a one-size fits all approach to evidencing new tools, methods and processes, as outlined in the original M&E plan, was difficult in practice. The evidence in each case study had to be assessed by WEFO individually, often requiring additional evidence specific to what each individual cohort was developing. Additionally, the tools, methods, and processes being developed by the cohorts have often required further refinement beyond the 10-month programme duration. This ongoing development sometimes made it challenging to demonstrate and provide evidence of their progress, particularly when transitioning from output (3426) to result (3428) indicators.
- 6.7 Ultimately, these challenges make this evaluation too early to assess all long-term outputs, results and impacts of the CEIC programme, as many of the tools, methods, and processes are still in active development. However, based on the existing outputs achieved and forecasted to be met, CEIC has demonstrated an overachievement on an underspend of the original budget. This underspend was caused by delays in starting the programme due to Covid-19 and its subsequent impact on the recruitment of the initial cohorts.

Integration of Cross-Cutting Themes (CCTs)

- 6.8 The three Cross Cutting Themes (CCTs) identified in the 2014-20 Programmes are Equal Opportunities and Gender Mainstreaming (including the Welsh Language), Sustainable Development and Tackling Poverty and Social Exclusion.
- 6.9 The CEIC programme was required to integrate and address CCTs throughout its delivery. CCTs aim to improve the quality of, and legacy of project operations supported by EU Structural funds, and to add value to the project. They require action in multiple fields and must be embedded into the design and delivery of all Operations. The

Operation achieved all of its CCT targets. The activities of the CEIC programme address the following CCTs:

- Activities supporting speakers of the Welsh language
- Developing an eco-code
- Development of a local sustainable supply chain
- Resource efficiency measures
- Developing / engaging a CCT champion

Activities supporting speakers of the Welsh language

- 6.10 The CEIC programme encourage the use of the Welsh language through a variety of activities. In terms of promotional activity, the CEIC website is fully bilingual, and all social media posts on LinkedIn and Twitter are published in both Welsh and English. Internal and external communications, such as email correspondences between team members and WEFO are in Welsh. During workshop delivery, Welsh phrases are included, and participants are communicated with in Welsh when required.
- 6.11 More specific attention has been given to a Welsh speaking participant who requested that all correspondence is written in the Welsh language. All participant letters including the Letter of Commitment, Welcome Letter, Health Questionnaire and Emergency Contact form, are all translated into Welsh. The CEIC delivery team welcome any activities and practice for internal and external stakeholders that wish to communicate in Welsh. This included all promotional flyers for the programme being produced in both English and Welsh.

Developing an Eco-Code

- 6.12 The CEIC Eco-Code has been co-created by CEIC team members and was approved by WEFO in 2021. The [Eco-Code](#) can be viewed on the CEIC website and has also been printed on durable canvas to

ensure it is reusable for the lifetime for the project and sustainable. Copies of the Eco-Code are displayed at all in-person delivery days. Many of CEIC's sustainable development principles are in line with their Eco-Code.

Development of a local sustainable supply chain

- 6.13 The CEIC programme adds value in terms of sustainability through its commitment to ensuring that locally sourced goods and services are used and provided at various points of the programme. Sustainably sourced goods and services are provided by suppliers in various forms, including catering, marketing, and courier services. Furthermore, local venues are used on delivery days, and sustainable workshop resources are used.
- 6.14 Since the formative evaluation, the CEIC programme continues to promote the use of local suppliers and the purchase of sustainable goods and services to everyone engaged with the project, from participants on cohorts to members of the Steering Group. One example is the Ambassador Membership offered by CEIC in collaboration with 4theRegion, an alliance of individuals, businesses, and organisations in South West Wales. During delivery days, venues are carefully selected to prioritise using local catering services and hiring local staff.

Resource efficiency measures

- 6.15 Sustainable development is further encouraged through various resource efficiency measures undertaken by CEIC. As in-person workshops continue to be delivered, all necessary physical resources are purchased in line with CEIC's Eco-Code and their institute's procurement framework. Participants are encouraged to receive all resources digitally; however, any paper resources are either 100 per cent recycled or have high recycled content. Wherever possible, other resources are reused to prevent unnecessary purchases.

- 6.16 Digital equipment for delivery has been sourced from previous projects. Where this has not been possible, new equipment has been sourced responsibly in terms of durability and quality. In addition, workshop venues have been sourced based on the availability of digital delivery equipment to prevent unnecessary purchases. As a joint project across two universities, it has been possible to share the majority of equipment to ensure the consumption of materials is kept to a minimum.

Developing / engaging a CCT champion

- 6.17 According to progress reports there have been no changes to the assumed role of a CCT champion, taken on by Eleanor Gardner (CMU).

Alignment with the Wellbeing of Future Generations (Wales) (WBFGA) Act 2015

- 6.18 Such CCT activities described in this section align with the following WBFGA goals:
- **Goal 6: A Wales of Vibrant Culture and Thriving Welsh Language** – Actively engaging and encouraging the use of the Welsh language through bilingual communication on their website, social media, and internal/external communications contribute to this goal.
 - **Goal 2: A Prosperous Wales** - The emphasis on locally sourced goods and services, engaging local suppliers, and using local venues supports the goal of promoting prosperity within local communities. The engagement efforts of a CCT champion further align with this goal by enhancing team commitment and ownership across the Operation to adopt wider CCT endeavours.

- **Goal 1: A Resilient Wales:** The development and display of an Eco-Code, and the focus on locally sourced and sustainably provided goods and services demonstrate a commitment to short supply chains, sustainability and resilience. The programmes resource efficiency measures, such as purchasing recycled materials, reusing resources, and sharing equipment, contribute to reducing waste and align with the objective of achieving a resilient, low-carbon Wales.

7. Programme Impact

- 7.1 This section details the findings of the summative evaluation regarding CEIC's outcomes and impacts – those effects that occur as a consequence of an intervention's activity and outputs.
- 7.2 Overall, evidence collected from Operation stakeholders and participants demonstrates that engagement with CEIC has led to multidimensional benefits for organisations across the Swansea Bay and Cardiff Capital Regions. Importantly, this is the case for the primary objectives CEIC set out to achieve when the Operation was designed.
- 7.3 The feedback from stakeholder interviews, workshops, case studies and Operation monitoring data are examined in depth below, to provide analysis of performance to date for outcomes and impacts. A counterfactual assessment is also included, to understand the extent to which what change would and would not have occurred in the absence of CEIC.

Outcomes of the programme

Establishment of collaborative regional innovation networks fostering implementation of Circular Economy principles within organisations

- 7.4 The CEIC programme has been instrumental in creating valuable connections and fostering networks that promote circular economy principles within participating organisations. Throughout the evaluation process, feedback from all engaged participants, including those interviewed during conferences and workshops, highlighted the significance of the network and the added value it brought to their work.
- 7.5 While some organisations were new to challenge-led programmes, participants recognised the need to embrace collaborative efforts and acknowledged the importance of accepting that different organisations might be at different stages of their Circular Economy journey. In

facilitating the formation of the regional CoPs, CEIC was felt to foster a culture of individual and organisational learning while providing precise steps to address challenges collectively.

- 7.6 Several participants expressed sentiment of finding a **community** within the CEIC team, forming fruitful connections that have been supportive and beneficial. One participant working within a University Health Board discussed how the CEIC team and their challenge group had encouraged engagement and partnerships with product manufacturers. This has resulted in increased confidence, empowering them to collaborate with supply chains in the future to enhance circular practices within their organisation:

“Collaboration is the gift of CEIC. The programme develops circular economy leaders that take back solutions to their organisations as change agents” – CCR workshop participant.

- 7.7 Additionally, other participants highlighted the advantages of collaboration that extended beyond their own organisational boundaries. They shared how the programme facilitated partnerships with individuals from diverse backgrounds and organisations, allowing for a broader range of perspectives and impact. An education practitioner from SBR 7, for example, discussed how the programme led them to collaborate not only with different education organisations but also with representatives from local authorities (LAs). This broader collaboration resulted in significant impact regionally, evidenced by their challenge groups outcomes, which included sending a letter via the authority to all schools in the region, encouraging the adoption of a single large bottle dispenser.

- 7.8 Participants working within LAs also highlighted how the CEIC programme encouraged engagement and collaboration across different areas. An example was provided by a participant from Carmarthenshire County Council, who mentioned that the programme facilitated interactions with individuals from Swansea and Neath Port Talbot. These connections were said to have proven beneficial in

enhancing Circular Economy practices and sharing resources across broader processes within the authorities and region.

- 7.9 Participants also expressed relief in finding networks of like-minded individuals within their cohorts, providing support and encouragement to navigate challenges as a collective entity:

“It was a big relief to network with other people from within the local authority and wider authorities and know that I wasn’t alone in driving change” – SBR 7 participant.

- 7.10 By providing a platform for collaboration, encouraging partnerships, and nurturing circular economy leaders, CEIC has fostered a community of change agents dedicated to driving circular change within Wales. The networking opportunities and support system developed through CEIC have played a crucial role in advancing the Circular Economy agenda and fostering sustainable practices within participating organisations.

Strengthened CE knowledge and capabilities of organisations

- 7.11 Another significant outcome of the CEIC programme has been the enhancement of circular economy knowledge of participants in each cohort. Feedback from participants highlighted that the programme provided them with a deeper understanding of circular concepts that they were previously unfamiliar with. Many individuals were new to the concept before joining CEIC, but through their participation, gained insights into the principles and processes needed to implement circular practices in their workplaces.
- 7.12 A key learning from CEIC for participants was that circular economy is context dependent. Organisations may engage in different aspects of circularity and learn how to tailor these practices to suit their specific organisational needs. This realisation empowers participants to be active contributors to regional transition towards a circular economy. This was particularly evident when engaging with participants during the summative evaluation, who expressed newfound confidence in

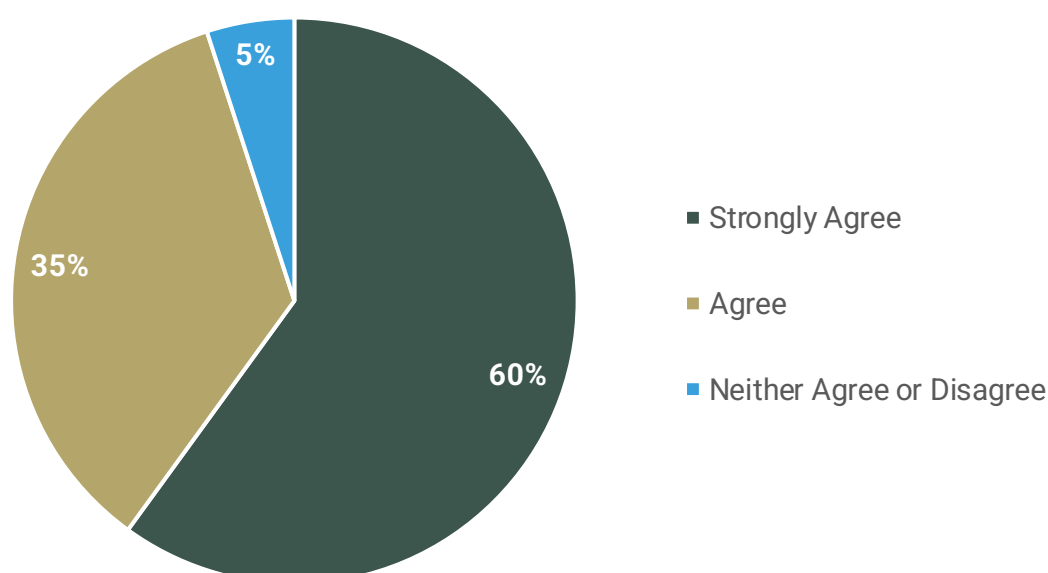
understanding what CE meant within the context of their roles. For instance, one participant stated:

"Going through the CEIC programme helped reveal a definition of what CE means in the context of my organisation, and the ways to make suggestions for change" – Participant at the CEIC Summer Conference.

7.13 Furthermore, the programme impact was exemplified when senior managers of participating organisations sent junior staff to cohorts for subsequent knowledge-building opportunities related to circular economy. This resulted in the dissemination of circular economy knowledge across the entire organisation, further enhancing the impact of the programme.

Furthermore, results from CEIC's Interim Report corroborate these findings, as 95 percent of the participants strongly affirmed that the programme had improved their understanding and knowledge of the circular economy.

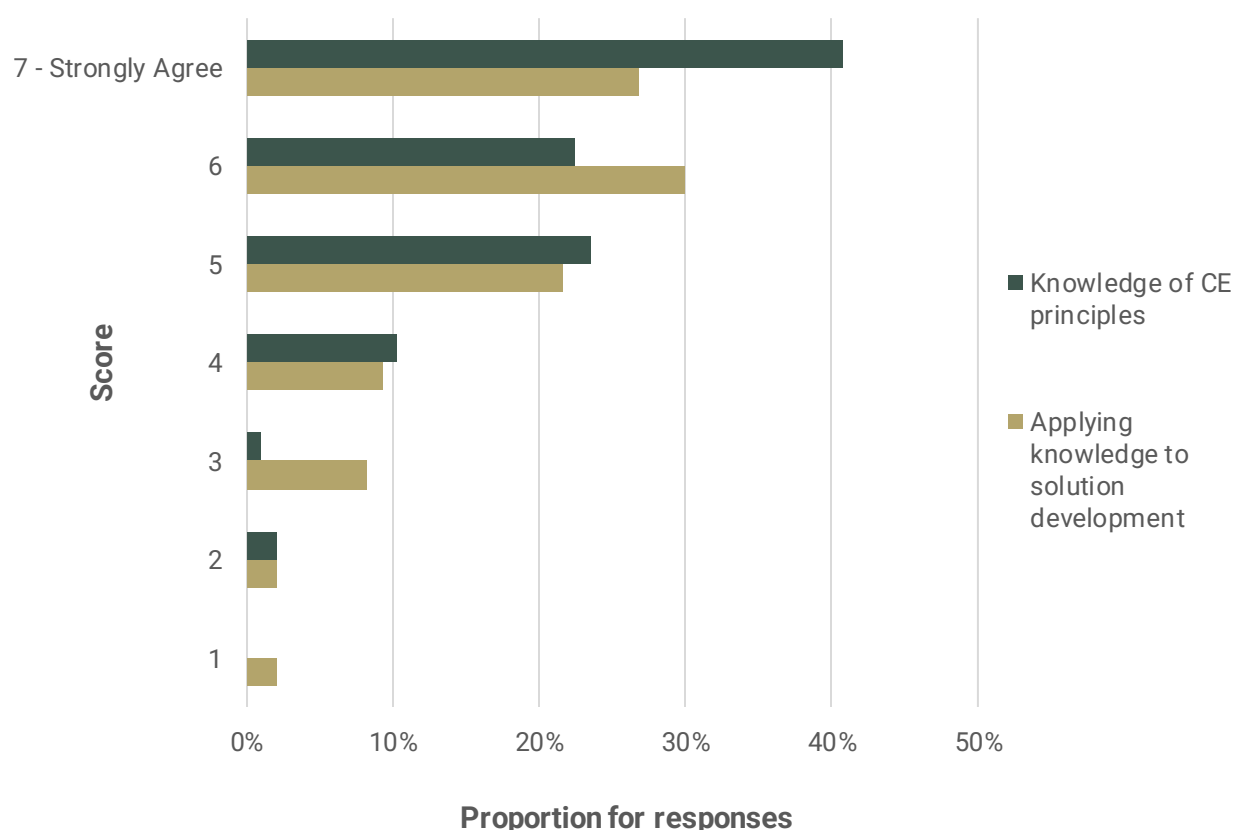
Figure 1: Number of participants who felt the programme enhanced Circular Economy knowledge



Source: CEIC Interim Report N=78

- 7.14 Insights from CEIC's Interim Report demonstrate that 41 percent of participants strongly agreed that they had developed a good level of knowledge about the circular economy through the programme. Additionally, 57 percent of participants rated themselves high scores (of six or seven on a 1-7 scale) in applying knowledge gained to develop solutions for their challenges within the CEIC programme.

Figure 2: Participant views on their development of circular economy knowledge, and application within solution development



Source: CEIC Impact Survey
N=97

- 7.15 Overall, the programme's success in enhancing participants' circular knowledge and awareness has been a significant achievement, providing organisations with the tools and insights to embrace circular principles and contribute to a more sustainable future.

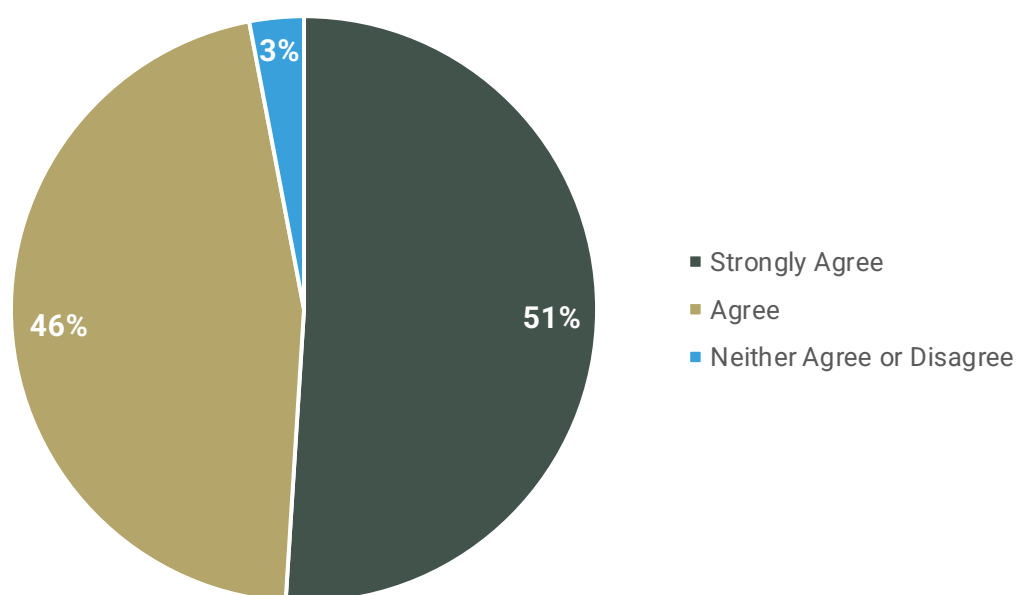
Emergence of innovation active public sector practitioners

- 7.16 Alongside enhancing circular economy knowledge and skills within public sector entities in the City Regions, the CEIC programme has also supported participants to become more **innovation active**.
- 7.17 Participants that engaged in the summative evaluation found the focus on innovation in the course content highly enjoyable. Participants advised that the CEIC team actively encouraged participants to think innovatively by engaging stakeholders and exploring diverse methods and perspectives while applying CE principles to their respective organisations. Although participants noted that the process was occasionally challenging, the team instilled a strong sense of trust and provided a platform for active listening, open dialogue, and ideation, ultimately leading to the incorporation of design thinking strategies and innovation solutions.
- 7.18 One of the most significant takeaways noted was the cultivation of a “brave and bold mindset,”⁵ essential for effectively tackling complex challenges. Participants expressed their newfound ability to think innovatively and creatively, a skill they now confidently carry with them into their professional lives. One individual noted how the concept of innovation took some time to grasp fully, but once they did, it revolutionised their approach to procurement. They now consider the end-of-life and longevity aspects when acquiring equipment for their organisation, showing a clear shift towards sustainable and forward-thinking practices.

The results of the Interim Report produced by CEIC also emphasised these results, with 97 percent of the participants reporting that the programme had improved their skills in innovation.

⁵ Participant from SBR 7.

Figure 3: Number of participants who felt the programme enhanced innovation knowledge and skills



Source: CEIC Interim Report
N=78

Secondary outcomes

- 7.19 Alongside the outcomes discussed above, the programme has also generated several softer outcomes, outlined below.
- 7.20 Firstly, the programme has proven to be a transformative experience for many individuals, particularly in terms of career development. It was shared that prior to joining CEIC, some individuals felt stuck in their roles and had not actively sought new opportunities. However, after completing the programme, they reported feeling more confident and empowered to explore new career paths. This unintended but positive consequence demonstrates the far-reaching impact of the programme in inspiring individuals to believe in their potential and pursue new challenges.
- 7.21 One inspiring example comes from a participant who, after engaging in the CEIC programme, underwent a significant shift in their career trajectory. They revealed that the programme provided them with the tools and insights to reevaluate their professional aspirations. As a

result, they felt motivated to step outside their comfort zone and actively pursue a new role. In their own words:

"CEIC has enabled me to go away and re-evaluate what I want to do. If I hadn't come to CEIC, I wouldn't have been able to achieve that" – Participant CCR 6.

- 7.22 Another softer outcome relates to the personal dimension of the programme and growth in self-confidence among participants, which was felt in some ways to surpass the value of solutions developed. The project team noted a visible change in the way participants perceive and approach challenges, and this shift in mindset is a significant outcome of the programme. As demonstrated during the conference, one participant confidently presented their new service solution, which they shared was a completely new experience for them. The participant expressed their amazement at how much they had grown since joining CEIC, stating:

"I've never done public speaking in my life or imagined to be here 6 months ago. I wouldn't be here without CEIC, the team and my cohort." – Participant at the Summer Conference.

- 7.23 The development of essential soft skills and interpersonal engagement was also highlighted by participants as an unintended outcome of their participation on CEIC. By collaborating with diverse professionals from various backgrounds, individuals felt they had acquired valuable soft skills, enhancing their ability to work effectively with others. Through this interaction, they have gained a deeper understanding of different perspectives, work styles, and approaches to problem-solving, enriching their interpersonal capabilities. As one participant shared:

"CEIC has helped me work with people from more professions and helped me understand how different people think, work, and approach things. I've learnt a lot of soft skills from the programme" – SBR 6 participant.

- 7.24 While the focus of CEIC is on regional transformation and innovation, participants recommended that the social learning aspect and the cultivation of softer skills could be emphasised more in the recruitment and marketing of future cohorts and programmes.
- 7.25 A small number of participants also shared how the programme enhances the credibility of public sector practitioners in innovation and circular economy implementation. By participating in the programme, professionals felt they gained a valuable "badge of credibility,"⁶ reinforcing the importance and impact of their work in these crucial areas. This recognition adds weight to their work, enabling them to garner more trust and support from stakeholders and partners. They felt this could be further enhanced through the programme exploring accreditation opportunities. Moreover, the programme's level of political influence was felt to reinforce this effect by offering exclusive chances to interact with policymakers and decision-makers.
- 7.26 Finally, the project team noted that CEIC has always focused on the effective utilisation of resources to create value but has also encouraged participants to think more **creatively** about what constitutes value, particularly in relation to social impact. The team has tied in the Wellbeing of Future Generations (Wales) Act goals, providing tools and frameworks that inspire participants to consider social value and their impact on the region. Through this approach, participants have been encouraged to go beyond traditional measures of success and explore how their actions and innovations can positively influence the well-being and long-term prosperity of communities.

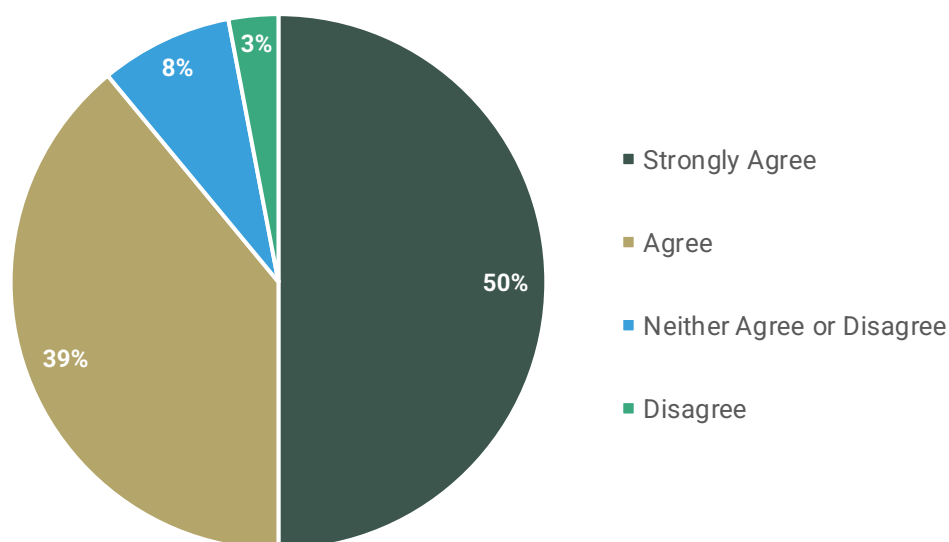
⁶ Participant from SBR 6

Long-term Impacts

Enhanced regional working in public service entities

- 7.27 Stakeholders have developed regional working relationships through the CEIC programme. These relationships vary in strength among different cohorts, but overall, they have contributed to collaborative efforts towards coproducing solutions to common challenges and goals.
- 7.28 Project challenge groups have facilitated cross-fertilisation of ideas and built partnerships among different organisations across each region, as well as created links to academia. Data from CEIC's Interim Report confirmed these findings, with 89 per cent of participants within the programme having agreed (39 per cent) or strongly agreed (50 per cent) that CEIC had enhanced their regional working relationships:

Figure 4: Number of participants who felt the programme enhanced regional working relationships



Source: CEIC Interim Report
N=78

- 7.29 Networking and connections are considered an integral part of the process, creating the support and network needed to drive regional change. As one participant shared:

"Finding like-minded people with an interest in sustainability has been a barrier. CEIC has helped me find those people" – SBR 6 participant.

- 7.30 One participant shared that changing workplace practices of others can be challenging, but having influential councillors supporting sustainability initiatives can drive positive impacts on a wider scale. In addition, another participant mentioned that each organisation that members of their CoP were a part of had *"significant differences but common threads and similar opportunities."*

Strengthened capacity for collaborative problem-solving among public sector entities

- 7.31 The CEIC programme has encouraged and facilitated closer working relationships with each local authority as well as with new organisations such as the coal authority. Whilst most local authorities already held partnerships with local organisations, an example shared was how the experiences of individuals in Carmarthenshire led to individuals in the Swansea area to also look for long-term involvement opportunities in their context as well.
- 7.32 Several participants explained how their CoP has led to additional opportunities across the region to further develop their solution after the end of the formal programme. One CoP member explained how they had met with the Welsh Government, developed policy solutions, and put in a bid for SBRI funding in order to continue developing their solution.
- 7.33 Collaborative problem-solving capabilities between PS entities was further enhanced by involvement in the CEIC Programme through enabling participants to build confidence, CE knowledge, and innovation skills. Participants shared that they were better equipped to initiate meetings and networking opportunities with stakeholders in other public sector entities.

Increased productivity of public service entities regarding environmental interventions, in particular those related with Circular Economy

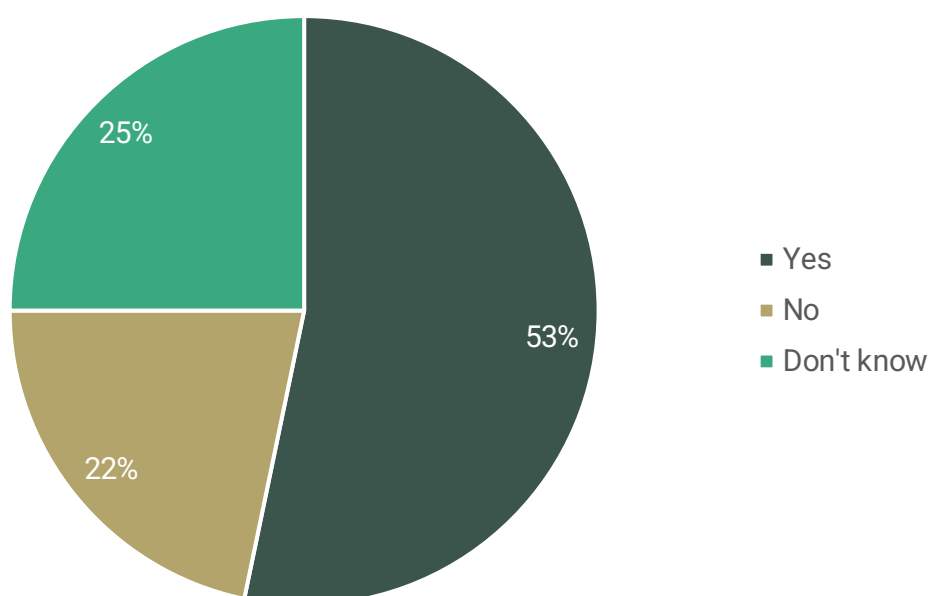
- 7.34 A key impact experienced by the majority of participants was the development of their understanding of CE principles, and ways to effectively implement CE in the workplace. Participants in public service entities who participated in the programme raised that they are able to share ideals and encourage positive change in their workplace. Participants agreed that there are diverse ways to leverage their new skills and embed CE principles into the workplace.
- 7.35 Some participants felt that implementing change in their organisations was not as simple as expected. It was reported that there is still a lot of work to do in many organisations; unsustainable habits that are deeply embedded over time are difficult to phase out. However, there is commitment from many key players in organisations to adopt CE principles.
- 7.36 Another impact for some participants, in addition to CE education, is the capability and connections in their organisation to apply what they have learnt. One participant felt fortunate to have been given the opportunity to make positive change in her organisation:

"I met with the health board sustainability lead who was really excited about CEIC, and asked if I could present to other departments in my hospital, including the sustainability steering group that presents to an exec board. The sustainability steering group shares ideas around implementing sustainability in the organisation and driving forward action" – SBR 7 participant.

- 7.37 The CEIC programme created an opportunity for idea sharing and innovation around implementing CE interventions in public service entities. The programme gave participants confidence to trust in their knowledge and skills to approach the right people who could help to enable change.

- 7.38 Findings of CEIC's impact survey further demonstrated that 53 per cent of respondents reported new or significantly improved public services due to their participation in the programme.

Figure 5: Survey responses to 'As a result of your participation in the CEIC programme has your organisation introduced or is planning to introduce...New or significantly improved services'



Source: CEIC Impact Survey
N=97

Reduced environmental impact of organisations

- 7.39 Several participants mentioned the reduced environmental impact of their organisations as a result of the CEIC programme, developing new requirements and encouraging behaviour change. One participant mentioned how, within their sphere of influence, they managed to make reducing food waste a requirement, and as a result enabled flexibility within supply chains and connecting groups with farmers.
- 7.40 Another participant described how they developed a paper waste charter to foster behavioural change within their school community. This initiative has brought about a positive shift in their operations,

where decisions are now influenced not only by economic considerations but also ethical concerns.

- 7.41 Finally, another participant demonstrated the reduced environmental impact of organisations through the uptake of sustainability courses by other members of staff. After 22 staff members undertook this carbon literacy training, there was a greater understanding of the company's environmental impact, and further communities of practice are being developed.

Value for Money Assessment

- 7.42 The UK Treasury Green Book⁷ describes value for money as “a balanced judgement about finding the best way to use public resources to deliver policy objectives”. This assumes that an appraisal of the project is carried out at the outset to determine whether, in principle, it will deliver a cost benefit if all projected outputs are delivered.
- 7.43 Further to this, in many cases, outputs and outcomes can be quantified and proxy values determined (for example through a value of skills uplift, or projected GVA per job created) to determine the monetary value of the outcomes delivered. Subsequently, this can be divided by the input cost to provide a cost benefit ratio, which can be compared across projects. If the cost benefit ratio is greater than one, some degree of benefit will have been achieved. The question then of whether this was the best alternative relies on an assessment at the outset or a comparative assessment against alternative uses of the investment, if that is available.
- 7.44 Given that CEIC was an ESF priority 5 operation aimed at public service reform and regional working, there are no clear economic outputs to be assessed. Hence, the value for money judgement falls on whether outputs were delivered as expected and within budget,

⁷ [UK Treasury Green Book](#)

and the quality of the outcomes achieved. The sections above show that outputs 3425 and 3426 were achieved and that 3427 (the number of entities participating) was substantially exceeded. Indicator 3428 is also forecasted to be achieved once further case studies have been approved by WEFO. Given that these outputs were achieved on a lower than expected budget (significantly lower in the case of East Wales) this could be considered to have exceeded value for money expectations regarding outputs achieved (i.e., in terms of outputs per £ spent).

7.45 Earlier in this section of the evaluation, beneficiary feedback has been reported, showing high levels of agreement that:

- the programme enhanced circular economy knowledge (CE principles and application of knowledge)
- the programme enhanced innovation knowledge and skills
- improved confidence, creativity and credibility had been imparted through taking part in the programme.

7.46 With regard to desired impacts, early evidence from CEIC suggests that a majority of participants felt that regional working relationships had been enhanced and that improved productivity in public service delivery would result from participation. This suggests that the activities were of a sufficiently high quality to provide value for money, in terms of outcomes and impacts achieved.

7.47 Overall, our assessment is that CEIC provided excellent value for money, although the true economic impacts of process improvement and innovation enabled will take time to come to fruition.

Assessment of alternative outcomes in the absence of CEIC

7.48 Exploring what change would and would not have occurred in the absence of CEIC has been carried out through asking participants a selection of 'deadweight' questions in the summative evaluation, to assess the extent of additionality. These included:

- The extent to which participants believed they would have been able to undertake the same project or activity without CEIC.
- Beneficiaries' awareness of alternative sources of support they might have accessed in the absence of CEIC.

7.49 Through these questions, the evaluation sought to gain a deeper understanding of the true impact of the Operation on the participants it supported.

7.50 The participants interviewed in the summative evaluation unanimously agreed that the implementation of new ideas related to circular economy would not have been possible in their organisations had it not been for the CEIC programme. One participant explained how the prototype developed as a result of their CoP has now resulted in a pilot in their organisation's building, before being rolled out more widely by the end of the year. They explained that this would not have happened, had it not been for the CEIC programme, and the knowledge gained as part of their experience has enhanced the use of the building.

7.51 Other participants mentioned the importance of the shared experience on their personal development. With specific reference to the case studies discussed during the programme, one participant mentioned how this facilitated several things, explaining 'people might have ideas but not put them into action, and this experience forced you to'. They went on to share how their organisation benefitted from this alongside several other projects across the public sector.

7.52 Generally, participants were unaware of alternative support options if the programme ceased to exist.

7.53 Overall, the assessment of what change would have happened in the absence of CEIC demonstrates the significant value the Operation provided in supporting organisations. The expertise, guidance, and network developed through the CEIC programme have been instrumental in driving future innovative thinking within organisations,

resulting in positive outcomes that would have been challenging to achieve without the support of the Operation.

8. Conclusions and Recommendations

Conclusions

- 8.1 This section of the report sets out conclusions of the summative evaluation and recommendations on potential changes or improvements that might enhance the effects of CEIC going forward.
- 8.2 The conclusions are structured against the sections covered within this report.

Strategic Context

- 8.3 The strategic context surrounding the Operation was re-assessed for the summative evaluation (see Section 2), and it was found that there have been only a few policy developments since the formative evaluation. However, the Operation remains highly coherent with the strategic context surrounding circular economy and innovation in Wales.
- 8.4 The market need for the Operation has remained the same as when it was first designed, and it is still highly relevant to the needs of participants from organisations in WWV & EW. Stakeholder feedback confirms that the CEIC programme effectively addresses the need for the promotion and adoption of CE principles in public sector organisations, capacity building, regional collaboration, and an increase in public sector innovation capability.
- 8.5 Stakeholders expressed confidence that the objectives of the CEIC programme closely aligned with the identified needs, and therefore the overall rationale for the Operation remains strong. Furthermore, operational stakeholders affirmed that the CEIC Programme progressed well and remained firmly on track to achieve its objectives throughout the delivery period.

Delivery and management

- 8.6 At the summative evaluation stage, members of the project team expressed overall satisfaction with the successful financial management and resource allocation in CEIC. Despite challenges faced by the Cardiff Metropolitan University team due to having fewer resources, as the programme advanced, the delivery process became smoother.
- 8.7 Operation stakeholders acknowledged strong communication between the Higher Education Institutions (HEIs) involved that played a crucial role in ensuring the consistent delivery of programme activities. This feedback highlights improvements from the position of the Operation at the formative evaluation stage.
- 8.8 The CEIC programme uses Twitter and LinkedIn to promote its activities, drive traffic to the project website, and share good practices. Since the formative evaluation stage, the programmes website has undergone significant improvements, making it more user-friendly. The content on the website now includes details of the challenges worked on by the groups within Cohorts and videos from the Autumn and Summer Conferences to disseminate the group work and share success stories.

Final Operation Progress

- 8.9 Considering delays and the ongoing nature of cohorts between the formative and summative evaluation stages, positive progress has been made in achieving operational outputs. In terms of final outputs, the programme has surpassed two targets (3427 & 3426), matched one (3425) and is forecast to achieve its targets for Indicator 3428 once additional case studies have been approved. Overall, CEIC has over-achieved on an underspend of the original budget, which was caused by delays in starting the programme due to Covid-19 and its subsequent impact on recruitment of the initial cohorts.

Outcomes and impacts

- 8.10 The CEIC programme has achieved positive outcomes across numerous dimensions, including creating valuable connections and creating a CE innovation ecosystem throughout South Wales within participating organisations. Throughout the evaluation process, feedback from all engaged participants, including those interviewed during conferences and workshops, highlighted the significance of the network and the added value it brought to their work. In addition, the evaluation has explored how networking opportunities and the support system developed through involvement in the Operation have played a crucial role in advancing the Circular Economy agenda and fostering sustainable practices within participating organisations.
- 8.11 Another significant outcome of the CEIC programme has been the enhancement of circular economy knowledge for participants in each cohort. Feedback from participants highlighted that the programme provided them with a deeper understanding of circular economy concepts that they were previously unfamiliar with. Many organisations were new to the concept before joining CEIC, but through their participation, gained insights into the principles and processes needed to implement circular practices in their workplaces.
- 8.12 The programme has successfully enhanced regional working in public service entities as well as strengthened capacity for collaborative problem-solving among public sector entities. These relationships vary in strength among different cohorts, but overall, they have contributed to collaborative efforts towards shared challenges / goals. Project challenge groups have facilitated cross-fertilisation of ideas and built partnerships among different organisations across each region, as well as created links to academia. In addition, whilst most local authorities already held partnerships with local level organisations, several participants explained how their CoP has led to additional opportunities across the region to further develop their new service solutions following the end of the programme.

- 8.13 A key impact experienced by most participants was the development of their confidence in knowing what CE means, and ways to effectively implement it in the workplace. It was reported that there is still a lot of work to do in many organisations; unsustainable habits that have been deeply embedded over a long period of time are difficult to phase out. However, there is commitment from many key players in organisations to embed CE principles. Furthermore, several participants mentioned the reduced carbon footprint of their organisations as a result of the CEIC programme by developing new processes and encouraging behaviour change.

Recommendations

- 8.14 The following recommendations are provided in summary of the summative evaluation findings.
- Exploring accreditation opportunities from the programme – materialising the badge of credibility some participants felt they received through CEIC.
 - Consider ways to ensure the sustainability of the programme beyond the Operation, such as continuing to host CE materials for participants and their organisations to access following the end of the programme.
 - Should the programme be scaled in future, additional resources should be considered specifically focused on recruitment and administrative tasks.
 - Encourage active knowledge sharing and networking among participants to foster inter-disciplinary skills development and innovation, such as the introduction of an alumni network.
 - The cultivation of softer skills was a key outcome for many participants, who felt this could be emphasised more in the recruitment and marketing of future cohorts and programmes.

Annexes

Annex A: CEIC Logic Model

NEED	INPUTS	ACTIVITIES	OUTPUT TARGETS	OUTCOMES	IMPACTS
<p>Lack of robust regional working mechanisms, within Capital regions, amongst public sector entities</p> <p>Lack of robust public sector innovation institutional capacity: new solutions knowledge & skills</p>	CoP facilitation knowledge & skills	Data gathering to frame challenges/ problems with LAs, HEIs, NHS & stakeholders	Number of projects targeting public administrations or public services at national, regional or local level (1 WWV / 1 EW).	Develop collaborative regional public and third sector innovation network partnerships that produce new methods and procedures that embed CE principles within partner organisations	Enhanced regional working in public service entities
	Stakeholder engagement knowledge & skills	Facilitated activities to identify knowledge and skills gaps.	Number of methods, processes and tools being developed with support (7 WWV / 6 EW)	Enhance the innovation capabilities (skills and knowledge) of each partner organisation and in turn the Technology Readiness Levels (TRLs) of the sector and the region	Enhanced collaborative problem solving capabilities between PS entities
	Regional 'broker' reputation	Facilitated workshops to develop the Circular Economy knowledge & skills of participants	Number of entities participating in projects target public administrations or public services at national, regional or local level (16 WWV / 10 EW)	Enhance the innovation knowledge & skills of human resources within public sector	Improved productivity of public service entities regarding environmental interventions, in particular those related with Circular Economy
	Existing relationships with public service entities	Facilitated workshops to develop innovation management knowledge & skills	Number of new methods, procedures, and tools developed and disseminated (4 WWV / 4 EW)	Increase number of innovation active public sector practitioners	Enhanced dynamic capabilities & absorptive capacity of PS entities
	Innovation tools	Co-creation of new tools and procedures within the Regional Innovation Networks that address identified CE challenges		Increase productivity in public service organizations' and city regions	Reduced environmental impact of PS entities
	knowledge input	Creation and facilitation of action learning sets to support participants with implementation of new tools and procedures		Enhance the dynamic capabilities of public service organizations'	Behaviour changes through experiential learning for individuals and their organisations
	Effective teaching of innovation tools	Facilitated test & learn 'on-site interventions'		Develop regional collaborative CoP that become sustainable 'Regional Innovation networks'	
	Co-creation knowledge	Best Practice visits to innovative organisations			
	Facilitation skills	Facilitated participant 'workplace exchange' visits			
	Action Research (Test & Learn) input	Innovation coach support to provide 1 to 1 innovation support			
	Knowledge transfer input	Creation of 'innovation champions'			

Annex B: Topic Guide – Participant workshop

Participant Workshop: CEIC Summative Evaluation

Topic Guide

Theme 1: Motivations for joining the programme	
<p>1. What were your motivations for joining the CEIC programme?</p> <p><i>a. Probe for any specific challenges that participants were experiencing.</i></p> <p><i>b. In your opinion, why do you think the CEIC programme is important? What value does it bring to participants and organisations?</i></p>	
<p>2. How did you become aware of the CEIC programme? What channels or sources did you use to find out about it?</p>	
<p>3. Looking back on your participation in the CEIC program, do you feel your expectations were met?</p> <p><i>a. Why or why not?</i></p>	
Theme 2: Effectiveness of programme delivery & teaching	
<p>4. Has the programme content and teaching been easily accessible and understandable for you?</p>	
<p>5. In your opinion, has the Communities of Practice (COP) approach for cohort working been successful in promoting collaboration and learning?</p>	
<p>6. To what extent have you engaged in informal collaboration with your cohorts, and what benefits have you experienced from this?</p>	
<p>7. How effective has the in-person delivery of the programme been for you?</p>	
<p>8. How would you describe the quality of the facilitation provided during the programme?</p>	

<p><i>Prompts:</i></p> <ul style="list-style-type: none"> - <i>Engaging?</i> - <i>Committed?</i> - <i>Knowledgeable?</i> 	
<p>9. What aspect of the program have you found most enjoyable or valuable?</p> <p>10. Conversely, what aspect of the program have you found least enjoyable or least valuable?</p>	
Theme 3: Benefit and impact on participants / organisations	
<p>11. In what ways has your participation in the CEIC programme benefited you?</p> <ul style="list-style-type: none"> - <i>E.g., confidence, career development & behaviour</i> 	
<p>12. Can you share examples of how the CEIC program has had an impact at an organisational level within your company?</p>	
<p>13. How has your understanding and knowledge of the Circular Economy developed since you joined the CEIC programme?</p>	
<p>14. What do you believe will be the long-term impact of your participation in the CEIC programme?</p>	
<p>15. Would you have been able to have achieved the same outcomes in the absence of CEIC? What other actions or initiatives would you have pursued?</p>	
Theme 4: Future of CEIC / improvements to delivery	
<p>16. If you had the opportunity to suggest improvements for future delivery of the programme, what specific changes or enhancements would you recommend?</p>	
<p>17. Are there any additional cohort challenges or themes that you would like to see the CEIC programme explore in the future?</p>	
<p>18. Do you have any final comments or feedback you would like to share about your overall experience in CEIC?</p>	

Annex C: Topic Guide – In depth interviews with participants

In-depth participant interviews: CEIC Summative Evaluation

Topic Guide

Background	
Please provide a brief overview of your role within your organisation and the sector it operates in.	
Which cohort were you involved in with the CEIC programme?	
How did you initially learn about CEIC?	
What motivated you to join CEIC? a) <i>Probe for any specific challenges that participants were experiencing / thoughts on why they think CEIC is important.</i>	
At what point did you fully commit to the CEIC programme? What was the catalyst or turning point?	
Did you have any pre-conceived assumptions about engaging in innovation programmes like CEIC? If yes, could you elaborate on them?	
How (at all) did your assumptions change throughout your journey with CEIC?	
Insights into the course	
What was/were the challenge(s) you identified in your challenge group? Did these challenges align with your role, or did you need to achieve consensus to work with others on the challenge?	
Who were the key people involved in your group, and what were their roles? Did you allocate specific responsibilities?	
If applicable, how did your challenge evolve over the course of the 10 weeks?	
Which method or tool used in the programme was most beneficial to your learning experience?	
Did you feel supported by the CEIC team in developing your solution?	

Solution	
Please could you describe your solution and how it works? (<i>N.B. some participants might need to describe this more loosely, due to it being a new process</i>)	
Can you talk us through the journey of developing the solution you identified? a) <i>Were there any difficulties? If so, how were they overcome?</i>	
Was the solution something you would have expected, or was it completely new to you?	
What have been the keys to success in developing your solution? Did you encounter any difficulties in developing your solution?	
What will be the keys to success in ensuring your solution continues beyond the lifetime of CEIC? a) <i>What is the long-term plan for the solution you've developed?</i>	
Outcomes and Impacts	
In what ways has the CEIC programme benefitted you personally?	
What outcomes has your involvement in the programme generated at an organisational level?	
To what extent do you feel that your involvement in the CEIC programme has contributed to stronger regional working?	
How have you applied what you've learned in the programme within your organisation? a) <i>If yes, how easy/difficult was this to implement?</i> b) <i>What impact will this have at an organisational level?</i>	
Will your solution have any impacts on external factors outside of your organisation?	
How has your knowledge of innovation and the Circular Economy developed since you joined the CEIC programme?	

Do you think your solution / the programme will have a lasting legacy?	
Looking to the future	
What have been the main lessons learned from your experience in the CEIC programme?	
Would you recommend the programme to colleagues in the future?	
If you could change anything about your CEIC experience, what would it be, and why?	
End	
Do you have any final comments?	