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EIT CROSS-KIC

CIRCULAR ECONOMY IMPLEMENTATION IN EUROPEAN SMEs



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SCOPE & METHODOLOGY

Scope & Methodology

- **Phase One: Extensive Literature Reviews**
 - Academic & Non-Academic Articles and Secondary Databases
- **Phase Two: SME Survey Development & Deployment**
 - 700 Surveys sent out; 41 SMEs started survey; 25 SMEs completed surveys
- **Phase Three: SME & KIC Manager Interviews**
 - 9 KIC Manager Interviews; 19 SME Interviews; 1 Circular Economy Expert
- **Phase Four: Data Analysis & Recommendations**
 - Descriptive & Content Analysis
- **SMEs criteria:** Registered and operating in Europe; participating KICs have supported directly or indirectly; revenues \leq 50 Million Euros and with staff less than 250
- **Limitations of the study:**
 - Low Response rate: Short Time frame and survey delivered during holiday period
 - Low geographical representation: Majority of the SMEs were from Portugal

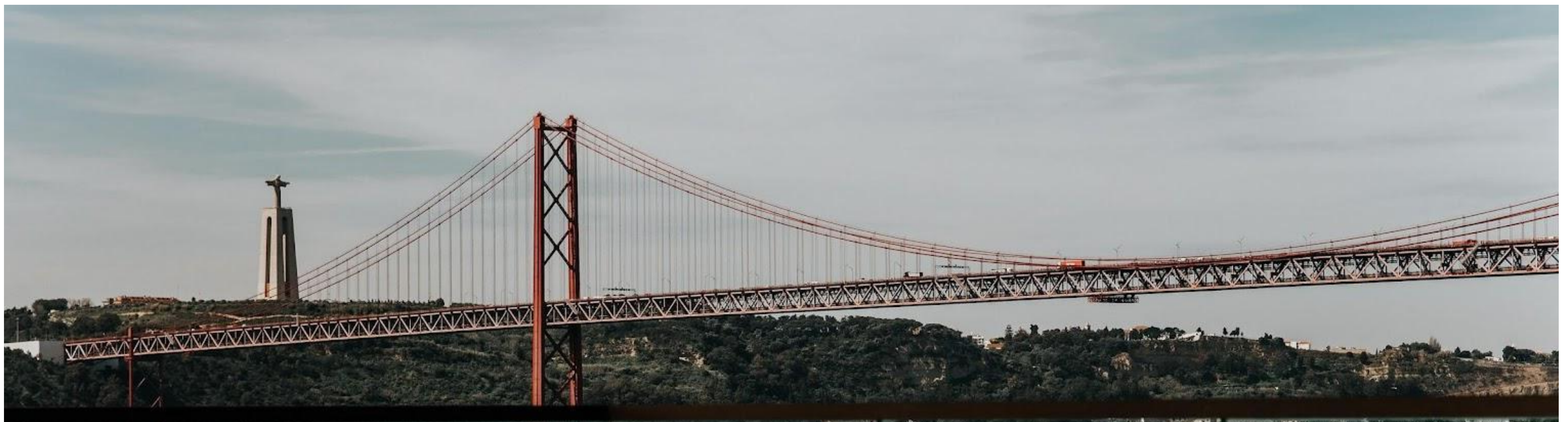


INTRODUCTION

Introduction

There is only one planet Earth, yet by 2050, the world will be consuming as if there were three (United Nations). Globally, annual waste generation is expected to increase by 70% by 2050 (Kaza, S. et al. 2018). Consumption of resources such as fossil fuels, metals, minerals, and biomass is projected to double over the next forty years (OECD, 2018). There is, therefore, the need to do more with less, and Circular Economy is the way to go;

The EU defines Circular Economy as *“one in which the value of products and materials is maintained for as long as possible; waste and resource use are minimised, and resources are kept within the economy when a product has reached the end of its life, to be used again and again to create further value”* (European Commission)





CURRENT SITUATION OF CE AND SMEs IN EUROPE

What is the current situation of CE and SMEs in Europe?

The EU's goals are embodied in the New Circular Economy Action Plan (CEAP) that comprises of 35 key actions that the EU can implement to achieve circular economy. An analysis of the potential direct impact of these actions on participating KICs are as follows; EIT Climate-KIC (27 Actions), EIT RawMaterials (20 Actions), EIT Manufacturing (20 Actions), EIT Food (10 Actions), EIT Urban Mobility (7 Actions) and EIT Digital (2 Actions).

The EU has also developed a monitoring framework that consists of 10 indicators which have been categorized into four thematic areas: Production and consumption; Waste management; Secondary Raw Materials; and Competitiveness and Innovation. An analysis of these indicators shows that the EU is performing relatively well in achieving its CE goals ; Production and consumption ((-) Direction); Waste management ((+) Direction); Secondary Raw Materials ((+) Direction); and Competitiveness and Innovation((+) Direction).

The proportion of startups in Europe (3%) with a focus on CE appears to be larger than the proportions of startups with a focus in CE in North America (2%) and the Asia-Pacific (1%). This observation is representative of the efforts that the EU has towards circularity in relation to other regions. However, this proportion is relatively low and needs to increase if the EU intends to achieve its goals quicker.

There is a variety of public and private funds that have supported the circular economy activities (projects, infrastructure, etc) in Europe between 2016 to 2020, and we estimate that a total of 28.77 Billion Euros was invested in CE within this period.

What is the current situation of CE and SMEs in Europe?

Majority (57%) of funds available for CE take on a mixed approach (i.e. investing in multiple areas of CE such as infrastructure, startups, programmes, etc. A look into the instruments used to deliver these investments Grant (38.61%) financing appears to be the largest, followed by Debt financing (26.88%), public equities (13.43%) and Venture Capital (11.27%)

Money raised by SME and startups in the EU has increased in the last 10 years. Though there is an upward trend in money raised, the EU is still far apart in terms of volumes raised in comparison to its North American counterparts.

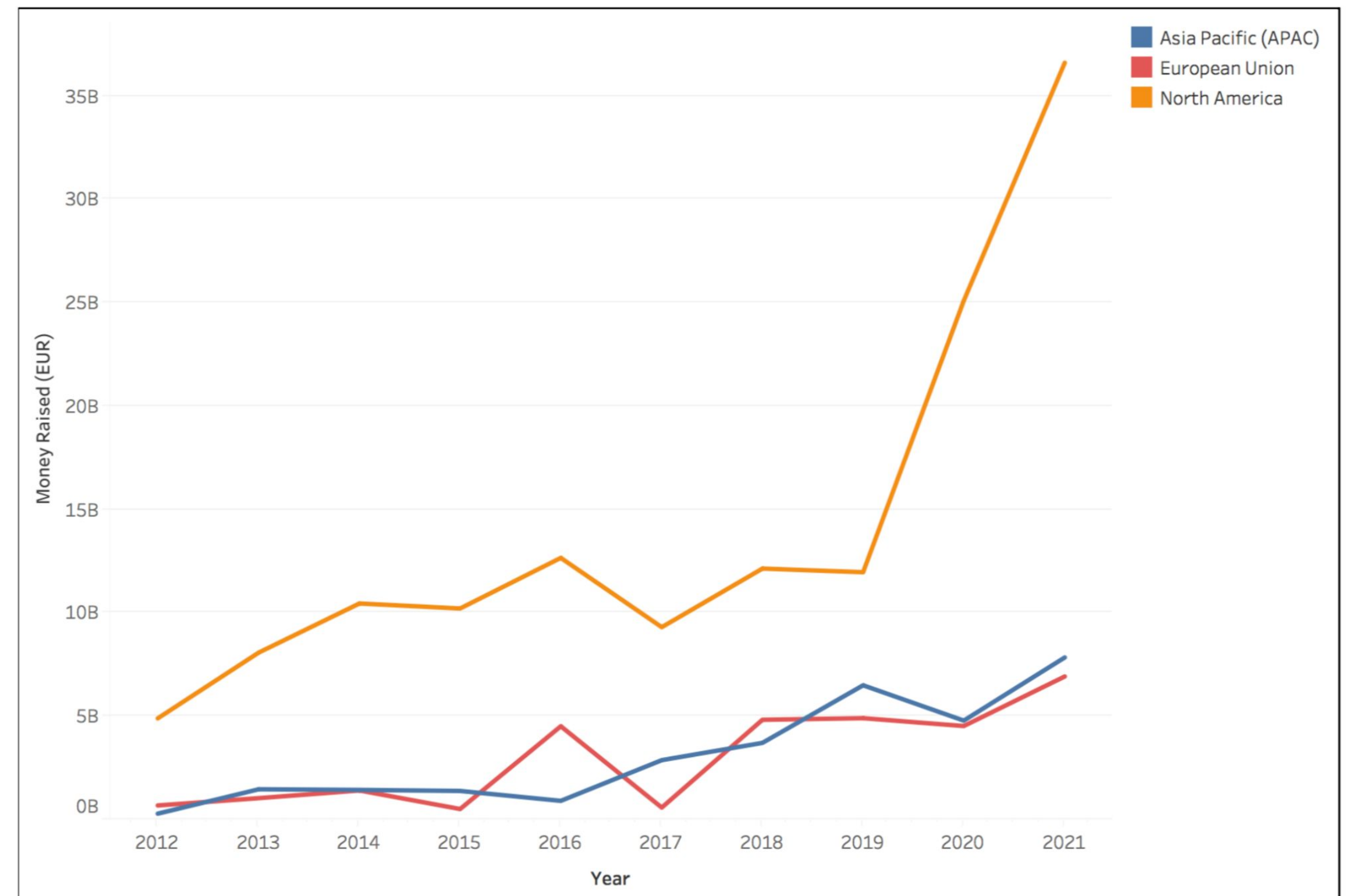


Figure 1.5: Money Raised by SMEs and Startups with Circular Economy Focus (2012 - 2021) (Source: Crunchbase)



CURRENT ACTIVITIES BY PARTICIPATING KICs - CE and SMEs

Current activities by participating KICs - CE and SMEs

All KICs share a concern for CE: Average efficiency 6.9/10 given by interviewed SMEs. The ones who gave a relatively lower value was not because they assessed the KICs as not supportive in this area, but because they did not have that contact regarding that matter

KIC	CE in their mission	% of CE Activities
EIT Food	One of the strategic objective goals: “Enhance sustainability through resource stewardship - developing solutions to transform the traditional ‘produce-use-dispose’ model into a circular bio-economy”	28.2%
EIT RawMaterials	KIC focuses on “the entire raw materials value chain; from exploration, mining and mineral processing to substitution, recycling and circular economy. The goal is the “closing materials loop: A shift to circular thinking”	34.4%
EIT Digital	EIT Digital’s ambition is “educate a new generation of tomorrow's leaders in Digital technologies, as an answer to the evolving needs of the European economy	14.3%

Current activities by participating KICs - CE and SMEs

KIC	CE in their mission	% of CE Activities
EIT Urban Mobility	The KIC aims to to create “more liveable urban spaces, foster innovation and transformation, quality of life can, decarbonise mobility and make Europe’s economy more competitive”	25.7%
EIT Climate-KIC	Aligned with the EU goals, the KIC’s vision “ is a prosperous, inclusive, climate resilient society with a circular, net-zero emissions economy by 2050.”	31.8%
EIT Manufacturing	One of EIT Manufacturing flagships is, as seen, “ Low Environmental Footprint Systems & Circular Economy for Green Manufacturing”. The focus is, indeed, “Using new technology to minimise use of resources, energy, and material in production systems enables new circular business models.	14.2%*

*A possible explanation for EIT Manufacturing percentage of activities related to CE seems relatively lower when compared to the other KICs, especially as it one of their focus areas is because the KIC sets a clear distinction between Innovative, Sustainable and CE practices. Sometimes that is not that evident for the other KICs. If we were to comprise all the areas as CE, the percentage would be relatively higher. This comes to show the careful approach to the specific CE topic, which may not be observed in the other KICs, as the line between Sustainably and CE is still very blur.



BARRIERS TO IMPLEMENTATION OF CE IN KICs and SMEs

Barriers to Implementation of CE in the KICs and SMEs

In the participating KICs:

- Legal and administrative burden
- Different backgrounds
- Difficulty in understanding how to take the best advantage of the collaboration
- Organization between each KIC workplan and agendas
- Technical verification and assessment
- Outside challenges and lack of motivation

In the SMEs:

- Low market demand
- Conservative and non-collaborative value chain actors
- Lack of standards and management systems and scarce human capital
- Complex administrative and legal procedures
- High costs of meeting regulations and standards
- Limited internal funds and difficulties to access finance
- Uncertainty about implementation costs, investment timeframes and limited perspectives on short-term sustainability improvements and profits.



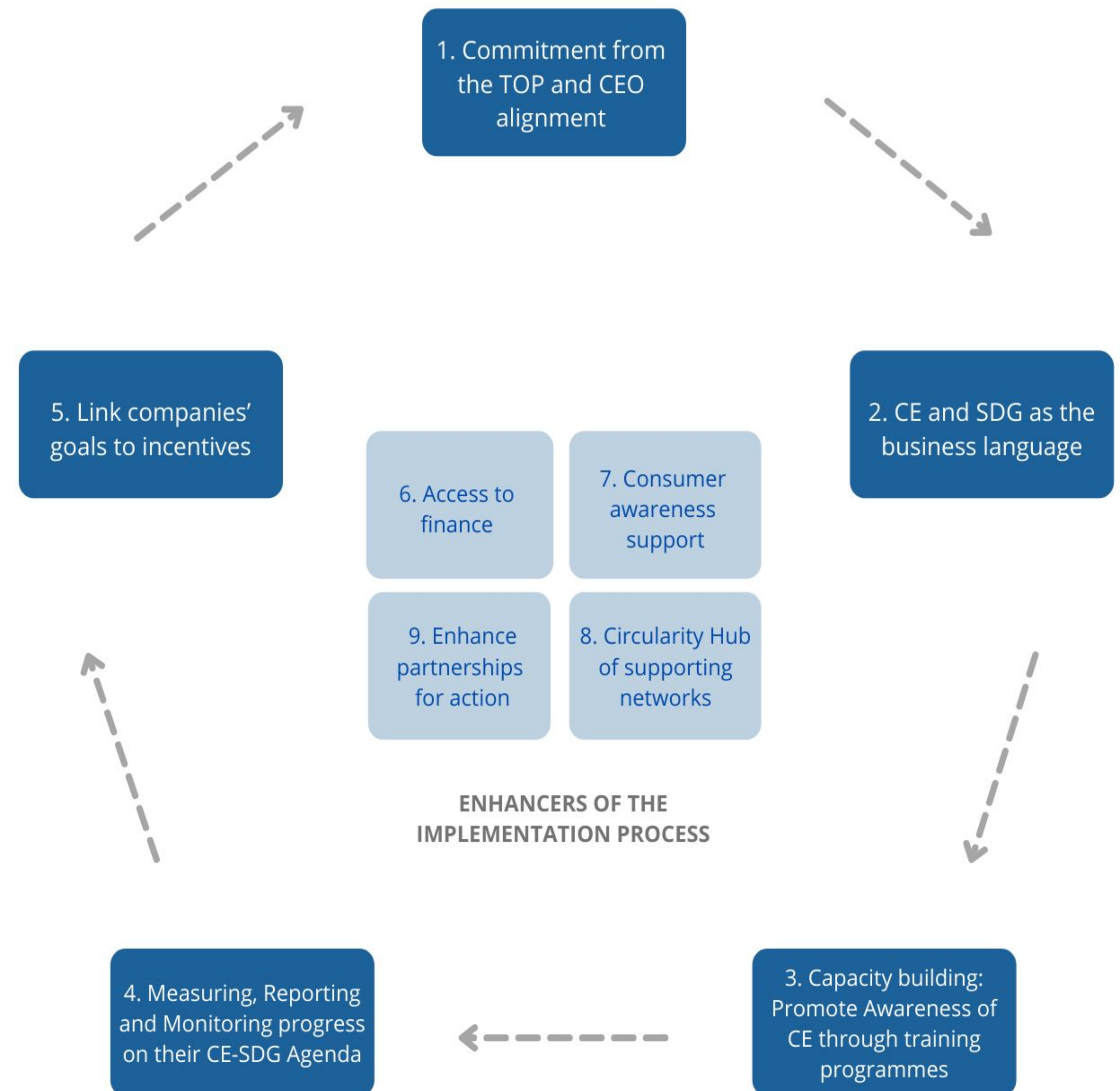
RECOMMENDATIONS

Recommendations

What we know beforehand:

- SMEs in the KICs don't have a practice of Reporting and Monitoring on CE or the SDGs
- Low level of assessment of the alignment between CE activities and the SDGs (15,4%)
- SMEs use different sets of combined indicators to measure the implementation of CE practices: 11% do social assessments - which suggests these organizations don't have an established framework to measure the societal impact of their CE activities.

Can use the **Roadmap for a Practical Guide on SMEs engagement with CE principles**



Recommendations

General Recommendations to SMEs	Improvement of current KICs activities	New possible actions to KICs in their support activities	Joint actions to improve current cross-KIC activities
1. Commitment from the TOP and CEO alignment	Promote more discussions and reflections about the importance of CE	Incentivize a change in mindset by creating awareness about CE principles within companies directors, CEOs, and management teams	Create a pledge for CEOs to demonstrate their commitment to achieving circularity within their companies
2. CE and SDG as the business language	Encourage further understanding on SDGs and CE by including this topic into the information sessions already in place.	Promote a session with the company's managers to (i) elucidate them on the CE and SDG's concepts and principles and (ii) how to align them with the core strategy of the business.	Promote a joint event to SME managers to expose the best practices across KICs and to advance the debate on how to implement SDG-aligned strategies.

Recommendations

General Recommendations to SMEs	Improvement of current KICs activities	New possible actions to KICs in their support activities	Joint actions to improve current cross-KIC activities
3. Capacity building: Promote Awareness of Circular Economy through training programmes	Identify the needs of different segments of SMEs and offer more specific training programs to fill in this knowledge gap	Develop a training program for SMEs with modules on (i) the principles of CE and SDGs and how to apply them (ii) proposed business models for action (iii) circular economy design (iv) supply chain circularity. KIC Managers can also develop capacity building sessions so they can be informed of the changes needed in SMEs they work with.	Increase access to best practices and case studies within the KICs. Support the development of partnerships to achieve circular supply chains.
4. Measuring, Reporting and Monitoring progress on the CE-SDG Agenda		Create sharing groups between SMEs inside the KICs for them to share their practices in the way they define their indicators, measurement and monitoring programmes.	Promote workshops for SMEs to work together to define their indicators, measurement and monitoring programmes.

Recommendations

General Recommendations to SMEs	Improvement of current KICs activities	New possible actions to KICs in their support activities	Joint actions to improve current cross-KIC activities
5. Link companies' goals to incentives		Develop a training programme on how to associate performance and compensation	Develop a training programme on how to associate performance and compensation Create a working-group for SMEs to share their best practices on the top
6. Access to finance		Develop training activities to enhance SMEs understanding on how to access finance for CE implementation	Create a financing webpage for circular economy activities, where SMEs can have access to the latest financing options and can find partners to apply to finance together
7. Consumer awareness support			Create a KIC-lead "Consumer Awareness group" to communicate to SMEs current and potential clients the benefits of changing their consumer habits for more sustainable and circular products.

Recommendations

General Recommendations to SMEs	Improvement of current KICs activities	New possible actions to KICs in their support activities	Joint actions to improve current cross-KIC activities
8. Circularity Hub of supporting networks	Organize sharing groups organized by industries Promote workshops according to the needs and challenges they identify in their transition paths.	Create prizes for best CE practices Promote vouchers to spend in consulting services or training programmes Create a buddy program for SMEs to mentor each other on the process	Create Circularity Hubs managed and runned by the KICs to promote sharing and learning activities and spread best-practices between all SMEs
9. Enhance partnerships for action	Further develop the network opportunity for SMEs and enable more connections strengthen collaboration	Create a training on partnership development and partnership management.	Launching a “Call to action” on multi-level and multisectorial partnerships for the development of circular projects in the European context.



THANK YOU!