



# DIGICIRC

WP6 – PROMOTE: Communication, Dissemination & Sustainability

## **D6.3: Digitization for the Circular Economy Policy Brief**



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 873468.

## D6.3: Digitization for the Circular Economy Policy Brief

### Document Information

Grant Agreement Number	873468	Acronym	DigiCirc	
Full Title	European cluster-led accelerator for digitization of the circular economy across key emerging sectors			
Start Date	1 <sup>st</sup> May 2020	Duration	35 months	
Project URL	<a href="https://digicirc.eu/">https://digicirc.eu/</a>			
Deliverable	D 6.3 - Digitization for the Circular Economy Policy Brief			
Work Package	WP 6 – PROMOTE: Communication, Dissemination & Sustainability			
Date of Delivery	Contractual	31 <sup>st</sup> March 2023	Actual	31 <sup>st</sup> March 2023
Nature	Report	Dissemination Level	Public	
Lead Beneficiary	DRAXIS Environmental S.A.			
Responsible Author	Christodoulos Keratidis, Efstathia Chatzitheodorou			
Contributions from	ARL, CAP, ICA			

### Document History

Version	Issue Date	Stage	Description	Contributor
1.0	07/11/2022	Draft	Proposed structure, description of the policy problem, first version of lessons learned from DigiCirc	ARL
2.0	27/01/2023	Draft	Updated version, including input from partners	ARL, CAP, ICA
3.0	24/03/2023	Final	Final version	ARL, CAP, ICA

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# 1 Executive summary

This deliverable presents a policy brief on how to improve innovation support to SMEs for the digitalization of the Circular Economy. The policy brief is supported by a methodology that includes audience identification and analysis, problem definition, and communication strategies. Based on lessons learned and success stories in DigiCirc, policy recommendations are made. The policy brief is supported by sources consulted or recommended, a link to original research/analysis, and contact details. The policy brief was developed through a comprehensive process that involved the analysis of relevant policies and policy instruments, as well as a review of existing literature. The policy recommendations suggest that SMEs require training, networking opportunities, access to investors, and financial support to develop innovative solutions. Additionally, professional assistance with IPR strategies and management should be made more accessible and affordable to promote innovation and trade within and outside the EU. A more comprehensible and affordable one-stop-shop IPR registration system for the EU could stimulate international trade and provide a competitive edge for high potential businesses. Awareness of IPR strategy and management should be intensively promoted among SMEs in the EU to enable more growth and innovative businesses. Data is seen as a means and an asset, and access to data is essential. It is suggested that awareness and innovation policy instruments should be highly recommended to support the development of the circular economy. The policy brief is included as an annex to the deliverable.

## 2 Process/ Methodology followed

The process for developing the DigiCirc policy brief has been based on a number of best practice guides which are available<sup>1,2,3</sup>, and includes the following steps:

### 2.1 Audience identification and analysis of their interest

The policy brief is audience-driven, so it is important to think about who it will target, what their interest is, and what information they need to act upon its message. Its audience, and their potential interest in the policy brief, are presented below:

**Government officials:** at the national and European Union level, such as ministers and members of parliament who are responsible for creating and implementing policies that support the circular economy and the digitalization of SMEs. They can be Ministers of environment, economy, digital affairs, industry, and innovation, or Members of the European Parliament responsible for circular economy, digital economy, and SME policies. They would be interested in the policy brief as it can inform them and provide recommendations on how to implement EU policies, how to achieve their national and EU targets related to the circular economy and sustainable development, and how to support SMEs for improving their innovation capacity.

**International organisations:** Officials from the United Nations, World Bank and other international organisations that promote sustainable development and circular economy by providing guidance and funding. The policy brief can provide information and recommendations on how digitalization can support the transition to a circular economy, which is a key component of sustainable development and also provide information on best practices, funding and investment opportunities, and coordination efforts in this area.

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<sup>1</sup> International Centre for Policy Advocacy 2017. An Essential Guide to Writing Policy Briefs. Available at: [https://www.icpolicyadvocacy.org/sites/icpa/files/downloads/icpa\\_policy\\_briefs\\_essential\\_guide.pdf](https://www.icpolicyadvocacy.org/sites/icpa/files/downloads/icpa_policy_briefs_essential_guide.pdf) [Accessed 2 November 2022].

<sup>2</sup> Annex 1 of "The BiodivERsA Stakeholder Engagement Handbook. BiodivERsA, Paris (108 pp). © BiodivERsA, Paris, 2014" Practical method note 4, How to write a policy brief

<sup>3</sup> Pacific Community (SPC) (2021), Policy Brief Toolkit. A guide for writing policy briefs.

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**Industry representatives:** Leaders of business associations and trade unions that represent SMEs or specific industries, and can play a key role in shaping policies and regulations that support the digitalization of the circular economy for SMEs. The policy brief can provide information and recommendations on how to identify business opportunities in the circular economy, improve competitiveness, shape policies and regulations, facilitate networking and collaboration and develop standards that support the digitalization of the circular economy for SMEs. This can help them to support their members and represent the interests of the industry as a whole.

**Leaders of venture capital firms, managers of sustainability-focused investment funds:** They would be interested in the policy brief as it can provide them with information on the potential opportunities and benefits of investing in digitalization and circular economy related projects and ventures.

**Environmental and sustainability experts:** researchers, academics and leaders of NGOs or think-tanks focused on circular economy and sustainability. They would be interested in the policy brief as it provides information on how to use digitalization to improve resource efficiency and support the transition to a circular economy.

## 2.2 Problem definition

This step focuses on the problem addressed. It presents the most striking facts and elements of the policy analysis in order to convince the audience that they may need to rethink the issue and ultimately, may need to change the current policy approach. It presents the current policies and policy instruments which are relevant to DigiCirc and the policy challenges.

### 2.2.1 Relevant policies

Relevant policies are:

#### The EU Green Deal

The European Green Deal is a comprehensive growth agenda which aims to make Europe the first climate-neutral continent, while ensuring that no one is left behind in this transition. The European Green Deal sets the circular economy as one of its main priorities, planning to mobilise industry to make Europe's economy competitive and circular.

#### EU Circular Economy Action Plan

The new Circular Economy Action Plan (CEAP) is one of the main building blocks of the European Green Deal. It targets how products are designed, promotes circular economy processes, encourages sustainable consumption, and aims to ensure that waste is prevented and the resources used are kept in the EU economy for as long as possible. The CEAP includes 35 actions, among which are the launch of an industry-led industrial symbiosis reporting and certification system, and a policy framework on biobased, biodegradable and compostable plastics.

#### Zero Pollution Action Plan

The zero pollution vision for 2050 is for air, water and soil pollution to be reduced to levels no longer considered harmful to health and natural ecosystems, that respect the boundaries with which our planet can cope, thereby creating a toxic-free environment. The Plan views the zero pollution ambition as complementary to the circular economy, and has provisions for synergy with the CEAP in terms of production and consumption.

#### European Data Strategy

The European data strategy aims to make the EU a leader in a data-driven society. It supports the establishment of a Common European Green Deal data space, to use the major potential of data in support of the Green Deal priority actions on climate change, circular economy, zero-pollution, biodiversity, deforestation and compliance assurance. It also supports the establishment of a Common European industrial (manufacturing) data space, which should preferably target data sharing for circularity in line with the Circular Economy Action Plan, also involving organisations



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from the circular economy (e.g. reuse, repair, and remanufacturing, refurbishing or recycling companies to improve circularity).

### European Industrial strategy

The European Industrial Strategy aims to support the twin transition to a green and digital economy, make EU industry more competitive globally, and enhance Europe's open strategic autonomy. It recognises the role of circular economy and improved resource efficiency in contributing to reducing dependencies, strengthening resilience and strengthening the EU's own capacity.

### An SME Strategy for a sustainable and digital Europe

It aims to considerably increase the number of SMEs engaging in sustainable business practices as well as the number of SMEs employing digital technologies. The strategy is based on three pillars:

Capacity building and support for the twin transition, which includes: provision of dedicated Sustainability Advisors for the Enterprise Europe Network; disruptive start-up funding through the European Innovation Council (EIC); increased openness to SMEs on the part of the European Institute of Innovation and Technology's (EIT) Knowledge and Innovation Communities (KICs); a network of up to 240 Digital Innovation Hubs (DIHs); fair access to data; an Intellectual Property Action Plan; Digital Crash Courses; an SME component in the Pact for Skills; and, support for the collaborative economy.

Reducing regulatory burdens and improving market access, which includes: a Single Market Enforcement Task Force to minimise barriers in terms of regulations, standards, labels and administrative formalities; providing a Single Digital Gateway; public procurement to lead markets and using 'SME-friendly' practices; fairness in value chains – late payments monitoring and enforcement; open global markets, and expanding Erasmus for Young Entrepreneurs.

Improved access to finance by providing: continued support for access to a wide range of financing options; diversifying sources of finance - VC and non-EU; new EC risk-sharing with the private sector; an SME IPO Fund; an EU Investment plan to support more than 1 million SMEs; through the InvestEU SME window – guarantees and VC, and encouraging leverage from other sources.

## 2.2.2 Policy instruments

The key direct instruments used by the public sector in Europe in support of innovation are the following<sup>4</sup>:

Grants: A wide range of grant programmes exists. Generally, it appears that grants tend to support young SMEs with their R&D inputs. At EU level, the European Research and Innovation Framework Program (Horizon Europe) aims to support research and innovation across the EU, including support for SME innovation and digitalization in line with circular economy principles. The European Innovation Council (EIC) provides grants to SMEs to help them scale up and bring their innovations to the market.

Soft loans, loan guarantees and capital support schemes: in view of the key role that access to finance plays as a barrier to SME innovation it is not surprising that many initiatives have been developed by the public sector to overcome finance barriers. For example, the EIC Fund provides equity from €0.5m to €15m to breakthrough innovation companies. There is also increasing provision of alternative finance through seed capital, support of networks of Business Angels, and other forms of start-up capital.

Skill development or knowledge transfer instruments: They address specific skills needs required by SMEs that have not been met by the educational system, or they have problems because they cannot afford appropriate specialists and instruments. Innovation vouchers can be used to provide funding to enterprises in the form of a voucher to buy innovation services from knowledge providers, or to recruit an inhouse innovation resource or innovation manager.

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<sup>4</sup> European Commission, Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs, Study on the effectiveness of public innovation support for SMEs in Europe: final report, Publications Office, 2021, <https://data.europa.eu/doi/10.2826/7745>



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Erasmus+ is the EU's program for education, training, youth and sport. It provides funding for a wide range of education and training activities, including for SMEs. The programme can be used to support the development and delivery of training programs for SMEs on digitalization and circular economy practices.

Technology and innovation advisory services: SMEs usually face obstacles to adopting new technologies due to a lack of knowledge and skilled specialists within the business but also due to the potentially high costs and poor availability of consultancy services. Advisory services aim to help SMEs overcome those barriers by provision of advice to help resolve their problems. Besides grants and equity, the European Innovation Council (EIC) also offers mentoring and coaching services and networking events. The EU's Intellectual Property Office (EUIPO) is the EU's agency responsible for managing IP rights, including trademarks and designs. The EUIPO provides information, guidance and support to help businesses and individuals protect and manage their IP rights.

Collaboration and networking instruments: Funding of networks, partnerships or collaborations with the aim to improve the innovativeness of business communities and to increase the social return from public investments in science organisations via the transfer of knowledge from research organisations and the use of this knowledge by market-oriented organisations. Typical collaboration instruments include: collaborative research centres, centres of competence, centres of excellence, or knowledge exchange projects. The Enterprise Europe Network (EEN) is a network of business support organizations that provides information and advice to SMEs on a wide range of topics, including digitalization and circular economy practices. The EEN can be used to provide training and education for SMEs, as well as to connect SMEs with relevant experts and organizations. The Interreg Europe Programme provides funding for cross-border, transnational and interregional cooperation projects. It can be used to facilitate networking and collaboration among SMEs across different regions and countries.

Clusters/ science and technology parks: Clusters have been important instruments of industrial policy for some decades.

Public procurement and government regulation: The public sector, as a buyer of goods and services, can have an important effect on innovation through its purchasing procedures and standards.

The innovation system: While not a 'direct instrument', the increased structuring of innovation systems at EU, national, and regional levels has been a feature of European innovation policy in recent years.

### 2.2.3 Policy challenges

The transition to a circular economy has been a key EU objective since 2015, when a Circular Economy package was published by the European Commission. Circular Economy is also a core pillar of the Green Deal strategy. In this context, a new Circular Economy Action Plan was adopted in March 2020, which targets how products are designed, promotes circular economy processes, encourages sustainable consumption, and aims to ensure that waste is prevented and the resources used are kept in the EU economy for as long as possible.

Research, innovation and digitalization are considered to be key drivers of change in this new plan. Digital technologies can track the journeys of products, components and materials and make the resulting data securely accessible. The European data space for smart circular applications is expected to provide the architecture and governance system to drive applications and services such as product passports, resource mapping and consumer information.

Although the circular economy has gradually established itself in environmental public policies, it can hardly be found in the reality of practices<sup>5</sup>. In addition, digital technologies are just a tool, and, to achieve a fully successful digital

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<sup>5</sup> Vence, X., Pereira, A. & Laperche, B. (2022). Overcoming the Circular Economy Paradox through Innovation: Pitfalls in the Transition Pathways. *Journal of Innovation Economics & Management*, 39, 1-13. <https://doi.org/10.3917/jie.039.0001>



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transformation, we will need to create the right frameworks to ensure trustworthy technology and to give businesses the confidence, competences and means to digitalise<sup>6</sup>.

Small and medium sized enterprises (SMEs) hold the key to the circular economy. The combination of their economic importance, large environmental footprint, and potential to provide solutions by bringing radical and disruptive innovations to the market makes them key players for the transition to a sustainable economy. However, European and national policymakers have not yet fully unleashed the innovative potential of SMEs when it comes to building a resilient and sustainable society by 2050. Effective policies need to be introduced that foster SME recovery and “build back better”<sup>7</sup>. Current policies and planned actions under the Green Deal are not sufficient, because of a one-sided approach: they focus on creating mass scale by targeting multinationals in the most polluting sectors. While this is valid and necessary, it covers less than half of the total picture because SMEs have the largest footprint and are much better at realising sustainable solutions<sup>8</sup>.

In the transition to the circular economy, SMEs face barriers to growing their business, impact, and market share<sup>9</sup>. These include the lack of demand for low-carbon circular products and services, additional costs for realising circular models, lack of economic incentives to create strong market demand, the complexity of circular design, regulatory barriers, and lack of transparency throughout the supply chain, awareness, collaborative networks, national examples of successful circular business models, circular metrics and sustainable business advocacy for circular policies<sup>10,11</sup>.

## 2.3 Collection of information and evidence

Various questionnaire surveys were held throughout the project to assess the satisfaction of SMEs regarding the DigiCirc tools and activities, and to collect their feedback and suggestions, as well as success stories arising from the project. The direct interaction of the project partners with the SMEs during the project also provided input on drawing the lessons learnt. The following questionnaire surveys were conducted:

- Feedback by SMEs on the first 2 phases of the 3 accelerators (Circular Cities, Blue Economy, Bioeconomy)
- Feedback by SMEs on the final phase of the 3 accelerators (Circular Cities, Blue Economy, Bioeconomy)
- Feedback on DigiCirc LSL Enablers (Circular Economy Data Hub, Matchmaking Tool, Industrial Symbiosis Platform, InfoPortal) by SMEs participating in 3 accelerators (Circular Cities, Blue Economy, Bioeconomy)

In general, there was a very high degree of satisfaction of SMEs which participated in the DigiCirc accelerators. It helped them to build new commercial relationships and supported them both in terms of knowledge and financial support in the development of their products. They particularly appreciated the business-oriented training which increased their investor-readiness and boosted market viability.

The DemoDay winners reported that the programme helped them to improve the development of their solutions, acquire a better understanding of the business steps, and complete their Business Plan. The 100,000 € final grant was used to purchase materials, space, obtain specialized expertise / external skills, and test their solution with a view to launching it in the market.

A successful example is the SME [UNICO](#), which achieved a fundraising of EUR 1.5 million to accelerate the commercial development of its Saas solution dedicated to the logistical optimisation of waste collection. This new step will enable

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<sup>66</sup> Shaping Europe’s Digital Future (Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions COM(2020) 67 final). European Commission.

<sup>7</sup> OECD (2021). One Year Of SME And Entrepreneurship Policy Responses To Covid-19: Lessons Learned To “Build Back Better”

<sup>8</sup> Why sustainable SMEs hold the key to the circular economy, Ecopreneur.eu, 2021

<sup>9</sup> Accelleratio (2015). Barriers & Drivers towards a Circular Economy. Literature Review, A-140315-R-Final, March 2015

<sup>10</sup> Ecopreneur.eu (2019). Circular Economy Update - Overview of Circular Economy in Europe.

<https://circulareconomy.europa.eu/platform/sites/default/files/ecopreneur-circular-economy-update-report-2019.pdf>

<sup>11</sup> European Commission, Brussels (2020). Flash Eurobarometer 486 (SMEs, Start-ups, Scale-ups and Entrepreneurship). GESIS Data Archive, Cologne. ZA7637 Data file Version 2.0.0, <https://doi.org/10.4232/1.13639>.



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the company to accelerate its commercial development in France and in Europe to equip more than 400 structures by 2024. UNICO was selected to enter the acceleration programme on Circular Cities and made relevant improvement in the development of their minimum viable product (MVP) as well as their business plan. They also obtained the support from the city Issy les Moulineaux for the deployment of their pilot.

Other companies were actively involved in discussions with numerous potential customers, signed Non-Disclosure Agreements setting the ground of potential business transactions, made business agreements about trials with authorities, received partnership requests, and got local and international media coverage.

Regarding the LSD-Enablers, the Circular Economy Data Hub was widely used by SMEs during the 3 accelerators and after their completion. Most of the participants requested additional data to be included, covering more geographical areas, updated data, improved metadata, and higher spatial resolution data. The Industrial Symbiosis Platform was used by SMEs to model material flows and logistics to create a circular plan for their business. Most SMEs that used the Matchmaking tool were pleased in terms of functionality, and made new partnerships through it in other countries. In terms of content, they indicated that they would like more companies relevant to their specific sectors. The InfoPortal assisted SMEs in the process of developing new knowledge and solutions. They demonstrated particular interest in market trends related to their particular sector, market studies, and new technologies.

The experience acquired through the IP Workshop & Mentoring Sessions indicates that:

- SMEs had basic awareness on the protection of IP, but not on IP & IPR strategies & management
- Questions were formulated on when to take what (further) steps to protect their IP/IPR and how, which did not always demonstrate a sufficient sense of knowledge or urgency
- High percentage % of companies depend on performance, success and thus existence of external services, products and companies which they do not have control over
- There is high dependency on corporates based outside of the EU, or powerful corporates within the EU
- Most innovations with IP/IPR potential rely on the existence of established systems, businesses or services which are not part of their own consortium
- Partnerships and long-term relationships with institutional organisations are sought after but hard to establish
- There is uncertainty regarding data, data control and data sharing

## 2.4 Recommendations

The policy recommendations arise from the lessons learned during the DigiCirc project, and reflect specific steps and measures to be taken (and by whom) to realistically and feasibly address the policy challenge, closing with a call to action. Policymakers may come from a wide range of backgrounds, and are a non-specialised audience. For this reason, the language used is clear, simple and easy to understand, avoiding academic terms or jargon.

The DigiCirc policy recommendations are the following:

**EU SMEs have a high potential to develop innovative solutions that contribute to the digitalization of the circular economy. To unleash this potential, they need support in the form of training, networking, access to investors, and financial support**

**Professional assistance on IPR strategies and management is a necessity for European SMEs which develop solutions for the digitalization of the circular economy, and should be made more accessible and affordable, to promote innovation and trade within and outside the EU**

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A more comprehensible and affordable one stop shop IPR registration system for the EU would be an enormous stimulus for international trade. This would also give a competitive edge internationally to the high potential businesses

IPR strategy and management awareness is very much needed and should be intensively promoted amongst SMEs in the EU, to enable more growth and innovative businesses

Data is both a means and an asset, and access to data is even more essential. Within the EU these are not (yet) sufficiently seen as perhaps the currently most important IP/IPR available, whether these fit within the traditional IPR system or not

**(Additional) awareness and innovation policy instruments are highly recommended**

Further support and funding to SMEs can be provided by the European Innovation Council (EIC) and the Enterprise Europe Network (EEN) to help them scale up and bring their innovations to the market. The EIC offers funding through the EIC Accelerator and the EIC Transition, which are designed to support SMEs in the development and commercialization of their innovations. A dedicated action targeted to SMEs developing solutions for the digitalization of the circular economy can contribute to strengthening industrial leadership of the EU in this sector.

Professional assistance to SMEs which develop solutions for the digitalization of the circular economy can be given through the EU's Intellectual Property Office (EUIPO).

Further support can be given through the European Regional Development Fund (ERDF) to business accelerators, networks and clusters, which can enable start-ups to grow and find a market.

A dedicated fund can be created through the European Investment Fund (EIF) for investing in SMEs developing solutions for the digitalization of the circular economy.

The Erasmus+ programme can promote the development and delivery of training programs for SMEs on digitalization and circular economy practices.

## 2.5 Communication

This step includes the selection of the tools proposed to be used to communicate the policy brief, depending on the type and content of the policy, the available resources, and the way the audience likes to receive information. The policy brief can be shared in various channels such as on websites, social media, in person, during meetings or events, and in print. This can help to reach a wider audience and ensure that the policy brief reaches the target audience. Some examples are:

- Business and innovation networks which focus on connecting and supporting businesses and entrepreneurs
- Digitalization and circular economy specific platforms, such as the Ellen MacArthur Foundation and the European Circular Economy Stakeholder Platform, which can be used to disseminate the policy brief to relevant stakeholders in the field.
- Industry associations and trade organisations that provide information and resources for businesses in their respective fields
- Business and innovation publications which can be targeted to disseminate the policy brief to a wide audience of entrepreneurs, business leaders, and policymakers.
- Social media platforms: Social media platforms like LinkedIn, Twitter, and Facebook can be used to disseminate the policy brief to a wide audience of stakeholders, including SMEs, policymakers, and other relevant groups.

The policy brief is addressed to a rather generalist policy audience, thus it is a short document (Annex). For “further reading”, it links to the current deliverable, which includes the evidence that underpins the arguments in the brief.

## 3 Structural elements of the policy brief

The structural elements of the DigiCirc policy brief are:

**Title:** The title of the brief (SME innovation support for the digitalization of the Circular Economy) is selected so as to attract the attention of the reader and is also be used to start communicating the essence of the message.

**Executive Summary:** It aims to clearly state the core findings and recommendations in the paper and further grab the reader's attention.

**Rationale for action on the problem:** It presents the current policy landscape related to innovation support and digitalization of the circular economy policy, as well as the policy challenge, and the lessons learnt in the project.

**Key findings:** A summary of key findings aiming to capture the interest of the policy audience and justify the significance and urgency of the policy issue being addressed.

**Policy Recommendations:** This element provides a feasible and practical set of recommendations.

**Sources consulted or recommended:** List of the key sources referenced in the brief.

**Link to original research/analysis:** A link to the current deliverable, for readers who wish to access more detailed information

**Contact details:** Contact information for policy makers who would like to ask more questions and follow up on the brief.

# Annex: DigiCirc Policy Brief

## 1. Title

SME innovation support for the digitalization of the Circular Economy

## 2. Executive Summary

The current policy brief highlights the importance of small and medium-sized enterprises (SMEs) in the transition to a circular economy. The brief proposes policy recommendations to unleash the potential of SMEs, including support in the form of training, networking, access to investors, and financial assistance. Professional assistance on IPR strategies and management, and intensively promoting IPR strategy and management awareness are also recommended. Additionally, a comprehensible and affordable one-stop-shop IPR registration system for the EU is suggested, along with an emphasis on the importance of data access. The brief is based on feedback and suggestions from SMEs collected through the DigiCirc project's questionnaire surveys, which revealed that SMEs faced barriers to growth, including lack of demand, additional costs, lack of economic incentives, regulatory barriers, and lack of transparency and awareness. The brief lists several sources consulted or recommended and provides contact details for further information.

## 3. Rationale for action on the problem

The EU has made the transition to a circular economy a key objective through the Circular Economy package and Green Deal strategy. The new Circular Economy Action Plan promotes circular economy processes, sustainable consumption, and waste prevention. Digital technologies are key drivers of change in this plan, and the European data space for smart circular applications is expected to drive applications and services such as product passports and resource mapping. Small and medium-sized enterprises (SMEs) are important players in the transition to a sustainable economy, but current policies and planned actions are not sufficient to fully unleash their potential. SMEs face barriers to growing their business, impact, and market share, including lack of demand, additional costs, lack of economic incentives, regulatory barriers, lack of transparency, awareness, and circular metrics. Effective policies are needed that foster SME recovery and promote sustainable solutions.

## 4. Key findings

The DigiCirc project conducted various questionnaire surveys to collect feedback and suggestions from SMEs regarding the DigiCirc tools and activities, as well as success stories arising from the project. The SMEs that participated in the DigiCirc accelerators reported a high degree of satisfaction, stating that the program helped them build new commercial relationships and provided knowledge and financial support. The project also helped improve the development of their solutions and increase their market viability. The Circular Economy Data Hub, Matchmaking Tool, Industrial Symbiosis Platform, and InfoPortal were all used by SMEs, with many requesting additional data or content. The IP Workshop and Mentoring Sessions highlighted that SMEs had basic awareness of IP but lacked knowledge of IP/IRP strategies and management. There was also uncertainty regarding data control and sharing and a high dependency on external services and powerful corporates.

## 5. Policy Recommendations

EU SMEs have a high potential to develop innovative solutions that contribute to the digitalization of the circular economy. To unleash this potential, they need support in the form of training, networking, access to investors, and financial support.

Professional assistance on IPR strategies and management is a necessity for European SMEs which develop solutions for the digitalization of the circular economy, and should be made more accessible and affordable, to promote innovation and trade within and outside the EU.

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A more comprehensible and affordable one stop shop IPR registration system for the EU would be an enormous stimulus for international trade. This would also give a competitive edge internationally to the high potential businesses.

IPR strategy and management awareness is very much needed and should be intensively promoted amongst SMEs in the EU, to enable more growth and innovative businesses.

Data is both a means and an asset, and access to data is even more essential. Within the EU these are not (yet) sufficiently seen as perhaps the currently most important IP/IPR available, whether these fit within the traditional IPR system or not.

(Additional) awareness and innovation policy instruments are highly recommended.

#### 6. Sources consulted or recommended

- European Commission, Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs, Study on the effectiveness of public innovation support for SMEs in Europe: final report, Publications Office, 2021, <https://data.europa.eu/doi/10.2826/7745>
- Shaping Europe's Digital Future (Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions COM(2020) 67 final). European Commission.
- OECD (2021). One Year Of SME And Entrepreneurship Policy Responses To Covid-19: Lessons Learned To "Build Back Better"
- European Commission, Brussels (2020). Flash Eurobarometer 486 (SMEs, Start-ups, Scale-ups and Entrepreneurship). GESIS Data Archive, Cologne. ZA7637 Data file Version 2.0.0, <https://doi.org/10.4232/1.13639>.
- DigiCirc project internal surveys

#### 7. Link to original research/analysis

Information on the methodology used to derive the DigiCirc policy recommendations is available at: Deliverable 6.3: Digitization for the Circular Economy Policy Brief, available at <https://digicirc.eu/deliverables/>.

#### 8. Contact details

info@digicirc.eu





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## End of Document



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 873468.