



CIRCULAR ECONOMY STARTUPS BOOST SUSTAINABLE CHANGE AND MODERNIZE THE ECONOMY

– but have startups been taken into account in
innovation policy?

In this policy recommendation, we present ways to integrate the needs of growth-oriented circular economy enterprises into societal decision-making aimed at promoting sustainable growth. We recommend that public sector organisations, and especially the business service field, take steps to invest in circular economy competence. We also recommend that legislation and guidance emphasise predictable and long-term decision-making in line with sustainable development objectives. In this way, the public sector can support the development of circular economy business activities.

Startup companies and companies investing in reforms aimed at sustainable growth are pushing forward the circular economy revolution and building well-being for a sustainable society – well-being that takes into account economic, social and environmental values. However, our research has found that circular economy entrepreneurs feel they are left on the sidelines in social decision-making on the circular economy transition, as those invited as experts to participate in sustainability strategy work are the heads of development from public organisations and development unit directors from large companies.

For our research report *CICAT2025 Circular Economy Catalysts: The Innovation ecosystems*, we interviewed in 2020 and 2021 a total of 31 circular economy startups as well as corporate financiers, customers and business advisers located in Finland. Our research shows that Finland has a diverse and growing range of circular economy startups that have high potential for innovation and value creation. Startups strive to become more international and to offer technologies and services that can solve increasingly demanding customer problems and environmental issues.



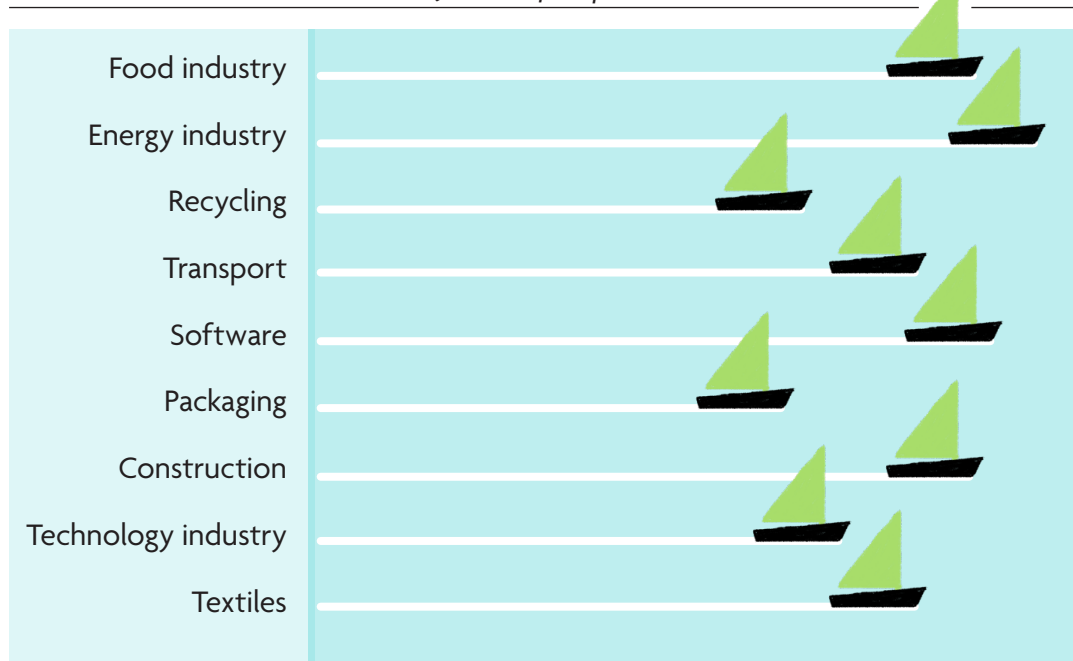
Building a sustainable circular economy involves reducing the use of natural resources, closing material, energy and nutrient cycles, and preserving the value of products, materials and resources within the economy for as long as possible.

How do startups contribute to sustainable growth?

Circular economy startups offer innovative and sustainable product and service solutions to companies, public organisations and consumers across a range of sectors. Startups in the circular economy create for their customers new forms of value creation which support sustainable growth.

Startups engage in circular economy business in many different sectors, including food, construction, transport and software development. Many of the solutions are based on existing material cycles and side streams in industry and commerce. The companies operate in a circular economy, meaning that they aim to reduce consumption and to repeatedly reuse and recycle existing materials and resources. This fundamentally changes the logic of value creation. According to our research, startups in the circular economy are strongly technology- and service-oriented, and many companies combine digital business expertise with circular economy expertise.

Sectors in which circular economy startups operate



How can we best promote a circular economy geared towards sustainable growth?

The circular economy is about a systemic change in which companies are among the key change agents. The right operating conditions for a company aiming for sustainable growth are formed in a circular economy ecosystem in which different actors have complementary roles:

1. Legislation secures the prerequisites for companies' product and service development, affects the private sector's willingness to invest and investors' ability to take risks, and steers consumer behaviour in ways that promote sustainable growth.
2. Publicly-run business service and funding organisations steer and support the creation, growth and internationalisation of circular economy business.
3. Research institutes create new knowledge and innovations together with circular economy companies.
4. Educational organisations increase circular economy expertise in society and train experts to meet the needs of circular economy companies.
5. Cities create a circular economy environment, and tendering by public organisations shapes the market for circular economy companies.

The circular economy will create new markets, and its promotion will bring solutions for the climate crisis, for biodiversity loss, and for boosting employment and the competitiveness of the national economy. The role of the public sector in innovation is important. Circular economy entrepreneurship must be made an attractive career option for people of all ages.

RECOMMENDATIONS



Providing funding and advisory services to circular economy companies requires investment in competence development

(Ministry of Employment and the Economy, ELY Centres, Finnvera, Sitra, Business Finland)

Business funding: Growth-oriented circular economy businesses need funding models that combine long-term product development with experimental business activities. The criteria for environmentally and socially sustainable business funding must be clear. The funding and support criteria must clearly define the economic, social and environmental impacts.

Business advisory services: Investment is needed in training TE Centres' business service personnel so that they have the needed attitudes and competence for dealing with circular economy businesses. It is difficult for circular economy entrepreneurs to get consultative support and correct information because business service personnel may have a negative and disregarding attitude towards circular economy startup businesses.



Policy-making for supporting sustainable growth must be proactive

(Parliament, ministries, EU)

Comprehensive regulation for the circular economy: Effective regulation and legislation encourage companies to develop new business activities and to invest in the circular economy in Finland. Circular economy legislation must be developed so that the whole life cycle of products and materials is taken into account – from design through to reuse. The creation of a circular economy market and the attractive power of customer behaviour requires first the steering power of legislation.

Clear strategic communication on sustainability: A clear message is needed from ministries and policy makers on what is meant by strategic choices for a sustainable society. The use of many different terms is confusing for some companies. How, for example, do carbon neutrality, resource efficiency, the circular economy, and biodiversity all relate to one other and what are the concrete goals and choices for them? Pioneering companies are aware of sustainability terminology, but those who are still reflecting on sustainability issues are confused by all the terms involved. This slows down the transition to a sustainable circular economy.



National and local innovation policies for promoting sustainable growth must have a long-term focus

(Ministries, Sitra, municipalities, Association of Finnish Local and Regional Authorities)

Long-term sustainability policy: In addition to programme-based administrative development, long-term development is essential for the promotion of a sustainable circular economy. Innovative companies need to be aware of society's objectives already in the research, planning and experimentation phases in order to be able to take risks and invest.

CHECKLIST for circular economy startups

Business idea for a startup seeking to boost the circular economy – aimed at environmental sustainability

- ☐ Customers share the entrepreneur's values.
- ☐ Customers participate in experiments.
- ☐ The entrepreneur has competence that boosts circular economy solutions (digital, material, process, service).
- ☐ The entrepreneur's circular economy solution focuses on reducing material and energy consumption, reuse, recycling, etc.
- ☐ The entrepreneur has chosen an ecosystem that encourages and guides circular economy solutions (financiers, incubators, advisers, subcontractors, communities).
- ☐ The progress indicators take into account the value that the business activities create for the environment, society, and sustainable economic management.
- ☐ The success indicators take into account planetary boundaries both in the short term and across generations.

CICAT »2025

The research project *CICAT2025 Circular Economy Catalysts: From innovation ecosystems to business ecosystems* is accelerating the transition to a sustainable circular economy and supporting Finland's goal of becoming a leading country in the circular economy by 2025. This project is multidisciplinary and is generating new knowledge on the factors that drive the circular economy forward and offering concrete solutions for companies and decision-makers to accelerate change. The research is funded by the Strategic Research Council, which operates in conjunction with the Academy of Finland.

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CONTACT DETAILS

Professor Hanna Lehtimäki
University of Eastern Finland
+358505732742
hanna.lehtimaki@uef.fi



cicat2025.fi
uefconnect.uef.fi