



REPUBLIC OF SLOVENIA
MINISTRY OF ECONOMIC DEVELOPMENT
AND TECHNOLOGY



EUROPEAN UNION
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DEVELOPMENT FUND
INVESTING IN YOUR FUTURE



Strategic Research and Innovation Partnership (SRIP) –
Networks to the transition in to circular economy

/SRIP-Circular economy/



ŠTAJERSKA
GOSPODARSKA
ZBORNICA



Univerza v Mariboru

Fakulteta za kemijo
in kemijsko tehnologijo



KEMIJSKI
INŠTITUT

"SMEs towards the Circular Economy,"

Dragica Marinic
Chamber of Commerce and Industry of Stajerska

12. 5. 2021, Maribor , Slovenia



Smart Specialisation Strategy of the Republic of Slovenia:

to significantly intensify cooperation between Slovenian innovation stakeholders that operate in specific priority areas (through the Entrepreneurial Discovery Process)

Slovenian Development Strategy:
Strategic orientation 3: High-productivity economy

Sectoral strategies: National Research and Innovation Strategy, Slovenian Industrial Policy, Digital Slovenia 2020, etc.



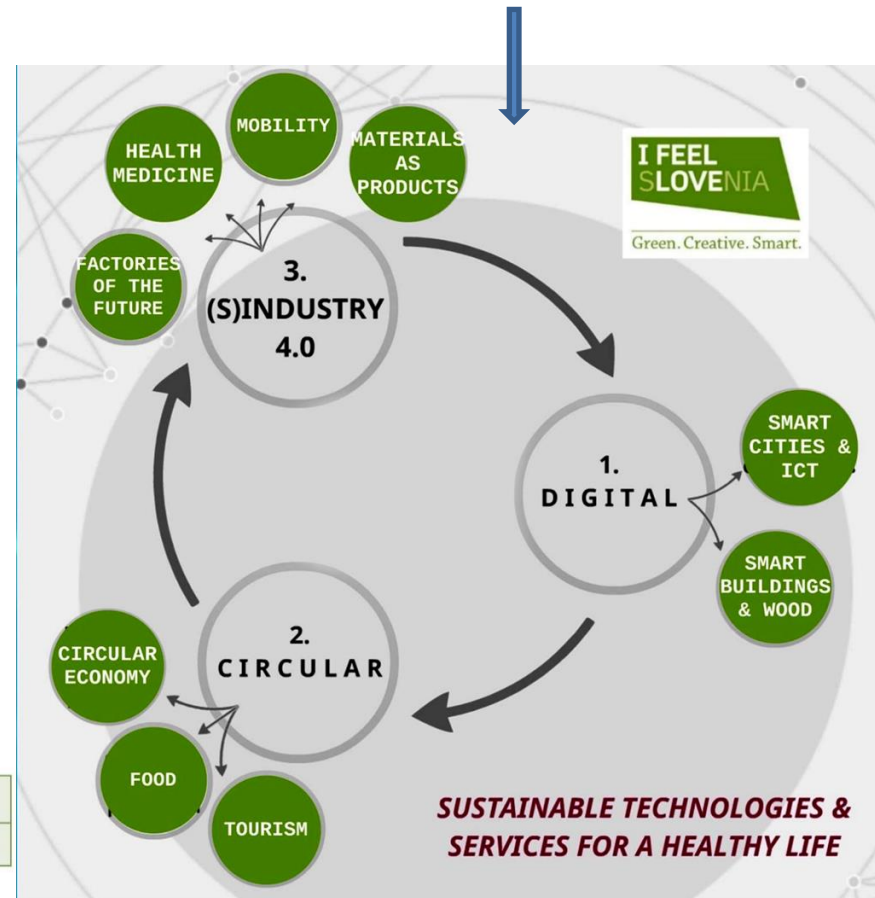
Breakthrough, consistent and focused innovation policy
→ from strategies to projects



RDI	Entrepreneurship & internationalisation	New jobs & training	Education & creativity	Urban & rural	Taxes
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State & municipal budget	EU Cohesion Policy & other EU programmes	Financial instruments	Private capital
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Structural reforms

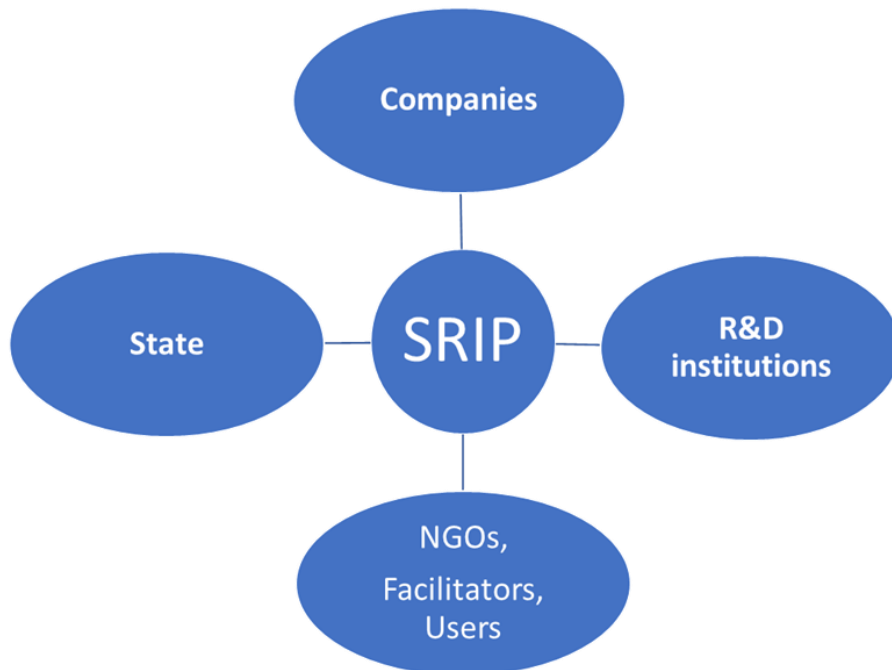


Roadmap towards a Circular Economy in Slovenia

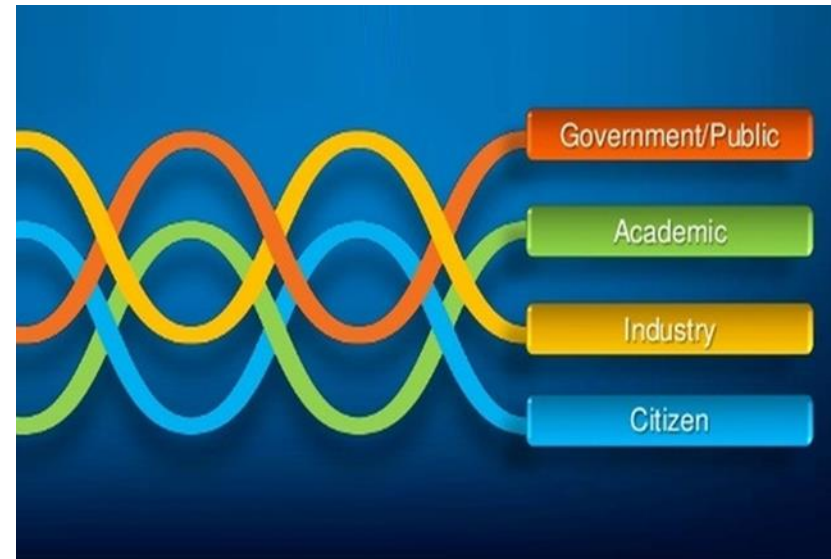


SRIP-Circular economy

- a long term, sustainable public - private partnership /cluster,
- innovation ecosystem,
- 87 members: 56 companies /SMEs, large/, 16 R&Ds, 13 NGOs, 3 chambers
- intellectual potentials / networking, collaboration in value chains/ for an entering to global market among:



Quadruple helix model of the open innovation in knowledge-based development



SRIP-Circular economy / new value chains



Focus areas



ICT SUPPORT / DIGITALISATION

The circular model builds a capital on:

- economic,
- natural,
- social level (closing the loop).

Principles:

- design out of waste and of pollution
- keep products and materials in use
- regenerate natural / eco systems



SRIP-Circular economy: activities

**Development Action plan /Strategy
for individual focus area and
horizontal networks**

**Promoting joint
development**

Internationalization

**Development of common
services**

**Representation of
interests to the country**

**SRIP operation at the
regular activity stage**

SRIP – Circular economy: Action Plan – Business Strategy / Sustainability / Research and Career Platform / Entrepreneurship / Investment

Action plan of SRIP:

research & development of products, services, human resources development, entrepreneurship, internationalization, sharing the capacities

Public – Private Investment / Public calls:

- Slovenia,
- EU
- Private Investment

1. Career Platform:

- Profession of future
- Individual career plan
- Training, Education,
- Competences

2. Innovation

3. Digitalization

4. Ecodesign

5. EU Platforms / member:

<https://www.s3vanguardinitiative.eu>

<https://www.clustercollaboration.eu/cluster-organisations/strategic-research-and-innovation-partnership-networks>

<https://www.bbi-europe.eu/>

<https://s3platform.jrc.ec.europa.eu/water-smart-territories>

SRIP – Circular economy:

Presentations of the members /circular projects:

PETROL d.d., Ljubljana: sustainable energy solutions: Industrial residual heat for the heating in the City of Ravne na Koroškem. / www.petrol.si

Bass d. o. o., Celje: the Ekolog, manage digital, information support system: Optimization of waste management circle / www.bass.si

Slovenian National Building and Civil Engineering Institute, Ljubljana: the EU CINDERELA project presents the solutions for the problems of the intensive construction activities in urban areas. / www.zag.si

Tekstina d. o. o., Ajdovščina: the project TRASH-2-CASH: chemical recycling of cellulose and polyester textile waste to new fibres and new products. / www.tekstina.si / www.tekstina-tech.si

Predilnica Litija d.o.o.: potential of biomass for the development of advanced materials and bio-based products: new value chains. / www.litija.com

Kolektor Sisteh d.o.o., Idrija, Mariboru: water treatment solutions: <https://www.kolektor.com/>

SRIP – Circular economy: Presentations of the members /projects:

IOS, Institute for Environmental

Protection and Sensors, Maribor: the project RESYNTEX presents: from textile waste towards to chemical and textiles industries feedstock /www.ios.si

A demopilots:

- a) for textile waste
- b) plastic bottle waste

Water treatment / waste water, drinking water management

Plastika Skaza, Velenje: an innovative

way for a (bio)plastic production /

bioplastic products, ecodesign/

www.skaza.com

Surovina d.o.o., Maribor: from waste to secondary raw materials /recycling, reuse of waste;

Demo pilot project: Poly circularity

- plastic waste (bottles) to secondary raw materials
- digital passport for materials / secondary material: <https://www.surovina.si/>

Aquafil: Ljubljana: The ECONYL® brand is not just a yarn but represents a new way of thinking, a way to reconcile the desire for innovation with the constant commitment of the Company to protect the environment. The ECONYL® regeneration process transforms what was waste into a new source of opportunities to be implemented in the fashion and furniture industries / www.aquafil.com

SRIP – Circular economy:

Presentations of the members: circular achievement

ACIES BIO d.o.o., Ljubljana:

Strain development: evolution and synthetic biology;

Fermentation process development: Designing the processes with industrial scale in mind;

Processing fermentation broth until final product using various techniques; Chemical synthesis:

Linking chemistry and biotechnology for semi-synthetic products or pure chemical projects;

Transfer to production: From laboratory bench, through pilot scale to technology-demonstration plant with 10.000 L fermentors. /

Project: Whey2Value – Technology for the production of vitamin B12 from whey

<http://www.aciesbio.com/>

Pulp and Paper Institute, Ljubljana:

CEL.CYCLE – Potential of biomass for development of advanced materials and bio-based products for industry: chemical, textile, paper, wood processing, automotive industry, construction, engineering, innovative system for energy recovery from waste. <http://icp-lj.si/>

National Institute of Chemistry, Ljubljana:

research is focused on secondary batteries – specifically lithium-ion, lithium-sulfur, magnesium batteries as well as organic battery materials. the scientific and technological understanding of electrochemical energy storage specifically in the context of a sustainable energy system, in which renewable energy is required to be stored in secondary batteries and (re-)converted into electricity.

<https://www.ki.si/en>



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Thank you for your attention!

<https://www.srip-krozno-gospodarstvo.si>

<https://srip-circular-economy.eu/>

Contact:

Štajerska gospodarska zbornica /
Chamber of Commerce and Industry of Stajerska

T: 00386 2 220 87 00



Dragica Marinič, PhD, Coordinator of SRIP – Circular economy, dragica.marinic@stajerskagz.si

srip@stajerskagz.si

Investment is co-financed by Republic Slovenia and EU under the European Regional Development Fund