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CIRCULAR FLANDERS

2023: analysis, collaboration, action!

Circular Flanders, active partnerships shaping the circular economy

BUILDING A CIRCULAR FUTURE

A few years ago, we slowly got the circular ball rolling. In 2023, we could barely keep up with all the various initiatives in the circular economy. The ball is rolling. The Strategic Agendas are now all on track. They set out their initial work paths and move on to concrete actions to test out best practices or resolve bottlenecks. We are getting a growing group of circular ambassadors. We wanted to compile a first list of training programmes in the circular economy in Flanders, but it became too long a list to include smoothly into our newsletter. The pioneers have set off. Those of the first hour even dare to speak of scaling up already. Flanders is increasingly seen in Europe as a frontrunner in the circular economy and we will show it in 2024, at the Circular Flanders SOTU '24 on March 21st or the Circular Economy Conference of the

Belgian Presidency of the European Council on April 17th 2024. Together with all our partners, we will continue to surf this wave of innovation, learn quickly from each other and ensure that a larger group in society embraces the circular economy.

I am hopeful because I see in the eyes of our partners the fire and passion of circular entrepreneurship. A generation is emerging that is embracing sustainability and consuming more consciously. If we make the shift to a circular economy together, we will make tomorrow brighter for everyone!

> **Brigitte Mouligneau** Circular Flanders Transition Manager

2



In 2023, it became clearer than ever that the circular economy is the only way forward. Once again, we worked hard on this with the Circular Flanders partnership. My great appreciation goes to all staff and stakeholders for their relentless efforts. We will continue to do so in 2024. In doing so, we have clear priorities: identifying the obstacles to putting the circular economy into practice and strengthening the bridge function across departments and sectors. If we succeed in doing that in 2024, I will look back on 2024 with satisfaction.

> Paul De Bruycker Chairman of the Circular Flanders steering group

ABOUT US

Circular Flanders is a broad partnership with public and private sector players.

Within the 6 Strategic Agendas, we actively experiment, analyse and take action. The 7 Levers turn bottlenecks into opportunities wherever possible so that we keep more and more products and materials in circulation. Together we work towards a circular economy in Flanders.

More information on the general operation of Circular Flanders can be found at <u>https://vlaanderen-circulair.be/en</u>





THE CIRCULAR FLANDERS PARTNERSHIP CONTENT

6 Strategic Agendas

Public-private partnerships with their own dynamics, goals, initiators and actions

7 Levers

Accelerators to overcome barriers and promote best practices

THE CORE VALUES OF THE CIRCULAR FLANDERS PARTNERSHIP

Since its creation in 2017, Circular Flanders has been a recognised centre (a regional hub) to initiate and accelerate the transition to a circular economy within Flanders. A critical review of the Circular Flanders partnership was conducted in 2023 at the request of the steering group.

What has the partnership set in motion?

What significant changes would not have happened without the Circular Flanders partnership?

And what would make the partnership even more powerful?

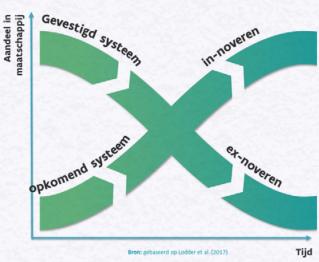


Besides these numbers, an in-depth evaluation was performed, in which the following core values emerged as strengths:

- Connecting players from the social pentagon. This is done through networking events such as the Green Deals, through partnerships such as 'Circular work(s)', through research projects where experts and stakeholders work together, and so on
- 2. Introducing new forms of business by developing, testing, researching and highlighting new product-service systems
- 3. Innovation and experimentation in the field is encouraged through business support and funding
- Freeing up resources, both financial, through grant calls and research projects, and time and space to foster connections and partnerships
- 5. Putting the circular economy as a transversal opportunity on the agenda of regional and (supra)local governments and market players such as the Port of Antwerp-Bruges and the North Sea Port
- 6. Underpinning the shift to a circular economy through the CE centre, specific research assignments, the publication of the doer web page, the inspiration from the many newsletters, blog articles and social media

THE POWER OF THE PARTNERSHIP





In recent years, the partnership has supported many frontrunners in testing and developing circular practices. This approach has paid off. We see new circular initiatives seeing the light of day in a lot of sectors, coming from both small and large organisations. But how can we together accelerate the shift to sustainable circular practices?

We can **strengthen** the anchoring of desired circular practices (cf. in-novation) by, for instance:

- Actively following up and leveraging the lessons that can be learned in the field
- Broadening knowledge sharing to 'early adopters' and 'early majority'
- Creating awareness through targeted communication to additional target groups such as SMEs and citizens/consumers

At the same time, efforts will also have to be made to **phase out** undesirable linear practices (cf. ex-novation) by, for instance:

- Establishing short-term goals by sector and across sectors
- Identifying system challenges and maximising linkage opportunities, e.g. turning unsustainable employment into circular jobs
- Committing regular resources to practices with a positive impact.
 For example, through the EU Taxonomy and the Corporate Sustainability Reporting Directive (CSRD)



01 **STRATEGIC AGENDA** FOOD CHAIN



In a circular food chain, we make sure that everything edible stays that way. We do not let anything go to waste and use waste streams as valuable resources. By using resources more carefully, we guard the limits of our planet. We strive for a **resilient food ecosystem** in which we care for soil, biodiversity and the well-being of humans and animals. With new innovations and partnerships, within and beyond the food chain, we are making systemic change a reality. This is how we are working towards a circular food chain 2.0.

Hungry for more information on this Strategic Agenda?

INITIATORS

IMPACT PROJECTS 2023

We also worked on 4 impact projects last year. In doing so, we ensured a nice consistency with other strategic actions around food, such as the Flemish Food Strategy, the Food Loss Action Plan and the Green Deal Protein Shift.

<u>The Flemish Food Strategy</u> (In Dutch)

← Food loss (In Dutch)

Green Deal Protein Shift (In Dutch)

01 Identify impeding legislation

In 2023, we made a questionnaire about legislation that stands in the way of a circular food chain 2.0. The questionnaire was completed by our broad community of stakeholders from the private and public sectors. This revealed several barriers, which the WA will continue to work on.

PROJECT GROUP

BFA, OVAM, BB, COMEOS, FEVIA, L&V



IN ACTION

At the end of 2022, we were supporting 9 projects (Targeted Call for a Circular Food Chain) that worked on reducing food loss, including 2 projects that will analyse food loss in each step of the value chain. Other projects work on the valorisation of waste streams. The interim interviews and reporting promise very exciting results!

G Circular cases

02 Circular food chain learning network

We prepared the learning network by, among other things, further developing the identified best practices in collaboration with Vlaio, Fevia, ILVO and Flanders' FOOD. Moreover, through the Strategic Agenda, we put extra effort into communication about what a circular food chain can mean. With the support of the Communication Lever, we provided a breeding ground of extraordinary stories to inspire other doers in the food sector.





INFO

For example, we interviewed Prof. Dr. Hannah Van Zanten, who headed the Farming Systems Ecology research group at Wageningen University. Together with 2 members of her research team, she told us all about the challenges within our food system:

← <u>A circular food system: syrup waffles</u> for the cows (In Dutch)

IN ACTION

Farmer Kris Heirbaut calls his way of working 'aLgriculture': the farm converts CO₂ emissions from the livestock through algae farming and processes these nutritious algae into ice cream, chocolate, pancake flour and more.

↔ Watch the video

03 A physical biomass hub: developing the idea and coordinating with potential candidates

A biomass hub is a place at a carefully chosen location near, for example, fruit and vegetable auctions, where biomass such as food surpluses and food waste, as well as grass clippings and other biomass, is collected and processed directly.

Specifically for edible biomass, the goal is to keep food surpluses in the food chain as much as possible ('food first' principle). For example, in such a biomass hub, large quantities of fruits and vegetables, which due to a temporary oversupply do not get sold, could immediately be processed in large quantities into a diversity of products such as purees, soups and juices. This is already being done on a small scale, but this is about scaling up those rather individual practices. In 2023, we connected with several similar projects and initiatives, such as the EU ZeroW project, a food hub of the city of Antwerp, a circular hub of the city of Mechelen, and the Bio-economy Strategic Agenda in order to learn together. A study by KULeuven commissioned by B2BE on the financial feasibility of such a biomass hub is also underway, with results expected in early 2024. ILVO will follow up this action.

<u>EU ZeroW project</u><u>B2BE</u>





Bart Van Droogenbroeck (ILVO, ZeroW)

Avoid food waste and cook with What-you-still-hadGPT!

Watjenogliggenhad.dekostwinners.be
 (In Dutch)

04 Integrating circular skills into existing training and programmes

In 2023, several discussions were ongoing to integrate the circular food sector into various training programmes, resulting in 2 concrete projects to be launched in 2024:

- A bootcamp for university students from different fields of study, who are introduced to the circular food chain
- A master class for people in the hospitality industry

TRAINING

TOOL

Circular benefits in the food industry

C Take advantage of the circular benefits in the food industry (In Dutch)

Fevia, Flanders Food and Vlaio

Fevia has created a sustainability roadmap for even more circularity in the food chain. Find out here what steps were taken in 2023:

← Sustainability roadmap (In Dutch)





02 STRATEGIC AGENDA CHEMICALS & PLASTICS



Changing the economy is not something you do alone. Therefore, the Chemicals & Plastics Strategic Agenda focuses on collaboration. Via jointly established working paths, the team works towards a **more sustainable use of raw materials**, more recycling, eco-design and industrial symbiosis. Through the circular hub, the Strategic Agenda actively enhances information flow, cross-fertilisation and knowledge exchange in the world of chemicals and plastics. Thanks to partners who are willing to redesign their processes in a circular manner, we are making the carbon footprint of products ever smaller.

C Discover even more food for thought here!

A lot is going on in the landscape of chemicals and plastics. Be inspired by the innovative doers:

Circular cases

INITIATORS

IMPACT PROJECTS 2023

01 Innovation and alternative raw materials

In 2023, the Strategic Agenda worked hard to explore new forms and applications of recyclate, bio-based raw materials and Carbon Capture & Utilisation (CCU, using carbon as a raw material). The viability of these raw materials was explored to eventually scale up to industrial use.

CORE PARTNER:

SPEARHEAD CLUSTER MOONSHOT BY CATALISTI

The operation of this spearhead cluster is very important. They have been researching alternative raw materials for a long time, looking at their degree of technical maturity (Technical Readiness Level). Within this project, the goal is to bring the various raw materials from a lab environment to an industrial environment so that they can also be used in practice as circular alternatives.

← Moonshot: Flanders low-carbon by 2050 (In Duth)



02 Connections in the value chain

To achieve a circular value chain, collaboration between different parties is indispensable: from collectors and processors to producers and logistics partners. A better and broader partnership allows for more recovery of 'waste', produces more recyclate, and thus more circular raw materials.

- In 2023, 5 events were organised within this impact project
- As in previous years, the Plastic Matters event on the role of plastics within the circular economy was organised twice
- Plastic Matters: plastics and recycling companies join hands to increase reuse of plastic construction waste (In Dutch)

IN ACTION

VIL – Plastics Recycling Hub This hub aims to establish connections within the plastics industry. This project ran for 2 years and was successfully completed in 2023.



C Plastics Recycling Hub



IN ACTION

Recycling Hub Call

By far the most notable example is Indaver's Plastics2Chemicals (P2C). Together with Flemish universities, Indaver developed an advanced recycling technology that uses thermal depolymerisation of polystyrene to convert plastic waste into chemical building blocks, which are then purified to their pure quality via distillation. This state-ofthe-art chemical recycling technology is ideal for plastics that are not suitable for traditional mechanical recycling.

To this end, Indaver is building the largest fully industrial end-of-life plastic recycling plant in Europe in the Port of Antwerp. The company is investing 100 million euros and can count on 7.5 million euros of Flemish government support and another 3 million euros of support from OVAM's recycling hub.

G Flanders Recycling Hub (In Dutch)

03 Alternative business models and eco-design

Under the 2023 Chemicals & Plastics Strategic Agenda, the partnership worked on 2 grant programmes, which include alternative business models and eco-design:

• Targeted Call for Circular Healthcare

The healthcare sector still consumes a lot of disposable materials every day. This Targeted Call for Circular Healthcare supports projects that specifically focus on reducing certain single-use materials and embracing alternatives. Several projects are thematically linked to the Chemicals & Plastics Strategic Agenda.

→ Innovation and Entrepreneurship Lever



• Living Labs (VLAIO)

VLAIO's Living Labs – a grant programme for collaborations on particular themes within the circular economy – selected 7 ambitious circular projects in 2023 in the **manufacturing**, mechanical engineering and chemicals and plastics sectors.

🗻 Manufacturing Industry Strategic Agenda



IN ACTION

Recyclage Gantoise

In hospitals, single-use plastic containers are unfortunately not (yet) a thing of the past. The Recyclage Gantoise project innovates by recycling that medical plastic waste into automotive applications.

C Recyclage Gantoise wins Circuit Circulair

IN ACTION

One such project is DW Reusables, which with the SIXPACK project is setting its sights on system change in the context of reusable packaging in retail.

Seven new Living Lab projects work on accelerated transition to circular economy (In Dutch)

04 Policy support

This long-term project systematically identifies barriers to creating and scaling up circular raw materials, and seeks methods to remove them.

In 2023, the Strategic Agenda organised the event titled "Policy on substances of concern: looking for alternatives", where stakeholders could gather inspiration and information on the processing of substances of concern and their circular alternatives.



IN ACTION

Discover the podcast episode we recorded in 2023 following the Strategic Agenda event. Hiram Moerman of Apeiron and Isabel De Schrijver of Centexbel talk about bottlenecks, bottle flakes and where legislation and our chemicals and plastics industry intersect. Because sometimes it's okay to be nice and technical.

C Podcast episode (In Dutch)

Federal project with Flemish doers:





Call: Belgium Build Back Circular

Under the National Recovery and Resilience Plan, the federal government launched a second call for projects to promote the circular economy in 2023. From the second project call 'Belgium Builds Back Circular' (BBBC), 8 projects working on textiles, machinery, furniture and packaging were selected.

🕒 <u>8 new circular eco-design projects (In Dutch)</u>

03 **STRATEGIC AGENDA** WATER CYCLES

The challenges of drought and water scarcity faced by governments, businesses and the water sector, among others, are huge: just think of the impact of climate change, demographic evolutions, spatial planning, socioeconomic evolutions, etc. These impact on all parts of the water cycle and the role of water in our living environment.

The Water Cycles Strategic Agenda aims to increase the use of circular water as a means for **sustainable water use and a robust water system** in Flanders. To do so, it is crucial to match the supply and demand of water in a sustainable way.

C Find out what flows in the Water Cycles Strategic Agenda

INITIATORS

WATER CYCLES

IMPACT PROJECTS 2023

01 Sustainable use of water with respect for environmental, economic and social aspects, now and in the future

This is done in part by embedding the three-step strategy: reduce water consumption, get the right quality for the right application at the right time, and use water multiple times where possible or desirable.

02 A robust water system that can withstand the various challenges we (will) face

In 2023, the Strategic Agenda created a bundle of challenges in collaboration with various partners. This contains the challenges and solutions for circular water use from ongoing projects and initiatives. The bundle is a starting point for constructive dialogue on circular water use and serves as a blueprint for further action in 2024.

03 Valorising concentrate streams

In collaboration with Watercircle and Vlakwa, we worked intensively on addressing concentrate streams in 2023. The situation is this: more advanced and more efficient treatment technologies allow more water to be reused, but this inevitably produces a concentrate stream. This wastewater stream, where the waste load is more concentrated, presents a number of challenges. In 2023, we organised exploratory talks and interviews with pioneers to compile lessons learned. In 2024, we will continue to focus on knowledge sharing and research on business cases to valorise concentrate streams.

04 Knowledge exchange between partners

The Water Cycles Strategic Agenda actively involves 17 partners. During several consultations each year, ongoing initiatives are discussed or new projects are launched.



IN ACTION

Food company Ardo reuses the water needed to produce and process their products. The treated wastewater is buffered in a 150,000m³ basin. Through a pipeline network, Ardo makes the water available to nearby farms. In this way, the treated water can be used to irrigate nearby fields.

G Watch the video here

04 **STRATEGIC AGENDA** BIO-ECONOMY



The bio-economy works with all available organic streams from agriculture, landscape management and specific productions, and uses them as raw materials for a new sustainable industry. This results in natural building materials, nutrients, specialty chemicals or soil improvers. All of these are alternatives to fossil materials that also store carbon. This Strategic Agenda builds a strategic basis for realising the potential of the Flemish bio-economy, as an essential part of:

- a resilient, stronger local economy
- greater independence from raw material imports
- the transition to a carbon-neutral economy

Accordingly, the Bio-economy Strategic Agenda actively seeks opportunities to use bio-based materials or biomass in the broader economy.

Read all about what is growing within this Strategic Agenda here

INITIATOR

IMPACT PROJECTS 2023

01 Vision of the Bio-economy Strategic Agenda

In 2023, in collaboration with some 40 partners, we established the vision for the **Bio-economy Strategic Agenda.** We developed it into concrete courses of action.



IN ACTION

Event: Bio-economy: from ambition to action

On 28 March, we brought together 120 stakeholders, ranging from cities and municipalities, landscape management and private forest owners, to Flemish Waterways and research institutions. During this major event of the Bio-economy Strategic Agenda, we presented the vision and courses of action. Moreover, it was one of the first times that the various actors from the bio-economy landscape came together to discuss the circular economy. A success!

Ronde 1 – Duurzame waardepropositie

Hoe heb jij dit aangepakt in eigen hubwerking (1 succes- en 1 faalmoment)

> Hoe zou jouw hub hier in de toekomst nog meer / beter op kunnen

Wat zijn de tips en tricks die we hieruit kunnen formuleren hubs?

8. Dienstverlening afgestemd op de (veranderende) noden van het lokale weefsel Om een goede bubweckens op te zetten is het cruziaal om de noden en uitdagingen van de 8. Dienstverlening afgestemd op de (veranderende) noden van het lokale weetsel Om een goede hubwerking op te zetten is het cruciaal om de noden en uitdagingen van de lekale ondergemens en maatwerkbedruiven te begrünen. Dees deze te identificeren kan de Om een goede hubwerking op te zetten is het cruciaal om de noden en uitdagingen van de lokale ondernemers en maatwerkbedrijven te begrijpen. Door deze te identificeren kan de hub een dienstverlening op maat aanbieden. Het is belangrijk om een vinget aan de pols te bouden lokale ondernemers en maatwerkbedrijvente begrijpen. Door deze te identificeren kan de nob een dienstverlening op maat aanbieden. Het is belangrijk om een vinger aan de pols te houden en de dienstverlening continu, aan te passen als de vragen van het lokale netwerk veranderen een dienstveriening op maat aanbieden. Het is belangrijk om een vinger aan de pois te nouden en de dienstverlening continu aan te passen als de vragen van het lokale netwerk veranderen.

inzetten?

voor de andere

BIO-ECONOMY

02 Establish logistics chains and biohubs

A biohub is a central place where different bio-waste streams come together and where bio-based products or semi-finished products leave. It is the link that interconnects the circular bio-chains – from their raw materials and processing to the finished products and the energy generated. Such a hub connects actors from a variety of sectors, from landscape management and agriculture to construction and chemicals. This makes overarching coordination imperative. For a pioneer hub, how can we establish initial value chains from biorefinery and side streams? Together with B2BE, some existing biohubs and pioneering companies, we set out to find conclusive business cases in 2023.

In collaboration with the 🤝 Circular Food Chain, 🗻 Chemicals & Plastics and *Circular Construction* Strategic Agendas

IN ACTION

From burden to benefit, that was the drive in this partnership. With the right partners, a waste stream becomes a valuable product. Mowing, collecting and processing garden waste to produce insulation: it is a prime example of how any resource can be valorised.

G Watch the video here



BIO-ECONOMY

03 Closing carbon cycles

Can we promote the bio-economy and accelerate carbon sequestration? The bio-economy can help return our soils to health while capturing carbon to support climate ambitions. Keeping records of carbon in soil and materials is therefore a necessary step for many innovative business models in the sector. The Bio-economy Strategic Agenda contributes to the development of the Flemish policy framework to achieve a regulated certification of carbon in soils as soon as possible.

04 Bio-based building

How can we promote bio-based materials in the construction industry and form new value chains? Together with Kamp C, Rurant and numerous other stakeholders, the Bio-economy Strategic Agenda is committed to establishing a Flemish centre for bio-based building materials. We are also supporting a consortium of players in the chain of bio-based materials in the creation of a joint non-profit organisation and in the organisation of events and communication. We also coordinate with organisations that promote supply chain integration, such as B2BE and the Living Lab Hemp+.

INITIATORS:

Kiemkracht and Kamp C.

Kiemkracht (In Dutch)
 www.kampc.be (In Dutch)

<u>hennepplus.be (In Dutch)</u><u>www.b2be.com</u>

05 Communication about the bio-economy

How can we make the bio-economy better known? Despite a great amount of knowledge building and pioneers, the bio-economy remains fairly unknown and unloved. In 2023 there was coordination with the European level; the feedback to Flemish actions will be looked at with the stakeholders. Through the website and newsletters of Circular Flanders, efforts were already made to communicate widely.

← <u>A circular and carbon-neutral future</u> through the bio-economy (In Dutch)



05 **STRATEGIC AGENDA** MANUFACTURING INDUSTRY



The Manufacturing Industry Strategic Agenda focuses on 3 key sectors and materials: electronics & machinery, professional and consumer textiles, wood & furniture. Together, these streams account for as much as one-third of total CO₂ emissions. Moreover, resource depletion and their rising prices are major challenges. The circular transition requires innovative collaboration to involve more partners to ensure value retention of products (for example, by making waste streams reusable as raw materials). In other words, work must be done across corporate boundaries to preserve the value of products or product components. Thus, collaboration between all stakeholders is essential for a circular transition and is therefore the focus of this Strategic Agenda. We have defined 13 ambitious work paths for implementing circular strategies in the manufacturing industry.

C Take a closer look at all components of the Manufacturing Industry Strategic Agenda here

INITIATORS

IMPACT PROJECTS 2023

01 Embedding circular design into business operations (work path 2)

To deliver a circular product, it is important to think about all life stages as early as during conception. Many products today cannot be repaired, dismantled or even recycled.

THEMATIC WORKING TABLES

In 2023, stakeholders from the value chains of electronics & machinery, textiles, and wood & furniture were brought together for several thematic working tables on circular design. They exchanged best practices and took new, concrete steps together.

LIVING LAB

A new Living Lab call was organised, with more than 29 projects and more than 100 organisations across the manufacturing landscape taking action together. Many projects have already produced interim results, which will be developed into concrete, economically viable products over the next 2 years. Think, for example, of a circular bicycle, reusable fruit crates, chairs that are given a second life, small appliances that are repaired, or refurbished textiles. The projects from the Living Lab call also meet each time at the working tables so they can inspire each other and learn from each other.

C 22 Living Labs go for breakthroughs to a circular economy (In Dutch)

- Seven new Living Lab projects work on accelerated transition to circular economy (In Dutch)
- C Living Labs circular economy (In Dutch)
- Circular cases



02 Enabling life extension (work path 3)

With this work path, the Manufacturing Industry Strategic Agenda seeks to extend the life cycle of products, for example, through maintenance, repair or refurbishing.

RE:VIVE EVENT

On 1 December 2023, the Manufacturing Industry Strategic Agenda, in collaboration with Brussels and Wallonia, brought together more than 150 companies at an event on repairing and refurbishing. These themes offer important economic and strategic opportunities for a circular manufacturing industry. A strong line-up of (international) speakers and Belgian doers, combined with active workshops around the themes resulted in a much appreciated first edition.

CO Networking event RE:VIVE | Making the circular economy a reality



IN ACTION

Within Close The Loop, a tool was developed for fashion companies with funding from VLAIO and Circular Flanders. This working tool provides clear recommendations for higher quality textiles, avoiding common defects by clothing type, and thus ultimately a better quality and longer life of garments.

Guide on clothing design for long life

03 Highlighting added value of repairing and refurbishing (work path 4)



IN ACTION

Work path 4: Highlighting added value of repairing and refurbishingWork path 12: Monitoring and organising social inclusion within the circular economy

Repair shop ViTeS gives appliances a second life

G Watch the video here



IN ACTION

Work path 4: Highlighting added value of repairing and refurbishing

Ready2Reuse by Febelauto in collaboration with Cardoen and 2 approved centres for depollution and processing of end-of-life vehicles: Autohandel Didier (Waregem) and De Jonghe Recuparts (Deurne). (Supported by VLAIO) In Belgium, it is not yet so common to use used car parts in repairs. This project highlights both environmental and consumer benefits. With two CO₂ calculators and additional research, Febelauto wants to prove that second-hand is first-class.

C 'Ready2Reuse': second-hand is first-class (In Dutch)

04 Ecodesign Awards

As per annual tradition, the Ecodesign by OVAM Gold Award was also presented in 2023. We did so again in the context of the Henry Van de Velde Awards for designers, companies, products, projects, services and systems, organised by Flanders DC. The award went to Resortecs, an innovative project by Cédric Vanhoeck and Vanessa Counaert. They developed an innovative process that allows textile products to be disassembled and recycled in a high-quality and automated manner. Students are also honoured with the Student Ecodesign Award, in 6 revamped categories: Business Potential, Industrial Design, Sustainable Innovation, Human Interest, Inspiring Design, and the grand prize. The winners receive further customised guidance from the Ecodesign Awards partners: Design Museum Gent, Flanders DC, Studio D, Knack Weekend and Vito.

- CO Ecodesign Award for students (In Dutch)
- G Want to know more about the Ecodesign by OVAM award for professionals?



Systems thinking, life cycle thinking and supply chain collaboration: these are the three key concepts in implementing ecodesign as a guiding principle in the circular economy.



Karine Van Doorsselaer University of Antwerp

STRATEGIC AGENDA CIRCULAR CONSTRUCTION



Circular construction is contributing towards a future in which high-quality living, working and residing take priority. For everyone and with respect for people and the environment. The construction industry always works for the long term: buildings are erected to house us for decades, or perhaps even hundreds of years. In addition, the industry has traditionally been very environmentally stressful and locally organised. Therefore, it is an important playing field for our partnership to have a long-term and local impact. The shift to a circular construction economy requires a complete change in direction. We need to look at design, the construction supply chain and business models with new eyes. That is what the Circular Construction Strategic Agenda is putting maximum effort into.

C Read all about the site leadership of the Circular Construction Strategic Agenda

The construction industry in figures

- 50% of all raw materials worldwide are used in the construction industry
- Some 33% of waste and material streams released in Europe come from construction
- 36% of our carbon footprint is determined by the way we build and live, and 40% by our energy consumption

INITIATORS

IMPACT PROJECTS 2023

With 10 challenging work paths, the Circular Construction Strategic Agenda, together with the construction industry, is linking circular ambitions to climate, energy and quality of life goals. The focus is on deep systemic change through collaboration with various stakeholders. In the past, more than 250 experiments have taken place. Starting in 2023, efforts focused on scaling up existing and new best practices.

The Strategic Agenda's main goal is to make efficient use of the existing portfolio of buildings, infrastructure and all the materials they contain. By carefully inventorying and managing everything, its life is extended. This way, the Flemish built environment turns into a true 'urban mine'. New buildings are designed in a forward-looking way, based on sustainable and circular principles.

The Circular Construction Strategic Agenda includes a lot of circular doers, with in 2023:

- The end of the Green Deal for Circular Construction. <u>Read the inspiring final</u> <u>report here</u>, in which all results, lessons learned and insights from 4 years of Green Deal for Circular Construction were compiled.
- Circular Flanders grant projects that were completed
- 9 new Living Lab projects in the construction industry
- Exhibition: Exploded view beyond building
- 🕞 Exhibition (In Dutch)
- ➡ Circular Cases



31



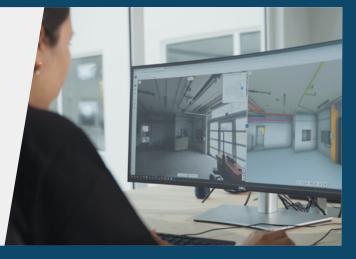
WORK PATH 1:

We want to know what materials are now contained in the built heritage. This will help us facilitate reuse and recycling of materials.

IN ACTION

Understanding the material composition of our heritage Buildwise created a proof of concept for delivering building passports within the Living Lab Digital4CircularConstruction. Such a digital passport maps every part of a building, allowing it to be taken apart again later like a puzzle without loss of material and therefore value.

G Watch the video here



WORK PATH 2:

We want to know <mark>what business leaders and policy makers need</mark> to fully address ambitions around the circular economy, <mark>as a strategy in climate policy</mark>.

WORK PATH 3:

We want to provide insight into the social and environmental costs of construction, so that they are taken into account in important decisions, in addition to the financial cost of a project.



IN ACTION

TOTEM can provide insight into the environmental impact resulting from the use of materials in construction works. In 2023, reference values were calculated for residential buildings, which architects can use to benchmark the environmental impact of new buildings or renovation projects. This gives them insight into how they score relative to other buildings. Moreover, an agreement was reached last year to create a TOTEM application for infrastructure works by 2024.

G www.totem-building.be

WORK PATH 4:

We also want to pay attention to an <mark>efficient and sustainable use of space</mark>, and broaden the focus to <mark>circular area development</mark>.

WORK PATH 5:

We want to commit (permanently) to <mark>high-quality recycling</mark> and increasingly to the <mark>reuse of materials in construction works</mark>. We want to remove the barriers that are still present for this.

WORK PATH 6:

We also want to pay attention to the efficient use and care of (scarce) materials, energy and water.

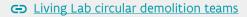
WORK PATH 7:

We want to find out <mark>what forms of collaboration, roles, etc. are needed</mark> to support circular building, and put them into practice.



IN ACTION

Selective demolition or dismantling is important to generate high-quality raw materials and materials suitable for reuse or high-quality recycling. They must meet the acceptance criteria of the federation of Belgian building materials manufacturers. In the VISUM project, sheets with recycling routes were prepared for a number of non-stone building materials.





IN ACTION

Within the VLAIO Living Lab project Bridge, a data platform was created to document the construction process of real, circular building projects from design to completion, not just the end result. This makes it easier to learn from each other, improve existing products and tools, generate data for research and optimise policy.

WORK PATH 8:

We focus on <mark>affordable housing</mark> and want to explore how circular building can contribute to this.

IN ACTION

In the Living Lab MASCO, a formula was devised that expresses the circular value of a product or material, so that financiers can take this into account instead of only the investment cost. Through a MASCO model, clients can invest more cheaply in building materials, provided they remain in circulation after use.

C→ Living Lab MASCO



WORK PATH 9:

We are committed to raising awareness and training so that all links in the chain are on board with the concept and practices of circular building.



IN ACTION

There are several initiatives within the world of education and the professional field to include circularity in training. Within the Strategic Agenda, in 2023, we took the initiative to connect these parties so that they can strengthen each other. Specific courses on circular building in design studies (Howest, VUB, etc.), in-service training initiatives on selective demolition (Tracimat), etc. were set up.



IN ACTION

Closing event of Green Deal for Circular Construction

The closing event of the Green Deal for Circular Construction was also very valuable in terms of raising awareness.

All information, lessons learned and insights can be found at:

Circular Construction

WORK PATH 10:

We want to work on <mark>tools and knowledge relating to circular design</mark> so that circular principles can be taken into account from the design of structures.



IN ACTION

In November 2023, the guide 'How do I make my building future-proof?' was published with a checklist for forward-looking building principles tailored to each project and a range of examples with different building functions (residential, commercial, hospital, etc.). The guide illustrates how circular principles shape design.

Practical guide 'How do I make my building future-proof?' (In Dutch)

TOOL

Legal FAQ on circular procurement

A list of legal frequently asked questions on circular procurement was also published, prepared in collaboration with the **CRESEARCH Lever** and the **CRESEARCH Lever**.

O1 LEVER NOVATION AND NOVATIONANA NOVATI

contractions



Innovation and entrepreneurship are key drivers of social change. The Innovation and Entrepreneurship Lever focuses on accelerating the transition to a circular economy. Initiator VLAIO (the Flemish Agency for Innovation and Entrepreneurship) has a broad network and tools to stimulate the circular transition. VLAIO's financial support, knowledge and network are therefore gratefully used within this Lever.

Discover how this Lever stimulates innovation

INITIATORS

Q4

NS Texas

integration

INNOVATION AND ENTREPRENEURSHIP

IMPACT PROJECTS 2023

01 VLAIO

Within the Circular Flanders partnership, VLAIO is committed as the initiator of the Innovation and Entrepreneurship Lever. VLAIO offers advice and financing for businesses and focuses strongly on the circular economy. In 2023, the team of circular business consultants was expanded to 7. In 2023, the partners worked on several projects.

01 Living Labs

One of the Living Labs is the Green Deal for Renting and Sharing, with the Communication Lever as a co-initiator. This project explores how renting and sharing materials can be more easily organised to reduce the collective material footprint. At the same time, the partners want to carry this through to the core, by opting for eco-design and materials with a long lifespan, and focusing on maintenance, repair and reuse.

G Discover all projects here (In Dutch)

268 BUSINESSES REACHED

39 GUIDED TO SUPPORT



IN ACTION

Green Deal for Renting and Sharing

One of the Living Labs is the Green Deal for Renting and Sharing, with the Communication Lever as a co-initiator. This project explores how renting and sharing materials can be more easily organised to reduce the collective material footprint. At the same time, the partners want to carry this through to the core, by opting for eco-design and materials with a long lifespan, and focusing on maintenance, repair and reuse.

G Green Deal for Renting and Sharing

INNOVATION AND ENTREPRENEURSHIP · VLAIO

02 Tools

Several tools for circular business strategies were developed or expanded.



CIRCU-RADAR

An introductory tool for entrepreneurs to quickly familiarise themselves with the basics of the circular economy and gain inspiration to get started with it themselves.

Download the tool here (In Dutch)



CIRCU-WIJZER

Answer the questions of the Circu-Wijzer and find out what practical and concrete steps you and your company can take in the circular economy. Based on your answers, you will be sent a clear report with information and inspiration. Completely tailored to your company, sector and personal ambitions.

← Answer the questions here (In Dutch)



CIRCU-PLAN

Get free guidance from VLAIO's circular economy business consultants, resulting in a concrete roadmap to integrate circularity into your business.

G More information (In Dutch)

STARTER GUIDE

A toolkit for start-up entrepreneurs with exercises, tips, templates and contacts to strengthen their network, clarify ideas and create a financial business plan. Created by business experts and coaches, the Guide was given a comprehensive update on circular economy and sustainability in 2023.

🔁 Startersgids.vlaio.be (In Dutch)



02 CIRCULAR FLANDERS CALLS

01 Targeted Call for Circular Healthcare

In 2023, Circular Flanders launched the Targeted Call for Circular Healthcare. The increasing use of medical equipment, both for care and for (medical) procedures, leads to a commensurate increase in waste. Consequently, there is great potential to take steps towards a circular approach. Accordingly, the focus of this call was on reducing material use in the healthcare sector, by:

- Encouraging innovative business models focused on the reuse of materials
- Implementing sustainable production processes
- Promoting repairable medical equipment

This call ran parallel to the launch of the Green Deal for Sustainable Healthcare. Coupled with this network of knowledge sharing and exchange, new collaborations can emerge and lessons learned can be shared. Moreover, ongoing projects from the call will inspire a large group of Green Deal participants.

Within the call, 17 projects were selected for funding. They will test circular approaches within the following themes: textiles and incontinence materials, recycling, reduction of plastics on the one hand and batteries on the other, instruments/ cleaning/disinfection, and efficient stock management. Think, for example, of the use of washable diapers, cleaning without plastic waste, collecting old eyeglass frames for reuse, optimising instrument sets, etc.

G You can find all information here (In Dutch)

INNOVATION AND ENTREPRENEURSHIP · CIRCULAR FLANDERS CALLS

02 Targeted Call for a Circular Food Chain

Raw materials and energy are scarce, also for food production. If an estimated 1/4 of consumable food does not end up on consumers' plates, that is a huge loss of input, as well as a social problem. Thanks to the Targeted Call for a Circular Food Chain, 9 projects working on the prevention of food loss and the valorisation of waste streams have been launched and already achieved interesting results in 2023.

- ← More about this
- ↔ www.voedselverlies.be (In Dutch)

In collaboration with the 🗶 Food Chain Strategic Agenda and the food loss platform

03 Targeted Call for a Circular Construction Economy

At the end of 2023, the 29 projects of the Targeted Call for a Circular Construction Economy were completed. Interesting results were achieved by a multitude of partners working together on themes such as passive building, circular procurement, circular building techniques, circular demolition, circular materials, etc. The projects together received more than 2.7 million euros in subsidies from Circular Flanders.

Circular Cases



02 **LEVER** CIRCULAR PROCUREMENT

In a circular economy, it is not only important to make circular innovations, products and services available. Besides supply, demand is needed as well. It is therefore essential that buyers understand these innovations, want to buy them and drive the circular economy through their demand. Thus, circular procurement plays a crucial role in growing circular products and services. This Lever collaborates closely with the various Strategic Agendas. In 2023 we continued to translate their needs into multiple procurement projects.

G Find out how this Lever encourages circular procurement

INITIATORS

IMPACT PROJECTS 2023

01 NSR ProCirc

Team Circular Flanders/OVAM was an active partner in the European ProCirc project, in this way building on the knowledge gained from the concluded Green Deal for Circular Procurement. The ProCirc project facilitates interaction between buyers across Europe. The Flemish pilot projects have shown that while measuring circularity is challenging, it is feasible. The project was successfully completed in June 2023.



IN ACTION

Introductory video of ProCirc, which provides a comprehensive overview of our initiatives.

🔁 <u>Watch the video here</u>





Webinar Circular Procurement: No Time To Waste!

The online event 'Circular Procurement: No Time To Waste!' on April 18 attracted more than 100 participants from different countries to share the results and lessons learned from the ProCirc project. In three sessions, ProCirc partners shared their approaches and lessons learned over the 4.5 years of the project.

G Watch the video here

02 NS Circular Economy Office (CEO)

Team Circular Flanders/OVAM became a partner in the European CEO project, aimed at scaling up circular strategies for circular office interiors.

In collaboration with the Manufacturing Industry Strategic Agenda





In 2023, there was already a first partner meeting in Hamburg. In this video you will discover the different pilot partners and their focus within the CEO project.

G Watch the video here





The Flemish government plays an active role in the CFIT. As part of the CFIT commitments, the Flemish government, together with the Dutch government, is also organising a Flemish-Dutch 'Buyer Group ICT' to facilitate knowledge sharing and knowledge exchange between Dutchspeaking ICT buyers.

G More about this (In Dutch)

03 Circular and Fair ICT Pact (CFIT)

CFIT is an international procurement-driven partnership to accelerate circularity, fairness and sustainability in the ICT sector. It was signed by the Flemish government in 2021 and continued through 2023.

04 Leadership Group on Circular Procurement (ECESP)

Circular Flanders also leads the Leadership Group on Circular Procurement of the European Circular Economy Stakeholder Platform (ECESP). There, experts in circular procurement discuss the bottlenecks and opportunities that need to be addressed on a European level. In 2023, Circular Flanders organised 2 'Circular Talks', which looked at specific challenges from different perspectives. Input from various stakeholders was the focus of these webinars.



INFO 🔅

Webinar: On the role of procurement as a driver for a just transition to a circular economy at the global level, with an emphasis on social justice.

← More information

Webinar: On the connection between circular procurement and biodiversity/climate change

← More information

05 Green Deal for Sustainable Healthcare

Circular Flanders also wants to contribute to a sustainable transition within the healthcare and welfare sector. That is why the partnership signed the Green Deal for Sustainable Healthcare in 2023 along with around 150 organisations. In this way, the Circular Procurement Lever aims to encourage the healthcare sector to make more circular purchases. This involves focusing on fewer materials, more recycled content, longer product life and ensuring reuse and recycling.



IN ACTION

Reduction of clinical waste

The Targeted Call for Circular Healthcare approved 17 projects in 2023, primarily from hospitals and other care facilities, in 4 different categories: textiles and incontinence materials, plastics, instruments/cleaning/disinfection, and batteries. All projects are aimed at the reduction of clinical waste, but 4 of them specifically focus on circular procurement of instrument sets.



IN ACTION

Cleaning without waste

YOKUU makes cleaning beads without packaging and with good bacteria that contribute to a healthy environment. Traditional cleaning products consist of 90% water. That takes up a lot of transportation space, while water just comes out of the tap. By transporting only the dry matter, nearly 12,000 fewer litres of water have already been transported since YOKUU was founded, thus reducing CO₂ emissions. Furthermore, the beads can be dissolved in buckets or in reusable spray bottles, saving some 11,000 pieces of plastic in the meantime.

G More about this

06 SPP criteria tool

Since 2022, the Flemish government and the Dutch government have worked together to develop, update and publish criteria for sustainable public procurement (SPP), using the SPP criteria tool. Circular Flanders helps shape the criteria that support circular policy goals.

TOOL

Circular Procurement: pools theoretical knowledge and practical experience, giving buyers access to sample specifications and useful tools by product group **CABRIO:** on circular administrative provisions and guidelines in public procurement

Circubestek: links to specification texts for circular materials and techniques

Circular Procurement Roadmap Legal FAQ: Legal FAQ on Circular Procurement, arising from an initiative of the Green Deal for Circular Construction. In collaboration with

🤝 Circular Construction Strategic Agenda 🛛 and 🖉 Policy Lever

G Circular Procurement

CABRIO

Circubestek (In Dutch)

Circular Procurement Roadmap Legal FAQs (In Dutch)



03 LEVER POLICY INSTRUMENTS

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Within the Policy Instruments Lever, we focus on the broader policy instruments for the realisation of a circular economy: regulations, subsidies, taxes, product standardisation and incentives for recycling and eco-design, covenants, etc. We bring together partners from the social pentagon to identify the various policy barriers and levers. Thanks to this active coordination with all stakeholders, we arrive at solutions, with support from the Circular Economy Policy Research Centre. Special attention is paid to policy and action in cities and municipalities, within and outside Flanders.

C The Policy Instruments Lever creates the bass line for the circular symphony. Find out here what that sounds like

INITIATORS

POLICY INSTRUMENTS

IMPACT PROJECTS 2023

01 Intra-Belgian Platform for Circular Economy

Through the Policy Instruments Lever, Circular Flanders participates in the Intra-Belgian Platform for Circular Economy. This consultation platform arose from the initiative of Circular Flanders and brings together the Belgian regions and the federal level. This is important, because in our country, the powers to solve the bottlenecks for a circular economy are divided between those different levels. The mission of the Intra-Belgian Platform for Circular Economy is to work on and develop proposals for Belgian circular economy issues. In doing so, the platform has the possibility of submitting dossiers requiring political validation to the Interministerial Conference on the Environment, extended to the economy.

In 2023, the Lever mapped everything out and we decided to focus on 2 priority sectors in the coming year: circular construction and waste electrical and electronic equipment (WEEE).

02 Roadmap for Circular Construction

In 2023, the Intra-Belgian Platform for Circular Economy proceeded to identify 9 bottlenecks in a roadmap for circular building. From this list, the following priority work areas were defined:

- Establishing a technical framework in terms of certification and standardisation for the reuse of construction products.
 Indeed, studies show that the lack of such a framework hinders the financing and insurability of construction projects.
- Legislation on public procurement and circular procurement.
 In collaboration with
 Circular Procurement Lever
- Indicators and the use of TOTEM, a tool to measure a building's material footprint.
 - G Totem building



POLICY INSTRUMENTS

03 Research

In collaboration with the Conducted and supported by the Policy Lever to identify bottlenecks or issues around circularity in current policies. Several researchers and research institutions actively participate in this Lever and therefore also have extensive knowledge of the practical needs of the field.

- Study on VAT (CE Center)
 Learn more: (In Dutch) Research Lever
 <u>More about this</u>
- Legal FAQ on circular
 procurement

A list of legal Frequently Asked Questions on circular procurement was also published. **(In Dutch)**

 Research report on model clauses for product-as-a-service (CE center)

 Waste Framework Directive Many circular economy initiatives are driven and supported by the European Union. One of these is the reform of the Waste Framework Directive, i.e. all the basic rules on all things waste. What is waste? What is recycling? What is prevention? The answer to these and many more questions was explored in a study commissioned by the Policy Instruments Lever in 2023. The Flemish government now has all the information on the possible avenues for waste prevention. ↔ <u>View the study here</u>



04 Overview of bottlenecks by Strategic Agenda

In 2023, an in-depth analysis of the various bottlenecks (cross-cutting or otherwise) that are barriers to scaling up circular projects was conducted within each Strategic Agenda. Although it sometimes seems that these barriers are very industry-specific, they still appear to have many similarities. Based on this overview, the Lever will explore in the coming period at which policy levels these bottlenecks can be eliminated.



LOKAAL CIRCULAIR IN FIGURES



Within the Policy Instruments Lever , Lokaal Circulair is specifically aimed at local governments: all cities and municipalities, intermunicipal associations, provinces. In short: all governments that are not Flemish, federal or European. They hold the key to implementing the circular economy in their own operations and in collaboration with citizens and entrepreneurs. Lokaal Circulair helps cities and municipalities think and act more circularly. This is important because they can reach many people and thus create impact. Within Europe, Circular Flanders also contributes to strengthening local governments and their role in the circular economy.

In 2023, VVSG (Association of Flemish Cities and Municipalities) became a structural partner of Lokaal Circulair, with a staff member focusing on the circular economy. In this way, there is close collaboration to increase knowledge on the circular economy, action readiness and local political support in the 2024 election year.

G Find out here what resonates at the local policy level (I

INITIATORS

IMPACT PROJECTS 2023

01 Guidance programme for local governments

With the use of Möbius, several cities, municipalities and intermunicipal associations explored the meaning of the circular economy in their context. Kortrijk, Halle, Intradura, Imog, Kampenhout, Temse/Sint-Niklaas, Roeselare, Turnhout and Hasselt dove into the challenge of making strategic and project-based choices. Collaboration across departments and with local and supra-local partners proved essential. In 2024, the experiences and lessons learned will be turned into additional training offerings and tools for those who want to work with them themselves.



IN ACTION

Imog: Intermunicipal association for waste becomes regional catalyst for the circular economy

The intermunicipal association for waste Imog is one of the participants in the guidance programme, through which it discovered some interesting opportunities within local circular collaborations. Intermunicipal association for waste Imog

02 Learning from one another: Communities of Practice

How do I adapt my procurement process and what good examples are there? What should I consider when I want to make places, neighbourhoods and the built environment more circular? These two questions were the focus of several Communities of Practices sessions on circular urban development and circular procurement, which included site visits and testimonials.

In collaboration with the

➤ Circular Procurement Lever

 Partner VVSG presents key aspects of circular procurement in an easily accessible manner (In Dutch) POLICY INSTRUMENTS · LOKAAL CIRCULAIR

03 Local climate policy and circular economy

Local climate policy is a stepping stone for taking circular initiatives. We set to work to accelerate the integration of those two themes.

• Research: Climate plans and circular actions, a win-win?

Research commissioned by Circular Flanders examines the CO2 benefits of some typical circular initiatives at the local level. To this end, Ecolife and BBL sat down with 5 pilot municipalities: Ypres, Lanaken, Bruges, Dendermonde and Diest. They mapped actions and collected data. In 2024, we will be working towards a first calculation model for cities and municipalities based on this research.

Circular Cities & Regions Initiative (CCRI)

The CCRI is a support mechanism from Europe that provides assistance to local and regional initiatives, through knowledge of grants and networks in the field of climate and circular economy. Flanders has been selected as a pilot region within Europe when it comes to addressing local circular policies. As a result, Circular Flanders gets tailored advice and benefits from the opportunity to share and disseminate the knowledge from our projects and policies. Circular Flanders and (local) partners are prominent members of the CCRI as frontrunners in climate and circular economy policy.

KARMA

In the Interreg EU project KARMA, we are focusing even more on the link between climate policy and circular economy, with the built environment as the scope. Circular Flanders is one of the seven European partners that will work on a policy instrument for this purpose during the period 2023-2026. In Flanders, this is the Local Energy and Climate Pact (LEKP), with which almost all Flemish municipalities are already working. With the active support of VVSG and the Agency for Home Affairs, and together with key stakeholders (VEKA, provinces, local governments, Embuild, knowledge institutions, etc.), the next few years will be spent exploring which circular economy objectives and actions related to the construction and renovation industry can be anchored in the LEKP. We will be examining what is feasible, impactful and has sufficient support to accelerate the transition to a climate-neutral society.

In 2023, KARMA mainly focused on activating the European partnership. After the kick-off meeting in May 2023 in Hamburg, the second interregional partner meeting in Suceava, Romania, started the interregional exchange in four thematic working groups, which addressed inspiring practices. Flanders is leading the 'governance' working group and presented the case of the Green Deal for Circular Construction. POLICY INSTRUMENTS · LOKAAL CIRCULAIR

04 Local politics

In 2023, Lokaal Circulair put even more effort into directly reaching even more responsible people within local politics. This mainly involves large cities, but through various meetings (Atrium for local representatives, Expeditie K) the Lever also addresses small and medium-sized cities that want to embrace circularity.





IN ACTION

City of Bruges signs Circular Cities Declaration

Support for a circular economy is growing. Circular Flanders and VVSG advocate at various forums for embedding circular principles in local plans. This should not stop at a few projects or an exploration: a longer-term commitment and the commitment of resources are desirable and necessary. The City of Bruges chose to make this clear in 2023 by signing the Circular Cities Declaration.

City of Bruges has signed Circular Cities Declaration (In Dutch)

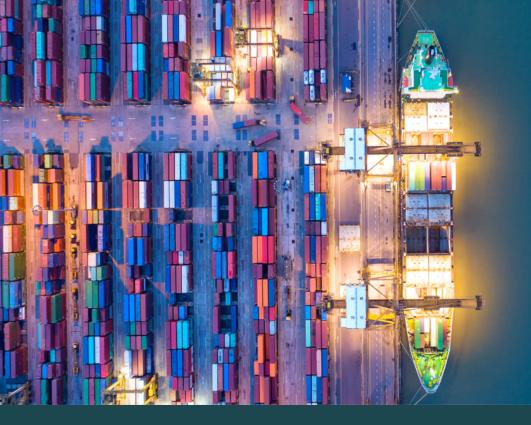


CIRCULARPORTS

Circular Ports is charting its own course to accelerate the circular transition within the Flemish port community, looking towards Europe and beyond. Circular Ports creates a context for learning, trying out and finding workable solutions within the port sector. Activities also picked up nicely in 2023.

C Find out all about circular ports here

INITIATORS



CIRCULAR PORTS

IMPACT PROJECTS 2023

01 Website

Through the website, Circular Ports offers its stakeholders a selection of resources and actionable insights to support and fuel their efforts. The content has been conveniently organised into themes (Port Performance, Port Integration and Port Regeneration) and tracks (Cicular Port Monitor, Circular Ship Design, Delta Atelier, Mastering Metabolism).

← <u>circularports.vlaanderen-circulair.be</u>



IN ACTION

The Circular Ship Design inspiration session on 14 November is a great example of the supporting role Circular Ports is playing in the circular transition of the port sector.

↔ Watch the video

CIRCULAR PORTS

02 Chapter on circular economy in Port Economics, Management and Policy

At the end of 2023, the book Port Economics by Jean-Paul Rodrigue (Texas A&M University, Galveston, US), Prof. Thanos Pallis (University of Piraeus, Greece) and Prof. Theo Notteboom (Ghent University and University of Antwerp, Belgium) was supplemented with a full chapter on 'circular economy and port systems'. This new chapter came about in collaboration with Circular Flanders. Fleming Theo Notteboom is not just anyone in his field, but one of only a handful of Europeans and the only maritime economist to make the top 20 of most cited scholars worldwide.^(*) The book is aimed at port professionals, the circular economy community, students, policymakers and researchers worldwide. Moreover, it was also published online and will be continuously updated with new insights so that it remains a current reference for the maritime and port industry. The impact of the book has been great, with some 7,000 website visitors per week (an average of 1,400 per day). In 2023, the Port Economics, Management and Policy website was viewed a total of 600,000 times by 280,000 unique visitors.

Circular Economy now fully integrated in 'Port Economics, Management and Policy'



IN ACTION

Circular Port Monitor

In collaboration with the Flemish port sector, input was gathered for the Circular Port Monitor track or work project. Within that process, the various partners are gradually working towards a more mature monitoring system tailored to individual ports. This system allows ports to measure how circular they are already and where additional efforts are needed. The Circular Port Monitor was further developed in 2023 and will continue to be developed in the coming years in partnershap with VUB, Port of Antwerp-Bruges, Port Oostende and North Sea Port.

G Want to learn more about Circular Port Monitoring?

* This shortlist was published in the most recent report (Oct. 2023) by John loannidis and Elsevier, one of the largest publishers of scholarly literature.

04 LEVER FUNDING

Attention to circularity is also increasing in the financial sector. Nevertheless, there is a need for a clear investment policy, including the appropriate and watertight assessment of circular economy funding cases. This is because in practice, the current valuation principles of financial institutions are not adequate for the new way of working. The Funding Lever creates growth opportunities for circular projects and addresses bottlenecks at the source. Among other things, we are focusing on the link between the EU Taxonomy and funding.

C Read here how the Funding Lever helps close the loop

INITIATORS

IMPACT PROJECTS 2023

01 Wide sounding board group

At the end of 2022, KPMG delivered a study on the financing of the circular economy in Flanders. The report recommends maximum commitment to 2 pathways. To this end, the Funding Lever put together a wide sounding board group consisting of various banks, research institutions, civil society organisations, relevant (major) players from the business world, etc. The group meets regularly to reflect on existing bottlenecks and possible solutions. In addition, the Lever invites cases from the Strategic Agendas to pitch their projects to the financial institutions within the group.

C Operation of Funding Lever (In Dutch)

02 Broadening the current funding offer

As one of the recommended pathways, this was a major focus point in 2023, complemented by the necessary emphasis on putting the EU Taxonomy on the agenda in Flanders. This is a classification framework for sustainable activities. The shared language, criteria and metrics from the EU Taxonomy provide greater transparency and traceability in investments within the circular economy, among others.

Indeed, under the CSRD and the EU Taxonomy, large companies will have to do sustainability reporting from 1 January 2025. Other companies will have to do such reporting in the near future. As a result, companies that can present better sustainability (including circularity) figures in their reporting in the future will find it easier to get funding than companies operating in a linear economy. Therefore, the Funding Lever is committed to making the importance of circularity in future financial reporting tools more prominent on the agenda.

03 Uniform risk assessment frameworks appropriate to circular principles

In the linear economy, the value of a good after the expiration of the depreciation period is reduced to zero, so to speak, in accounting terms, while in reality the product is still perfectly usable and therefore still represents a certain value. The Funding Lever is working to extend their lifespan, so that products cannot simply be 'written off' over a period of time, and thus retain their value. The Lever is working out several ways to make this happen, including incentives to keep using devices longer, recovery, etc. New business models based on leasing are also being discussed.

04 Creating a financial framework for product-service combinations

The transition from a linear to a circular economy presupposes a shift from ownership to using or renting things. To achieve this transition, product-as-a-service will become an important business model in the future. Within this Lever, a lot of attention is paid to the existing bottlenecks within this business model.

The Jobs & Skills Lever not only collaborates with all Strategic Agendas in a demand-driven way, but also inspires and supports them in detecting and filling the needs related to jobs and skills. Obviously, a strategy for green jobs and skills is not a stand-alone policy initiative. For maximum results, the Lever coordinates with ongoing initiatives within and outside the Work and Social Economy policy area. We also work closely with relevant partners.

C Read and learn all about the Jobs & Skills Lever here

INITIATORS

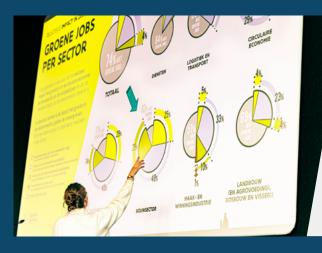
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LEV

IMPACT PROJECTS 2023

01 Green jobs and 'Circular work(s)'

The transition to a circular economy presents our society with many challenges and as many opportunities, such as, for example, the needs but also opportunities of the labour market. The Jobs & Skills Lever is committed to preparing properly to face those changes and provide the necessary helping hands.



IN ACTION

Inspiration day and networking event Lifelong Learning

Organised by the Department of Work and Social Economy. One session focused on 'Skills for the Green Transition and the Circular Economy' and was shaped in consultation with the Jobs & Skills Lever.



IN ACTION

Circular work(s)

Under the heading 'Circular work(s)', 12 social-circular hubs were established across Flanders. A hub is a partnership between regular businesses, bespoke businesses and local governments, with the aim of working on the current circular and societal challenges. The King Baudouin Foundation (KBS) supported these hubs through the activation of a learning network, facilitating individual as well as collective guidance and exchange.

G Read the final report here

JOBS & SKILLS



IN ACTION

The circular transition in practice – social and circular doers in the spotlight!

On 3 May, the hubs showed their progress to the project and steering group members of the Circular Flanders partnership. In addition, the continuity of 'Circular work(s)' was financially assured for 2024.

⇐ Event 'The circular transition in practice' (In Dutch)

IN ACTION

Study 'A Green Skills Roadmap for Flanders'

This project examined what green skills Flanders needs, reviewed foreign best practices and organised workshops with stakeholders. This resulted in a strategic proposal for green skills, and an implementation roadmap. This study was completed in 2023 and provides several starting points for policy, among other things on circularity. To launch the results, the Department of Work and Social Economy organised a European closing event and a public webinar.

Green Skills Roadmap Flanders



JOBS & SKILLS

02 Embedding circular skills in training programmes

Filling the growing number of circular jobs requires new skills. The Jobs & Skills Lever creates its own initiatives and collaborations to embed them in existing and new courses.



IN ACTION

Digital training pathway for lecturers

In 2023, the Jobs & Skills Lever laid the foundation for a new digital training pathway around circularity, aimed specifically at lecturers in higher education. The first of its kind for this target group! Stakeholders were found in the education field, and feedback was gathered on the concept so that the programme can be effectively rolled out in 2024.



IN ACTION

Circular Ambassador Program (CAP) / March-May 2023

The second edition of the successful Circular Ambassador Program (CAP Belgium) – a training programme for circular ambassadors – ended successfully in a three-month run. In two editions, this project already yielded more than 100 circular ambassadors across different professional sectors. In 2023, a roadmap for this pathway was drawn up so that other regions in Europe can also get started. A third edition of CAP Belgium will be held in the autumn of 2024.

G What is the Circular Ambassador Program, or 'CAP' for short?





IN ACTION

Drawing up and reviewing of 12 circular training pathways

Circular Flanders actively supported the drawing up and/or reviewing of the content of these pathways, in collaboration with several training institutions (Syntra, colleges and universities, sector federations, etc.). In addition, the Circular Flanders page on the educational platform KlasCement, where teachers can find input for their lessons, was also expanded to include circular teaching resources and tools. That page has a growing reach, with 7000+ views and 1000+ downloads in 2023 and an average score of 4.4/5 for Circular Flanders's teaching resources.

G More information about KlasCement?



IN ACTION

Training of the Future

Within the ESF call 'Training of the Future', a project on the circular economy was also worked on in 2023. Partnerships between Werecircle, Clusta and PlastIQ, among others, are developing training programmes on topics such as life-cycle thinking and material selection.

G Explanation of circular economy project (In Dutch)

JOBS & SKILLS

03 Raising awareness on circularity

IN ACTION

Ecodesign Awards

On 26 October, the Ecodesign Award for students was presented at the University of Antwerp's new location focused on product development. 5 students were awarded prizes and will receive further customized guidance from the partners of the Ecodesign Awards (OVAM, Design Museum Gent, Flanders DC, Studio D, Knack Weekend and Vito).

- Read more about the Ecodesign Awards in the Manufacturing Industry Strategic Agenda



IN ACTION

Guest lectures

Through various guest lectures, the circular economy was introduced to more than 400 students thanks to team Circular Flanders. We also see that circularity is increasingly being actively discussed in various courses.



06 **LEVER** COMMUNICATION

As Circular Flanders's marketing team, the Communication Lever is a supporting factor for all Strategic Agendas and Levers. This branch inspires and informs through newsletters, blogs, videos, etc., activates through events and thus contributes to the growing awareness of both the circular economy and the efforts of the Circular Flanders partnership.

C Wondering how the Communication Lever is giving the circular economy a stage?

INITIATORS

COMMUNICATION

IMPACT PROJECTS 2023

01 Websites

The Communication Lever is responsible for building and maintaining the landing pages of the various Circular Flanders projects. In this way, each initiative is maximally available and accessible online to existing and new stakeholders.

In 2023, the following websites were built and launched:

c circularports.vlaanderen-circulair.be

↔ www.hurendelen.be (In Dutch)

The general Circular Flanders website also received regular updates. In addition, in 2023, work was done on the blueprint for a revamped website that will integrate all information into one clear structure. The new site will be launched in 2024.

← <u>https://www.vlaanderen-circulair.be/en</u>





02 Social media

In 2023, there was a firm commitment to owned media (Circular Flanders's own channels) and earned media (mentions by external parties, including the press). This produced strong organic growth across social media channels:



Growth of +31% Growth of engagement (likes and comments) of +226% Facebook **3,400** FOLLOWERS

+2% Growth of engagement (likes and comments) of

+136%

Instagram

2,600 FOLLOWERS Growth of

Growth of engagement (likes and comments) of

Twitter / X 5,800 Growth of

Growth of

+30%

No information available on commitment growth.



COMMUNICATION

03 Content creation

The Communication Lever translates the circular work of the various Strategic Agendas and Levers into inspiring, informative and/or activating content, with particular attention to video.

↔ <u>Discover the videos here</u>

- 123 new doers were added to the doer database.
 Circular cases
- The general newsletter was packed with information every month.
- Each Strategic Agenda was given its own thematic newsletter, which was sent out regularly to relevant stakeholders.
- Other theme-specific newsletters were also introduced, including on Lokaal Circulair, Circular Ports and the various Levers.

04 Events

The Communication Lever was also closely involved in the organisation of several events in 2023. These included:

- 'The circular transition in practice', where mainstream and social circular doers were brought together at a fair to promote networking and collaboration between the doers and the steering group (top level transition people).
- Sharing Summit
- Student Ecodesign Awards
 Manufacturing Industry Lever
- CAP Belgium closing event
 Jobs & Skills Lever
- Circular work(s) closing event
 Jobs & Skills Lever
- Read all about Circular Construction in the final report:
 C=> Final Report of the Green Deal for Circular Construction



Despite the great and justified interest in circularity, there is still much to explore to gain insights. Think, for instance, of how we measure circularity, what effects we can expect, what the potential is, etc. A huge field of research is still unexplored – scientific insights needed to support policy, but also to make knowledge available to policymakers, knowledge networks and the general public.

The Circular Economy Policy Research Centre (CE Center) conducts scientific research on how the government can monitor, stimulate and contextualise the circular economy. In addition, the Policy Research Centre is developing a scientific knowledge network that will position itself at a national and international level as a knowledge centre for the circular economy.

Furthermore, the Research Lever coordinates all research questions of the Strategic Agendas.

CE CENTER Circular Economy Policy Research Centre

INITIATORS

IMPACT PROJECTS 2023

01 CE Monitor

The slogan of the Research Lever is 'To measure is to know'. The team is therefore responsible for, among other things, the CE Monitor: a tool that indicates the extent to which the circular economy is growing in Flanders. Within the CE Monitor, The CE Center creates and updates the CE Monitor. Moreover, in 2023, they conducted several specific studies.

a series of indicators are identified and analysed per theme, in order to examine the evolution of the circular transition in Flanders. In 2023, a new update was started, analysing recent data sets (figures from all kinds of studies, sector reports, etc.), along with the evolution of those figures over time. Existing indicators are also being refined where possible and necessary. This update is expected in first quarter of 2024.

02 Research

IN ACTION

Socio-economic effects of the circular economy

For this study, an existing macroeconomic model for Belgium was refined with a view to using it to support circular economy policy making. The insights provided by the model were illustrated by the calculation of three measures. In summary, we argue that: i) a mandatory increase in the share of secondary materials as input materials may reduce the output of the manufacturing industry, ii) facilitating high-quality recycling may increase economic activity, and iii) capping waste exports to non-EU countries would have a rather limited macroeconomic impact.



C Read more

IN ACTION

Overview of existing circular economy objectives

The transition to a circular economy (CE) is a long-term policy priority in Flanders. To guide this transition, objectives are needed. Currently, there are no objectives that officially have that status in Flanders. This report provides an overview of existing objectives as a starting point for conducting a dialogue in Flanders on the setting of concrete CE objectives. The overview focuses, on the one hand, on overarching strategic objectives in use or under consideration at the level of countries and regions within Europe and, on the other hand, on operational and more thematic objectives found in Flemish policy texts.



CIRCULAR ECONOMY

C Read more





VAT in a circular economy

This report illustrates the relationship between VAT and the circular economy, and provides some indications of where VAT may play a role in the transition from a linear to a circular model. Among other things, the report discusses the various techniques used in VAT (such as a reduced VAT rate, a reduced taxable amount, exemptions, etc.).

In collaboration with the \checkmark Funding Lever and the \checkmark Policy Instruments Lever

G Read more (In Dutch)

RESEARCH · CE CENTER

IN ACTION

O

10

Research report on model clauses for product-as-a-service (CE Center)

The transition to a circular economy presupposes a shift from ownership to service orientation (product-service models). To this end, a research report on model clauses for product-as-a-service was worked on in 2023. These model clauses will help experimenting companies make the right legal choices when drafting their contracts. This report will be delivered in early 2024.



Model clauses for Product-as-a-Service (PaaS) contracts





document opgemaakt in het kader van de Proeftuin Circulair Bouwen & de Green Deal Circulair Bouwen



IN ACTION

Legal FAQ on circular procurement

A list of legal FAQ with answers to frequently asked questions on circular procurement in the construction industry was published as well.

C Read more (In Dutch)

73

RESEARCH

IN ACTION

Revision of the Waste Framework Directive In the context of the European Presidency, a study was prepared within the Policy Instruments Lever on the revision of the Waste Framework Directive:



C Read more

IN ACTION

Living Lab Circular Construction

In the spring of 2023, within the Living Lab Circular Construction, we published not only a comprehensive report, but also its executive summary and 4 practical tools on change-oriented construction.



C → Read more



VLAANDEREN **CIRCULAIR**

Together towards a circular economy for Flanders