

SHARING

Stocktaking and assessment of typologies of Urban Circular Collaborative Economy Initiatives

Case Study

*Flanders – foster social connections and
improve accessibility of different areas in a
sustainable way (making links between
Commons)*

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1 Executive summary

Foster social links and improve accessibility of different areas



Overview

The high population density and the constant population growth in Flanders is having a direct and negative impact on environment. To overcome the rising issue, the regions has developed a very comprehensive strategy on the circular economy. The government has also established a public-private body as a facilitator for the territorial transition towards a circular economy: Circular Flanders. Along with the several federal government actions, different Municipalities have also adopted innovative legislative frameworks that look forward to alternative development strategies. All in all, the region has a wide range of circular and collaborative initiatives.

Recommendations

- 1 **Better knowledge:** Public campaigns are the most powerful tool to spread knowlede and impacts of collaborative and circular initiatives
- 2 **Better regulation:** Flanders should develop a common legislative framework, especially when it comes to transport sharing initiatives, in order to diminish administrative burdens
- 3 **Better funding:** Municipalities should adopt a pro-sharing approach and finance the membership or facilitate further the use for space for the Urban Circular Collaborative Economy Initiatives



Impacts

ENVIRONMENTAL

- 1 Diminished car consumption and more efficient use of public spaces
- 2 Change in goods' consumption habits
- 3 Reduction in resources use for production of goods

SOCIAL

- 4 Lower stress levels for citizens and commuters
- 5 Initiaives bring people together and foster social links
- 6 Citizens feel overall safer and happier

ECONOMIC

- 7 Users are able to save a more considerable amount of money

INITIATIVES SCREENED:



Cambio
Car Sharing



Dégage!
Car Sharing



Peerby
Renting goods

<https://www.collaborativexcircular.com/>

2 Overview of the territorial context

This Chapter gives an overview of the characteristics of the area considered, and links them with the territorial needs and objectives as regards the Urban Circular Collaborative Economy. It provides insights on the existing policies and regulatory framework affecting the development of Urban Circular Collaborative Economy initiatives. Finally, it identifies the main actors operating in the Urban Circular Collaborative Economy arena.

2.1 Profile of the area

The Region of Flanders is located in the northern part of Belgium. Together with the Walloon Region and the Brussels-Capital Region, the Flemish Region constitutes one of the federal entities of the Kingdom of Belgium. As a part of a federal constitutional monarchy with a parliamentary system, Flanders has its own executive and legislative powers. The regions independently operate their authority within their policy fields¹. As a Region, Flanders has competences in the fields linked with territorial development and planning: economy, transport (except the railway system), the environment, town and country planning, housing, public works, employment, agriculture, water policy, energy, nature conservation, credit, foreign trade, supervision of the provinces, communes and intercommunal utility companies. The Region has the power to set up and manage foreign relations in the beforehand mentioned fields.²³

Flanders is divided into five decentralised entities (provinces): the Provinces of Antwerp, East-Flanders, Limburg, Flemish-Brabant and West-Flanders (see the map below).

Figure 1: Map of Flanders



Demographically, the region is experiencing a population growth. In 2019 the estimated population of Flanders was about 6,6 million inhabitants⁴. Between 2010 and 2019 the population of Flanders grew

¹ Belgium.be, Belgium, a federal state, Available at

² Belgium.be, The powers of the Regions, Available at: https://www.belgium.be/en/about_belgium/government/regions/competence

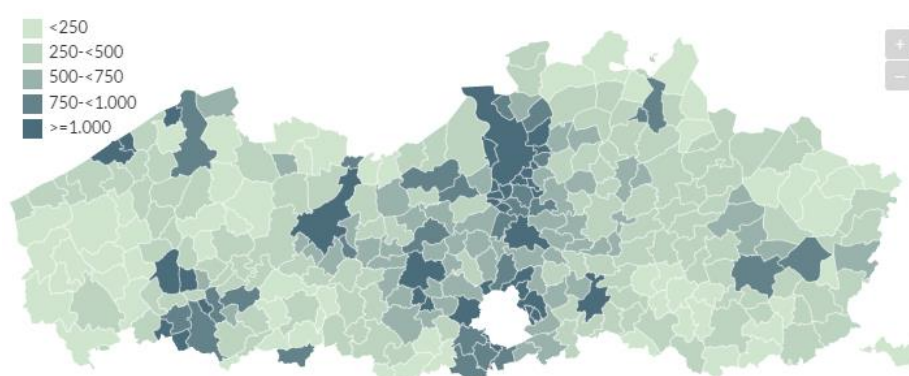
³ Vlaanderen, Flemish competences, Available at: <https://www.vlaanderen.be/vlaamse-bevoegdheden>

⁴ <https://www.statistiekvlaanderen.be/bevolking-omvang-en-groei>

by 5%, which is above European average.⁵ The overall population density in Belgium is above the European average (117.7 inhabitants) per km² and with 373.6 of people per km² ranks among the top three in Europe after Malta and the Netherlands.⁶

Regarding the population size, among the biggest Flemish cities are Antwerp (529,935 inhabitants), Ghent (262,219 inhabitants), Bruges (118,325 inhabitants), Leuven (101,624 inhabitants), Aalst (86,445 inhabitants), Mechelen (86,616 inhabitants).⁷ The density of population is very high in so called, 'Flemish diamond', which covers the central area between Ghent, Antwerp, Leuven, Brussels and includes the axis between Kortrijk and Ghent together with some municipalities of province of Limburg.⁸ This tendency is presented in the Figure below.

Figure 2 Municipalities of Flemish Region, number of inhabitants per km² in 2019



Source: Statistiek Vlaanderen

The population density is considerably higher in Flanders than in Wallonia, with 487.2 against 215.3 persons per km².⁹ While, the population growth has been noted in almost all Flemish municipalities, a small decline has been noted mostly in the province of West Flanders.¹⁰ The tendency of the population growth in Flanders is represented in the figure below.

⁵ Ibid.

⁶ Eurostat, Population density (tps00003), 2017, available at: <https://ec.europa.eu/eurostat/tgm/graph.do?tab=graph&plugin=1&pcode=tps00003&language=en&toolbox=sort>

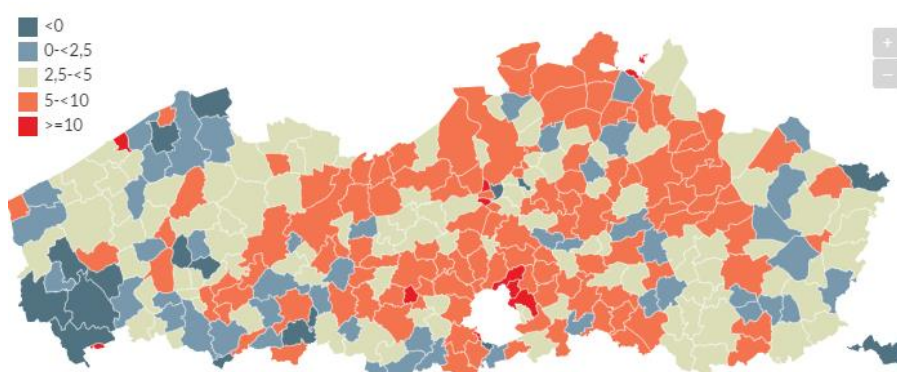
⁷ Statistiek Vlaanderen, Structuur van de bevolking (figures 2019), available at: <http://statistieken.vlaanderen.be/QvAJAXZfc/>

⁸ Statistiek Vlaanderen, Bevolking: omvang en groei, available at: <https://www.statistiekvlaanderen.be/bevolking-omvang-en-groei>.

⁹ Eurostat, Population density by NUTS3 Region (demo_r_d3dens), 2017, available at: <https://appsso.eurostat.ec.europa.eu/nui/submitViewTableAction.do>

¹⁰ Statistiek Vlaanderen, Bevolking: omvang en groei, available at: <https://www.statistiekvlaanderen.be/bevolking-omvang-en-groei>.

Figure 3: Population Growth in the Flemish Region in 2019 (%)



Source: *Statistiek Vlaanderen*

The unemployment rate of the 15-64 years old has lowered from 5.2% in 2015 to 3.5% in 2018 and is far lower than the EU average of 7.0%.¹¹ Unemployment is unevenly spread around the territory. In 2018, the main cities of Antwerp and Ghent were facing an unemployment rate of respectively 13.7% and 10.5%, which is higher than the regional average of 6.7%. Middle size cities, like Leuven (7.4%) and Kortrijk (6.7%), are still above the regional average. Higher unemployment rates are therefore mainly present in large cities and some central cities, characterised by a higher density of population.¹²

Given its population density and economic activity, Flanders has an important issue of urban sprawl.¹³ According to Verbeek and Tempels, Flanders can be described as 'one big city' with a lot of residential dwellings spread across the territory.¹⁴ The urban sprawl has an important impact on mobility. In Flanders, in 2016, more than 70% of workers claimed to use the car as their main means of transport to work.¹⁵ Besides, around 17% of people go to work by bicycle, 5% by train, and 3% by bus, tram and metro networks.¹⁶ In addition, 1 in 4 Flemish persons use a car for a very short journey and 8 out of 10 use the car for a journey of more than 10km.¹⁷ The high ration in the use of cars is reflected in a constantly growing number of passenger cars in Flanders. Between 2006 and 2018 the number of registered passenger cars has increased from 600,000 to 3,5 million.¹⁸ In 2016 this placed car

¹¹ Statistiek Vlaanderen, ILO-werkloosheidsgraad, available at: <https://www.statistiekvlaanderen.be/ilo-werkloosheidsgraad>

¹² Statistiek Vlaanderen, VDAB-werkloosheid, available at: <https://www.statistiekvlaanderen.be/vdab-werkloosheid>

¹³ European Environmental Agency, Urban Sprawl in Europe – the Ignored Challenge, 2008, available at: https://www.eea.europa.eu/publications/eea_report_2006_10/eea_report_10_2006.pdf/view

¹⁴ Verbeek T. & B. Tempels, Measuring fragmentation of open space in urbanised Flanders: an evaluation of four methods, 2016, available at: <https://journals.openedition.org/belgeo/17164>

¹⁵ Statistiek Vlaanderen, Modale Verdeling Woon Werkverkeer, available at: <https://www.statistiekvlaanderen.be/modale-verdeling-woon-werkverkeer>

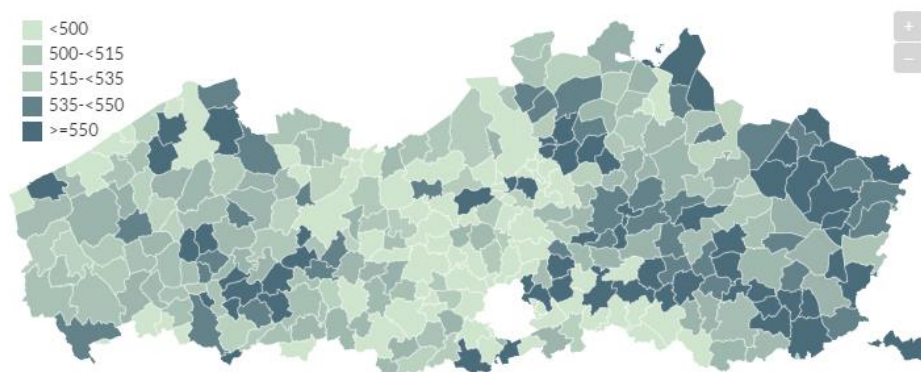
¹⁶ Ibid.

¹⁷ Statistiek Vlaanderen, Verplaatsingsgedrag: modale verdeling naar afstand, available at: <https://www.statistiekvlaanderen.be/verplaatsingsgedrag-modale-verdeling-naar-afstand>

¹⁸ Statistiek Vlaanderen, Personenwagenpark, available at: <https://www.statistiekvlaanderen.be/personenwagenpark-0>

ownership per thousand inhabitants in Flanders (533) above the European average (505).¹⁹ However, major Flemish cities have noted relatively low car ownership except in the province of Limbourg, the eastern suburbs of the city of Antwerp and Kortrijk (West-Flanders) and the area around Leuven (Flemish Brabant), which car ownership is above the Flemish average. The figure below shows the redistribution of passenger cars per thousand of inhabitants across the territory of Flanders.

Figure 4: Municipalities of Flemish Region in 2017²⁰



Source: Statistiek Vlaanderen

In Belgium the industry of mobility and transport generates EUR 147 billion (one third of the country's GDP) but represents an important issue regarding sustainability as 23% of total country's CO₂ emissions comes from transport.²¹ The current Belgium car-centric approach results in one of the highest road congestions by the average driver in Europe, which represents on the annual basis 39,37 hours.²² Given the above, the Flemish government aimed at implementing a thorough transformation of public transport in Flanders from a supply-oriented (basic mobility) to a demand oriented (basic accessibility).²³ The sharing mobility is expected to play a key role in the implementation of this new mobility when it comes to providing access to transport networks for people who do not have access to transport because of their target group, their location or the timing of the journey.²⁴ Therefore, this case study will focus – but

¹⁹ Eurostat, Stock of vehicles by category and NUTS 2 regions in 2016, [tran_r_vehst], available at: <https://appsso.eurostat.ec.europa.eu/nui/submitViewTableAction.do>; Eurostat, Luxembourg - most cars per inhabitant in the EU, available at: <https://ec.europa.eu/eurostat/web/products-eurostat-news/-/WDN-20180702-1>

²⁰ Statistiek Vlaanderen, Personenwagenpark, available at: <https://www.statistiekvlaanderen.be/nl/personenwagenpark-0>

²¹ Deloitte, Future of Mobility: A new Deal for Mobility in Belgium, 2019, available at: <https://www2.deloitte.com/content/dam/Deloitte/be/Documents/strategy/FOMBrochureFinalVersion.pdf>

²² European Commission, Hours spent in road congestion annually, 2017, available at: https://ec.europa.eu/transport/facts-fundings/scoreboard/compare/energy-union-innovation/road-congestion_en#2017

²³ Lexgo, A new approach to public transport in Flanders: from basic mobility to basic accessibility, 2019, available at: <https://www.lexgo.be/en/papers/public-administrative-law/transport-law/a-new-approach-to-public-transport-in-flanders-from-basic-mobility-to-basic-accessibility,130996.html>

²⁴ Ibid.

not exclusively – on how to foster the accessibility of different areas in a more sustainable way in Flanders.

Since more than 10 years the approach towards Urban Circular Collaborative Economy has been developed in Flanders. It was at first initiated back in 2006 with the adoption of Plan C, the Flemish Transition Network for Sustainable Materials Management. Currently, the circular economy, is among one of the seven priorities adopted in 2016 by the Government of Flanders in the policy paper “Vision 2050, a long-term strategy for Flanders”.²⁵ The landscape of the Urban Circular Collaborative Economy in Flanders seems to be well developed, however it differs considerably from one province to another. Furthermore, the use of the new economic models in Flanders was shifted thanks to the use of digital interfaces provided via the internet use among cities inhabitants. Flanders seem to be well placed for this as nearly 9 out of 10 Flemish citizens have basic digital skills in the field of online information processing and online communication and 8 out of 10 have basic digital problem-solving skills.²⁶ The latter skills are especially important for installing software such as internet banking, e-learning, e-commerce and therefore, are relevant for the collaborative and circular platforms in use.²⁷ Flanders is even considered as a strong innovator in the Regional Innovation Scoreboard²⁸, with 96% of the households having Internet at home and 89% of the individuals who use internet minimum once a week.

For the above reasons, this case study will first analyse the current pattern of existing Urban Circular Collaborative initiatives spread across Flanders and their main features in terms of usage and presence. Secondly, this research will aim to understand how these initiatives could further contribute to foster the social connection and improve accessibility of different areas in a more sustainable way. Ultimately, it aims to provide recommendations on how to further improve the existing patterns and leverage their potential impacts in Flanders for the benefit of all.

2.2 Status quo, needs and objectives of Urban Circular Collaborative Economy Initiatives in the region

At the regional level, the Flemish government perceives the Urban Circular Collaborative Economy as an important priority. Especially Public Waste Agency of Flanders (OVAM) plays an important role as a facilitator of Urban Circular Collaborative economy initiatives in the territory.

Over the last 10 years, Flanders has undertaken a considerable step to promote a comprehensive and progressive transition towards a circular economy. The adoption in 2006 of Plan C provided the first grounds towards the regional transition for sustainable materials management. Also, Plan C set up within the Public Waste Agency of Flanders (OVAM) a central thinktank group, an informal network composed of various actors involved in the circular and collaborative undertakings. This new approach towards circular economy has been reinforced by the 2011 adoption of the Flanders in Action. This

²⁵ Vlaanderen, Visie 2050. Een langetermijnstrategie voor Vlaanderen, available at: <https://www.vlaanderen.be/publicaties/visie-2050-een-langetermijnstrategie-voor-vlaanderen>

²⁶ Statistiek Vlaanderen, Digitale vaardigheden bij burgers, available at: <https://www.statistiekvlaanderen.be/digitale-vaardigheden-bij-burgers>

²⁷ Ibid.

²⁸ Regional Innovation Scoreboard

policy programme defined 13 specific transition changes that could be solved in a short term. Among which, the sustainable materials management was one of them. More recently, the Flemish government has set the circular economy as one of the seven priorities in “Vision 2050, a long-term strategy for Flanders” and appointed OVAM as a motor of transition towards the circular economy and as initiator of Circular Flanders (*Vlaanderen Circulair*).²⁹ Circular Flanders represents a hub for a circular economy, that was established in January 2017 based on Plan C, the Flanders’ Materials Programme and SuMMa.³⁰ It is a unique of its kind public private partnership regrouping governments, local authorities, industry representatives, civil society, academia/knowledge community that acts together and is supported by the OVAM. This support comes from two ministries of the Flemish region: the Ministry of Environment and the Ministry of Economy and Innovation. Circular Flanders is governed by the public-private steering committee and is chaired by the council of chairperson. This broad community should in the following years broaden towards the areas of water, space, food and energy.^{31,32} Since its establishment, Circular Flanders has financed over 135 projects run by entrepreneurs, NGOs, researchers, associations, enterprises as well as local governments.³³ The main subsidies come from the budget of the Ministry of Environment. The yearly budget of Flanders Circular is between EUR 5-6 million.³⁴ The subsidies cover up to 80% of project expenses and can go up to EUR 100 000 for one project. Additional funding is also provided by Flanders Innovation & Entrepreneurship for entrepreneurs aiming to encourage innovation and entrepreneurship.³⁵ The scope of this financing goes beyond the sole scope circular and collaborative economy initiatives.

In addition, three green deals that are related to circular economy have been developed in Flanders: i) Green Deal on Circular Public Procurement, ii) Green Deal on Circular Construction and iii) Green Deal on Circular Mobility. The main objective of green deal undertakings is to establish a partnership between different organisations to promote more sustainable and circular alternatives to the existing practices. However, the government does not automatically give to the partners a financial support as such. The government will rather support the partners with the knowledge, technical support and provide help regarding possible funding modalities.

First of all, the Green Deal on Circular Purchasing launched in June 2017 gathers 150 organisations that want to commit themselves to apply or facilitate the circular way of purchasing products (federation,

²⁹ Circular Flanders, About, available at: <https://vlaanderen-circulair.be/en/about-us>

³⁰ Circular Flanders, About, available at: <https://vlaanderen-circulair.be/en/about-us>

³¹ Circular Flanders, Circular Flanders, Together towards a circular economy: Kick-off statement, available at: <https://vlaanderen-circulair.be/src/Frontend/Files/userfiles/files/Circular%20Flanders%20Kick-Off%20Statement.pdf>

³² Flanders, Start Note Transitions priority Circular Economy, Circular Flanders: A driving force towards a circular economy in Flanders, available: at: <https://www.vlaanderen.be/publicaties/transitieprioriteit-de-transitie-naar-de-circulaire-economie-doorzetten-startnota>

³³ Interview with Circular Flanders, 29/08/2019.

³⁴ Ibid.

³⁵ <https://www.vlaio.be/nl/andere-doelgroepen/flanders-innovation-entrepreneurship>

consultants, companies).³⁶ The main objective of this deal is to foster the transition to a circular economy.

Secondly, launched in March 2017 the Green Deal Shared Mobility initiative, aims to accelerate the growth of shared mobility and to undertake actions to remove barriers to existing alternatives in the area of car ownership.³⁷ It has been launched between the Flemish government and several parties. To this day 80 organisations have signed the deal that aims to contribute to the four objectives of the Deal by 2020, i.e.:

- Increase the number of car-sharers up to 80,000;
- Double the number of employers undertaking actions to support carpooling to work up to 1,000;
- Double the number of bike-sharers up to 400,000;
- Fivefold increase (as of today) the number of shared electric cars and deployment of a regular offer of shared electric bikes.³⁸

Thirdly, Green Deal Circular Construction has been launched in February 2018, together with 230 participating public and private organisations to support the transition towards circular construction in Flanders.³⁹ As the construction sector and material used constitutes more than 60% of the current CO2 emissions, greening of this sector plays an important role in closing the loop of the circular economy undertakings.⁴⁰

Although the main policy focus in Flanders is paid to the circular economy, the importance of the collaborative economy (sharing economy) is not underestimated and perceived as promotion of 'the use above ownership'.⁴¹ Collaborative initiatives can also play a role in the environmental policies. A recent paper demonstrates how sharing mobility can help, as a part of circular economy, in achieving the climate targets.⁴² Therefore, the decrease in the purchase of goods due to the sharing practices can considerably increase the scope of circular economy. A wide array of undertakings and stakeholders involved in the Urban Circular Collaborative economy landscape helps to close the loop. The collaborative economy in Flanders promotes a new business model with a switch from ownership to accessibility/use.⁴³⁴⁴

The Region has a wide range of the Urban Circular Collaborative Economy initiatives when it comes to their size, business model, domains, category and sectors. Some cities provide a strong support for the Urban Circular Collaborative Economy initiatives by adopting a comprehensive framework at the

³⁶ <https://vlaanderen-circulair.be/en/our-projects/detail/green-deal-circular-purchasing>

³⁷ Green Deal, Green Deal Shared Mobility, available at: <http://gedeeldemobiliteit.be/english/>.

³⁸ Ibid.

³⁹ Vito, Vito supports circular construction, available at: <https://vito.be/en/news/vito-supports-circular-construction>

⁴⁰ Ibid.

⁴¹ <https://vlaanderen-circulair.be/en/knowledge/what-is-it>

⁴² Christis, Maarten, and Vercalsteren, An (2019), Impact of Circular Economy on achieving the climate targets: case mobility, CE Center Publication N° 6

⁴³ <https://www.mvovlaanderen.be/inspiratie/het-nieuwe-business-model-van-bezit-naar-gebruik>

⁴⁴ Figures of 2018, Eurostat (reg_isoc), Available at: https://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=isoc_ci_ifp_fu&lang=en

municipality level. For instance, the City of Ghent adopted the “Commons Transition Plan”⁴⁵, which sets out the role and possibility for the municipality to strengthen citizen initiatives. The Municipality aspires to frame a sustainable and ethical economy in the urban development of the city. The citizens’ initiatives cover in the 25 neighbourhoods areas of Sharing, Democracy and Participation, Ecology and Sustainability, Energy, Financial, Art and Culture, Materials and Production, Mobility, Open Knowledge and Learning, City and Government Services, Food, Living and Space and Care and Health.⁴⁶ Also, the City of Antwerp developed the “Stadslab 2050”⁴⁷ in which it provides an investigation on how the city can address the complex issues of our time and our future. Circularity, energy, climate adaptation, air quality and mobility are the key themes where the sustainable initiatives can be proposed. The city provides a financial or logistical support to the citizens carrying out these initiatives relevant for the above-mentioned areas of interest, which have an innovative approach and financial or logistical support.⁴⁸ The city of Leuven has developed its “Leuven 2030 plan”⁴⁹ which aims to make a city “climate neutral”. The Roadmap, presented in March 2019, includes the whole society: residents, civil society organisations, businesses, public authorities, schools and research and knowledge institutions (among other, the well implemented Catholic University of Leuven – KU Leuven). The 13 key programs cover the areas of sustainable building, sustainable mobility, green energy, sustainable consumption, a green and resilient city and enabling the transition to a climate neutral Leuven.⁵⁰

The above-mentioned Commons Ghent, Stadslab 2050 and Leuven 2030 are policy plans that can be used as examples for other public authorities to foster the development and support of commons-based initiatives.

As it has been mentioned above, there are considerable discrepancies among main provinces and cities. For instance, the “Leuven 2030 - Less emissions and more future” strategy⁵¹ considers that sharing economy goes through lot of different aspects of daily life: sharing of vehicles, public space, food, (household) goods.⁵² Commons Ghent puts also especially the accent on sharing mobility, working with and promoting interest organisations (like Taxistop and Vlaamse Netwerk Autodelen) and sharing organisations (like Dégage and Partago). The city of Ghent also developed, among others, a specific Autodeelplan (Car sharing plan), Leefstraten (pedestrian and car-free roads) and Gent Fietst (webpage with all the bicycle infrastructure realisations).⁵³ For Antwerp and the “Stadslab 2050”,

⁴⁵ P2P Foundation, A Commons Transition Plan for the City of Ghent: The context and structure of the report, 2017, available at: <https://stad.gent/ghent-international/city-policy-and-structure/ghent-commons-city/commons-transition-plan-ghent>

⁴⁶ City of Ghent, Commons Transition Plan Ghent, available at: <https://stad.gent/en/city-policy-structure/ghent-commons-city/commons-transition-plan-ghent>

⁴⁷ Stad Antwerpen, Stadslab 2050, Available at: <https://stadslab2050.be>

⁴⁸ Stad Antwerpen, Wat is stadslab 2050?, available at: <https://stadslab2050.be/het-lerend-lab/wat-doet-een-stadslab/wat-stadslab2050>

⁴⁹ Stad Leuven, Leuven 2030, Available at : <https://www.leuven.be/leuven-2030>

⁵⁰ Stad Leuven, Roadmap towards a climate neutral Leuven, available at: <https://www.leuven2030.be/verhalen/roadmap-naar-een-klimaatneutraal-leuven>

⁵¹ <https://www.leuven2030.be/sites/default/files/attachments/20181115%20Ontwerproadmap.pdf>

⁵² Leuven 2030, Roadmap, available at: <https://www.leuven2030.be/sites/default/files/attachments/20181115%20Ontwerproadmap.pdf>

⁵³ Commons Ghent, Mobility, available at: <https://wiki.commons.gent/wiki/Category:Mobilititeit>

mobility is one of the main themes with new projects, experiments and workshop on the projects. In the different mobility initiatives can be found Winkelbus (Shopping bus) that brings less mobile residents to the store and a Workshop around the Pilot project of cargobike sharing.⁵⁴

In general, it seems that the Flemish transition priority focuses on undertaking of concrete actions and awareness raising instead of establishing and achieving ambitious policy goals.⁵⁵ The opposite approach is well established in the Netherlands, where the focus point is given to policy goals and strong statements, which according to one of the interviewee, is not often backed up with concrete undertakings.⁵⁶

In Flanders, it is difficult for Urban Circular Collaborative Economy initiatives to equally draw the attention at all levels of the population. Therefore, the potential of these initiatives has not yet been fully exploited. While younger, highly educated people are among the main users, modern technology can hinder the use of these initiatives by elderly people.

It seems that in Flanders circular and collaborative economy toolbox together can slowly drive the society into more sustainable paradigm in terms of climate change and material consumption and good life quality thanks to a more intensive use of materials and products.⁵⁷

Despite important undertakings in the area of circular economy, the governmental action can be shadowed by some failing points at the national level such as a relatively tax-free policy regarding granting the employees with the company cars.⁵⁸ This is a strong driver for intense car use in the country. In addition, it seems that for the purpose of further vulgarisation of Urban Circular Collaborative Economy, the current economic model should move towards a more resources-based system that would foster profound behavioural changes.⁵⁹ In this sense, the tax system should no longer promote a capitalist approach but rather support a sustainable solution. This new approach will seek also necessary adjustments on the side of the trade policy. In the current system, regulatory standards are often driven by industry interests. In the future, the current regulatory framework should adapt and promote more sustainable solution (resource reuse, the longer life expectancy of products).⁶⁰

The transition towards new economic models should, therefore, focus on both civil society level (awareness rising) and decision-makers level when it comes to adapting the existing regulatory framework.

For instance, there is a potential of the tax system to charge more for material used for goods' production along the traditional product price and VAT.⁶¹ Over time, this approach would moved towards a less capitalistic system.

⁵⁴ Antwerpen, Stadslab 2050, available at: <https://stadslab2050.be>

⁵⁵ Interview VITO, 10/09/2019.

⁵⁶ Ibid.

⁵⁷ Interview with KU Leuven, 10/09/2019.

⁵⁸ VGD, Belgium: Benefits In Kind, available at: <https://cn.vgd.eu/en/news/belgium-benefits-in-kind>

⁵⁹ Workshop in Gent, 13/09/2019.

⁶⁰ Ibid.

⁶¹ Ibid.

Nevertheless, moving from the classical economic approach involves choices between opposed policy objectives. For instance, recently the federal government supported the implementation of an Amazon office in Belgium. This linear economy company provides an important number of jobs in the territory (account managers, solutions architects, partner managers, and other functions).⁶² Not backing up this office opening would mean for the authorities to lose labour opportunity.⁶³ However, according to the representatives of the Urban Circular Collaborative Economy initiatives, this kind of investments go against the efforts undertaken at the same time for the circular economy in Flanders.⁶⁴

Finally, many stakeholders emphasised that the further involvement of financial sectors would be important for the development of Urban Circular Collaborative Economy Initiatives. Currently, the banking structures in their choices are driven by a fast return on investment and business risk reduction. However, this approach, is not favourable for the alternative to linear economy business, which, therefore, need to engage their own money or craft-founding resources.⁶⁵ This reduces considerably the development and benefits of the Urban Circular Collaborative Economy Initiatives.

2.3 Policies and regulatory framework affecting the Urban Circular Collaborative Economy

Some specific measures developed in the draft “Flemish Climate Policy Plan 2021-2030”⁶⁶ promote the actions related to the circular economy, such as repairing, reusing, collection of waste, recycling and eco-conception with a longer lifespan. With the Climate Policy Plan, a “Roadmap for the Circular Economy” and a “Strategy for the Collaborative economy”, both with specific indicators and specific targets, will be drawn and put into place. Besides that, new business models will be stimulated, e.g. with a focus on product-service systems.⁶⁷

Related with mobility, a Flemish Decree on basic accessibility to public transport entered into force on 22 June 2019.⁶⁸ The principle of “combimobility” has been established as the leading mobility policy in Flanders. Combimobility promotes a perspective change in public transport: from a supply-oriented system to a demand-driven arrangement. This will include the use of sharing mobility as a policy objective. Besides, the use of different means of transport is promoted. Finally, this Decree also involve the local authorities for the organisation of public transport as well as the promotion of innovative information and communication technologies. This Decree is an opportunity for the least connected areas and territories with a lower density of population. The structure of the public passenger transport network will be designed in a hierarchical and layered manner. Complementary to the “train network”

⁶² Amazon, Amazon to support cloud growth by opening an office in Belgium, available at: <https://blog.aboutamazon.eu/aws/amazon-to-support-cloud-growth-in-belgium>

⁶³ Interview with Peerby, 25/09/2019

⁶⁴ Ibid.

⁶⁵ Interview with VITO, 10/09/2019.

⁶⁶ Flemish Government, Flemish Climate Policy Plan (VKP) 2013-2020

⁶⁷ Christis, Maarten, and Vercauteren, An (2019), Impact of Circular Economy on achieving the climate targets: case mobility, CE Center Publication N° 6

⁶⁸ Belgian Official Journal, Flemish government, 26 April 2019, Decreet betreffende de basisbereikbaarheid, bl. 60718, available at: <http://www.ejustice.just.fgov.be/eli/decreet/2019/04/26/2019012697/staatsblad>

and the “core network” deserving the attraction poles, the “supplementary network” will provide a higher supply of public transport towards the core network and the train network. A fourth and “tailor-made” network will provide specific mobility options (like dial-a-ride buses and shared bicycles) for citizens who do not have a connection to the other layers.⁶⁹

Some measures have also been taken to facilitate collaborative economy activities. Clarifications on whether actors had to be counted as business and therefore abide by the same rules as other economic activities have been provided by the Government.⁷⁰

Notably, these services providers need to provide pre-contractual information and make accessible the necessary transparency regarding advertising, invitation to purchase, and the conclusion and performance of consumer contracts.⁷¹ Providers running a business in the collaborative economy need to register compulsory in the Crossroads Bank for Enterprises (CDE), depending on whether the member is active on the market via a collaborative platform, recognised or not, in accordance with the Programme Law (*Programmawet*) of 1 July 2016. In addition, these service providers need to comply with competition rules, consumer protection, fight against labour fraud etc.⁷² Being active on the internet, they also need to respect the laws on online commerce: rights of Internet users, e-commerce and consumer protection as well as unfair commercial practices, etc.⁷³

Concerning taxation, companies that generate an income of less than EUR 5,100 gross per year⁷⁴ are fitting in the new tax system introduced by the programme law of 1 July 2016. This tax rate of 10 % net instead of 33 % benefits the sharing platforms accredited by the FPS Finance can benefit from this measure. 30 platforms had already been accredited and were benefiting from this measure in November 2017.⁷⁵

Most of the circular and collaborative economy providers are considered to be self-employed. Some others have to comply with the conditions set up by the platforms. These second category should be seen as employees. But still, an employee statute has to be set up for the aim of their protection. All the individuals and businesses active in the food sector have to register their activities within the Federal Agency for the Safety of the Food Chain (FASFC).⁷⁶

As it has been noted before, the sharing mobility is a fast-growing sector. In this regard, currently, there is no common regulation or licensing framework at federal or national level. The municipalities of Ghent

⁶⁹ Lexgo.be, A new approach to public transport in Flanders: from basic mobility to basic accessibility, available at: <https://www.lexgo.be/en/papers/public-administrative-law/transport-law/a-new-approach-to-public-transport-in-flanders-from-basic-mobility-to-basic-accessibility%2c130996.html>

⁷⁰ <https://economie.fgov.be/nl/themas/ondernemingen/duurzame-economie/deeleconomie/rechten-en-plichten-inzake>

⁷¹ <https://economie.fgov.be/nl/themas/ondernemingen/duurzame-economie/deeleconomie/rechten-en-plichten-inzake>

⁷² <https://economie.fgov.be/sites/default/files/Files/Entreprises/Cartografie-duurzame-economie.pdf>

⁷³ <https://economie.fgov.be/nl/themas/ondernemingen/duurzame-economie/deeleconomie/rechten-en-plichten-inzake>

⁷⁴ indexed amount, income 2017

⁷⁵ <https://economie.fgov.be/sites/default/files/Files/Entreprises/Cartografie-duurzame-economie.pdf>

⁷⁶ <https://economie.fgov.be/sites/default/files/Files/Entreprises/Cartografie-duurzame-economie.pdf>

and Antwerp already established on their side a licensing framework applicable to shared mobility companies. Furthermore, the Flemish Region is currently conducting discussion with Antwerp and Brussels, areas where there is already a licensing framework on shared cars, on possible good practices in the sharing mobility sector. Ultimately, the aim would be to establish a common licensing framework in Flanders. This option is strongly backed up by sharing mobility companies. In results, the current discussions and paperwork undertaken by sharing mobility providers would be simplified among different municipalities across Flanders.^{77,78}

The circular economy is included in the social and environmental responsibility of the companies. Economic stakeholders can link economic, social and environmental goals through specific concrete projects and take advantage of the positive impacts and development. A growing number of companies are realising the potential of this and are launching themselves in a project that fits within the circular economy.⁷⁹ The city initiatives like 'Leuven 2030' and the Antwerps' 'Stadslab 2050' are opportunities for the private companies to be involved in innovative circular, social or environmental projects and experiments.

⁷⁷ Interview with Cambio, 23/09/2019.

⁷⁸ <https://www.autodelen.net/overheden/uitgelicht-een-autodelen-stimulerend-parkeerbeleid/>

⁷⁹ <https://economie.fgov.be/nl/themas/ondernemingen/duurzame-economie/duurzame-productie/circulaire-economie-een-kans>

3 Presence and usage of Urban Circular Collaborative Economy initiatives

This Chapter summarises the result of the stocktaking of Urban Circular Collaborative Economy initiatives in the area of Flanders. It gives an overview of the initiatives present in the territory according to their type and category. The full stocktaking of the initiatives identified in the territory is available in Annex.

3.1 Main stakeholders in the Urban Circular Collaborative Economy arena

Several types of stakeholders are active in the development and analysis of Urban Circular Collaborative Economy initiatives in Flanders. Authorities at both regional (e.g. OVAM, Circular Flanders) and local level (e.g. the Municipality of Ghent, Leuven, Antwerp) are actively involved in the development of the Urban Circular Collaborative Economy initiatives. Secondly, among the major stakeholders can be also identified the web portals that collect and map major information on the state of the initiatives in Flanders (e.g. P2P Foundation, Vlaanderen Circulair). Thirdly, within this study, the representative of main initiatives (e.g. Cambio, Dégage, EnerGent, Peerby etc.) should also be included as main stakeholders.

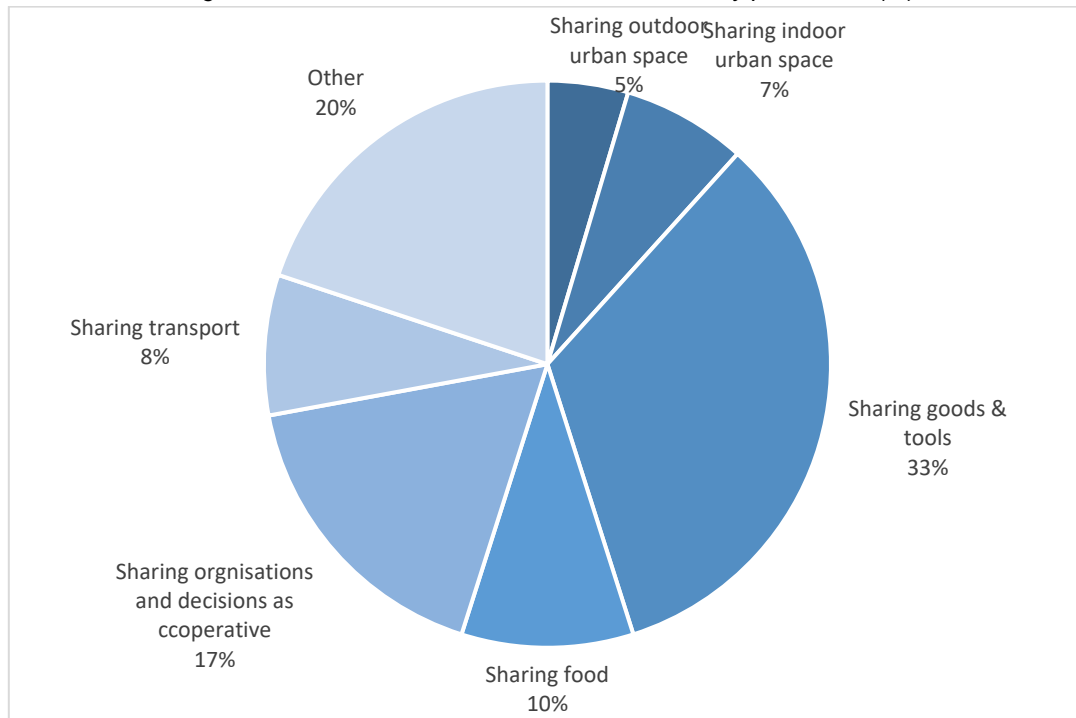
Finally, local universities and research institutes should not be overlooked, given the relevance of their research in the area of the Urban Circular Collaborative Economy initiatives (e.g. KU Leuven, University of Ghent, University of Antwerp, VITO, etc.)

3.2 Presence of Urban Circular Collaborative Economy initiatives

The research revealed that Flanders has a multiplicity of collaborative and circular initiatives across its territory. The local public authorities together with OVAM and Circular Flanders are supporting and promoting the development of these initiatives in the Region. In the main cities (Kortrijk, Gent, Leuven and Antwerp) and at the regional, we identified 329 initiatives. Initiatives are also being developed in smaller cities but are more difficult to map (e.g. initiative databases or lists not available). The survey conducted under this study has revealed that the majority of the initiative operate at the local level. However, it has been notes that some of these initiatives operates as well in other countries. The highest number of Urban Circular Collaborative initiatives has been identified in the city of Ghent.

The initiatives present in Flanders cover all the domains of Urban Circular Collaborative Economy initiatives under this study (see Annex 1).

Figure 5: Presence of UCCE initiatives in the territory per domain (%)

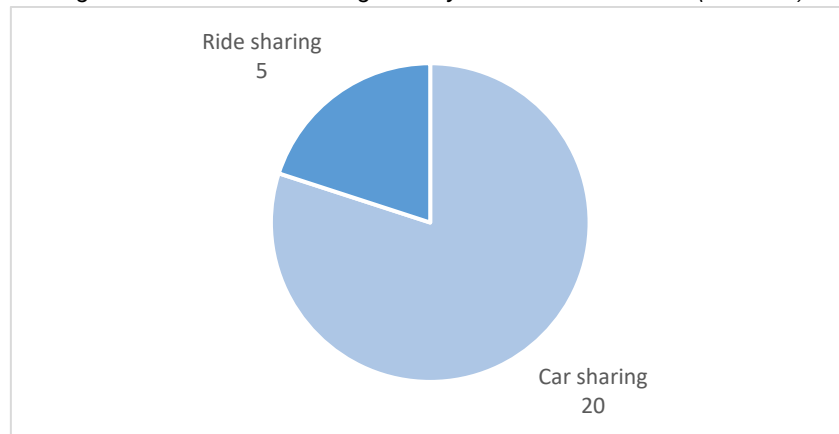


Source: VVA

The majority of the initiatives recorded fall under the domain of “Sharing goods and tools” (33%), where can be found initiatives from the categories of “Reselling goods”, “Renting goods”, “Swapping goods” and “Repair cafés”. The second most represented group of initiatives (17%) was identified in the domain “Sharing organisations and decisions as cooperative”, under which almost all the initiatives were grouped along the category of “Waste collection/treatment”. The third most represented group of initiatives fall under the domain of “Sharing food” (10%) where the majority of initiatives belongs to the “Food cooperative/food redistribution” category.

The stocktaking attached to this study demonstrated that initiatives under “Sharing transport” and “Sharing indoor urban space” have respectively recorded the presence at the level of 8% and 7% in the territory. Regarding the domain of sharing transport, the majority of initiatives belongs to the category of “Car Sharing” (20 initiatives) and the “Ride Sharing” initiatives (5). The initiatives in the domain of Sharing transport are mostly large and often covers a whole city (e.g. Dégage in Ghent) or are present in the Region of Flanders as a whole (e.g. Cambio).

Figure 6: Presence of sharing mobility initiatives in Flanders (numbers)



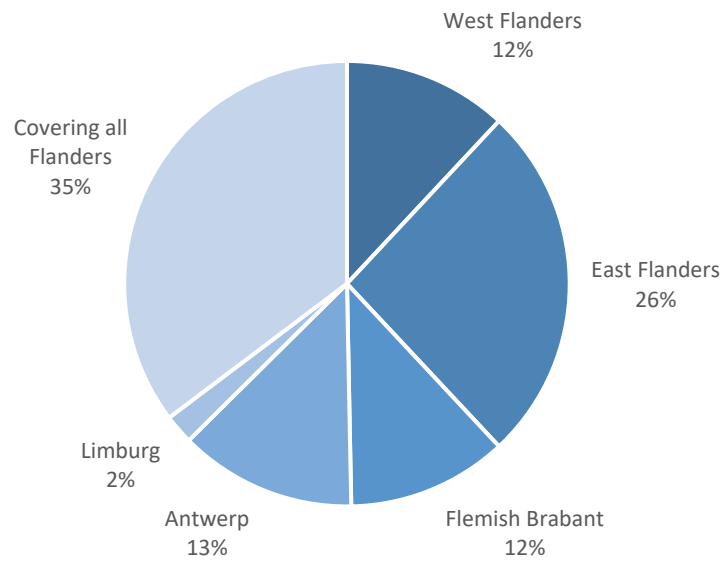
Source: VVA

The least representative domain of Urban Circular Collaborative Economy initiatives in Flanders is “Sharing outdoor urban space”, which includes eleven “Community gardens” and four “Parking space reuse” initiatives. The remaining initiatives are undefined and fall under mixt category of “Other” (20%), which includes innovative hybrid projects around long-term cohousing, urban regeneration, coaching as well as culturally and socially engaged projects.

In particular, car sharing has been growing fast in the past years. This results from some cities’ policies aiming to reduce cars or increase the number of parking lots, e.g. in Ghent. On the other hand, some cities implemented a more car-friendly policy, and as a result, the importance of car sharing is less prevalent in these municipalities. In addition, Flanders developed subsidies for pilot projects on innovative initiatives that relate to the collaborative economy (bike sharing, shared libraries, clothing, etc.)

Regarding the distribution of initiatives across the territory, 26% of the initiatives are based in the province of East Flanders. This results from the strong involvement of the Municipality of Ghent in the region and adopted "Commons Ghent" transition plan. Antwerp mainly driven by “Stadslab 2050” strategy ranks second and accounts 13% of initiatives across Flanders. Both Flemish Brabant with the city of Leuven and West Flanders with the city of Kortrijk, accounts each 12% of regional initiatives. Limburg closes the list of Flemish provinces with only 2% of the initiatives present on its territory. Finally, one out of three initiatives have their activities spread over all the regional territory (35% initiatives across Flanders).

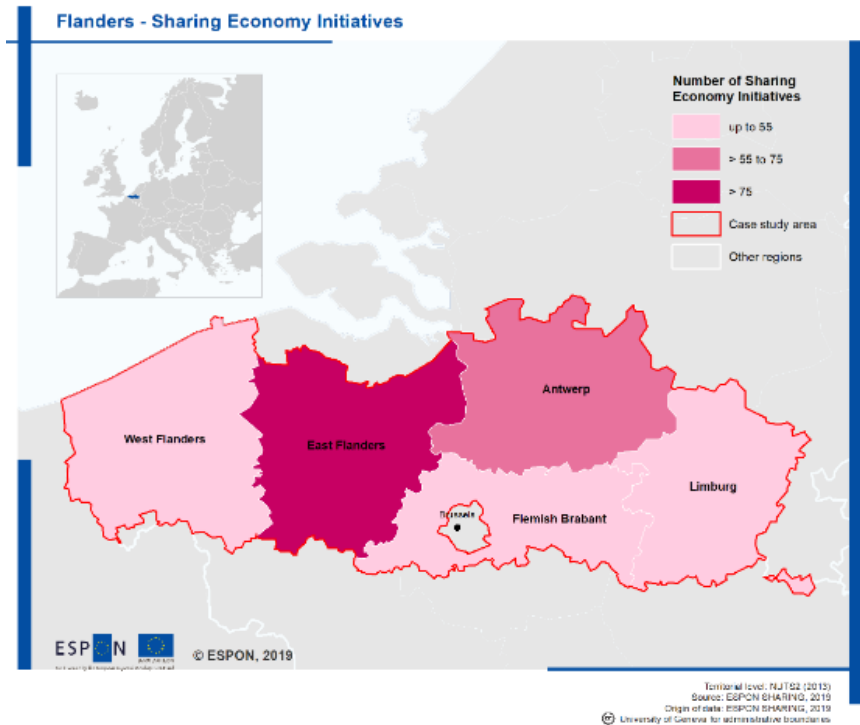
Figure 7: Presence of UCCE initiatives in the territory per province (%)



Source: VVA

In addition, the map below provides a geographical visualisation of the mapped under this study initiatives location among the Flemish provinces.

Figure 8 Flanders Sharing Economy Initiatives across the territories



Source: öIR

The representatives of the Urban Circular Collaborative Economy during a conducted in Gent workshop, indicated that it often appears that the earning models of these initiatives are sufficient for their own

survival. Therefore, additional financial incentives are needed from the government to support entrepreneurs of such undertakings. For initiatives, it is often difficult to achieve a sufficient scale to be economically profitable. Having access to useful support tools (e.g. platform) would greatly improve possible survival struggles and removed some existing and non-necessary barriers.

Urban Circular Collaborative initiatives are rather of a small scale and represents a niche activity.⁸⁰ In order to have more important impacts on environment, economy or society, these initiatives need to scale-up. However, scaling-up may occur to some of them difficult as it requires involvement of financing system, investment, new risks, insurances.⁸¹

The respondents to the survey indicated, that the majority of the Urban Circular Collaborative Initiatives is carried out by the volunteers. Nevertheless, this is not the case of all of the initiatives. The employment in the Urban Circular Collaborative Economy is not high and on average does not exceed 10 workers which are employed on full-times or half-time basis.

3.3 Usage of the initiatives

The usage of Urban Circular Collaborative Economy can be somehow estimated with the use of collaborative platforms in Belgium, which has increased significantly between 2016 and 2018. In 2016, only 8% of Belgian citizens had used a service offered via a collaborative platform. In 2018 their number doubled to 18%.⁸² On the contrary, the share of people that have ever offered a service via a collaborative platform decreased from 22% to 8% between 2016 and 2018.⁸³ The survey results under this study indicated that the initiatives carries out in Flanders target the two following group of users, between 50 and 500 users as well as between 1,000 and 10,000.

The collaborative economy includes voluntary and shared provision of resources and new ways of consumption between citizens, sometimes supported by an organisation matching demanders and suppliers. The consumption in collaborative economy represents more free aspect and/or lower prices of goods and services. Ethical or environmental considerations can also be perceived as a reason for people and companies to make the transition from the traditional economy to more collaborative ways of acting. Sharing and swapping goods and services are also fostered thanks to these considerations besides the “classical” buying action.⁸⁴

The path of creation of collaborative economy platforms in Flanders has slowed down. The challenges they face are the consequence of their presence in a parallel market apart from the linear and traditional economy. For instance, the platform Peerby, which exchanges goods among neighbours, has more supply than demand (supply is only answered at 85%). The explanation is that some users feel uncomfortable with using shared goods if they had not reciprocally made available any of theirs on the

⁸⁰ Interview with VITO, 10/09/2019

⁸¹ Ibid.

⁸² Flash Eurobarometer 467; Flash Eurobarometer 438

⁸³ Ibid.

⁸⁴ <https://economie.fgov.be/nl/themas/ondernemingen/duurzame-economie/deeleconomie>

platform. In general, apart from Peerby, most platforms focus their strategy on a demand-driven approach: people launch requests for goods or services based on their needs.⁸⁵

A study by IDEA Consult gives some information on the profile of collaborative economy platform users, which can provide some insights on the ones of Urban Circular Collaborative Economy initiatives. The study finds that users of collaborative services are predominantly aged between 25 to 50 years old and proportionally highly educated, living in cities. There is no difference in usage between men and women. In addition, according to the study, people in training and jobseekers are making an active use of collaborative economy services. As regards providers of initiatives, they are also frequently highly educated young adults.

Accommodation comes first when it comes to usage, with 30% of the respondents to the, followed by tools (29%). Car sharing comes on the third position with 25% of the respondents. On the providers' side, tools (31%) and services (31%) were offered by the respondents during the last 12 months. Cars follow on the fourth position with 16% of the respondents.⁸⁶

The distance between provider and user constitutes also an essential component of the Urban Circular Collaborative Economy development. According to the initiatives, achieving the critical mass of users is a real challenge. The number of providers matching with the number of demands may lack in relatively sparsely populated geographical areas (e.g. Limbourg). Therefore some initiatives such as Peerby, Konnektid, or Listminut, deliberately operate in a small distance to limit possible users' travel costs. The recently conducted study by IDEA consult, has revealed that the platforms tend to find a provider in a maximum distance of 10 km.⁸⁷ Regarding the governance of collaborative economy, the city of Ghent is an interesting example where the local authorities really supports collaborative economy initiatives (Commons Ghent). In Spring 2017, a mapping identified around 500 of commons-oriented initiatives in this municipality.⁸⁸ On its own, Commons Ghent is conducting a mapping activity of Urban Circular Collaborative Economy initiatives and existing good practices in this area.

3.4 Compliance with SDG indicators

The city of Antwerp is scoring 61.7 at the 21st place on the 2019 Index for European Cities (see Annex 6). Flanders also translated the SDGs to local level in the "Vizier 2030" plan⁸⁹ that was adopted in April 2019 and lays down the ambitions for an "open and international territory". The measures will be used to accelerate the achievement in line with the Agenda 2030 and Flanders Vision 2050 plans (see above). Vizier tackles crucial domains dealing with people, planet, prosperity, peace and partnership (also known as the five Ps). The objectives of Vizier 2030 include 49 measures covering almost all the

⁸⁵ IDEA Consult, Vanuit de kinderschoenen naar de puberteit, De Vlaamse deeleconomie in kaart gebracht, September 2017, p.47

⁸⁶ IDEA Consult, Vanuit de kinderschoenen naar de puberteit, De Vlaamse deeleconomie in kaart gebracht, September 2017

⁸⁷ IDEA Consult, Vanuit de kinderschoenen naar de puberteit, De Vlaamse deeleconomie in kaart gebracht, September 2017, p.47

⁸⁸ Bauzens Michel, The context and the structure of the report, available at : <https://blog.p2pfoundation.net/a-commons-transition-plan-for-the-city-of-ghent/2017/09/14>.

⁸⁹ https://do.vlaanderen.be/sites/default/files/atoms/files/Visienota_Vizier2030.pdf

SDG's. The main axes are: 1) An inclusive society, 2) A new economy, 3) Within the ecological limits of the planet, 4) Open and flexible government.⁹⁰

⁹⁰ <https://cifal-flanders.org/flanders-translates-sdgs-to-local-level/>

4 Assessment of impacts

This Chapter provides an overview of the impacts of the Urban Circular Collaborative Economy in the main impact assessment areas: economic, environmental, social and political/governance. It uses the example of a couple of initiatives selected in the territory in order to draw correlations between the development of initiatives, territorial characteristics and the policy framework in place.

4.1 General trends

Following the stakeholder' preference in the area of the Urban Circular Collaborative Economy Initiatives, the scope of this case study focusses on the following two main areas: mobility and goods. For the purposes of this study, three initiatives from two domains "Transport sharing" and "Sharing goods, tools and services" have been selected for detailed analysis. The inventory for the research conducted by the KU Leuven University, indicated that in Flanders there is more than 20 different sharing mobilities systems (e.g. station based, free floating system, poppy etc.), out of which the majority is station based.⁹¹ Given a great variety of urban mobility initiatives in Flanders, this case study at first will analyse and compare two car-sharing initiatives – some of them owned by the business (business-to-consumer – B2B) and other by individuals (peer-to-peer – P2P). Regarding the first category, we propose to select Cambio, which is the biggest car-sharing platform in Flanders. Currently, the number of its users reaches around 34,665 people and covers 44 cities, with 526 stations and 1,270 cars. Regarding sharing initiatives owned by individuals, we propose to select Dégage, which is one of the largest private car-sharing initiatives⁹² in Flanders with more than 240 cars and 2,400 users.

Secondly, with regard to initiatives covering "Sharing goods, tools and services" domain, we have selected Peerby due to its broad scope and high potential in the territory. The initiative promotes the accessibility of goods over ownership, i.e. lending, sharing. It also prevents raw material waste and overconsumption, as well as the strengthening of social cohesion and interaction.

Based on the literature review and stakeholder's consultation the expected impacts of the chosen Urban Circular Collaborative Economy categories of this case study have been identified. This case study will analyse environmental impacts (reduction of waste creation, lower greenhouse gas emissions, sub-urbanisation, environmental awareness etc.), economic impacts (impact on local revenues, job creation, market value of services/products, etc.) and social impacts (increased efficiency in space use, increased interaction between the users of the initiatives, savings, increasing quality of life in cities). The majority of the survey respondents, providers of the Urban Circular Collaborative Economy, believes that their initiatives contribute to raising environmental awareness among their users and allow the access to goods and services that the users would not have otherwise. Therefore, the respondents agreed that the use of initiatives generates an overall saving for their users. Also, more than half of respondents considered that their undertakings contributed to the creation of local jobs and helped their users in learning new skills. Regarding, the social impacts, most respondents considered that the

⁹¹ Interview with KU Leuven, 10/09/2019.

⁹² It should be noted that CozyCar is a relatively larger private car sharing initiative. However, it does not provide a commonly shared fleet. They are organised as smaller groups that share one or two cars between neighbours. For this reason, under this research the focus was given to Dégage.

initiatives increased social ties among their users, improved the quality of life and had a positive impact on the citizen's health. On the contrary, most of the respondents were not aware or did not note an important impact of the Urban Circular Collaborative Economy on suburbanisation.

Furthermore, the research on the impacts of the three selected initiatives from two domains in Flanders has revealed a predominance of the environmental impacts over the social and economic ones. Regarding environmental impacts, the use of sharing mobility reduced the creation of waste, as less cars are purchased, lower considerably the CO2 emission from transport and finally it reduced the number of parking spaces and promotes a more environmentally friendly use of the saved space.

Regarding economic impacts, initiatives/projects do not report on the generated earnings and those earnings and the analysed initiatives are also far from generating a high number of job posts. Sharing goods initiatives employ on average around four people. Sharing transport initiatives economic impacts depends on their business model. While the organisation based on the business-to-consumer transaction (Cambio) employ between 30 to 35 people, the initiative based on peer-to-peer relationship (Dégage) has non-impact on job creation. Alongside full-time employees in Cambio, Dégage is supported by the group of almost 40 volunteers.

Similarly, not many results have been concretised on social impacts. Among the most valuable is the creation of social cohesion between cities and neighbourhoods' inhabitants as many initiatives based in the peer-to-peer relationship requires meeting the owners of the assets in person. In addition, the sharing initiatives identified under this study generate saving for users.

In addition, the web portal *Circular Flanders* together with *Department of Economy Science & Innovation* published in June 2018 a list of indicators for a Circular Economy that enter under the scope of Urban Circular Economy initiatives. The indicators in the publication were classified under three main axes according to different criteria:

1. Micro, meso and macro level,
2. Circular Economy strategies,
3. Technology versus socio-Institutional.⁹³

The study emphasises that existing indicators focus mainly on physical parameters (e.g. kilograms, which are more technology related) rather than on socio-institutional aspects and specific high-level circular strategies.

The textbox below summarises the conclusions adopted during the workshop organised in Ghent as part of the study. The workshop served as an important data collection tool since it helped to identify the impacts of Urban Circular Collaborative Economy initiatives in the territory.

4.2 Selection of initiatives

4.2.1 Selected initiatives

⁹³ Circular Flanders, Short-term Assignment: Indicators for a Circular Economy, June 2018, available at: <https://vlaanderen-circulair.be/src/Frontend/Files/userfiles/files/Summa%20-%20Indicators%20for%20a%20Circular%20Economy.pdf>.

Table 1: Initiatives selected for the case study

Name of initiative	Domain	Category	Business, organisational or value creation model												
			Economic potential						Social potential						Env. Potential
			Sector	Underlying asset	Transaction relationship	Transaction mode	Type of market player	Data	Hiring of workers involved	Origin	Ownership of the initiative	Financing – source	Financing – destination	Contribution to the circular economy	
Cambio	Sharing transport	Car sharing	Transport	Car	B2C	Renting	Rental cars	For maintenance of asset and coordination	Yes	Large	National	Private	Maintain of the activity	Reduction of traffic in the cities, and journey per passenger and CO2 emission	
Dégage	Sharing transport	Car sharing	Transport	Car	P2P	sharing	Sharing (owners)/renting (users) cars	For maintenance of asset and coordination	Yes	Large	Local (Flanders)	Private	Maintain of the activity	Re-use of underutilised asset	
Peerby	Sharing goods, tools and services	Renting goods (tools)	Goods	Tools	P2P	Renting	Retailers	Only for coordination	No	Small	Local (Kortrijk)	Private	Maintain of the activity	Re-use of underutilised asset	

4.2.2 Assessment of impacts per initiative

4.2.2.1 Cambio

4.2.2.1.1 Description

Cambio is a privately-owned car sharing initiative founded in Flanders by Taxistop vzw 15 years ago. The first city benefitting from Cambio-cars was Ghent. Cambio is based on business-to-consumer relationship. De Lijn, the public transport company in Flanders, has two thirds of the stakes of the companies. The other third is in the hands of Cambio Belgium, grouping Taxistop vzw, VAB, the Belgian public railway and Cambio Germany.⁹⁴ Over the years its fleet grew up to 750 cars and expanded to other cities in Flanders. Sister companies are also present in the remaining regions of Brussels and Wallonia). Furthermore, the electrification of the fleet is progressing.

To this day, the initiative has 35 full-time employees. While half of the employees is in charge of purely administrative work, the other half is in charge of fleet maintenance.

The initiative has the car ownership and is liable for them. The fee for using the car is composed of a one-time start-up cost of EUR 35 and a monthly subscription between EUR 4 and EUR 22. This usage-based pricing is calculated according to the car rental models. The final pricing is the sum of an hourly pricing that varies between EUR 1.55 and EUR 4.20 and a kilometer pricing that ranges between EUR 0.23 and EUR 0.43. The billing is released every month. On the yearly basis, Cambio's fleet drives around 20,625 million km.

The great value of this initiative results from the fact that it enables a multimodal mobility and a more efficient use of public space. Cambio aims to promote the use of sustainable mobility along use of bikes and public transport. Clients using Cambio claim to have a positive feeling to take part in a "good story" and get rid of the stress and constraints linked to a private car ownership (insurance cost, garages, check-ups).

Cambio develops a survey for its users every 2 years. The results show that the Cambio users are predominantly urban residents, between the age of 18 and 95 years old, with many people over the age of 60. 80 % of Cambio users claim to not have their own car.

The initiative is very well perceived by the municipality. However, a favourable parking policy, development of adequate administrative procedures and the proximity to train and bike stations could play in favour of further development of sharing mobility within its municipalities' borders.

4.2.2.1.2 Impacts

Cambio has so far produced the following impacts:

- **Environmental positive:** While 750 cars are deployed in the territory, one car is on average used by 20 persons/car. It is estimated this facilitated the decision of about 1000 users to not buy a car. Overall users of the initiative use less cars than they would have done if they were car owners. Furthermore, the initiative allows a reduction of the number of parking spaces and a more efficient use of public space.

⁹⁴ <http://docs.vlaamsparlement.be/pfile?id=1255612>

⁹⁵ <https://fr.slideshare.net/StefanieDePuydt/cambio-gluren-bij-de-buren>

- **Environmental negative:** a cheaper use of cars made this option more available to society. All the companies providing car-sharing/renting initiatives look for an increase in their cars use and therefore stimulates car mobility;⁹⁶ possible accidents and the question of liability; hygienic preoccupations for some of the clients of the initiative.
- **Economic:** One-time start-up cost: EUR 35. Monthly subscription between EUR 4 & EUR 22. Prices calculated following the car model and per hour (between EUR 1.55 and EUR 4.20) and per km (between EUR 0.23 and EUR 0.43).
- **Social:** The initiative contributes to lowering the levels of stress related to car parking.

4.2.2.1.3 Correlations

Cambio is very much in line with the focus of the regional policy objective of the Green Deal and Flemish Decree on basic accessibility to public transport. It fits well into regional objectives regarding the promotion of multimodal mobility within the Region and change of the mobility habits. As mentioned above, Cambio benefits from an important support from the cities and is developing well in big urban areas like Ghent and Antwerp.

4.2.2.2 Dégage

4.2.2.2.1 Description

Dégage is a private bottom-up car sharing initiative based on peer-to-peer relationship. Founded 20 years ago in Ghent the initiative started with only one car. Over the years its fleet grew up to 240 cars and extended its network to bike sharing. Dégage slowly is expanding to other cities in Flanders, however, its main activity is based in Ghent. To this day, the initiative has 40 volunteers and 2300 members among which are both car users and owners.

The initiative does not have a car ownership and is not responsible for cars. The car owners make available their vehicles under this initiative and are responsible for them. The intake of cars is well defined according to environmental, financial and technical criteria. Dégage users, covers owner's car garages, insurances, taxes and depreciation costs (value of the car over the years) for the those kms that car is shared. On the user's side, the fee for using the car is the same an consist of EUR 35 for a membership subscription and EUR 0,32 per km, for first 100km of use. The price is decreasing above the limit of 100km. The billing period is released every 3 months. On average, per quarter the members drive around 1,5 mln km in Flanders.

The initiative is carried out on a voluntary basis and hiers two freelancers to perform 30 hours of work activities of maintenance of asset and coordination. Dégage is a value-based initiative which promotes greener mobility, car sharing, the efficient use of cars, raw materials and space, as well as social cohesion. In fact, members of Dégage need to plan in advance of the car use. Therefore, on the daily base they will rather choose bikes or public transport over the car use. The initiative has important social impacts as it encourages people to meet each other to pass the car keys. Dégage is not client but network oriented.

⁹⁶ Interview with VITO, 10/09/2019.

There is a little data about demographic characteristics of the initiative users. 50% of users are highly educated members of the middle class with a green ideological mind-set, while the other 50% represent people looking for financial solutions (those who cannot afford to buy a car).

The initiative is very much supported by the municipality of Ghent which does a lot of effort to promote sharing mobility within its own borders. For instance, the municipality:

- Is paying back the membership of its citizens to Dégage, as to the other car sharing organisations;
- Provides a possibility to park everywhere with Dégage cars (otherwise one parking card for each family in its neighborhood), as is the case with cars of other car sharing organisations;
- Undertook a campaign for sharing car city, which aims to have around 20 000 shared cars in the city; this campaign promoted Dégage's activity and that of other car sharing organisations;
- Aims to create a low emission zone from 2020 which excludes certain Diesel cars; this promotes investments into a greener and electric car.

Dégage fits into the STOP principle in Flanders regarding the planning of a mobility policy. The priority going first to S (walking), secondly to T (cycling), thirdly to public transportation and ultimately to personal cars.⁹⁷

4.2.2.2.2 Impacts

Dégage has so far produced the following impacts:

- **Environmental:** The fleet of 230 cars is used by 2400 persons. Approximately, 1 car is used by 10 persons. 1000 individuals have decided to not buy a private car thanks to the initiative. Overall, users of the initiative drive less compared to what they would if they were car owners as they need to plan in advance the renting of the car. The reduction of parking space, which can be potentially turned into social activity space (playground for children). On average, in the period of three months, the distance driven by Dégage cars represent 1,5 mln km per.
- **Social:** Around 50% of users could not afford having a car hence transport is made available to more people. Bringing people closer that would otherwise never have contact with each.
- **Economic:** as an average each car owner in Dégage saves 1400 euro a year by sharing his car and each user saves as an average 600 euro a year by not owning a car; the city saves spending on parking space for each car that is avoided

4.2.2.2.3 Correlations

Dégage is very much in line with the focus of the regional policy objective of the Green Deal Shared Mobility and Flemish Decree on basic accessibility to public transport. In addition, it fits well into municipality's objectives regarding the promotion of the sharing mobility within the city and respective reduction of the parking space. As mentioned above, Dégage benefits from an important support from the city of Gent.

4.2.2.3 Peerby

4.2.2.3.1 Description

Peerby.be is a platform allowing sharing goods within the neighbourhoods. Along the primary activity Peerby.be comprises new circular projects such as Peerby 'Boost your community'; Peer groups; Workshops circular economy and Peerby Pro has been developed.

⁹⁷ ASSE, Duurzame mobiliteit, available at : <https://www.asse.be/duurzame-mobiliteit>

Originally the initiative was founded in 2013 as a non-profit organisation Wijdelen together with its online platform. Wijdelen turned to be very successful and over a year gathered around 1,500 members. Since 2014 the initiative was merged with the Dutch organisation of the same kind 'Peerby' run by Dan Weddepohl. While being under the same umbrella organisation, it has an independent organisation.

The main goal of this initiative is to improve materials efficiency which aims at promoting buying less goods and their temporary use. The business model of this organisation is based on their peers, which provide the substantial means to the Peerby functioning. The initiative is run by the group of volunteers and a core team of four freelancers (two in charge of coordination and business developments; and two in charge of communication and switchers business modelling).

Currently, Peerby count around 1 million shared products and 30 500 users across Flanders and Brussels. In addition, the initiative counts 2000 users in Wallonia. Around 200 goods are shared on a weekly based which gives between 800-1000 goods shared per month. The price of a shared good varies from EUR 25 to EUR 500 (mobile home) and depends on the length of rental. Among the most sought articles are ladders, pressure cleaning machines, party tents, carbo bikes.

The share of users across the municipality is very well balanced. On average each municipality has at least 20 permanent users. The practice revealed that sharing of goods functions better in close communities (e.g. cities) and is predominantly used by the younger population (25 to 40 years old) and proportionally highly educated.

People participate in the initiatives for three reasons: i) they like to share goods; ii) they like to help each other, and iii) because of the relationship of trust between neighbours. Sharing of goods has additional values when it comes to promoting sustainability. For instance, members have decreased their use of transport, water, material and energy.

The initiative although spread across the country, has a limitation regarding promoting its own activity and is not very known outside of its own 'bubble' of users. In addition, socially vulnerable people are less likely to rent a good as they are afraid of consequences, in case the good breaks up. According to the founder of Peerby.be, the initiative has not yet broken through, and its potential impact could be important as currently there is not a business model for 'less consumption'. Therefore, it seems that the governments and municipalities have an important responsibility to support similar platforms. For instance, by advertisement activities and promotion of a sharing lifestyle.

Nevertheless, Peerby.be runs in parallel different projects. First of all, **Peer groups**, aims at establishing a group of people that meet each other regularly to share (e.g. colleagues, sport team, friends). Secondly, **Peerby Pro**, investigates how to make the link between producers and the communities. It aims at encouraging producers consider renting their products instead of selling them. Peerby Pro promotes this new approach via Workshops and providing a necessary onboarding system which allow producers to estimate how sharable their products are. Ultimately, since September 2019, the 'Peerby communities' was launched. This aims at encouraging provinces and cities to promote the sharing of goods. The municipalities invest a half of the needed budget (EUR 3600) to improve knowledge throughout workshops, flyers distribution, raising the awareness of the shared use.

All in all, Peerby promotes resources accessibility over an individual ownership based on the use of underutilized assets. This seems to be both cheaper and faster in delivering goods to people in a more sustainable way.

4.2.2.3.2 Impacts

Peerby has so far produced the following impacts:

- **Environmental:** Less resources used for the production of new products and tools; the product cycle is reduced to its use-phase, which results in resources (energy, fuel, water, material) and money savings. Example n°1 drilling machine, on average Peerby rents 71 drilling machines per month. An average drilling machine has a lifetime of about 160 operational hours.⁹⁸ However, in the lifetime the drill is used only 10 minutes by an average owner, which represents 0,1% of its potential lifespan.⁹⁹ Example n°2 vacuum cleaner, on average Peerby rents 26 vacuum cleaners per months. The costs of purchasing and disposing of a household's vacuum cleaner: about 300 kWh in energy, 19,2 KG of materials (including production waste), 700 litres of water, 55 kg of CO2, EUR 110.¹⁰⁰ This cost encountered each time when a vacuum cleaner is purchased. Therefore, each time the product is shared, the above-mentioned impacts are saved. However, the savings and impacts can vary depending on the distance between the neighbours sharing the tool/ product and a mean of transportation.¹⁰¹
- **Economic:** sharing goods and tools has important financial users of Peerby. It can be argued that saving due to these initiatives also increase the economic strengths of neighbourhoods. However, sharing of goods and tools can have also negative impacts such as possibility of breaking down. Peerby addresses this issue, by offering insurance among its services.
- **Social:** Bringing people closer: around 800 to 1000 individuals, that would otherwise never have contact with each other, meet regularly on a monthly basis, mainly young people (24-40 years old) and highly educated. This increases as well social connectivity and leads to happier people, safer, and more thriving neighbourhoods.

4.2.2.3.3 Correlations

Peerby is very much in line the objective of circular economy which is developed in Flanders.

4.3 SWOT analysis

The table below represents the SWOT analysis of the Urban Circular Collaborative Economy present in Maribor. The analysis is based on the literature review as well as on the targeted consultation with the relevant stakeholders (representatives of Urban Circular Collaborative Economy initiatives, policy makers, experts, etc).

Table 2: SWOT of the Urban Circular Collaborative Economy in the territory

Strengths	Weaknesses
<ul style="list-style-type: none"> - High scalability potential - Based on value sharing of goals important to the society (e.g. shared by both users and the funders) - Development according to the local demands (limited risk ratio) - Financially self-sufficient (Sharing mobility – Cambio) 	<ul style="list-style-type: none"> - Behavioural mindset valuating possession over use - Lack of knowledge about the existing initiatives and advantages - Quick scale up – difficulty to follow up

⁹⁸ Except Integrated Sustainability, Why Peerby Matters.

⁹⁹ Thacker in. Except Integrated Sustainability, Why Peerby Matters.

¹⁰⁰ Except Integrated Sustainability, Why Peerby Matters.

¹⁰¹ Ibid.

<ul style="list-style-type: none"> - Strategic localisation of services (around the key public transport mobility points) - Big potential/impact (e.g. efficient use of parking space, unused goods) - Reduction of ownership responsibilities 	
<p>- Opportunities</p>	<p>- Threats</p>
<ul style="list-style-type: none"> - Big data as an accelerator of Urban Circular Collaborative Economy initiatives - Existence of Circular Flanders Hub - Subvention from OVAM - Increasing number of projects financed from the European sources - Promotion at the municipality level - Partnering with large profit or non-profit organisations – visibility - Cities turning into greener lifestyle model - Development of Cities Mobilities Programmes/Plans - Common regional licencing scheme (sharing mobility) 	<ul style="list-style-type: none"> - Dependence on funding - lack of or/ distribution in funding - Very fast growth- miscommunication - From sharing to competition (sharing mobility) - Stringent environmental legislation (sharing mobility)

5 Conclusions and recommendations

This Chapter summarises the conclusions of the case study. It also gives recommendations for local policymakers in order to develop initiatives with highest positive impacts.

5.1 Conclusions

The high population density and the constant population growth in Flanders increases the regional space pressure, consumption, use of cars, air pollution and therefore, territorial negative impacts on the environment. The study also revealed the cities are the most favourable environment to develop Urban Circular Collaborative economy initiatives. The Urban Circular Collaborative Economy therefore can be perceived as a potential solution for some of the existing problems.

Therefore, since more than ten years, the circular economy has been present on the regional political agenda. The Flemish government, based on existing knowledge, has developed a very comprehensive strategy on the circular economy. The government has also established a unique of its kind public-private body as a facilitator of territorial transition towards the circular economy: Circular Flanders under OVAM. Since more than two years, Circular Flanders is aligning and connecting various policy topics relevant for the circular economy agenda of the region, create a knowledge database and promotes knowledge sharing among various stakeholders, provides support to the initiatives, and represents an important network hub between various stakeholders.

Furthermore, the draft “Flemish Climate Policy Plan 2021-2030¹⁰² and the recently adopted Flemish Decree on basic accessibility to public transport entered into force on 22 June 2019¹⁰³ perceive circular and collaborative economy among different mechanisms as means to achieve their regional policy goals. This consideration given at the political level to the new economic models is very promising.

Along with the governmental action, Flanders undertook relevant actions to effectively close the loop of the circular and collaborative action by promoting Green Deals (Green Deal on Circular Public Procurement, Green Deal on Circular Construction, Green Deal on Circular Mobility). The deals aim to foster the partnership between different organisations and to promote more sustainable and circular alternatives to the existing practices.

The study also revealed that the cities are the most favourable incubator for the development of Urban Circular Collaboratives Economy initiatives. The city governments of Flanders adopt comprehensive frameworks towards these new economic models (e.g. “Commons Transition Plan”, “Stadslab 2050”, “Leuven 2030 plan”). The adoption of this framework creates a favourable enabling environment which in turn is reflected in a highest amount of the initiatives in their territories.

However, the interviews conducted under this study have shown that some of the undertaken actions towards the circular and collaborative economy can be hindered by some decisions taken in other policy

¹⁰² Flemish Government, Flemish Climate Policy Plan (VKP) 2013-2020

¹⁰³ Belgian Official Journal, Flemish government, 26 April 2019, Decreet betreffende de basisbereikbaarheid, bl. 60718, available at: <http://www.ejustice.just.fgov.be/eli/decreet/2019/04/26/2019012697/staatsblad>

areas (e.g. investment in a big warehouse for online retail or tax policies such as tax-free policy regarding granting employees with company cars).

Although the initiatives are well represented across the region, among the least representative domain is “Sharing outdoor urban space”, such as “Community gardens” “Parking space reuse”. Special attention could be given to these domains especially when it comes to parking space in cities, as it can complement the increase of car sharing.

The study finds that users of collaborative services are predominantly aged between 25 to 50 years old and proportionally highly educated city inhabitants. Often the users share the value goals of the initiatives. The latter element is very important as the distance between provider and user constitutes also an essential factor of the Urban Circular Collaborative Economy development. Some of the providers deliberately operate in a small distance to limit possible users’ travel costs. Most of the initiatives are demand-driven which results in the fact that there are not equally distributed within the same city or region.

The initiatives analysed under this case study have first and foremost important environmental impacts, followed by social ones and a relatively small share of economic impacts. However, it has been noted that some of the initiatives struggle to reach the users who are coming from different backgrounds or neighbourhoods, where initiatives are less popular. The initiatives seem to have a scalability potential which could be further leveraged by the action at the municipality level (promotion) or further use of big data as an accelerator of their activities. Besides the scalability, some initiatives can also have an important impact by inspiring other similar undertakings.¹⁰⁴ However, the popularity of the initiatives depends on behavioural mindset valuating possession over the use. Although positive from the first sight, a quick scale-up can be also perceived as difficult in terms of possible miscommunication and follow up. In Flanders, as in other territories, regulatory and administrative barriers have been perceived as an important challenge for initiatives. However, some of the existing challenges could be overcome or reduced by promoting peer-learning schemes between the initiatives based on their good practices and lessons learnt.

5.2 Recommendations

We have drafted recommendations on the three areas of the Urban Agenda for the EU, as follows.

Better knowledge

- Municipalities could further increase the potential impact of initiatives present within their own territories by the promotion of their activities and awareness raising. According to the stakeholders, the public campaign undertaken by the Municipality on Urban Circular Collaborative Economy would be very useful. These campaigns could either promote this new lifestyle, and emphasise on concrete initiatives. Initiatives themselves often lack the financial means to do so.

¹⁰⁴ Workshop in Gent, 13/09/2019.

- Municipalities could also participate in sharing initiatives and, therefore, have a huge impact on promotion of these initiatives. For instance, involvement of local authorities could leverage the trust of potential users towards these initiatives.
- The regional or local authorities could undertake action aiming at raising public awareness on real impact of the production chain of purchased products. This information could influence behavioural consumption changes among consumers.

Better regulation

- Sharing mobility initiatives are of high importance for Flanders. However, each province and city have a different regulation towards sharing mobility initiatives. In order to diminish logistic and administrative burden for the providers, the region of Flanders could develop a common regional licencing scheme framework for sharing mobility. This framework should regulate the following fields administrative modalities, access to parking space made available for shared cars.
- Circular Flanders should be taken under this study as a role model for other territories as an organisation of a transversal character for promotion and implementation of circular and collaborative economy policies. Circular Flanders has six core activities i) networks (bringing a variety of partners together); ii) lab (assistance of pioneers); iii) policy (aligning and connecting various policy agenda relevant for circular economy at the local, regional, federal, EU or international level); iv) knowledge (policy relevant research, and dissemination of acquired knowledge); v) innovation (encouraging innovation and entrepreneurship towards circular economy); vi) embedding (principals and best practices of the circular economy are utilised and embedded in Flemish companies, civil society organisations, education, local administrations, and citizens).¹⁰⁵

Better funding

- The Municipalities could adopt a pro-sharing approach and finance the membership or facilitate further the use for space for the Urban Circular Collaborative Economy Initiatives. By doing so, the municipalities on the one hand attract the initiatives to their territories and other promote the use of these initiatives among its inhabitants. The example of the city of Ghent could be followed, where the municipality reimburses the membership fee of the sharing mobility initiatives and provides parking facilities for users of the sharing mobility initiatives. In fact, the city of Ghent adapts urban planning rules for cohousing initiatives, by reducing the number of requires parking space.
- Although, Circular Flanders provide large subsidies to the initiatives, the funding strategy is not though through for all initiatives. In consequence, the initiatives benefiting from funding are not encouraged to develop their own business model which allows them to become self-sufficient

¹⁰⁵ Circular Flanders, Everything about Circular Flanders, available at: <https://vlaanderen-circulair.be/en/about-us>

and self-reliant. A more fit-for-purpose strategy that would ensure better placement of public money would be required.

- The environment of Urban Circular Collaborative Economy is an alternative and relatively small when compared to the linear economy. Therefore, it constantly requires stimulation from the environing world, especially, from insurance and financing companies. However, banks and insurance companies are rather resultant to finance alternative business models with high-risk ration. In this case, the municipality or the Circular Flanders could incentivize these companies to do so or provide the necessary guarantees to these companies in case of initiatives insolvency.

Annexes

Annex 1: Typologies/domains of Urban Circular Collaborative Economy initiatives

Domain	Category	Business, organisational or value creation model												Usage		
		Economic potential						Social potential								
		Sector	Underlying asset	Transaction relationship	Transaction mode	Type of market player	Data	Hiring of workers involved	Origin	Ownership of the initiative	Financing – source	Financing – destination	Contribution to the circular economy	Size of the activity	Alternative usage	Users' characteristics
Sharing outdoor urban space	Community gardens	Food and waste	Space	P2P	Sharing	Multiple	Personal/non-personal; data use	For service and coordination	Local	Private/public/partnership	Activity/private investment/public money	Re-investment in local assets/outside the country	Type of circular economy business model	Data to be collected	Agriculture	Data to be collected
	Parking space reuse	Transport	Space	P2P/B2C	Renting	Multiple	''	Only for coordination	Both	''	''	''	''	''	Rental parking space	''
Sharing indoor urban space	Short-term rental	Accommodation	Space	P2P (rarely B2C)	Renting	Some dominants	''	For service and coordination	Outside	''	''	''	''	''	Hotel	''
	Coworking space/Fablab	Accommodation	Space	P2P (rarely B2C)	Renting	Multiple	''	For service and coordination	Local	''	''	''	''	''	Office rental	''
	Leisure space sharing	Accommodation	Space	P2P/B2C/public sector	Sharing	Multiple	''	Only for coordination	Local	''	''	''	''	''	Cultural activities/recreative space rental	''
Sharing goods and tools	Renting goods	Retail	Goods	P2P	Renting	Multiple	''	Only for coordination	Outside	''	''	''	''	''	Rental companies	''
	Reselling goods	Retail	Goods	P2P	Selling	Some dominants	''	For service and coordination	Outside	''	''	''	''	''	Retailers	''
	Swapping goods	Retail	Goods	P2P	Swapping	Multiple	''	Only for coordination	Local	''	''	''	''	''	No	''
	Repair cafés	Retail	Goods	P2P	Sharing	Multiple	''	For service and coordination	Local	''	''	''	''	''	No	''
Sharing food	Food & meal sharing	Food and waste	Food	P2P/B2C	Sharing	Multiple	''	For service and	Both	''	''	''	''	''	Restaurants	''

								coordination									
	Food cooperative/food redistribution	Food and waste	Food	P2P	Sharing/Selling	Multiple	✓	For service and coordination	Local	✓	✓	✓	✓	✓	✓	Retailers	✓
Sharing organisations and decisions as cooperatives	Energy	Energy/utilities	Energy	P2P	Sharing	Multiple	✓	For maintenance of asset and coordination	Local	✓	✓	✓	✓	✓	✓	Energy providers	✓
	Waste collection/treatment	Food and waste	Waste	B2C	Sharing	Multiple	✓	For service and coordination	Local	✓	✓	✓	✓	✓	✓	Waste treatment/management organisations	✓
Sharing transport	Bike sharing	Transport	Bike	B2C/public sector	Renting	Some dominants	✓	For maintenance of asset and coordination	Outside		✓	✓	✓	✓	✓	Rental bike	✓
	Car sharing	Transport	Car	P2P/B2C	Renting	Some dominants	✓	Only for coordination (if P2P)/For maintenance of asset and coordination (if B2C)	Outside	✓	✓	✓	✓	✓	✓	Rental cars	✓
	Ride sharing	Transport	Car	P2P	Sharing	Some dominants	✓	For service and coordination	Outside	✓	✓	✓	✓	✓	✓	Public transport	✓
	Rides-on-demand	Transport	Car	B2C (rarely P2P)	Renting	Some dominants	✓	For service and coordination	Outside	✓	✓	✓	✓	✓	✓	Taxi	✓

Annex 2: List of interviews

Name	Organisation	Organisation type	Date of the interview
Sanne Habets	City of Ghent	Local authorities	01/08/2019
Brigitte Mouligneau	Circular Flanders	Public-private partnership	29/08/2019
Leen Goossens	Dégage	Initiative	09/09/2019
Luc Aerts	KU Leuven	University	10/09/2019
Karl Vrancken	VITO	Think Thank	10/09/2019
Jeffrey Matthijs	Autodelen	Industry association	11/09/2019
Geert Gisquière	Cambio	Initiative	23/09/2019
Lieven D'hont	Peerby	Initiative	25/09/2019

Annex 3: The 2019 SDG Index for European Cities: ranking and scores

TABLE 1 THE 2019 SDG INDEX FOR EUROPEAN CITIES: RANKING AND SCORES						
RANK	CITY	SCORE		RANK	CITY	SCORE
1	Oslo	74.8		26	Bratislava	60.2
2	Stockholm	74.2		27	Prague	60.1
3	Helsinki	71.3		28	Madrid	59.7
4	Copenhagen	68.7		29	Tallinn	59.5
5	Zurich	67.5		30	Barcelona	59.1
6	Lyon	64.9		31	Warsaw	57.8
7	Paris	64.7		32	Zagreb	57.1
8	Munich	64.2		33	Vilnius	56.8
9	The Hague	63.7		34	Milan	56.8
10	Eindhoven	63.5		35	Turin	56.4
11	Amsterdam	63.5		36	Riga	56.3
12	Rotterdam	63.4		37	Budapest	55.4
13	Luxembourg	63.0		38	Sofia	55.2
14	Hamburg	63.0		39	Lisbon	55.1
15	Bordeaux	62.6		40	Rome	55.0
16	Vienna	62.5		41	Bucharest	54.4
17	Ljubljana	62.5		42	Valletta	53.8
18	Berlin	62.1		43	Nicosia	53.7
19	London	62.0		44	Porto	53.5
20	Nuremberg	61.9		45	Athens	48.6
21	Antwerp	61.7				
22	Dublin	61.6				
23	Marseille	61.4				
24	Frankfurt	61.2				
25	Brussels	60.4				

Annex 4: City Scores for each SDGs

CITY	COUNTRY	MISSING VALUES (%)	REGION
Amsterdam	Netherlands	16.07	Western Europe
Antwerp	Belgium	8.93	Western Europe
Athens	Greece	33.93	Southern Europe
Barcelona	Spain	14.29	Southern Europe
Berlin	Germany	8.93	Central and Eastern Europe
Bordeaux	France	12.50	Western Europe
Bratislava	Slovakia	17.86	Central and Eastern Europe
Brussels	Belgium	10.71	Western Europe
Bucharest	Romania	19.64	Central and Eastern Europe
Budapest	Hungary	12.50	Central and Eastern Europe
Copenhagen	Denmark	16.07	Northern Europe
Dublin	Ireland	33.93	Western Europe
Eindhoven	Netherlands	23.21	Western Europe
Frankfurt	Germany	14.29	Central and Eastern Europe
Hamburg	Germany	7.14	Central and Eastern Europe
Helsinki	Finland	12.50	Northern Europe
Lisbon	Portugal	17.86	Southern Europe
Ljubljana	Slovenia	19.64	Central and Eastern Europe
London	United Kingdom	25.00	Western Europe
Luxembourg	Luxembourg	28.57	Western Europe
Lyon	France	19.64	Western Europe
Madrid	Spain	10.71	Southern Europe
Marseille	France	12.50	Western Europe
Milan	Italy	26.79	Southern Europe
Munich	Germany	8.93	Central and Eastern Europe
Nicosia	Cyprus	32.14	Southern Europe
Nuremberg	Germany	17.86	Central and Eastern Europe
Oslo	Norway	30.36	Northern Europe
Paris	France	14.29	Western Europe
Porto	Portugal	28.57	Southern Europe
Prague	Czech Republic	12.50	Central and Eastern Europe
Riga	Latvia	23.21	Central and Eastern Europe
Rome	Italy	12.50	Southern Europe
Rotterdam	Netherlands	17.86	Western Europe
Sofia	Bulgaria	19.64	Central and Eastern Europe
Stockholm	Sweden	10.71	Northern Europe
Tallinn	Estonia	19.64	Central and Eastern Europe
The Hague	Netherlands	23.21	Western Europe
Turin	Italy	10.71	Southern Europe
Valletta	Malta	30.36	Southern Europe

CITY	COUNTRY	MISSING VALUES (%)	REGION
Vienna	Austria	10.71	Central and Eastern Europe
Vilnius	Lithuania	19.64	Central and Eastern Europe
Warsaw	Poland	16.07	Central and Eastern Europe
Zagreb	Croatia	26.79	Central and Eastern Europe
Zurich	Switzerland	30.36	Western Europe

Annex 5: Survey results

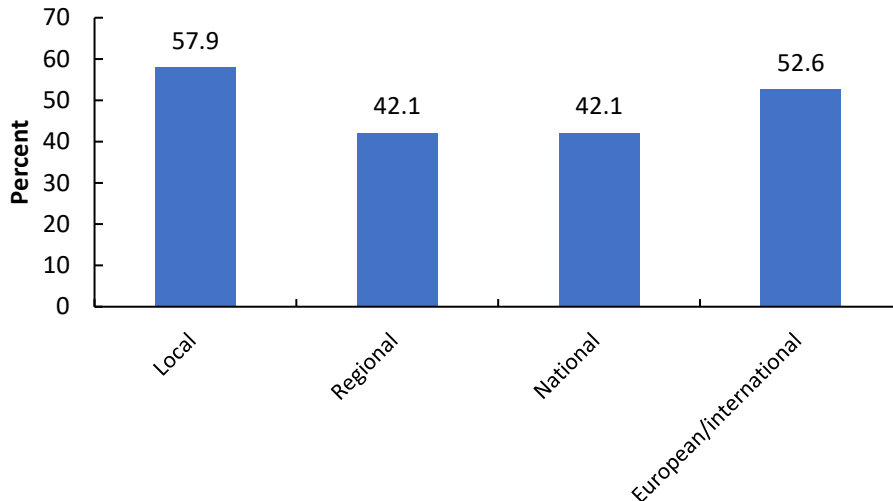
ESPONSHARING - survey of initiatives

The survey received in total 19 complete responses.

At which scope do you operate?

Majority of Urban Circular Collaborative Economy initiatives in the Flanders operate at the local level (57.9%), followed by European/international level (52.6%) and regional and national level, with the share of 42.1% each.

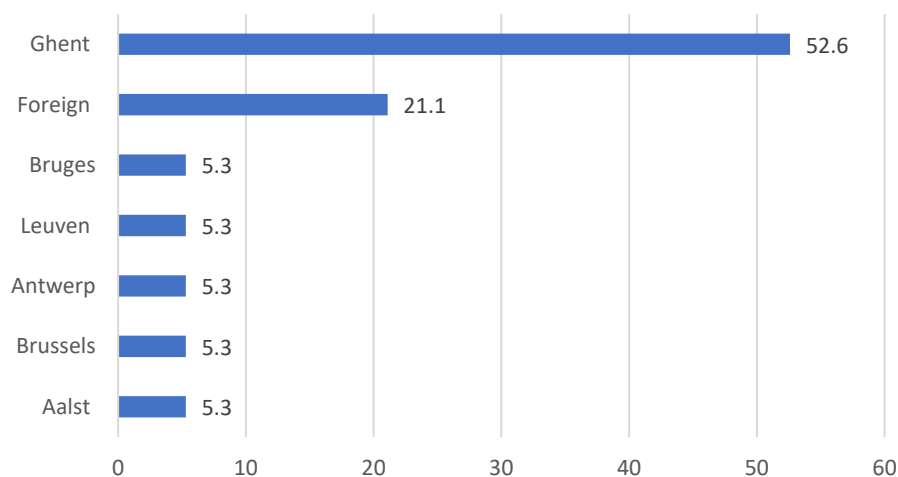
Figure 9: Scope of operation, %



City of origin of the Urban Circular Collaborative Economy initiatives in the Flanders?

More than half of the initiatives originate from the city of Ghent (52.6%). 21.1% of the Urban Circular Collaborative initiatives that participated in the survey are of a foreign origin (Luxembourg, Netherlands, Italy). The rest of the cities in the Flanders are presented with the same share of 5.3%

Figure 10: City of origin of the initiatives, %¹⁰⁶

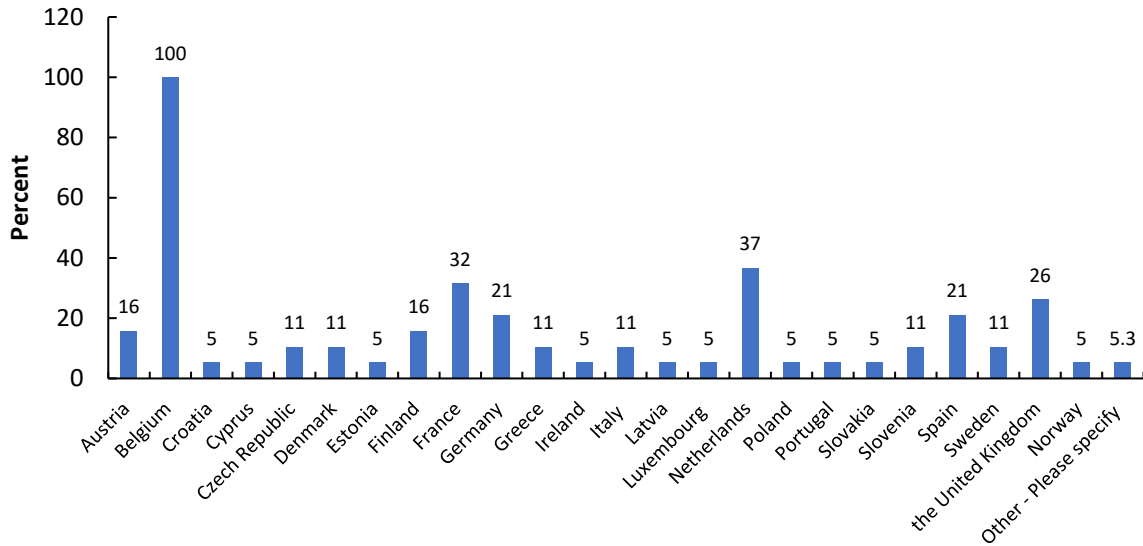


¹⁰⁶ Foreign refers to the initiatives coming from abroad.

In which country(ies) do you operate?¹⁰⁷

Besides Belgium, Urban Circular Collaborative Economy Initiatives present in the Flanders also operate in other countries. See the figure below.

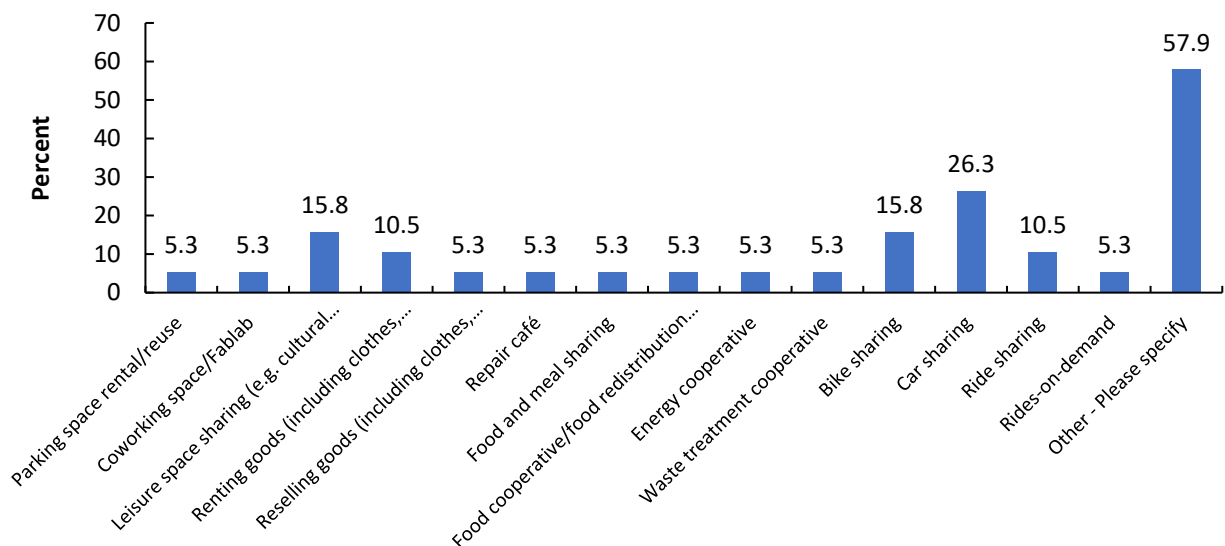
Figure 11: Countries of operation, %



What does describe your activity best?¹⁰⁸

Majority of Urban Circular Collaborative Economy initiatives in the Flanders belong to the category of “Other” (57.9%), under which mentioned categories are online communities, sharing knowledge platforms, consultancy and energy monitoring projects. Among the given options to the survey question, the majority of the Urban Circular Collaborative Economy initiatives identified themselves as “Car sharing” initiatives (26.3%).

Figure 12: What does describe your activity, %



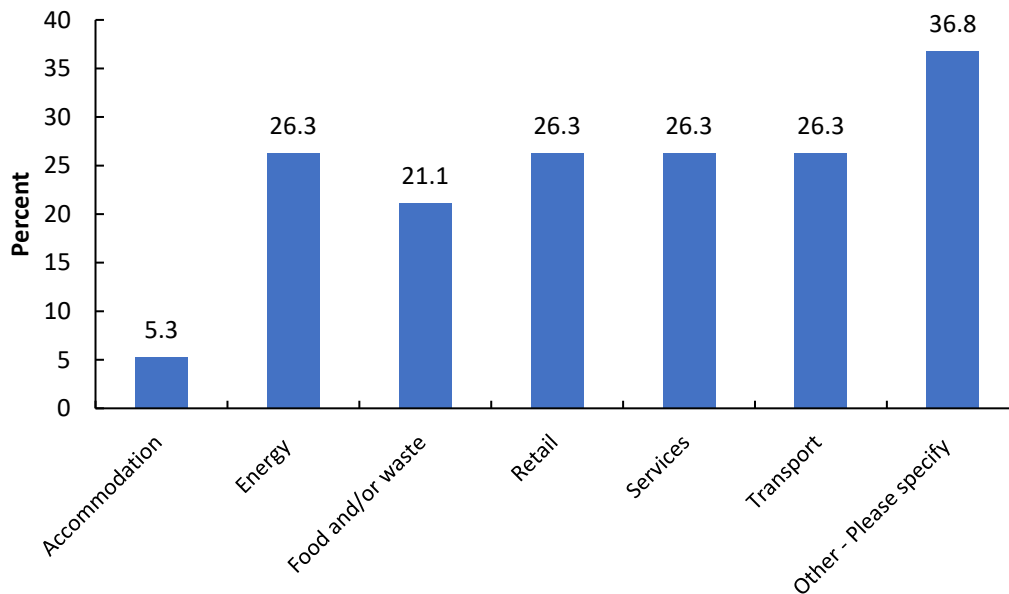
¹⁰⁷ Multiple answers possible.

¹⁰⁸ Multiple answers possible.

In which sector does your organisation operate (multiple answers possible)?¹⁰⁹

Majority of the Urban Circular Collaborative Economy initiatives in the Flanders has chosen the option “Other” to specify the sector of its operation. Under this category, more frequently mentioned sectors were Culture/Dances, Real Estate and Government services. Among the given options in the survey questions, the sectors of Energy, Retail, Services and Transport received the equal share of responses (26.3%). 21.1% of the Urban Circular Collaborative initiatives identifies food and Waste as their appropriate sector of operation.

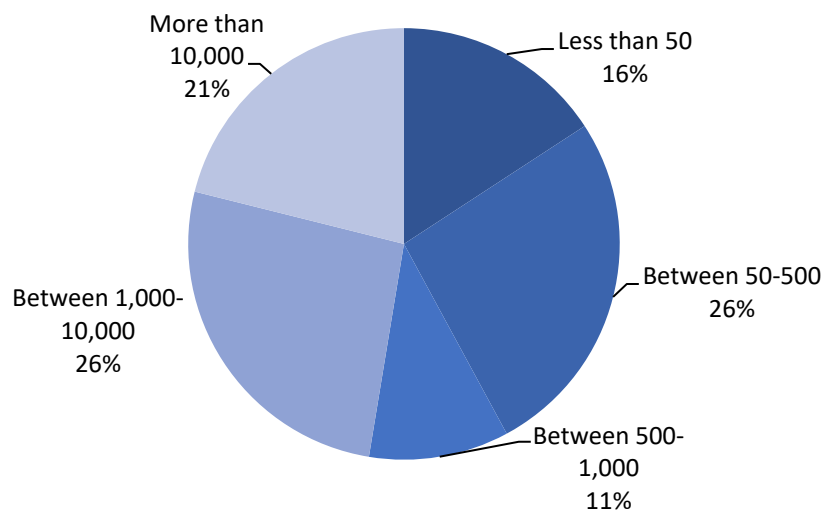
Figure 13: Sector of operation, %



Number of users

26% of the Urban Circular Collaborative Economy initiatives in the Flanders target in majority between 50 and 500 users. The equal share (26%) of the urban circular Collaborative Economy initiatives address between 1,000 and 10,000 users.

Figure 14: Number of users, %

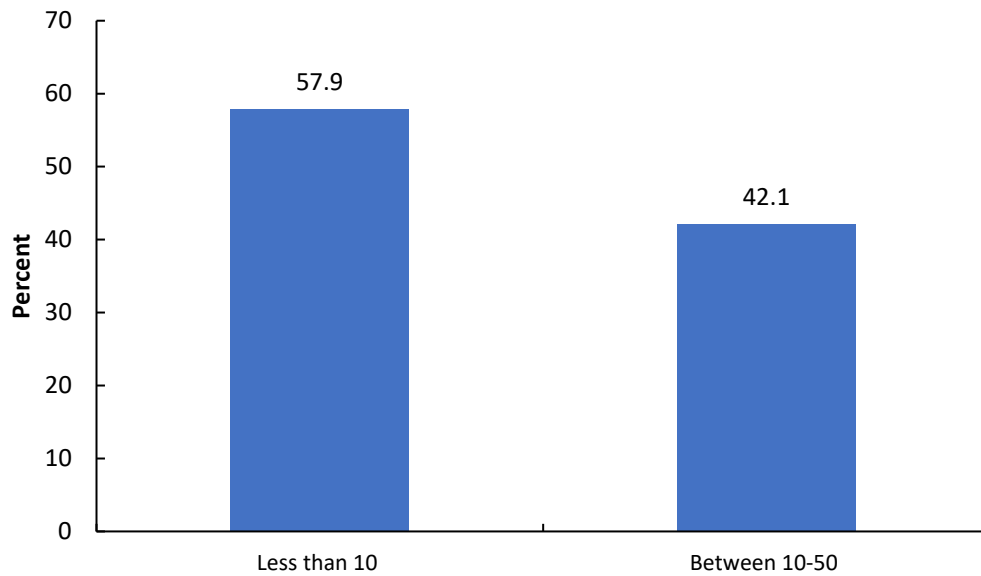


¹⁰⁹ Multiple answers possible.

Number of people employed by your initiative (persons managing the initiative or contributing to it as a core team member)

Urban Circular Collaborative Economy initiatives in the Flanders employ in majority less than 10 people (57.9%). 42.1% of the participant initiatives to the survey responded to employ between 10 and 50 people.

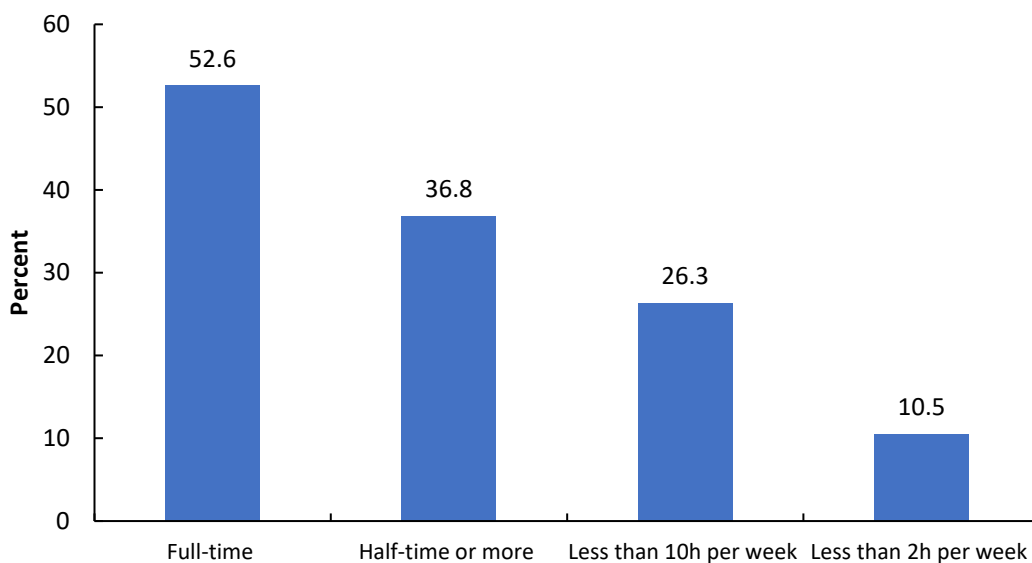
Figure 15: Number of people employed by the initiatives, %



Level of involvement of employees

Large share of Urban Circular Collaborative Economy initiatives in the Flanders employ their employees on a full-time based condition (52.6%). 36.8% of the respondents reported to employ their employees on a half-time or more contract conditions. 26.3% of the respondents claimed to employ their employees for less than 10 hours a week. 10.5% of the respondents claimed to employ their employees for less than 2 hours a week.

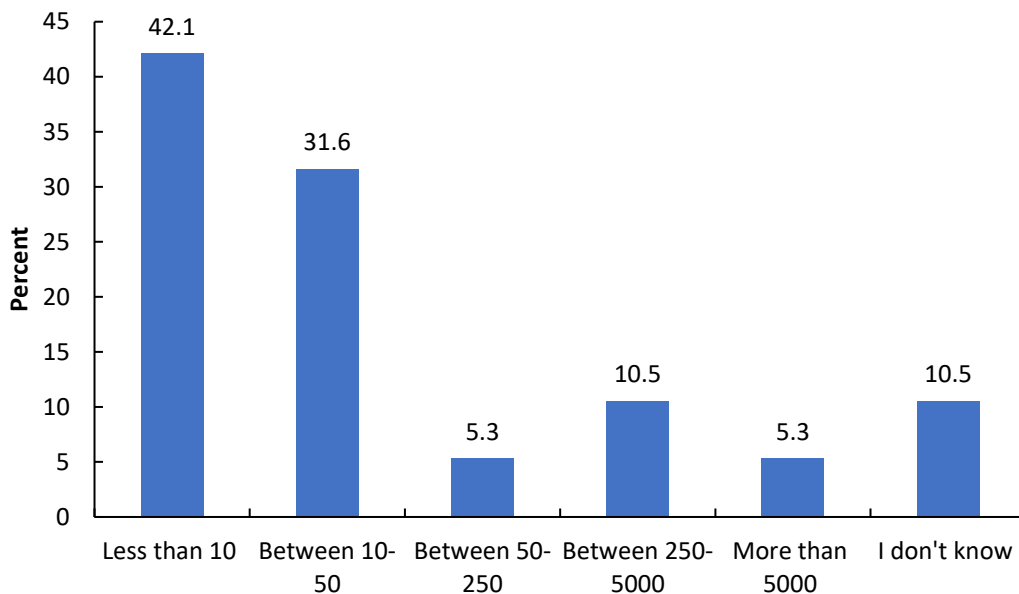
Figure 16: Level of involvement of employees, %



Number of people providing services through your initiative (volunteers)

42.1% of the Urban Circular Collaborative Economy initiatives in the Flanders include the work of less than 10 volunteers in their daily operations. 31.6 % of the respondents responded to rely on higher number of volunteers (between 10 and 50). 5.3% of the respondents include the work of between 50 and 250 volunteers, and 10.5% of the respondents reported to rely on the work of between 250 and 5000 volunteers. 5.3% of the Urban Circular Collaborative Economy initiatives rely on the work of more than 5000 volunteers.

Figure 17: Number of volunteers, %



Average price of the goods created/sold?

A third of the of the Urban Circular Collaborative Economy initiatives in the Flanders reported to earn between EUR 100,000 and EUR 1 million of revenues in the year of 2018. The share increased from 2017, when 25% of the initiative reported to earn the same amount of revenues. 22% of the participant initiatives reported to earn between EUR 10,000 and EUR 100,000 of revenues in 2018. Similarly, the share increased from 2017, when 19% of the Urban Circular Collaborative Economy initiatives reported to earn the same amount of revenues.

Figure 18: Revenues of UCCE initiatives, year 2018, %

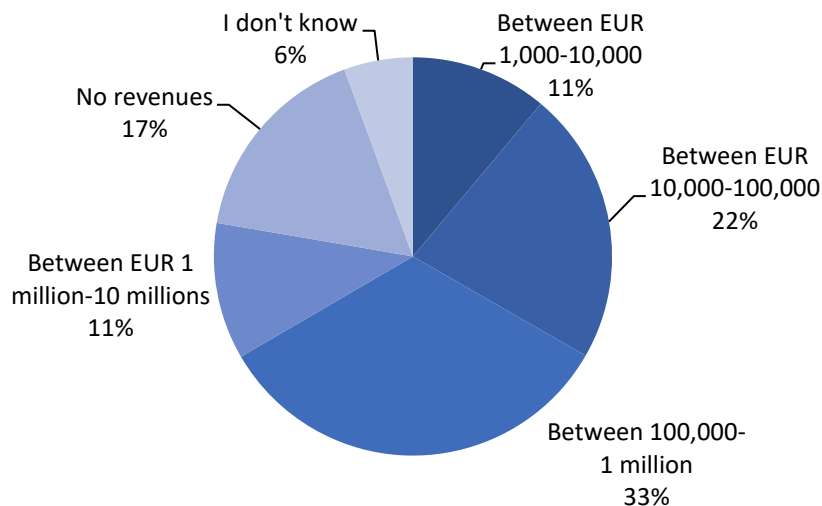


Figure 19: Revenues of UCCE initiatives, year 2017, %

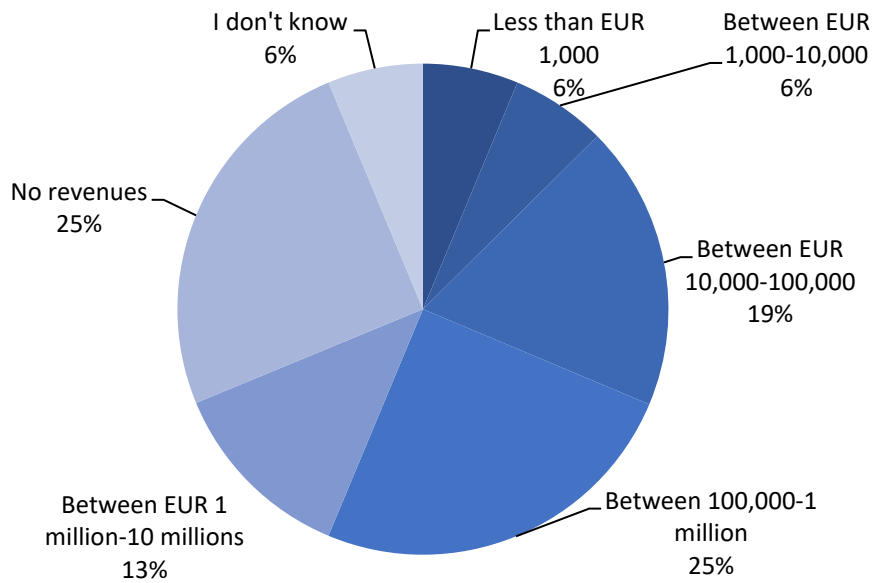
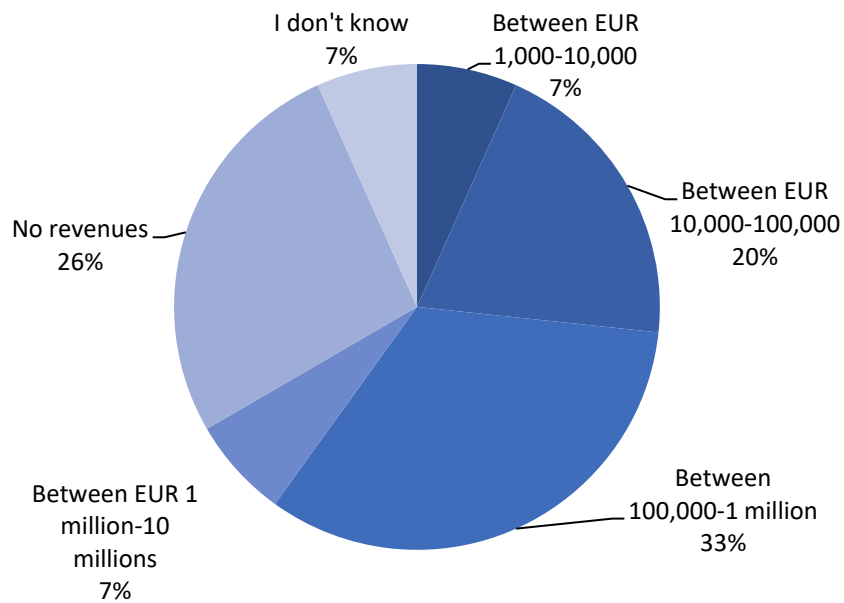


Figure 20: Revenues of UCCE initiatives, year 2016, %



Impact on consumption/production of raw materials: Does your initiative has an effect the consumption/ production of raw materials? Please explain

No answers have been reported.

Impact on resource use: Does your initiative has an effect on the use of material resources? Please explain.

No answers have been reported.

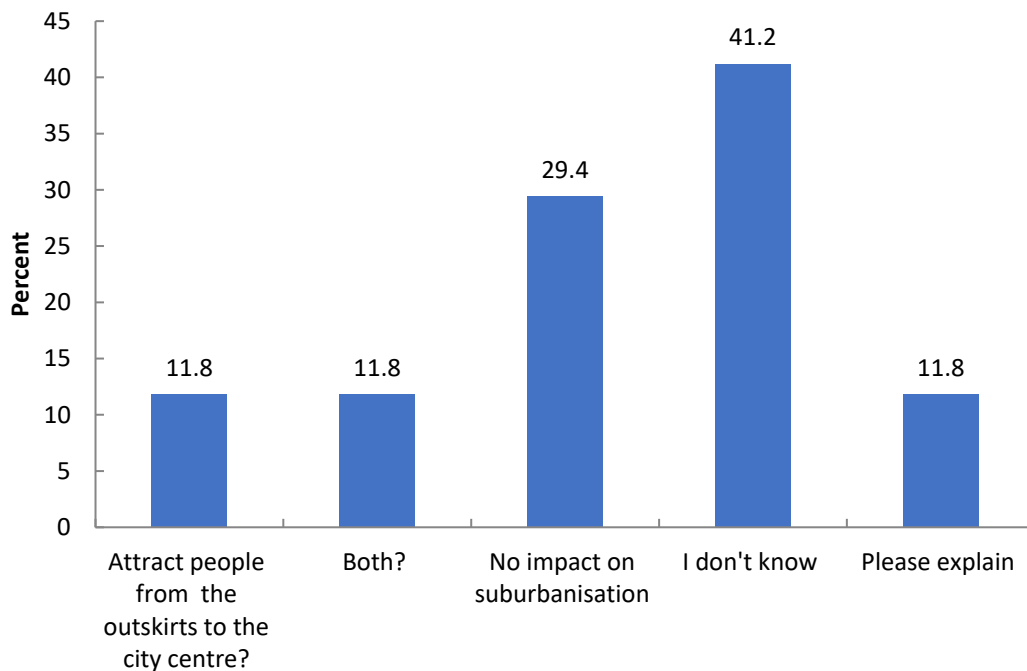
Impact on waste management/creation: Does your initiative has an effect on the creation/management of waste? Please explain.

No answers have been reported.

Impact on suburbanisation: does your initiative contribute to attracting people from the outskirts to the city centre?

41.2% of the respondents did not provide an opinion on the question. Among those that provided an answer, a majority of the Urban Circular Collaborative Economy initiatives (29.4%) believes that their initiatives have no impact on suburbanisation. On the other hand, 11.8% of survey respondents claimed that Urban Circular Collaborative Economy initiatives attract people from the outskirts to live in the city centre.

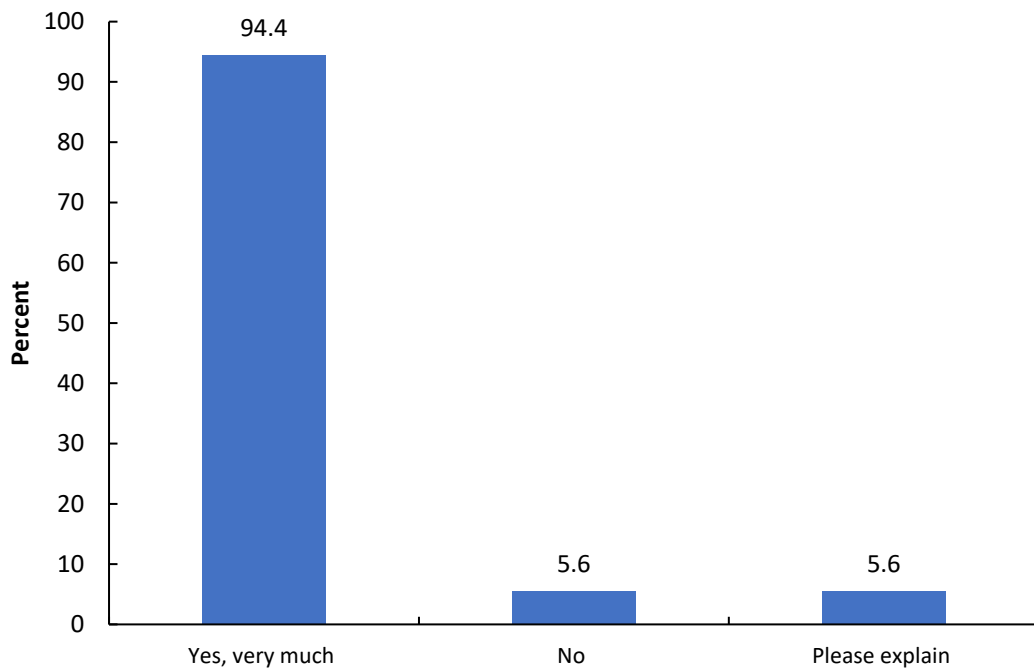
Figure 21: Impact on suburbanisation, %



Impact on awareness of environmental matters: Do you think your users are more aware of environmental matters after participating in your initiative?

Large share of respondents (94.4%) believe that their Urban Circular Collaborative Economy initiatives contribute to raising awareness of environmental matters among the users.

Figure 22: Impact on awareness of environmental matters, %



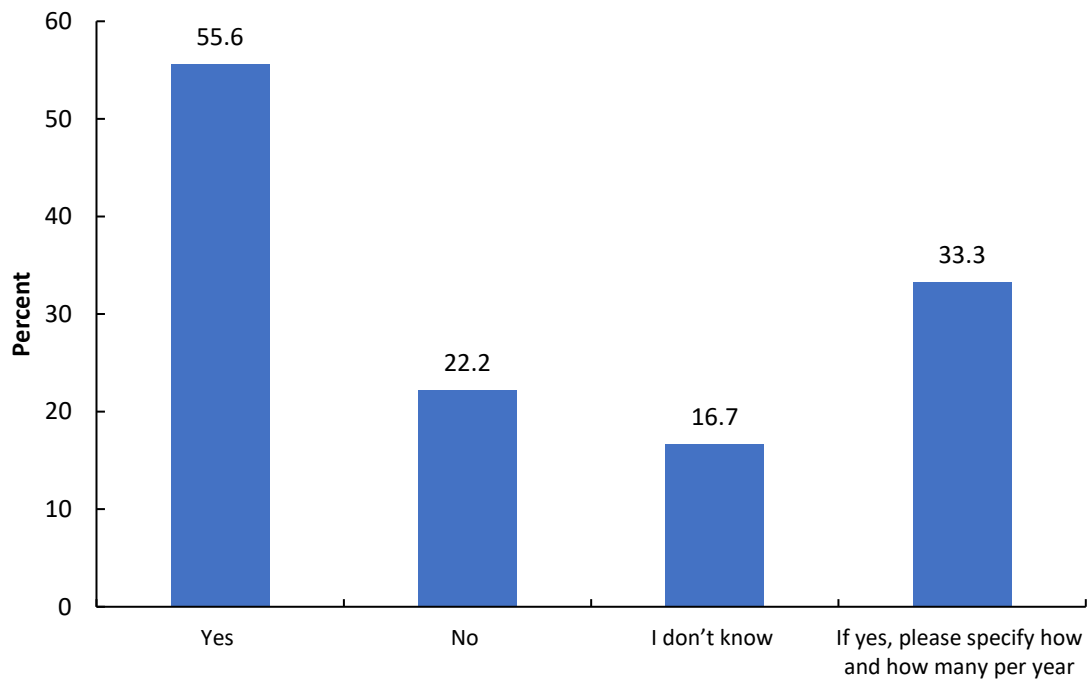
Impact on local revenues: Does your initiative contribute to generating revenues in local market

No answers have been reported.

Does your initiative contribute to the creation of local jobs?

55.6% of Urban Circular Collaborative Economy initiatives present in the Flanders contribute to the creation of local jobs.

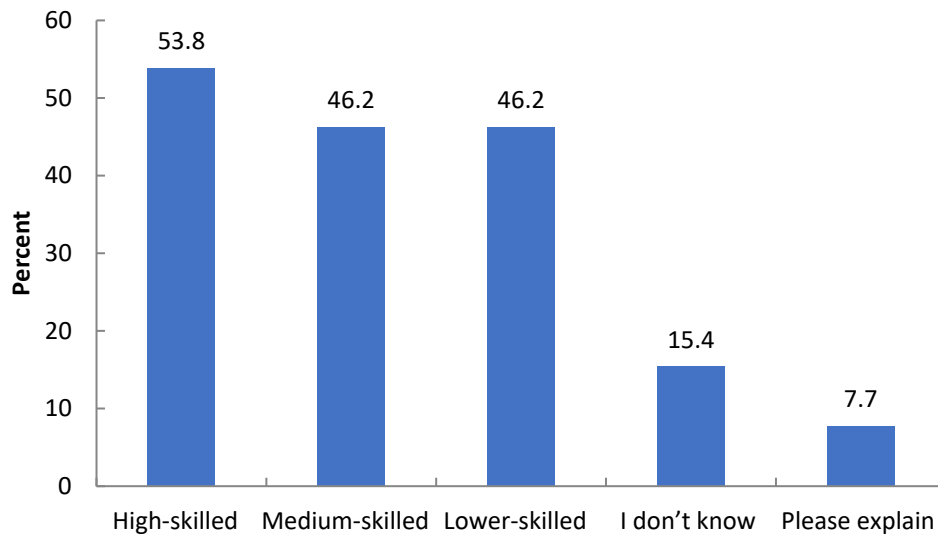
Figure 23: Creation of local jobs, %



What types of jobs are created by your initiative?

53.8% of the Urban Circular Collaborative Economy initiatives in the Flanders believe that Urban Circular Collaborative Economy initiatives create high-skilled jobs, 46.2% of respondents claim Urban Circular Collaborative Economy initiatives contribute creating medium-skilled jobs and the same share of survey participants (46.2%) claim that Urban Circular Collaborative Economy initiatives create lower-skilled jobs.

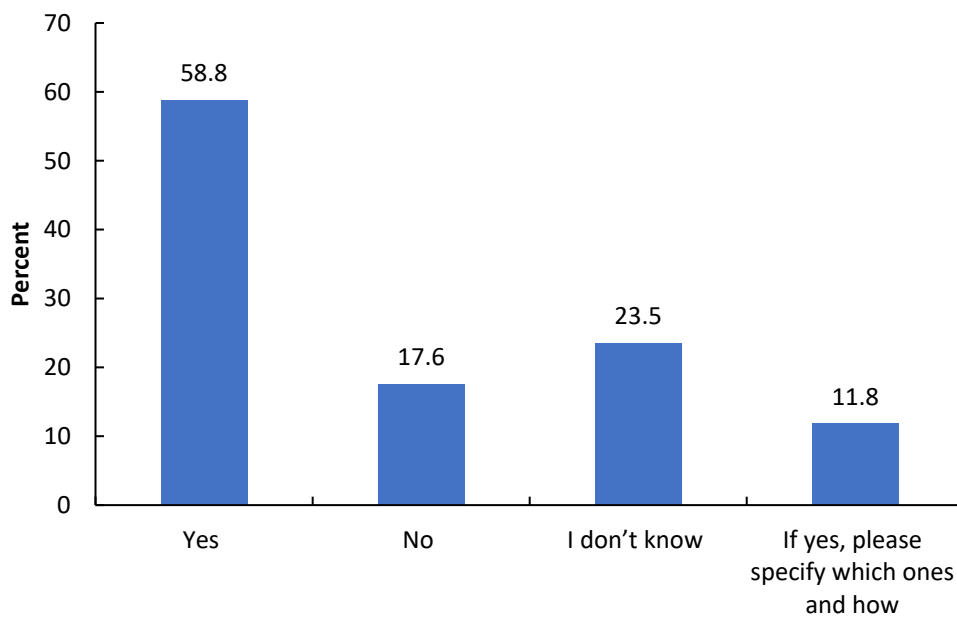
Figure 24: Types of jobs created by UCCE initiatives, %



Does your initiative allow users/providers to learn new skills?

Majority of survey respondents (58.8%) believe that Urban Circular Collaborative Economy initiatives in the Flanders help users learning new skills.

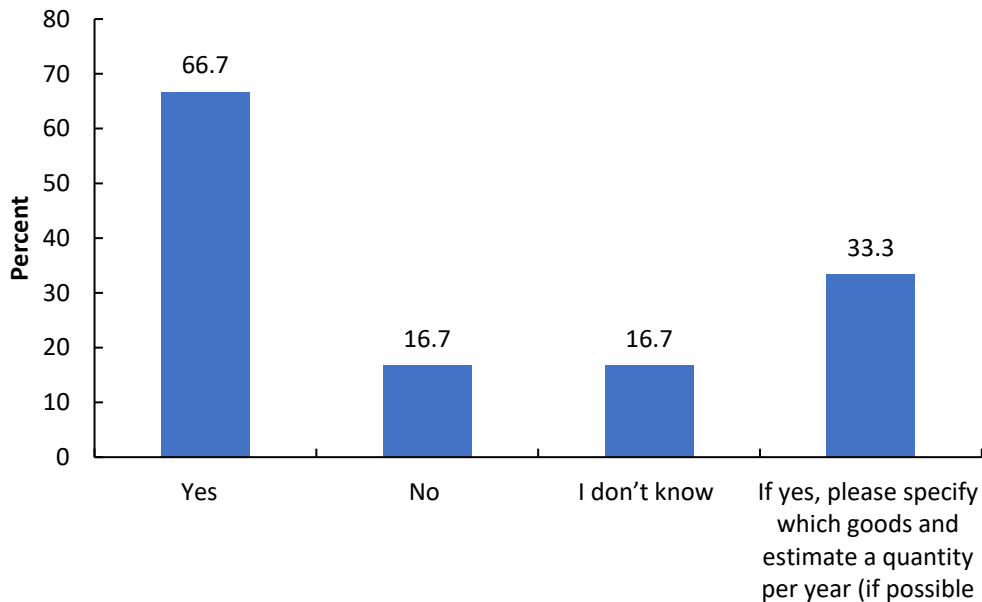
Figure 25: Impact on learning new skills, %



Does your initiative allow people to have access to goods/services they would not have access to otherwise?

Majority of survey respondents believes that Urban Circular Collaborative Economy initiatives allow access to goods/services that users would not have otherwise (66.7%).

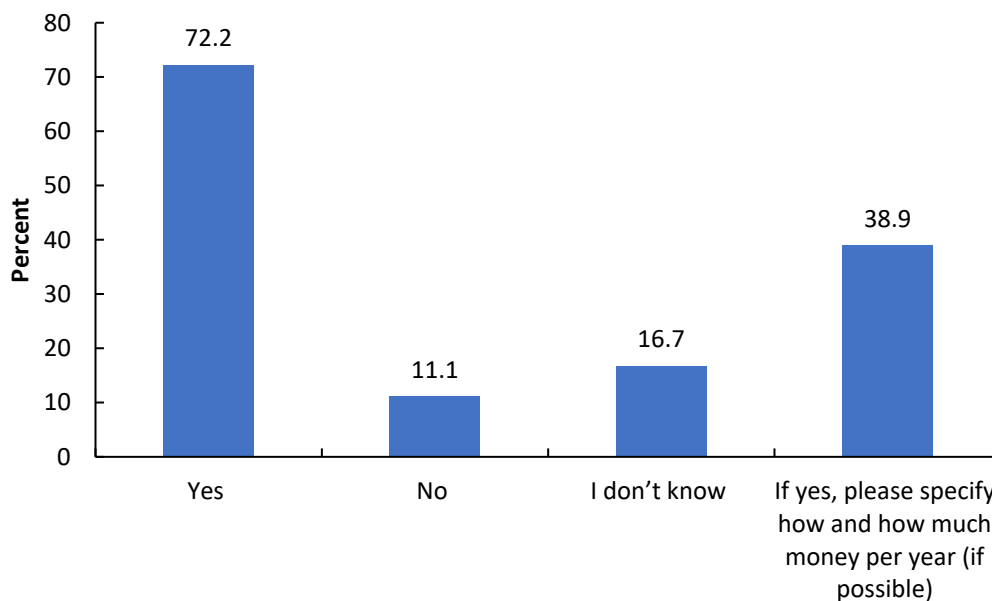
Figure 26: Access to new goods/services %



Does your initiative allow users to save money compared with what they would have bought in traditional markets?

72.2% of the survey respondents assess that Urban Circular Collaborative Economy initiatives in the Flanders contribute to the generation of savings of the users of the Urban Circular Collaborative Economy initiatives. 11.1% of the survey respondents claim that Urban Circular Collaborative Economy initiatives do not help generating savings of the users.

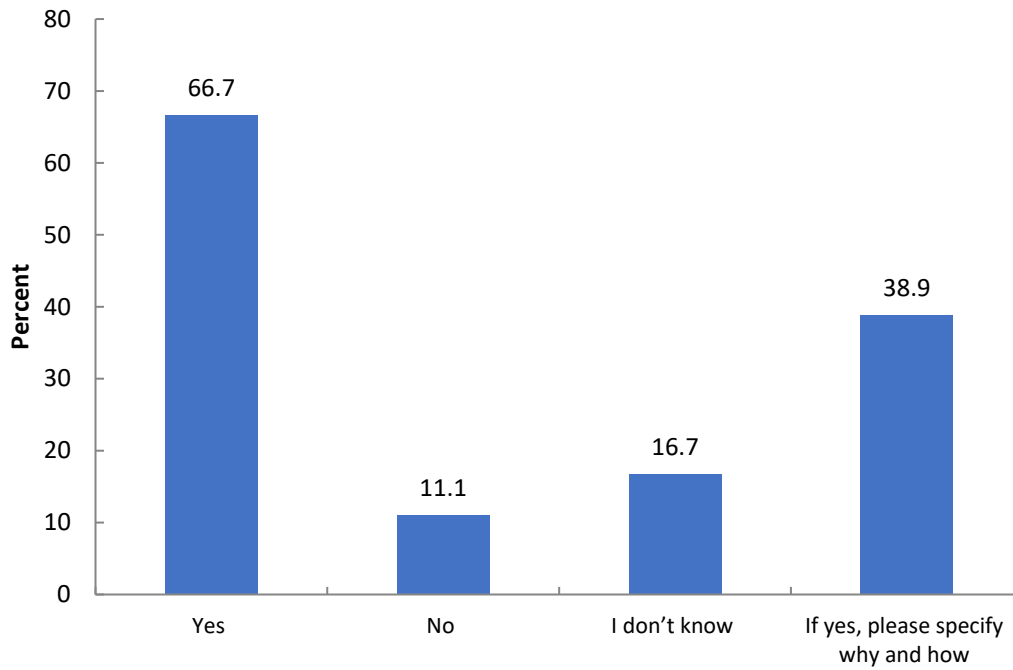
Figure 27: Impact on savings, %



Impact on social cohesion: Does your initiative allow neighbors/citizens to get to know each other better?

Majority of survey respondents (66.7%) believe that Urban Circular Collaborative Economy initiatives in the Flanders increase social ties among the users.

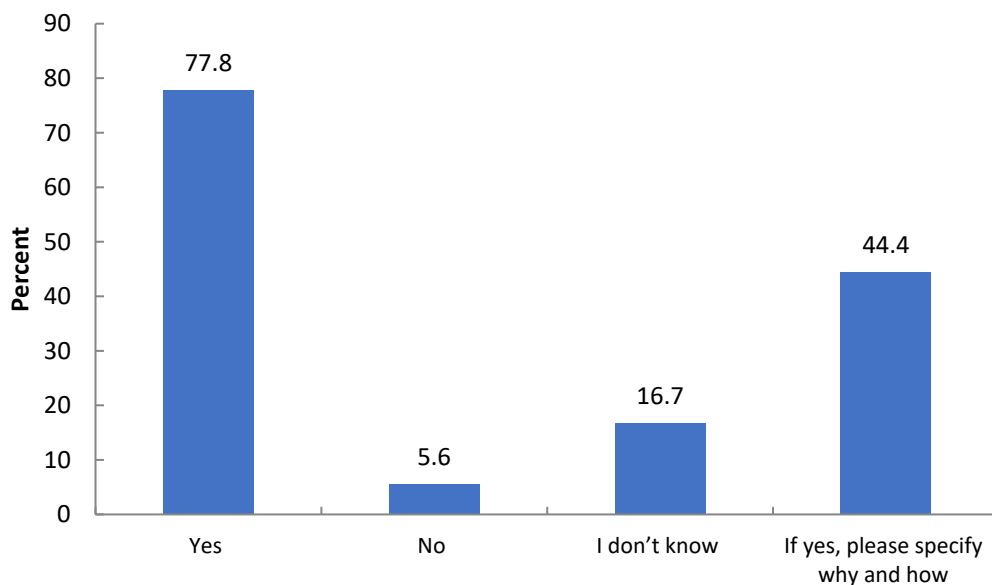
Figure 28: Impact on social cohesion, %



Impact on quality of life of citizens: Do you consider that your initiative increased the quality of life in your area?

Large majority (77.8%) of the survey respondents believe that Urban Circular Collaborative Economy initiatives in the Flanders contribute to the quality of life by increasing it.

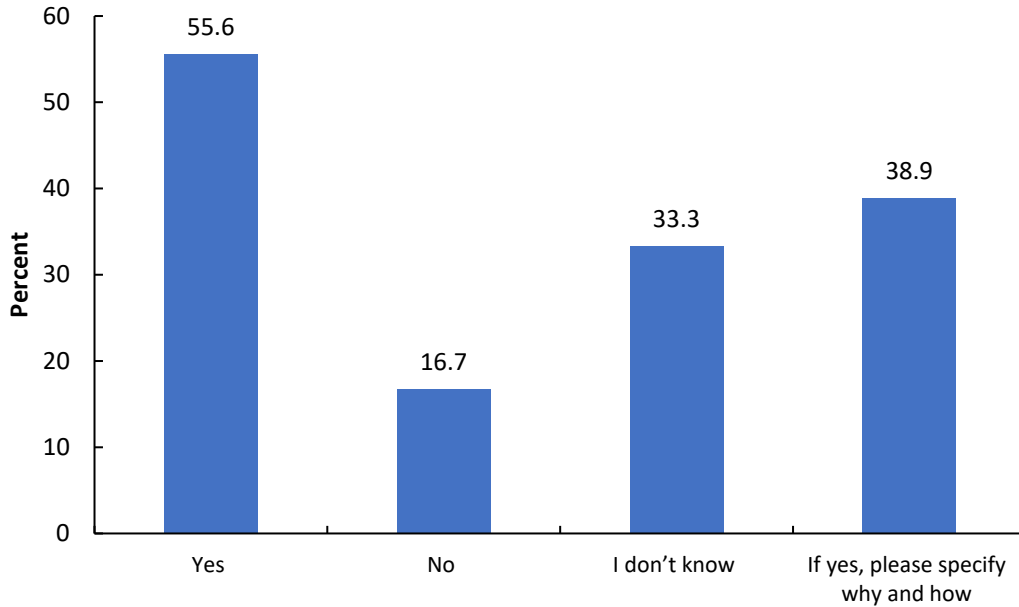
Figure 29: Impact on quality of life, %



Impact on health: Does your initiative has an impact on the health of citizens?

Majority of survey respondents (55.6%) believe that Urban Circular Collaborative Economy initiatives in the Flanders have a positive impact on the health of the citizens.

Figure 30: Impact on health, %



Impact on safety: Does your initiative has an impact on the safety of its users?

More than half of the respondents did not provide an opinion on the question. Among those that answered the survey question, majority believes that Urban Circular Collaborative Economy initiatives in the Flanders do not have an impact on safety. 11.1 % of respondents on the other hand believe that Urban Circular Collaborative Economy initiatives contribute to the safety of its users.

Figure 31: Impact on safety, %

