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Current situation of the expansion of the functional economy in the Brussels-Capital Region

État des lieux du déploiement de l'économie de la fonctionnalité en Région de Bruxelles-Capitale

Uitrol van de functionaliteitseconomie in het Brussels Hoofdstedelijk Gewest: een stand van zaken

Coline Ruwet, François Lohest, Roxane De Hoe, Kevin Maréchal, Coralie Muylaert, Géraldine Thiry and Philippe Roman

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EDITOR'S NOTE

In order to see the figures in a better resolution, go to the article online and click on "Original" below it.

AUTHOR'S NOTE

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Introduction

Since 2016, the Brussels-Capital Region has been committed to putting transition at the heart of its economic strategy. In this context, the functional economy (hereinafter the FE) is often considered an innovative model. In its generic sense, the FE is conceived as a set of business models through which the sale of the use and services related to a

product is substituted for the sale of the product itself [Bourg and Buclet, 2005; Van Niel, 2014]. Organisations no longer aim to sell as many products as possible, but rather to maximise the performance of the services they offer.

- The FE therefore combines a "service" approach, which is embodied by a value proposal based on the provision of an integrated solution and usage performance, and a "life cycle" approach aimed at closing material loops or shortening them, as well as eco-designing and maximising uses to increase the lifespan of products. This life-cycle approach makes the FE similar to the circular economy, which is a model generally considered to encompass the FE [Aurez and Georgeault, 2019].
- The specialised literature recognises a classification of product-service systems into three categories [Tukker 2004]: 1) "product-oriented" systems, which concern the traditional sale of products to which services are added. The consumer is the private owner of the product, which is "enriched" by these services (the sale of a car with a maintenance and breakdown assistance contract, for example); 2) "use-oriented", whereby the use of the product is sold. The organisation remains the owner of the product (e.g. open access cars). Customer satisfaction is intended to be achieved through access to use, and not to ownership [Beuren et al., 2013; Aurich et al., 2010]; and 3) "performance-oriented", whereby the organisation sells a result, and the product used as a medium for the performance remains its property. "Performance-oriented" product/service systems apply the most "accomplished" form of the FE. If we take the case of the car, the value proposal is extended to a mobility solution selling a service for transportation whatever the means of transportation used such as a mobility pass, in a mobility-as-a-service approach [Tucker and Tischner, 2006].
- Whatever the specific forms of the FE, this model is often considered very promising in terms of social and ecological transition, as it could contribute to dematerialising economic activities: the shift to a performance approach could lead to an extended lifespan of objects, by maximising uses through sustained maintenance and eco-design. The model would therefore decouple economic value from energy and material consumption and environmental impacts. However, the evaluation of the real impacts of the FE in terms of sustainability (e.g. in terms of the efficient use of resources) remains unclear [Mont and Tukker, 2006; Tukker, 2015; Roman et al., 2020; Roman et al., 2023].
- The variety of forms taken by the services which apply the model in many different sectors of activity may partly explain this lack of clarity. In recent years in the Brussels-Capital Region (hereinafter BCR) as in other large cities or regions, there has been an increase in the availability of open access mobility (scooters, shared bikes or cars, etc.), clothing hire (women's clothing, evening wear, etc.) and equipment hire of all kinds (do-it-yourself, household appliances, transportation, etc.), to name just a few sectors. However, these projects do not always have clear ecological benefits or sustainable economic results.
- In view of these observations, it seems appropriate to examine the way in which the FE is unfolding in BCR. This analysis involves a review of the institutional measures for supporting the FE in BCR and then, with a more evaluative purpose, the extent to which these institutional measures are adapted to the expansion of the FE in the region.
- 7 This article therefore proposes an exploratory and non-exhaustive diagnosis of the FE within the Brussels region. The aim is to show the diversity of applications of this

emerging model and to understand how the stakeholders make use of it. On the basis of this diagnosis, the article discusses the means of expansion of the FE, in a perspective of ecological and social transition.

The text is structured as follows. Section 2 sets the framework by explaining the method used for data collection and analysis. Section 3 discusses the FE from the perspective of its role as an innovative model in the regional policy strategy and the PREC in particular. Section 4 focuses on the analysis of organisations and presents an original review of the services available in the region, structuring them according to areas of need. The last section concludes with a discussion of the challenges for the future development of the FE in BCR from a sustainability perspective.

1. "Brufonctionnel": analysing the expansion of the functional economy in the Brussels region

- This article is based on some of the wealth of material accumulated over more than four years of research in the Brussels region conducted as part of the Brufonctionnel project (2018-2022). This project was aimed at studying the regional expansion of the FE from an interdisciplinary and ecosystem perspective. A total of eight organisations providing FE services in seven different sectors (clothing, tools, appliances, reusable depots, bicycles, furniture and miscellaneous items with a low frequency of use) and one public library were studied in depth. In addition, 58 semi-structured interviews were conducted with a variety of stakeholders related to the initiatives studied (interview duration of 30 to 90 minutes): entrepreneurs, employees, customers, suppliers, civil servants in environmental and business support departments, political staff in charge of the economy in Brussels, sustainability consultants, FE experts in support organisations/trade unions, representatives of the financial and banking sector in charge of developing green innovations, and academic experts. Finally, a focus group for the evaluation of the project's recommendations was organised with ten or so FE experts as part of the economic transition week (November 2021).
- This material is based on an essentially qualitative and inductive methodology, and is enhanced by the collection of more specific data. In order to contextualise the FE in BCR, a literature review was necessary (official public documents and websites), namely an in-depth reading of the many regional strategic plans which may affect the FE: the successive Regional Innovation Plans (PRI) of 2006, 2012, 2016; the Regional Plan for Sustainable Development (PRDD) 2018; the Industrial Plan (2019); the SME Plan 2016-2025; the Regional Policy Declaration (DPR 2015-2019 and 2019-2024); the Strategy 2025; the Regional Programme for a Circular Economy PREC (2016-2020); the Good Move Plan (2020-2030); the Resource and Waste Management Plan (PGRD 2019-2023) and the Shifting Economy Plan (2022-2030).
- The inventory of FE services is based on a census of the region as well as on a theoretical reflection regarding the criteria for the identification and classification of services. Methodologically, the services were identified in part through a continuous monitoring of initiatives carried out since the beginning of the Brufonctionnel research (January 2018 September 2021), via close and regular contact with the field. This contact was achieved by following current affairs in the FE and the emergence of new services as well as through formal and informal meetings with stakeholders directly

involved in the development of the FE in BCR. This monitoring allowed us to identify services which are "visible" in the public space or on the internet, because they are talked about in one way or another. We also consistently identified the organisations assisted by the support, financing and hosting structures for entrepreneurship in BCR. Finally, we consulted the list of circular economy initiatives in BCR developed under the impetus of the Chair of Circular Economy and Urban Metabolism¹ in order to find possible functional services which we may have missed.

The services identified as FE meet three conditions: they must be in keeping with a service approach, tend towards a certain degree of dematerialisation, and aim to substitute use for purchase [Roman et al., 2023]. The services identified were first classified according to their orientation (product, use or performance) [Tukker, 2004]. However, in line with our characterisation of the FE, which implies that the organisation retains ownership of the product, we chose not to keep the product-oriented services in the survey. We also characterised the services according to three other criteria: the target clientele (B2B, B2C or B2G)²; the legal status of the providers (which confers access to various types of financing and generates specific legal constraints) and the role of the FE in the business model of the organisation (exclusive or complementary model).

We then divided the services identified into different "areas of need". This classification is inspired by Manfred Max-Neef's basic human needs approach (Max-Neef, 1992) and the functional area defined as "an area where new integrated solutions can be conceived, produced and implemented" [ADEME, Vuidel and Pasquelin, 2017: 32]. Empirically, the idea of an "area of need" was defined on the basis of the different categories of activities established by hub.brussels in the framework of their leading role within the Brussels cluster in circular economy³. The analysis of the categories proposed by this cluster with regard to the basic human needs approach revealed an absence of significant areas of need such as "care" or "training". We therefore decided to add the latter to our framework of analysis. Table 2 lists the eight areas of need.

Table 1. Areas of need for which there are FE services in BCR

Needs	Related (economic) activities
Settling in (living in a place)	Building/construction, energy (heating, lighting), furnishings
Clothing	Textile production, clothing trade, childcare
Food	Agriculture, food trade, HoReCa
Transportation	Cars + motor vehicles, public transport, soft mobility - bicycles
Equipment	Trade in household appliances, DIY, computer equipment, video equipment, digital activities and digital
Care	Health care, personal services
Training	Culture, education, training

Entertainment	Events, sports, toys, video games
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2. Institutional adoption of the functional economy in the Brussels Region

- 14 Before listing the appearances of institutional adoption in Brussels, we examined the role of the FE in the various regional strategies. It must be noted that in BCR, the FE is not a structuring line of force of regional economic policy, unlike the circular economy (hereinafter CE), designed as the new paradigm to be adopted (see for example DPR, 2019).
- In the specific plan dedicated to the CE (PREC 2016-2020), the FE appears only as one of its components, which is illustrated by the strong presence of the service model in the Good Move 2020-2030 mobility plan. In this strategy, BCR builds on the principle of Mobility as a Service (MaaS) in order to pursue a mobility policy which serves the well-being of the citizens of Brussels. To a lesser extent, the service economy is mentioned as a way forward in the Regional Plan for Sustainable Development (PRDD 2018).
- Thus, the institutional adoption of the FE in BCR is limited to its being considered as a component of the circular economy. In the text of the PREC 2016-2020, the FE is defined in the annexe only as a transformation of the economic and value creation model of companies. The definition emphasises the creation of intangible resources which can go far beyond the needs of customers. These intangible resources can benefit the community in a more general way. The text also emphasises the capacity of the FE to offer renewed relations between companies and their customers, as well as between companies themselves and between companies and the public authorities, according to a cooperative ecosystem approach (for example, public-private partnership for the implementation of the Villo! bicycle-share system). The text also specifies that the "service-oriented" character of the functional services can contribute to a more local presence of the organisations and constitute fertile ground for the renewal of the Brussels economy. It emphasises the fact that support programmes must be put in place to assist companies and their managers, as the specificities of the FE model require profound changes in organisational practices.
- However, these recommended changes are not being implemented. While providers are working to meet many of the needs of Brussels residents by proposing a functional model, and the number of FE services in BCR is significant, little "specific work" on this model is being carried out by institutional (public administrations and ministerial offices), support and financing stakeholders. To our knowledge, the adoption of the model and the spreading of its principles within organisations, whether public or private, is not part of the measures implemented. For example, in terms of support, we have identified only one stakeholder Immaterra. which has made FE support an explicit and central part of its mission. However, its activities have always been oriented mainly towards the transition of large and medium-sized companies to the FE and have taken place more in the Walloon Region.
- This lack of activity and results in terms of support in BCR can also be seen in the attempts to spread the model and provide FE training. The Union des Classes Moyennes

(UCM), in partnership with a higher education institution, wanted to launch a distance training programme on sustainable economic models (including the FE), but this programme did not receive the necessary support in order to materialise in a lasting way⁶.

Following our exchanges with the stakeholders concerned – in particular the public stakeholders which supported the implementation of the PREC – it appears that there is a better awareness and understanding of the FE than before the PREC. However, the FE remains hidden behind the CE and the many public support mechanisms which the latter benefits from. It is therefore difficult to assess whether the reference to the FE in the PREC has led to a greater cultural integration of this model. Furthermore, the midterm evaluation of the PREC (2019) does not present any results directly related to the FE.

3. Expansion of the functional economy in the Brussels-Capital Region

- As we have just seen, from an institutional point of view, there does not seem to be any cross-cutting adoption of the FE. However, this does not mean that there are no FE services in the Brussels region. On the other hand, there are still very few of these services and they are distributed in a disparate manner along a range of dimensions (depth of the FE, types of customer, legal status, role of the FE in the business model), which we believe limits their potential for transition.
- By proposing an inventory of FE services classified according to areas of need, we intend to highlight the diversity of needs which the FE could meet and to contrast this potential with the number and type of services actually present in the Brussels region in each area.
- The number of services listed amounted to a little over one hundred in 2021 (among 110 825 companies, including 12 241 which were newly created during the year)⁷. This census is not exhaustive, especially due to its constant evolution, but we believe that the general information we draw from it is telling. The first observation is that the model is neither rapidly expanding⁸ nor very well known. The entrepreneurial projects led by a few people who are convinced of the relevance of the FE set the pace for the development of the model.
- The second observation is that the areas of need are unevenly represented, with an especially large number of FE services in mobility, equipment and clothing compared to the other areas of need.

Table 2. Number of FE companies listed by area of need

Needs	Number of companies for each area of need (non-exhaustive list)
Settling in (living in a place)	6
Clothing	10

Food	6
Transportation	17
Equipment	15
Care	5
Training	> 80
Entertainment	>40

- The third observation is that there is a diversity of projects within each area in terms of business models, forms of organisation, main targets and legal status. However, the model seems to concern some needs in a more historical or structural way, with a certain anchoring in mentalities, such as the availability of libraries (which we shall discuss further) and their associated services in the field of access to culture and education/training.
- 25 A review of each area of need allows us to refine these general observations.
- Settling in In general, the number of services is quite small (6 services identified, see Table 3), especially as several of the services identified are difficult to classify in the FE or not. This is the case for strictly property services; the debate is open concerning the "functional" character of certain innovations, such as co-living, which targets the younger generations and proposes to substitute the rental of dwellings including a whole range of related services (internet, furniture, household appliances, etc.) for the purchase of a house or an apartment. There are also services in the energy sector, with only one performance-oriented service (in B2B and B2G). This is a striking observation, as the energy performance services have a strong potential for a useful impact on the region in terms of improvement and reduction of energy consumption.

Table 3. "Settling in" FE services in BCR

Organisations/solution name	Functionality orientation			Custom	er catego	ory	Status	s			Role in the organisation		
	Prod*	U*	Perf*	B2C	B2B	B2G	SA	SPRL	Coop	ASBL	Natural person	Exclusive	Complementary
MODS		x			x		х	х					x
DCARBON Ecothermis - Low Carbon Heating-as-a-service			x		x	x		x				x	
EnergyVision Brusol			x	x	x	x	x						х
Comensia			x	x					x				
Community Land Trust Bruxelles		x		x			x			x		х	
OurCrib		х	x	x			х					x	
Lumency	х			x				x					x

^{*} Prod = Product, U = Use, Perf = Performance

Clothing – About ten services were identified, mostly in B2C (see Table 4). Some services have been present for a very long time in specific segments such as evening wear (dinner jackets and tails). New services are emerging, especially for women's clothing, leading to a mixed situation in the field between bankruptcy and long-term sustainability. This finding confirms that clothing is a sector in which FE-type proposals are taking hold but that the model remains fragile from an economic point of view. The childcare segment – part of which can be classified in this area – is also emerging, with washable/reusable nappy services, for example.

Table 4. "Clothing" FE services in BCR

Organisations/solution name	Functio orientat			Custom	er catego	ry	Status					Role in the organisation		
Organisations/solution name	Prod	U	Perf	B2C	B2B	B2G	SA	SPRL	Coop	ASBL	Natural person	Exclusive	Complementary	
Be Selective		x		x				х				x		
Ecobabies		x		x				х				x		
Les Châtelaines		x		х				х					х	
La Maison de Maîtres	х	x		х			х						х	
John Kennys		x		х			х						х	
TaleMe			x	х			х					x	х	
Coucou		x	x	х				х					х	
Bébéco		x	x	х							x	x		
Snappies			x		x			х				x		
Juke Box		х	х	х				х				x		

Prod = Product, U = Use, Perf = Performance

Food – Six services are identified as being related to the FE (see Table 5). The first products concerned (food) do not lend themselves to functionalisation. This is less obvious if we look at the production/transformation component, where B2B is possible as well as B2C. In these cases, different FE-type models are possible, such as the sale of production shares and all of the intangible resources and services which accompany this type of agriculture system supported by the community; the sale of the use of a professional kitchen and a range of associated services; or the sale of the use of reusable depots for takeaway food, combined with the logistical services of pick-up and cleaning.

Table 5. "Food" FE services in BCR

Organisations/solution name	Function			Custom	er catego	ry	Status			Role in the organisation			
Organisations solution name	Prod	U	Perf	B2C	B2B	B2G	SA	SPRL	Coop	ASBL	Natural person	Exclusive	Complementary
Up! ASBL/Life is Wonderpoule			x	x	x					x		x	
Coopérative du champ des Cailles			x	x					х				х
Tomato Chili		x		x				x					х
Urban Farm Company SA/Peas and Love			x	x			х					х	
Bons Plaisirs/Be Cook		x		x				x		x		x	
Swap Eat		х	x		x		x				х	x	

Prod = Product, U = Use, Perf = Performance

Transportation - There is a strong presence of mobility services in the inventory (17 services identified, Table 6). The services are mainly B2C. First of all, there are separate services for different "products" - bicycles, scooters, cars - which are often electric. The services are mostly use-oriented rather than performance-oriented. We also see that the electric scooter, bicycle and even car-sharing services are often the initiative of existing organisations which develop these shared mobility services in addition to their other activities, even if they create a separate legal entity dedicated exclusively to their FE service (see, for example, the case of Decathlon and the We Play Circular¹⁰ cooperative, which has been experimenting with sports equipment for hire since 2020). The revenue models adopted are diverse, without there being a main approach. There are services with and without memberships; most often, payment is by the minute and, to a lesser extent, by the kilometre; flat fees are rare; insurance and breakdown services are generally included, especially in the case of private access services (which are more performance-oriented). Finally, one service is clearly designed as a mobility solution with a "mobility package" proposal for companies wishing to replace the company car benefit¹¹ with a multimodal and service-based alternative. In this case, a "mobility budget" is offered to employees, allowing them to juggle between shared cars, shared bicycles and public transport, for example. Unlike user-oriented services, it exists in B2B and not in B2C.

Table 6. "Transportation" FE services in BCR

		Functionality orientation			er categoi	у	Status					Role in the organisation	
Organisations/solution name	Prod	U	Perf	B2C	В2В	B2G	SA	SPRL	Coop	ASBL	Natural person	Exclusive	Compl
Cycad/Bikefreedom			x	х	х						x	x	
Les ateliers de la rue Voot/Un vélo pour 10 ans		x		x						x			x
Optimobil Belgium/Cambio		x		x	x		x					x	
Billybike		x	x	x			x					x	
Ubeeqo/scooty		x	x	x				х				x	
Fietsbieb/Vélothèque/Bike Library		x		x						х		x	
d'Ieteren/Poppy Mobility		x	x	x	x		х					x	
JCDecaux Belgium/Villo		x		х			х					x	
Blue Mobility/Blue Bike		x		x	x		x					x	
Bruxelles en Selle! /Monkey Donkey/Velo cargo Bike Sharing		x		x						x		x	
TakeWheels		x		x			x					x	
Lime		x		x			х					x	
Felyx Brussels BVBA		x		x				x				x	
Dott		x		х			х					x	
Uber		x		x	х		х					x	
d'Ieteren/My move			x		х		х					x	
Decathlon/D-Rent			x	х			х						х

Prod = Product, U = Use, Perf = Performance

30 Equipment – Providing equipment to individuals and/or organisations seems to lend itself well to the FE (15 services identified, in B2B and B2C, Table 7). There is indeed a wide variety of products which can be offered according to this model, ranging from occasional use (e.g. DIY equipment) to daily use (e.g. coffee machines). Object-libraries have been appearing gradually in the Brussels region. Most of the time they opt for social enterprise models (cooperatives, ASBLs), even if a DIY "equipment hire" niche has been occupied for quite a long time by large retailers, in particular DIY chains. Furthermore, the mobile telephony and IT sector – mainly in B2B – is an interesting fertile ground for moving towards a FE model. For example, the main internet and telephone service providers are developing B2B products and services associated with their use, via subscription plans.

Table 7. "Equipment" FE services in BCR

Organisations/solution name	Function			Custome	er categor	у	Status					Role in the organisation	
Organisations/solution name	Prod	U	Perf	B2C	B2B	B2G	SA	SPRL	Coop	ASBL	Natural person	Exclusive	Compl.
Babytheek		x		x	x					x		x	
iClinique/Re.lease			x		x			x				x	
Fnac/Pass Fnac Location		x		x			х						x
Proximus/Engage Pack		x			x		х						x
Javry			x	x	x			x				х	
Usitoo		x		x	x				x			x	
Tournevie ASBL		x	x	x						x		x	
Locamat		x		x			x					x	
Brico - Brico Plan it		x		x	x		x						x
Loxam		x		x	x		х					х	
Boels Rental		x		x	x		х					x	
Festirent		x		x	x			x				x	
Mon cafetier SPRL			x	x	x			x				x	
Fais-le toi-même			x	x						x		x	
Konligo		x	x	x	x			x					х

Prod = Product, U = Use, Perf = Performance

Care – With regard to the services identified, this area of need appears to have been linked to the FE model for some time, although the number of services identified is not fixed. An exhaustive survey is very restrictive in methodological terms (especially in the case of pharmacies with services associated with the FE) and does not provide any additional information to enrich the content of the diagnosis (5 identified services offered by mutual insurance companies, which can also be offered by pharmacies, Table 8). The services identified which offer the use of health equipment are oriented towards a social and, in principle, non-economic purpose. The FE model seems to have been a natural choice for these services, as medical equipment is often used only for a limited time; the cost of this equipment is also significant. This is a B2C service.

Table 8. "Care" FE services in BCR

Organisations/solution name	Function	Functionality orientation			Customer category				Role in the organisation				
	Prod	U	Perf	B2C	B2B	B2G	SA	SPRL	Coop	ASBL	Natural person	Exclusive	Compl.
Croix-Rouge		х		х						х			x
Proximité santé/Qualias		х		Х						х			x
Mutualité socialiste/Aide à domicile ASBL		x		x						x			x
Mutualité libérale/Cosedi ASBL		x		х						х			x
Pharmacies		х		Х			NA	NA	NA	NA			x

Prod = Product, U = Use, Perf = Performance

- Training Libraries are obviously the emblematic service in this area of need and make it the area with the most service offers. There are several libraries in each of the 19 municipalities of Brussels (about 60 French language¹² and 20 Dutch language¹³ libraries). In addition to these general and local libraries, there are also specialised libraries (e.g. the Royal Library of Belgium), libraries associated with the various museums and those of the universities and higher education institutions in the city. Cultural centres and foreign embassies also have collections sometimes in foreign languages available for loan¹⁴. Due to the multiplicity and uniformity of these services, we have decided not to detail them in a summary table.
- Beyond their specificities, these organisations embody a vision of the FE mainly with a "use" and "performance" orientation in a B2C approach. The intangible and service dimensions have been strengthened over several years (socialisation activities and activities involving other dimensions of culture, according to the neighbourhoods and target audiences), which is reflected in the new missions of libraries such as events and educational activities with certain target audiences (elderly, young children, etc.), or in partnerships with schools. By organising art exhibitions, plays, concerts, etc., some libraries become true places of socialisation within their neighbourhood. They also take action against the digital divide by providing computers or tablets, for example. In other words, from a use-oriented FE approach (the lending of books), libraries have become increasingly performance-oriented, as illustrated by the decree of 30 April 2009, which brings about the transition from a lending institution centred on making its collections available, to a library/project centred on the cultural needs of the populations in an area¹⁵.
- Entertainment The media libraries (now called "Point Culture") and games libraries are the main services here. Like libraries, the mission of media libraries has been transformed in recent years as a result of the decline in physical media for sound and images as well as the development of the digital market with the arrival of platforms such as Netflix and Spotify. Since 2010, the main activity of creating audiovisual collections and lending media (essentially a "use" orientation) has gradually given way to other more intangible and service-oriented activities such as education and cultural mediation, the promotion of musical and audiovisual heritage, and cultural outreach and promotion¹⁶. Today, there are still four media libraries physically present in Brussels. As for games libraries, the COCOF Centre de Ressources Ludiques (Ludeo) lists some 40 organisations in BCR. Given their large number and relative uniformity, they are not presented in a detailed table¹⁷.

Conclusion

- How is the FE integrated institutionally in BCR? And how is it actually implemented in Brussels? Our exploratory study reveals that the FE still has only a marginal presence, both institutionally and numerically in the economic fabric of Brussels.
- At institutional level, we have highlighted a certain invisibility of the FE model within the Brussels economic landscape. Our hypothesis is that this invisibility can be explained although this would need to be backed up by future research by the fact that the FE is often confined to a simple business model, and most of the time as an adjunct to the CE. Of course, the FE is "part of" the CE, conceptually and institutionally

(according to the texts of the PREC 2016-2020). However, the relevance of this hierarchy between the CE and the FE is questionable. The specificities of the FE – including the break with the purchase of products – call for transformations of the practices of organisations as well as regions, which cannot be reduced to the transformations carried out in the framework of a transition to the CE.

As regards the initiatives identified in the Brussels region, we see that they are few. The fact that there is not much political investment in the FE in BCR and that it suffers from a certain invisibility may partly explain the low number of FE services. Furthermore, most small and medium-sized organisations which use the FE as their primary business model remain economically fragile.

In view of these observations and in a perspective of regional transition, it seems to us that the initiatives which strive to apply the FE in the most sustainable way possible should be protected and/or supported while they improve their model. No longer merging the FE with the CE would allow more room for this model and a deeper investigation of its potential benefits for the region. We can see the beginnings of such an approach in the field of mobility (with MaaS), even if there is still a gap between the ambition of MaaS and the capacity of current services to provide usage performance likely to prompt people to abandon individual car ownership. In any case, the following idea should be retained from this example: the FE model should be worked on in order to find (a) solution(s) to specific issues within the region.

In order to do so, it is necessary to have sufficient knowledge and objectivity regarding the viability of the FE model, from a socio-economic, financial and sustainability point of view. Many studies [see for example Ceschin, 2014; Naber *et al.*, 2017; Seyfang and Longhurst, 2016] have shown that the implementation of innovative models requires being able to rely on specific knowledge, which must be acquired following cycles of experimentation and learning, conducted by and with stakeholders capable of mobilising resources to capitalise on this knowledge and generate larger transformations and changes of scale. Yet this knowledge – in particular on the production conditions of innovative models, their adoption and their use by the stakeholders concerned – is lacking in the case of BCR.

Thus, in order to give careful thought to the ecological and social transition in BCR, it would seem relevant and necessary to make more room for the FE model and its principles and to give them more visibility by creating an opportunity to "work on" the model as well as its virtuous links with that of the CE. This "opportunity", which can be both physical and legal, should allow economic stakeholders to experiment with the model and evaluate its effects in terms of sustainability, create a common vision and thus define the directions for the implementation of this model. This would make it possible to capitalise on the experiences (in Brussels and elsewhere) in the CE and the social economy in order to move towards a strong sustainability of the economic fabric. This would also allow us to give careful thought to economic models which are not only functional but also in a short supply chain and in keeping with eco-design, reuse, etc., responding to social issues and sustainable regional integration.

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NOTES

- 1. https://sites.google.com/site/circularmetabolismcommunity/home
- **2.** A B2B (Business to Business) service is aimed at companies, a B2C (Business to Consumer) service is aimed at consumers and a B2G (Business to Government) service is aimed at the public authorities.
- 3. https://www.circlemade.brussels/, last accessed in November 2022.
- **4.** The measures implemented within the framework of the first PREC between 2016 and 2020 had some direct effects (funding via calls for projects, support, etc.). But these effects of the PREC for the FE are very limited, as the circular economy is targeted (reuse, recycling, short supply chain).
- 5. https://www.immaterra.com/
- **6.** See http://www.circulareconomy.brussels/lucm-et-lecam-proposent-un-mooc-sur-les-modeles-economiques-durables/, accessed in August 2021.
- 7. See BCR key figures https://ibsa.brussels/chiffres/chiffres-cles-de-la-region, accessed in August 2021. Note that the majority of these companies (96 %) have less than 10 workers.
- **8.** During the course of our research project, some emblematic companies of the FE in Brussels experienced significant difficulties due to the specificities of their business model.
- **9.** As detailed below, the "training" and "entertainment" areas were not the object of a precise count.
- 10. https://www.circulareconomy.brussels/we-play-circular_we-play-circular/
- **11.** It should be noted that traditional car leasing services (company car and personal leasing) are not included in the inventory for reasons of non-compliance with strong sustainability. These practices create overconsumption and overproduction of private vehicles.
- 12. See https://biblio.brussels.
- 13. See https://brusselsebibliotheken.bibliotheek.be/adressen, accessed in August 2021.
- **14.** These alternatives are presented at: https://be.brussels/culture-tourisme-loisirs/culture/bibliotheques-mediatheques.
- 15. See https://bibliotheques.cfwb.be/ressources/legislation/.
- **16.** For an overview of the new "Points Culture" mission, see https://www.pointculture.be/a-propos/qui-sommes-nous/, accessed in August 2021.
- **17.** This inventory is available at: https://ludeo.be/ou-jouer-a-bruxelles/, accessed in August 2021.

ABSTRACTS

Since 2016, the Brussels-Capital Region (BCR) has been committed to putting transition at the heart of its economic strategy. Among the promising economic models is the functional economy (FE), whereby the sale of the use of a product is substituted for the sale of the product itself. It has several virtues in terms of sustainability. By retaining ownership of goods, companies would be encouraged to choose sustainable products. Making the same product available to different users would limit the quantities produced. The FE also serves as a catalyst for the local presence of production and consumption systems. Yet, in BCR, the FE model remains little known, poorly understood and is having trouble unfolding. This article - which is the result of four years of research on the FE in BCR - has three objectives: 1) it provides an original overview of the current state of the FE in BCR and the diversity of needs which the FE could meet; 2) it analyses the institutional measures for supporting the FE in BCR; and 3) it questions the balance between the institutional measures for supporting a sustainable economy in BCR and the expansion of the FE in the region. This exploratory study shows that the FE still has only a marginal presence in institutional terms and in the economic fabric of Brussels. It would therefore seem appropriate to make more room for the FE model, by creating areas for economic stakeholders to experiment with the model and evaluate its effects in terms of sustainability, build a common vision and determine the directions for its expansion.

La Région de Bruxelles-Capitale (RBC) s'est engagée, depuis 2016, à mettre la transition au cœur de sa stratégie économique. Parmi les modèles économiques prometteurs figure l'économie de la fonctionnalité (EF), par laquelle la vente de l'usage d'un bien est substituée à la vente du bien luimême. Plusieurs vertus lui sont attribuées en matière de soutenabilité. Ainsi, la rétention de la propriété des biens par les entreprises inciterait ces dernières à choisir des produits durables. La mise à disposition d'un même bien pour divers usagers limiterait les quantités produites. L'EF catalyserait aussi l'ancrage local des systèmes productifs et de consommation. Pourtant, en RBC, le modèle de l'EF reste encore peu connu, mal compris et peine à se déployer. C'est pourquoi le présent article, issu d'une recherche de 4 ans sur l'EF en RBC, poursuit trois objectifs : 1) il dresse un panorama original de l'état actuel de l'EF en RBC et de la diversité des besoins auxquels l'EF pourrait répondre ; 2) il analyse les dispositifs institutionnels de soutien de l'EF en RBC, et 3) il s'interroge sur l'adéquation entre les dispositifs institutionnels de soutien à une économie soutenable en RBC et le déploiement de l'EF dans la Région. Il ressort de cette étude exploratoire que l'EF est encore peu présente, tant institutionnellement que dans le tissu économique bruxellois. Il semblerait dès lors pertinent de donner davantage de place au modèle de l'EF, en créant des espaces permettant à des acteurs économiques d'expérimenter le modèle et d'en évaluer les effets en termes de soutenabilité, de construire une vision commune et de définir les trajectoires de son déploiement.

Sinds 2016 verbindt het Brussels Hoofdstedelijk Gewest (BHG) zich ertoe om de transitie centraal te stellen in zijn economische strategie. Een van de veelbelovende economische modellen is de functionaliteitseconomie (FE), waarbij de verkoop van het gebruik van een goed in de plaats komt van de verkoop van het goed zelf. De FE zou verschillende voordelen op het vlak van duurzaamheid bieden. Zo zou het feit dat bedrijven eigenaar van de goederen blijven hen stimuleren om voor duurzame producten te kiezen. Door eenzelfde goed ter beschikking te stellen van verschillende gebruikers, zou er ook minder van geproduceerd worden. Bovendien zou de FE werken als katalysator voor de lokale verankering van productie- en

consumptiesystemen. Toch is het FE-model nog altijd amper bekend in het BHG. Het wordt verkeerd begrepen en heeft het moeilijk om zich verder te verspreiden. Dit artikel, dat voortvloeit uit een vierjarig onderzoek naar de FE in het BHG, streeft dan ook drie doelstellingen na: 1) het biedt een huidige stand van zaken van de FE in het BHG en van de uiteenlopende behoeften waaraan de FE zou kunnen voldoen; 2) het analyseert de institutionele voorzieningen ter ondersteuning van de FE in het BHG; en 3) het zet vraagtekens bij de onderlinge afstemming tussen enerzijds de institutionele voorzieningen ter ondersteuning van een duurzame economie in het BHG en anderzijds de verdere uitrol van de FE in het Gewest. Uit deze verkennende studie blijkt dat de FE nog altijd maar beperkt aanwezig is, zowel op institutioneel vlak als in het Brusselse economische weefsel. Het lijkt dan ook relevant om meer plaats te geven aan het FEmodel, door ruimten te voorzien waar economische actoren met het model kunnen experimenteren en de effecten ervan op het vlak van duurzaamheid kunnen beoordelen, een gemeenschappelijke visie kunnen opbouwen en de trajecten voor de verdere uitrol van de FE kunnen uitstippelen.

INDEX

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