

How to support the deployment of a sustainable economy of functionality in the Brussels-Capital Region?

Key messages

The economy of functionality (EF), which aims to replace the sale of a good with access to the functions that this good can perform, breaks away from the well-established culture of purchase and ownership and therefore comes up against significant psychological, cultural, administrative, economic, and structural obstacles. EF is a business model that is generally little known and not clearly defined. B2C companies operating according to the EF in the Brussels Region struggle to ensure their economic viability due to a lack of demand and difficulties inherent in moving goods back and forth within the company. Contrary to what is often assumed, EF is not sustainable in itself and requires certain conditions to make an effective contribution to the social and ecological transition that the BCR is promoting. Brussels public stakeholders can play an important role in the deployment of a sustainable EF through various means that we identify in our research.

Introduction

For several years now, the Brussels-Capital Region (BCR) has been aiming to lead the transition of its economy towards greater sustainability (PREC, 2016; Be Circular, 2021). The relevant fields of action for this include the deployment of the economy of functionality (hereafter EF). This economic model is often praised for its economic. social and environmental virtues. By moving away from the approach of selling material goods and towards the provision, in the medium or long term, of services or 'solutions' that meet customers' needs, this model is likely, under certain conditions, to dematerialise the economy and generate greater cooperation between stakeholders in a territory, sector or market.

While the model seems to have found the key to its viability in several large companies that apply (in full or in part) functionality in B2B (Xerox, Michelin, etc.), the EF nevertheless struggles to grow among SMEs in B2C (which constitute a significant part of the economic network in Brussels). The challenge for the BCR is therefore to understand the reasons for the difficulty in scaling up its EF and the conditions under which the deployment of the EF would effectively contribute to more sustainability.

Methods, approaches and results

To understand the opportunities and obstacles to the deployment of the EF within a territorial perspective, we have carried out:

- an extensive literature review that includes the many definitions of the EF, what distinguishes it from other models, EF practices, and the obstacles and opportunities already identified.
- three in-depth case studies of organisations in three sectors: clothing, interior design, and community library.
 For these case studies, we conducted 46 interviews with specialists, key stakeholders, and users as well as one focus group based on three prospective scenarios and six participant observations in the library.
- four user-oriented workshops in four sectors (clothing, library, mobility, objects/ tools) and a questionnaire survey (n = 814).
- the analysis of a number of regional economic plans based on ten or so semistructured interviews and document analysis, the monitoring of EF supplies on offer, the follow-up of a "cluster" in the reusable food deposit sector, and a workshop with key EF stakeholders in BCR to receive feedback on some of our results and recommendations.

Main results

In general, the specific characteristics of the EF – which, among others, include establishing a long-term relationship with the customer, breaking away from ownership, and raising logistical difficulties – make the success of EF supplies much more difficult than for the supply of «standard» sales. The effort required and the obstacles to be overcome by EF providers to find economic viability are considerably higher.

Among the main difficulties observed, we find that providers struggle to identify consumer needs and design a price structure that is both profitable and attractive. They have to prove that the total cost of the offer is economically more advantageous and they need to have an impeccable after-sales service. However, many consumers are still attached to ownership, are not very familiar with EF, and tend to compare the cost of an EF supply to that of a sales supply (which is not really comparable due to its different nature), often to the detriment of EF. In addition, choosing for an EF supply in a cultural context where purchasing practices dominate can be experienced as a source of significant effort for consumers, as it involves an increased mental load to manage the subscription, the

withdrawal/return of the good, costs related to the search for the availability and location of the good. A number of fears slow down the demand: fear of the unavailability of the good; fear of making a long-term commitment to the supplier in an uncertain environment; reticence regarding the hygiene or safety of goods used by others. This means that the EF supplies being developed today remain economically fragile.

The EF offers would therefore benefit from being better known, better understood, and better supported in the territory. However, for the time being, the EF remains little-known, both by institutions and the economic network of Brussels. The preponderance of circular economy (CE) as a model for the BCR's economic transition has a lot to do with this invisibility. Although the EF and CE are linked, they are distinct. Linking them better and recognising the uniqueness of the EF model could lead to greater efficiency in the use of resources as well as to more sustainability in the BCR.

Conclusions

There are many major obstacles to the expansion of the EF in the BCR. For EF companies, these are: deploying a great deal of energy to convince potential customers of the relevance of the supply, its economic attractiveness, and its originality compared to the supply of 'standard' sales. While some of the barriers to changes in consumption practices are rather superficial and can be overcome by proposing a more attractive supply, others are deeper and require a change in the social order in which the usual practices are embedded. This cultural and structural change must be instilled, supported, and accompanied by the Region. The Region has a key role to play, as an exemplary

stakeholder in the EF, as a driver of EF experimentation, and as a provider of integrated solutions in specific spheres of need. It is also essential that the EF deployed on the Brussels territory meet social and environmental sustainability requirements. The sustainable EF framework we are proposing is intended to contribute to this.

Policy recommendations

1. Adopt a sustainable economy of functionality (SEF) framework

The sustainable EF (SEF) framework is an essential foundation of the other recommendations for two reasons. Firstly, it outlines the contours of a sustainable EF where, at present, there is no consensual and shared definition of the EF or its sustainability conditions. Secondly, if the BCR - in particular through the Regional Economic Transition Strategy (RETS) - wants to support the deployment of the EF, it is important that this economic model meets the requirements of an ecological and social transition. To this end, this framework is constructed normatively as an ideal of sustainable EF to strive for.

There are many potential uses of this framework. It can provide criteria for identifying Brussels SEF supplies. It could also define the conditionality for granting public aid (subsidies, support, etc.) to companies in the framework of the RETS.

Our research has allowed us to develop this scientifically coherent and empirically grounded framework. We are submitting it to the Region, in the form of a "White Paper" that is available on the Brufonctionnel website.

2. Make the Region a key player in the SEF by setting an example and practising the EF

There are several ways in which the Brussels public authorities can play a leading role in the deployment of the SEF in the BCR. The first of these would be for the BCR to practise **EF** within its own administrations. **Practically** speaking, public administration buildings could, for example, switch to an EF offer based on the purchase of global energy performance (solution-oriented EF) or use small appliances (e.g. coffee machines) functionally. To do this, it is important that public procurement is adapted to allow this type of contract. This would produce a strong signal of support for EF supplies and allow for experimentation. In doing so, the Region would be setting an example for the EF. In addition, practising the EF in a professional setting would help to familiarise administrative staff with this model through experimentation and could provide leverage for the practice of the EF beyond the professional context (see recommendation 4).

3. Integrate sustainable EF and non-EF supplies that meet the same need within a territorial plan

The Region could facilitate the deployment of sustainable EF on the territory by creating integrated territorial plans. For well identified needs, it would be important to adopt a course

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of action to catalyse change through the implementation of a territorial plan such as MaaS (Mobility as a Service) in the mobility sphere. MaaS consists of an integrated system (often in the form of a web application) that allows the collection of information and the booking, purchase and validation of a transport ticket combining several mobility services (public transport, taxi, shared cars, shared bikes, etc.). This system is based on existing offers in the regional territory.

This mobility example can be replicated in other spheres of need such as clothing, housing, food, equipment, care, training and entertainment. Change management would be carried out while respecting and controlling the sustainability requirements. More fundamentally, such integrated plans would link EF supplies to other types of supplies aimed at the better use of resources (in a sharing economy, circular economy, social economy or collaborative economy). Only by being integrated with other types of supplies that are part of this transition that the EF will be able to develop its full potential of creating sustainability on the Brussels territory. The Region has a crucial facilitation role to play in this.

4. Build on existing practices to encourage experimentation with EF supplies

Raising awareness through communication and education alone is not enough to bring about a change in consumption practices. Indeed, two types of obstacles («locks») seem to prevent consumers from choosing the EF: (1) superficial obstacles, linked to the attractiveness of the supply, which the suppliers should be able to identify and overcome; and (2) deeper obstacles linked to current consumption practices and the social order in which they are embedded (in particular, the fact that the consumer society associates purchase with pleasure, and loss of possession with displeasure) Overcoming these deeper obstacles requires a change in the social order in which they are embedded. To this end, experimentation is an essential step.

In addition to an advertising campaign like that of Good Food, it would therefore be useful to develop a public space that would bring about a new social order and encourage changes in consumption practices. Libraries could be a relevant anchor point for this, as the infrastructures already exist, they are already perceived as places that facilitate access to the use of objects (books) and their missions include being places for sociability. Unlike shopping centres, which link sociability

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and the satisfaction of a need with purchasing pleasure, «extended» libraries could reconfigure the relationship to needs, as they would allow them to be satisfied pleasantly, disconnected from a sales transaction, while offering new forms of sociability not linked to consumption. In some countries, libraries have become Idea Stores - Discovery Centres -Learning Centres - Co-learning Spaces. We therefore recommend the creation of a third place, such as the "extended library", which would go beyond needs related to reading and touch on other spheres of human needs (clothing, tools, furniture, etc.). These places would allow consumers to experience the EF through offers that require little commitment (low price, easy accessibility, quality, choice, trust in the provider, etc.).

5. Create and update a register of EF offers in the BCR on a "Good Use" platform

The EF currently suffers from a visibility deficit at various levels. EF supply within the BCR are difficult to identify, whether for public authorities, citizens or companies (EF or not). This low visibility partly explains the low demand for these supplies at present. Consequently, public authorities who would like to choose EF suppliers do not do so, or do so only to a limited extent, due to a lack of knowledge of the existing supply. This lack of visibility limits the possibility of mutual recognition of EF supplies, thus compromising the positive impacts of their networking (sharing of good practices, influence of the EF in negotiations, etc.). Taking this into consideration, we recommend the creation of a "Good Use" internet platform where existing EF supplies could be listed and inventoried in the form of a register or evolving chart. The Brufonctionnel team has already worked on the creation of such an inventory, hence the internet platform could be used as a starting point (inventory available on request).

List of publications

Scientific articles and book chapters

Roman, P., Muylaert, C., Thiry, G., Ruwet, C. and Maréchal, K. (2020) « Intégrer la territorialité pour une économie de la fonctionnalité plus soutenable », Développement durable et territoires [Online], Vol. 11, n°1 | April 2020. - Hyperlink

Muylaert, C., Lanzi, F., & Maréchal, K. (2020). What kind of territorialisation for the transition? Cross analysis of producers in short circuits and consumers of economic alternatives. Revue Etopia n°14, October 2020, 14: 109-135.

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Ruwet, C., Lohest, F., De Hoe, R., Maréchal, K., Muylaert, C., Thiry, G., Roman, P., « Economie de la fonctionnalité en Région de Bruxelles-Capitale : où en est-on? », Brussels Studies (Accepted for publication, with minor revisions)

Roman, Ph., « Is economics useful to analyse new sustainable economic models? The case of the functional economy », Cambridge Journal of Economics (Submitted for publication). Muylaert, C., Thiry, G., Roman, P., Ruwet, C., De Hoe, R., Maréhal, K., « Consumer perception of product-service systems: Depicting sector-specific barriers in the mobility, clothing and tooling sector », Frontiers in Environmental Science, doi: 10.3389/fenvs.2022.1048554

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Brufonctionnel in the media

Thiry, G. Roman, Maréchal, K., Muylaert, C., Roman Ph., Ruwet, C., « Moins de biens, plus de fonctionnalité! », Chronique Economie, La Libre Belgique, 29 October 2018 - Hyperlink

List of publications

Maréchal, K., Muylaert, C., Roman, Ph., Ruwet, C., Thiry, G., « L'économie de demain, une immense bibliothèque ? Comment favoriser le développement de l'économie de la fonctionnalité en Région de Bruxelles-Capitale ? », Chronique Recherche, ICHEC News, January 2019.

Muylaert, C., Presentation of the Brufonctionnel project on RTBF (Les Eclaireurs, 7 December 2019)

Presentation at conferences

8th Congress of the AFEP (French Association of Political Economy), Crises and transitions: « Economy of functionality and sustainability: the territory as a missing link? » (University of Reims Champagne-Ardenne, Reims, 3-6 July 2018). Presented by Coralie Muylaert and Philippe Roman

Colloquium « Is economic theory useful? »: « Can economic theory take account of new economic models? A case study based on functionality. » (Science Po Lille, 6 September 2018). Presented by Philippe Roman.

VUB Lecture Series « Economic Law and Sustainable Societies »: « Between socioecological emergencies and long-term collective intelligence. New economic models in tension », (VUB, Brussels, 8 November 2018). Presented by Géraldine Thiry

Seminar of the LPTransition platform: « The territory as a vector of sustainability of new economic models: the case of the economy of functionality in the Brussels-Capital Region » (UClouvain, Louvain-la-Neuve, 30 November 2018). Presented by Philippe Roman and Coline Ruwet.

Seminar of the CIRTES (Interdisciplinary Research Center on Work, State and Society): « The territory as a vector of sustainability of new economic models: the case of the economy of functionality in the Brussels-Capital Region » (UClouvain, Louvain-la-Neuve, 3 December 2018). Presented by Philippe Roman.

Business & Society Research Seminar 2019, Corporate Social Responsibility, Grand Challenges and Sustainability: The Business of Society?!: « Product Service System: a Vector of Consumer Practice Changes Towards More Sustainability » (Vrije Universteit Amsterdam, 21 June 2019). Presented by Coralie Muylaert.

Paper at the 14th RIODD Congress: Sustainable development: territories and innovations, « The multiple forms of territorialisation: the case of the economy of functionality in the Brussels-Capital Region » (La Rochelle, 25-27 September 2019), Authors: Muylaert C., Roman P., Ruwet C., Thiry G. and Maréchal K. Presented by Coralie Muylaert.

List of publications

Presentation of the paper, « Exploring the relative depth of lock-in elements in clothing consumption: an analysis coupling MLP and Practice Theory » (authors: Muylaert, C. and Maréchal, K.) at the 6th NEST Conference in Sofia, Bulgaria, on 8-9 April 2021

PhD thesis

Muylaert, C., « Les ingrédients et ressorts des changements de pratique vers une consommation plus soutenable. Le cas de la consommation de vêtements comme analyse des conditions de déploiement du nouveau modèle économique novateur qu'est l'économie de la fonctionnalité », university thesis in progress. Gembloux Agro-Bio Tech/Université de Liège (started in October 2018). Sponsor: Maréchal, K.

Master's thesis

Muylaert, C., « L'économie de la fonctionnalité en Région de Bruxelles-Capitale : un modèle économique potentiel de transition vers plus de soutenabilité », university thesis.

Co-sponsors: Marechal, K. and Achten, W. ULB. 2018.

About

The author & project

The project «De la propriété à l'usage : catalyser l'économie de la fonctionnalité à Bruxelles. Analyse des mécanismes de verrouillage sociotechniques et comportementaux chez les producteurs et les consommateurs» was conducted under the direction Géraldine Thiry (ICHEC) and Kevin Maréchal (ULiège-Gembloux Agro-Bio-Tech), with the collaboration of Coline Ruwet (ICHEC) and Philippe Roman (ICHEC) for project coordination. The researchers involved in the project were Philippe Roman (in years 1 and 2), Coralie Muylaert, François Lohest, Roxane De Hoe and Fanny Dethier, with the support of the intern Antoine Habay.

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PREC (2016), Regional Programme for a Circular Economy 2016 – 2020. Mobilising resources and minimising lost wealth: for an innovative regional economy, be circular be.brussels, March 2016.

Be Circular (2021), The regional economic transition strategy: an innovative plan to transform the Brussels economy, 13 December 2021. Online

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Prospective research



Through the Prospective Research programme, the Brussels-Capital Region is hoping to fund research projects from a dual perspective: to provide a solid regional prospective vision; to build solutions to the specific challenges it will face in the years to come. The solutions proposed by the funded projects must take into account Brussels' urban complexity as well as the Region's environmental, social and economic transition objectives. The programme targets researchers in human science as much as researchers in exact or applied science.

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