



# How can we strengthen the Civic Smart City in Brussels?

# Key messages

- 1** Beware of online-only participation as it tends to exclude certain citizens.
- 2** Therefore, it is essential to extend online citizen participation efforts out into the city streets.
- 3** Invest in the 'smartness' of citizens and lowering barriers of bottom-up initiatives.
- 4** Make (environmental) data more present in the urban public space, visible and relevant to those who are concerned.
- 5** Supporting the *civic* smart city can make both the BCR and its citizens more resilient.

# Introduction

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Governments, public services and other societal actors increasingly want to involve citizens in urban issues that concern them, while citizens progressively want to express themselves on urban issues that they consider important. This may include expressing opinions, voting & polling on societal issues, involving citizens in the future visions for the city, or raising awareness about urban and environmental issues by measuring and displaying data. Many efforts focus on online platforms and applications. In theory, these digital channels can make participation more accessible. In practice, however, many groups are not reached — such as digital illiterates or those less proficient with online participation tools and platforms, as well as more generally, those citizens which are less engaged or concerned. For those profiles, going through such online participation tools unguided is a threshold which is too high to overcome. In parallel, digital platforms and applications often remain ‘invisible’ to many people because one has to actively

look for the information oneself (in a cluttered digital landscape) or because the initiatives (even large-scale Regional initiatives) are not well known (and thus often in need of offline communication campaigns); subsequently they are most often used by higher educated or already engaged citizens.

The urban public space offers a lot of potential for societal actors to diversify their activities to also appeal to currently unreached groups. To that end actions are organised in the street, on squares and in neighbourhoods. However, these actions are often still done through non-digitally mediated approaches. Therefore, in the SUCIB research, we asked ourselves how we could support the processes and activities concerning citizen participation in public space in a hybrid way: using the strengths of the existing work, but supported by physical, electronic, interactive installations. We set out to design a DIY electronic toolkit to get citizens and local societal actors to devise their own local actions themselves.

# Methods, approaches and results

The SUCIB research builds on recent developments in the field of HCI ('Human-Computing Interaction'), where there is 1) a questioning of the current smart city, 2) a search for new types of interfaces, i.e., beyond the touchscreen, 3) a move from persuasive to ludic technologies, 4) a move from scientific to more artful approaches, and 5) a move to DIY toolkits and 'maker' culture. The methods we used are participatory design/co-creation and participant observation.

The key result of the SUCIB research is the toolkit, of which target users are governments, civil society organisations, neighbourhood

associations, designers and makers. The toolkit consists of interaction blocks which can be mounted on a versatile and modular tubular system. Co-creatively designed and assembled installations result in temporary (mobile) interventions in public space such as displaying information, conversation and discussion, voting, displaying local environmental data, organising workshops and exhibitions, and games and placemaking. Key qualities of the locally developed and produced toolkit are its reusability, modularity and versatility for targeted co-creation towards new applications, and its appropriability and DIY adaptability by societal actors and citizens.

A mobile voting unit in use by RenovaS, Schaarbeek (Wijkcontract Pogge).



# Conclusions

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The willingness of citizens, civil society organisations and government services to work more electronically on all kinds of civic participation activities ‘in the streets’ is great, but there is a threshold. Therefore there is (currently) still a need for guidance and support from expert services through co-creation. Avenues for the use of DIY electronic participation toolkits in public space nevertheless are legion, and appear to increase involvement of more difficult to reach citizens. Also, playful and aesthetic DIY electronic installations in public space seem to hold the promise for more engagement with urban data and issues – contrary to their scientific counterparts online.

The distribution of a DIY, modular, multi-purpose, and appropriable electronic toolkit could increase the empowerment and resilience of urban communities in the BCR.

# Policy recommendations

There are many Smart City initiatives in the BCR, such as platforms that make communication between citizens and authorities easier and more transparent (FixMyStreet), open up data (datastore.brussels) and display it online (smartcity.brussels/dashboard-en). Local mediators and governments increasingly employ online participation platforms to involve citizens by means of online voting, calls for ideas and projects. Such calls often arouse the interest of engaged (and higher educated) citizens and those professionally active in the domain, but beyond, their reach remains limited. Our research identifies opportunities to make these online digital initiatives more visible in the public space and to strengthen their broad usability to enhance civic discussions and activities: a Civic Smart City.

## 1. **Extend online digital initiatives to the physical environment («to the street») to make civic participation more inclusive and present**

To avoid the risk of excluding different population groups and attain more widespread engagement:

- Make sure that smart city, digital participation and citizens' platforms are always sufficiently supported and complemented by public action in public space.
- Ensure a hybrid approach in which online participation is extended 'to the street' with electronically (interactive) installations allowing for more experiential forms of participation, through playful, aesthetic, and narrative means of action and interaction.
- Thereby, these initiatives become more inclusive and visible and can lead to greater awareness and possible behavioural changes.
- For example: air quality data is now mainly shared through online platforms, but remains invisible to many. By sharing the data in the places where it is collected, we ensure that more people come into contact with it, become aware of it and become familiar with it.

# Policy recommendations

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## 2. Develop initiatives that empower citizens and make them 'smarter' by using critical and participatory technologies, tools and methods and making them available

- Consider keeping such technologies very low-threshold and open for DIY adaptation, appropriation and reuse.
- Do not only question the citizen, but also feed the critical dialogue by sharing data and information more transparently, faster and more completely, for example by further developing open data.
- Stimulate critical reflection on technology within a social framework and the urban fabric of BCR, for example by supporting organisations that aim to deepen and broaden the knowledge production about the city and its inhabitants and thereby embed it in the social debate.
- Commit to strengthening experiential participation in civic engagement processes, such as by focusing on aesthetic and narrative qualities, with the aim of opening up these processes to new audiences by soliciting them via affective means.

## 3. Lower the threshold for bottom-up engagement

- In our collaborations on interventions, we sometimes noticed a 'participation fatigue' (or resistance) among citizens and neighbourhood groups to organise actions or activities in their neighbourhood.
- It would lower the barriers to engagement if citizens could focus on building and strengthening the social fabric, and spend less time on the administrative and practical aspects, or even legal considerations such as insurance. This view was reinforced by the organisation of our own research activities, in which we ourselves encountered several barriers to action.
- Make all municipal and regional services necessary for the organisation of community activities visible, transparent and efficient, for example through an umbrella online platform that digitises, centralises and optimises the procedures surrounding applications.
- Consider offering a loan service for tool-kits, temporary mobile and/or flexible urban furniture and supplies for various neighbourhood activities to promote social cohesion.

# Policy recommendations

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## 4. Support local actors with experiential tools for civic participation

- The public interaction of local (social) actors such as government services and civil society organisations with citizens often happens through traditional, analogue tools and methods.
- In our consultations with these public and social actors, it often appeared difficult for them to set up innovative experience-based processes because the (design and production) expertise for this had to be sought externally and is therefore subject to tendering procedures and budgets.
- We suggest making available interactive, experience-oriented tools and methods to local public cooperation and participation actors with a focus on providing information, facilitating and broadening citizen participation, collecting local data, and displaying locally collected and other open data.
- The use of these tools and methods would need to be supported in a structural way in an expertise centre that (1) offers appropriate training, (2) organises user meetings for the exchange of best practices and possible improvements to the tools (development of a community of practice), (3) offers design and technical support for adjustments (in co-creation) and maintenance. Such expertise can be further developed within existing regional services such as Perspective.brussels, Urban.brussels or the CityFab network. (15)



# List of publications

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**Greg Nijs, Giulietta Laki, Rafaella Houlstan, Guillaume Slizewicz, and Thomas Laureyssens.** 2020. *Fostering More-than-Human Imaginaries: Introducing DIY Speculative Fabulation in Civic HCI*. In Proceedings of the 11th Nordic Conference on Human-Computer Interaction: Shaping Experiences, Shaping Society, 1–12.

[Link](#)

**Laki, G., Houlstan-Hasaerts, R., Slizewicz, G., Nijs Greg, & Laureyssens, T.** (2020). *La participation urbaine en ses objets: Pour une « respons-abilité » accrue*. *Revue Internationale d'Urbanisme*, 9.

[Link](#)

**Houlstan-Hasaerts, R., Laki, G., Slizewicz, G., Nijs, G., & Laureyssens, T.** (2020). *Des dispositifs d'enquête et de participation: Susciter l'intérêt, accueillir ce qui importe*. In A. Mezoued & et al., *Au-delà du Pentagone De Vijfhoek voorbij*.

[Link](#)

**Slizewicz, G., Nijs, G., Laureyssens, T., Laki, G., & Houlstan-Hasaerts, R.** (2019). *Repopulating the City: Introducing Urban Electronic Wildlife*. Paper session presented at ICSMA "Art Machines: International Symposium on Computational Media Art" (Paper Session 4: Computational Art in Urban Space Session: 2019-01-04: Hong Kong).

[Link](#)

# About

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## The author & project

The authors of this policy brief are part of the multidisciplinary action-research collective Urban Species, linked to LUCA School of Arts (Intermedia) and ULB (LoUIsE and Grap). The collective brings together researchers in social sciences, design and urban planning and is interested in participation in all its forms, including the contributions of more-than-human entities, from the living to objects, including 'electronic species'. Urban Species has developed an expertise in inventive and collaborative research methods.

<https://urbanspecies.org/en>

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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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