Urban Releaf

Inclusive Citizen Science Blueprint:
empowering socially vulnerable communities to actively participate in data-driven decision making

Laura Temmerman (IMEC, SMIT-VUB), Carina Veeckman (IMEC, SMIT-VUB) & Gerid Hager (IIASA). Contact: carina.veeckman@vub.be

Find out more
www.urbanreleaf.eu
#releafcities
@releafcities

PHASES	STEPS	DESCRIPTION	GUIDELINES	OUTCOME	CHALLENGES
Phase I Preparing inclusion	**Define**	The target group(s) for the CS campaign are defined: • Identify **who** is impacted by the subject of the research • Identify which groups are particularly **vulnerable** in those regard, and define their level of vulnerability. • Identify **other** (local) **stakeholders** who are related to the subject of research	You conduct a **formative study**, e.g.: • Literature reviews; • Motivational surveys; • Focus groups; • Experts interviews. You can also conduct an **ecosystem mapping** (including stakeholders, related projects and initiatives).	List of clearly defined target group(s)	• Overrepresentation of the same profile • Tension between social inclusivity and scientific efficiency
	Understand	Examine the chosen target groups: • Identify the socio-demographic (**SD**) & economic (**SE**) characteristics • Identify the level of **literacy** (digital, scientific, …). • Examine main **preoccupations** and **aspirations** • Examine how the CS campaign can resonate with potential **motivations** • Identify participation **barriers** and reflect on **mitigation measures**	You conduct a formative study, e.g.: literature reviewers, surveys, focus groups and experts interviews. You crystalise your findings into **personas**. You make sure there is an open and transparent culture, and **co-creative approach** in the project.	Personas for each target group	• Marginalised and vulnerable groups are the least likely to have data representative of their situation and profile
Phase 2 Planning inclusion	**Organise**	By incorporating the insights from the previous steps, you now organise the activities of the CS campaign: • List the **tasks** in the CS campaign and define the **level of engagement** for each target group • Consider modular activities to improve accessibility • Consider **gamification** • Consider **indicators** of community participation	• You assess the **fit** of each **CS task** for each target group and/or persona. You take the level of engagement, barriers and motivations for participation into account. • Indicators of community participation are chosen through deliberative discussion.	Compatibility assessment: target group(s) vs foreseen **CS tasks** KPIs of community participation	• Tasks may be too demanding (time, efforts) • Tasks may not be interesting enough • Tasks may require the use of technology • Tasks may require to travel
	Design	In this step, you develop and/or select the data collection tools: • Consider the **compatibility** between the data collection and/or analysis tools and the profile of your target group(s) • Consider technological **vs** low-tech tools (e.g. Our Voice, STORCIT)	• You assess the **fit** of each **CS tool** for each target group and/or persona. • You identify potential motivations, barriers, and mitigation measures for data collection.	Compatibility assessment: target group(s) vs foreseen **CS tools**, with barriers and mitigation measures.	• Tools may require the access to technology • Tools may require digital skills • Tools may require technological skills • Tools may require an internet access.
Phase 3 Interacting inclusion	**Recruit**		• You choose the appropriate recruitment technique: open call, targeted recruitment (gatekeeper, ambassador technique), etc.	Recruitment plan	• Lack of awareness of the opportunity • Recruitment method fails to reach a sufficient number • Personal gains not clear
	Communicate	In this step you elaborate your communication plan and define how, when, and how you are going to communicate with the citizen scientists. This includes face-to-face vs online communication; type of events and meetings.	• Apply inclusive language practices • Appeal to different motivations, and provide prompts, feedback and recognition. • Make use of a mix of media for communicating (i.e., offline and online).	Communication plan	• Communication not clear about the 'what' and 'why' • Positioning of the project is not relevant to the target group • Communication channel does not reach the target group
	Engage	In this step, you implement the activities to keep everyone engaged and motivated to participate. This includes regular communication, feedback, (social) events, rewards and recognition for their involvement.	• Organise "taster" sessions • Buddy system • Consider coverage of costs and/or remuneration • Prompts and feedback • Recognition for contributions • Allow participants to provide feedback • (Meaningful) gamification	Engagement plan	• Decreased engagement over time (i.e., drop-out) • Change in motivations
Phase 4 Monitoring inclusion	**Assess**	In this step, you assess the results of the CS campaign based on the KPIs of community participation defined in the first phase. You pay specific attention to frustrations, challenges, and difficulties faced by the participants, which you have captured already in phase 3. You monitor participation rates and changes in motivations over time.	• If possible, profiling surveys monitoring SE & SD characteristics • Event or activity logs about the actual level of participation • Observation of meetings and internal debriefing sessions • Interviews or focus groups on societal impact	Process & outcome evaluation of community participation	• Difficulty in engaging participants in yet another (research) activity • Difficulty in assessing certain type of KPIs (especially long-term)

A three-step recruitment approach for inclusive participation

Step I: Open call → Step II: Monitor demographics → Step III: Targeted recruitment

Step I: Open call — A general call with an open invitation to join. For example, via social media, the press or flyers.

Step II: Monitor demographics — Assess the demographic diversity and inclusivity of the sample recruited in step I. For example min. 50% females.

Step III: Targeted recruitment — Recruit the missing profiles using a targeted approach. For example, via snowball sampling or gatekeeper sampling.