



# Monitoring What Matters to the City and Her Citizens

*A guidebook for engaging citizens with monitoring frameworks  
to bridge the gap of monitoring frameworks and lived experiences of  
citizens*



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## Are you monitoring what matters to the city and her citizens?

In modern cities, data-driven decision making is being increasingly adopted by policymakers for example through use of urban monitoring frameworks. In this study it was found, however, that current monitoring frameworks are biased by the normative perspectives of monitor developers, thereby making their views and opinions dominant in shaping policy and public perception. Moreover, the aggregated metrics of monitoring frameworks may overlook outlier experiences, masking and excluding local differences and problems. **This results in a gap between monitoring systems and the reality of the lived experiences of citizens.**

### Implications of including citizens in monitor development

This booklet is the result of a design research project in collaboration between the TU Delft and the AMS Institute. The project explored how citizens can be engaged with monitoring frameworks and how their perspectives can be integrated in urban monitoring systems.

It was found that citizen perspectives can lead to identifying new locally relevant indicators, new connections within monitoring frameworks and that assigning weights to indicators could indicate local priorities and nuances. Through including citizen perspectives, the assessment of the city's performance can be based on what citizens define as success, through making the variation of the aggregated metrics explicit, and showing what matters the most to specific local contexts by weighing indicators across local demographics. Ultimately, utilizing local knowledge to shape monitoring frameworks allows us to monitor what matters to both the city and her citizens, thereby contributing to more responsive policy decision making.

*For this project the Ideal(s) City monitoring framework (co-developed by the AMS Institute and the City of Amsterdam) was used as a case study.*

### What is this booklet?

This booklet offers an actionable process for including local citizen knowledge in urban monitors. It suggests steps for engaging citizens and provides guidelines and examples from the design research project to help you integrate citizen perspectives into monitoring frameworks.

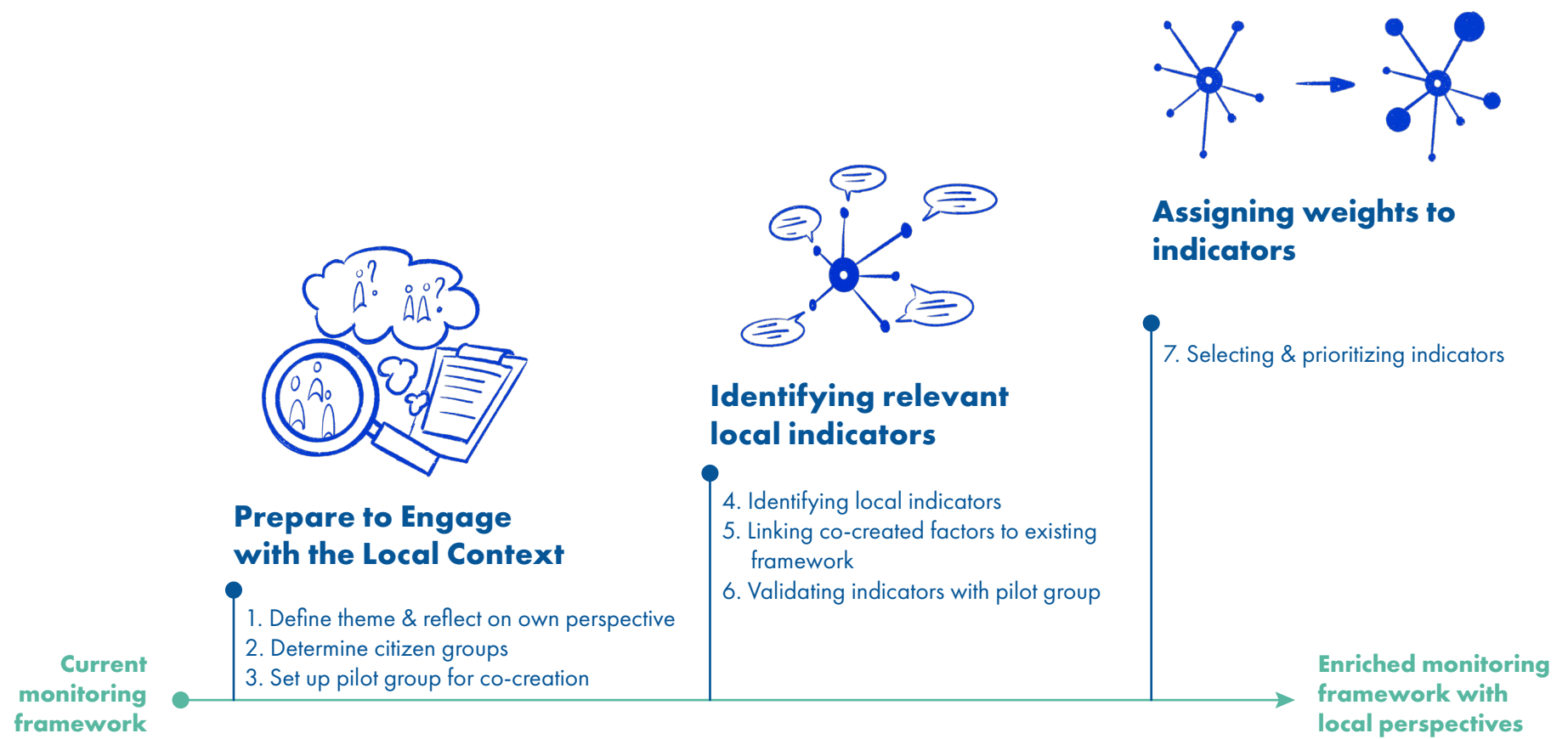
### For whom is it meant?

This document is created for monitor developers and civil servants that aim to identify what matters to citizens and include their perspectives in the monitoring frameworks that they are deploying.

### What is the aim?

The aim of this booklet is to inspire and support monitor developers and civil servants to take a new approach and take the first steps in including local perspectives in their monitoring frameworks.

# Process overview



# Before you start...

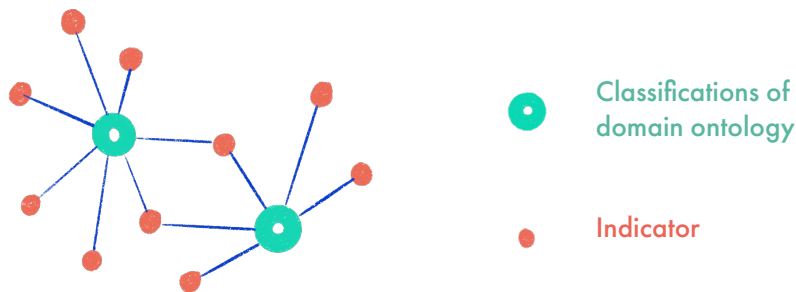
## What do you need?

Before you start engaging citizens with your monitoring framework, you will need to have an existing monitoring framework, and a multidisciplinary team to execute the steps as described in this booklet.

### Base Monitoring framework

To start the process of engaging citizens in the development of urban monitoring systems, there should be an existing relational indicator base where the indicators have been classified according to relevant themes for City policy. This initial framework will be used as a base to integrate the local perspective through providing new connections and identifying gaps in the indicator set.

### VISUAL EXPLANATION OF COMPONENTS OF IDEAL(S) CITY FRAMEWORK



*Simplified visualisation of a relational indicator base, where indicators are connected through the classifications of a domain ontology (such as themes and indicators)*

### Multidisciplinary Monitor Developing Team

In addition, a multidisciplinary team with different knowledge and skills is needed. Within the team there must be knowledge of what is going on within policy regarding the theme(s) that will be dealt with in order to ensure that the results are in line with the policy goals of the city. Next to this, there is a need for a person that can act as the bridge between the technical framework and the experiences of citizens. To act as this 'connector', one requires a number of social skills, such as being empathic, approachable, and a good listener. Next to this experience in facilitating workshops is beneficial. Furthermore, analyzing the insights from this process and integrating the co-created indicators requires knowledge of data analysis.

### Policymaking

- > ensures relevancy and alignment of outcome for policy



### Mediator

- > acts as bridge between citizens and monitoring framework

### Data Analysis

- > analyzes insights process & integration of local indicators

# Prepare to Engage with the Local Context

Before you start the engaging citizens with the monitoring framework, a few things need to be prepared. First, it is important to create a definition of the (policy) theme that citizens will be able to understand and to become aware of your own perspective. Secondly, in aiming to include the diverse perspectives and experiences of citizens, it is important to reflect on what this diversity looks like for the specific theme and define 'citizens groups' based on the key socio-demographic variables. With these groups in mind, it is then time to reach out to citizens to set up the pilot group for the identification of local indicators.



# 1. Define the theme & reflect on own perspective



## AIM

As a starting point for co-creating, there should be an initial understanding of the theme(s) that will be covered. Creating understandable definitions of the themes will serve as a baseline for the next steps and makes you aware of your own perspective. Which might turn out to be different from the local perspective!



## WHO

- Monitor developing team

## OUTCOME

A (visual) document describing the theme that will be analyzed with citizens & awareness of own perspective on the theme in question.



## HOW

Take a look at the policy objectives and the indicators that are currently related to the theme that you will discuss with citizens. Based on these two elements, take into consideration how this theme or policy might affect citizens and create a definition of the theme. In formulating this, take the guidelines in consideration.

*TIP! CREATE ILLUSTRATIONS TO SUPPORT THE EXPLANATION OF THE THEMES FOR CITIZENS*

## GUIDELINES

- The topic for discussion should be concrete, specific, and relevant for citizens
- Focus on how the city can contribute to the experience of citizens and not on what the city wants to achieve
- Consider the different local languages and create multiple versions if necessary

## DO NOT...

...use jargon. Instead use simple language, preferably supported with visual explanations to be able to also communicate to citizens with low literacy or command of the main language.

## EXAMPLE

When discussing the theme safety the description of the theme could be:

*"Citizens of Amsterdam feel safe in the city because they do not experience danger or risks."*

## 2. Determine 'citizen groups'



### AIM

This step should be conducted to actively consider how the diversity of the population can be taken into account in the process of co-creating indicators.



### WHO

- Monitor developing team

### OUTCOME

Awareness of the diversity and different perspectives surrounding the theme, and an overview of citizen groups based on key variables for the theme



### HOW

For every theme, think about what sociodemographic variables of citizens and their situation play a role in their experience, such as: age, income, ethnicity, and which neighborhood they live in. What might influence their experience around this theme?

Explore the local context to see what is happening in the city revolving this theme and step out of your bubble.

Create an overview of different 'citizen groups' that can be characterized according to the variables that are considered to influence citizens' perspectives.

Per theme it might differ who you involve to represent this diversity of the city. For some themes it might be crucial to consider the neighborhood in which they live, where for other themes the focus should lay on their income or age.

### GUIDELINES

- Consider the diversity expected within the local context for a specific theme (based on e.g. age, gender, nationality, income, education, household situation, etc.)
- Try to step out of your own perspective and bias and reflect on what aspects impact the experience of a citizen for the theme.
- Engage in conversations with potentially affected citizen groups.
- Make use of the existing knowledge, such as existing literature, local/community news articles, previous participation projects, etc.

### DO NOT...

...determine those citizen groups from behind your desk. Engage in conversations with citizens and local organizations to find out what is happening outside your own bubble.

### EXAMPLE

For safety, citizen groups are likely relevant at the neighborhood level. Additionally, it is important to consider vulnerable groups such as women and the elderly, or people who may feel unsafe due to discrimination, such as ethnic minorities.

## 3. Set up pilot group for co-creation



### AIM

Based on the identified citizen groups, a pilot group can be established. This is a specific selection of the citizen group consisting of a limited number. The goal of the pilot group is to identify factors related to the theme. Diversity is central to this group in order to capture as many perspectives on the theme as possible, thereby aiding in the development of indicators.



### WHO

- Monitor developing team



### HOW

Examine the sociodemographic variables on which the citizen groups are formed and strive to include as much diversity within these variables in the pilot group as possible. Ensure a distribution of variables such as age, income, gender, ethnicity, etc. The number of participants in the pilot group should be based on reaching this distribution of variables that were identified as important.

Delve into the local context and engage in conversations with key figures from neighborhoods or local organizations to connect with citizens, or go out on the street and talk to people about the theme.

### GUIDELINES

- The participating group should be as diverse as possible. Diverse perspectives will result in a better representation of the experiences of the local community.
- Actively involve minority groups, to prevent reinforcing existing inequalities.
- Consider the diversity expected within the local context for a specific theme (based on e.g. age, nationality, income, education, household situation, etc.)

### DO NOT...

...always look for participants via the same key figures, but build up as much of a network as possible in order to create variation in who is involved.

### EXAMPLE

The goal is to assemble a diverse group in which the various key variables identified are evenly distributed within the group. So for example, for safety, you want people of different neighborhoods, age, gender and ethnicity. People can represent multiple characteristics from the citizen groups in this.

### OUTCOME

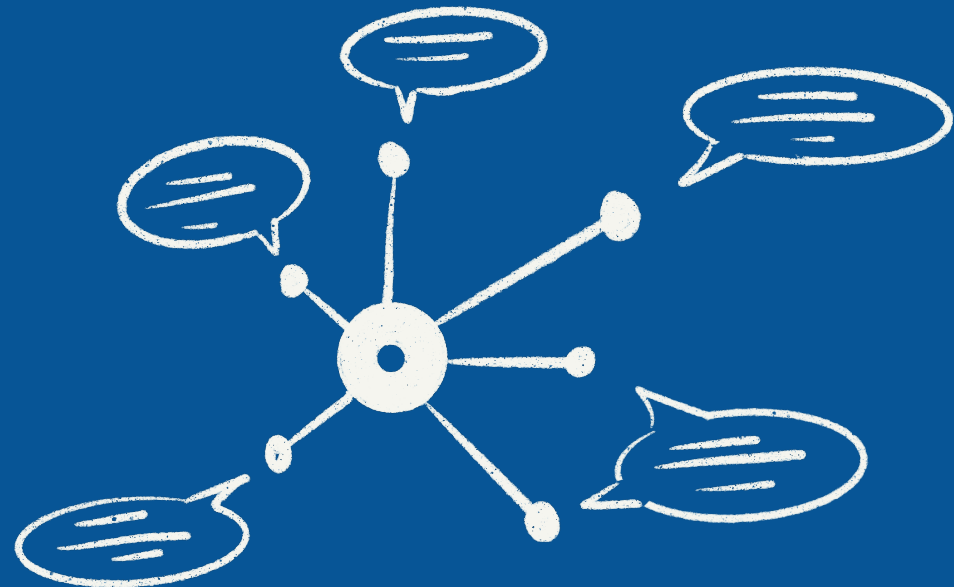
A diverse group of citizens that reflects the sociodemographic variables identified in the citizen groups.



# Identifying relevant indicators for the local context

Now it's time to involve citizens!

Together with the citizen pilot group you will identify which indicators relate to their experiences. Next, you will link the identified factors to identify missing indicators and to find new connections among indicators in the monitoring framework. To make sure that the rationale of the participants was correctly understood the overview of related factors and indicators should be validated with the pilot group afterwards.



## 4. Identifying local factors



### AIM

The aim for this step is to identify factors that relate to the experience and perception of citizens. Factors can be defined as elements that influence the perception or experience of people. This can later on be translated into indicators as measurable metrics.



### WHO

- Monitor developing team
- Pilot group

### OUTCOME

Once this step is executed you will have a list of factors to compare with the initial monitoring framework in the next step.



### HOW

With the pilot group that was set up in step 3 you will dive into the selected theme and explore their perspectives. This step should be conducted with qualitative approaches such as interviews or co-creation workshops to be able to get to the core rationale behind the experiences of the participants.

To guide the participants in identifying factors, the process should be divided in sub-activities. First 'unpack' the theme to make sure that you come to a shared understanding of what it means. Then identify factors based on experiences and perception of participants.

Next, cluster the factors and create a selection of the most relevant factors. Reflect together with the participants on which level of detail is required for the factors. Not every small individual detail needs to be included as a separate factor. Look at how personal experiences can be combined into generally applicable factors. For this, take in consideration the frequency a factor emerged and the degree of value that participants place on it.

### GUIDELINES

- Acknowledge the subjective perception and experience of citizens, be genuinely interested in what they have to share about their experience. You as an expert can learn from experts-by-experience.
- Actively show the participants the value of their input and local knowledge to prevent self-censoring, make them feel at ease.
- Local knowledge is expressed through stories, narratives, images, etc. Think of ways to facilitate these expressions for the participants when co-creating the local factors
- Use simple language and prevent using jargon.
- Take into account low literacy levels and the different languages spoken in the local context. Provide opportunities for verbal or visual explanations.

### DO NOT...

...approach the theme with indicators from the framework, rather start from the experience and stories from citizens. Make sure to speak 'their language'

### EXAMPLE

Examples of factors that can be derived for safety are: Connection with Neighbors, Spatial Openness & Visibility of an area, and Nuisance by Loitering People'.

(For a more detailed description see page XX)

## 5. Linking identified factors to existing framework



### AIM

Ultimately, the co-created factors should be translated into indicators and integrated into the monitoring framework. To do this, links with the existing indicator base should be made. Through doing this, gaps and new connections in the indicator framework can be identified.



### WHO

- Monitor developing team

### OUTCOME

In the end, you should have a clear overview of indicators (both indicators from the framework and suggestions for new indicators) that relate to the identified factors and the perception of the pilot group regarding the theme.



### HOW

Take the list of co-created factors and compare them with the indicator set of the existing monitoring framework. List per factor which indicators relate to the co-created factor and create an overview of this. Per factor there could be more than one indicator, or it could be that the co-created factor is not yet represented in the existing monitoring framework.

Determine if there are any gaps in the indicator base, i.e. which co-created factor is not represented in the existing monitoring framework. And create suggestions of how this factor can be included in the monitoring framework as indicator.

Try to find a balance between aggregated and locally relevant indicators. For this, take into consideration the frequency a factor emerged, the degree of value that participants place on it, the measurability, resources available for data collection and the impact on policy responsiveness.

### GUIDELINES

- In this translation it is important to make sure the rationale of the participants is understood. It comes down to properly understanding the nuances of their stories to prevent connecting indicators that do not align with their experiences.
- Formulate the indicator descriptions in simple language that is understandable for the participants

### DO NOT...

...fall back into old patterns of aggregated indicators. If a highly localized indicator is likely to lead to significant policy improvements that address critical issues within a community, it may be worth including even if it complicates the aggregation process.

### EXAMPLE

For the Ideal(s) City framework an example of a gap that was identified was: '*Spatial Openness & Visibility of the area*'. A new connection that emerged was: '*Connection with Neighbors*'.

## 6. Validating indicators with pilot group



### AIM

Translating experiences and factors into indicators is a sensitive step, as the richness of stories is lost, it comes down to understanding the rationale of participants. Therefore the set of indicators should be validated with the pilot group. This gives citizens the opportunity to contest and provide feedback.



### WHO

- Monitor developing team
- Pilot group



### HOW

Take the overview of the factors and indicators and share it with the pilot group. Make sure that the description of the indicators is given in simple language so that the participants are able to understand. This can be done verbally in a meeting or workshop, or in a written document with an accessible option to contact the monitor developing team.

Explain why certain decisions were made and ask for feedback. This moment can also be used select between different options, e.g. which of these three indicators best represents what we identified in the previous step?

### GUIDELINES

- Think of this as a moment of feedback to test whether the correct assumptions were made.
- Show your appreciation of the participants' efforts to enthuse them to continue participating in future research.
- Reflect with participants on the co-creation process to gather feedback on how to improve this in the future.

### DO NOT...

...avoid coming across that all choices are already made and fixed. Give citizens the sincere space to provide feedback on the list of indicators.

### EXAMPLE

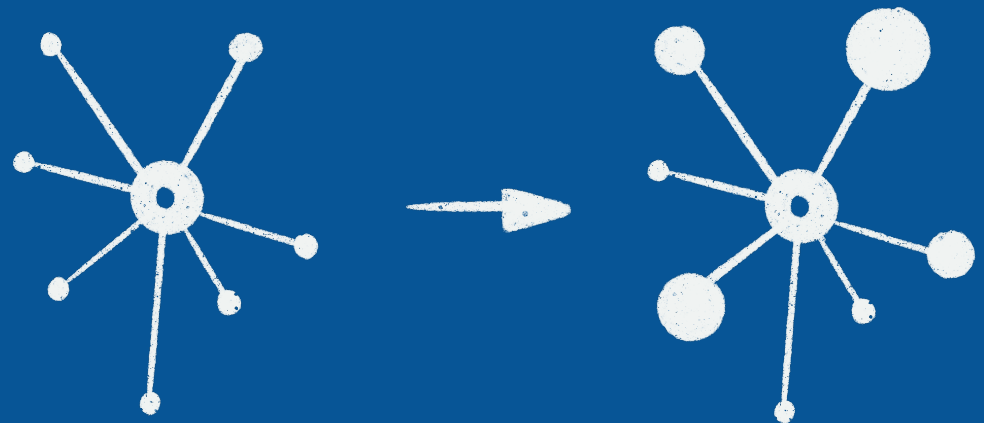
Validation with participants can be done by e.g. presenting the results, hosting a lunch, sharing via the mail, etc.

### OUTCOME

A validated list of indicators related to the theme in question, ready to be assessed in a representative study.

# Assessing relevance of indicators

Now you have identified which indicators are considered relevant to the local context, it is time to reflect the diverse concerns and experiences of the city through assigning weights to the indicators. Through a quantitative study among a cross-section of the local context, citizens can assess the degree of importance of the indicators.



# 7. Selecting & Prioritizing Indicator



## AIM

In striving to monitor what matters to citizens, the diversity of the population should be taken into account. Through assessing the indicators on importance, the indicators can get an attributed weight in the monitoring framework. Thereby providing the opportunity to show what matters to which local context. Therefore, a relevant questionnaire that covers all topics and indicators in a way that is understandable and accessible to citizens must be prepared.



## WHO

- Monitor developing team
- Cross-section of city population

## OUTCOME

Through assessing the indicators on importance, a selection of the most important indicators can be made. Besides, a new dimension to the monitoring framework can be added through the assigning of weights to the selected indicators.



## HOW

To get a representative selection of indicators that reflect the importance of indicators for all citizens, this step should be executed quantitatively with a cross-section of the local context. To be able to do this a validated questionnaire should be set up that covers the essence of the indicators and allows citizens to assign weight of importance for their experience of the theme. Preparing such a questionnaire is a specific expertise beyond the scope of the present study. Consult experts in drafting a validated questionnaire.

Next to assessing the indicators on importance, include questions on demographic data in the questionnaire. In doing so, citizens' responses can be traced back to their demographic data, such as age or neighborhood. This allows for filtering the selection and weights of indicators for specific social groups, enabling policymakers to target the execution of their policy better to the needs of the local community.

## GUIDELINES

- Conduct the indicator assessment among a representative cross-section of the local context
- Based on these priorities, one can also look at how important it is to include certain indicators. The questionnaire can help make a selection of relevant indicators.
- Consider the different local languages and offer alternatives for low-literate people such as questions read aloud to make the questionnaire as inclusive as possible.
- Weighting indicators could be combined with questionnaires in which the city is already collecting data on the topic in question

## DO NOT...

...make it too complicated. Keep the questions simple, effective and clear.

## EXAMPLE

Think of experts within the municipality, such as the research department or external parties, such as Populytics.

# Example of Co-Creating indicators for theme 'Safety'

To illustrate what the outcome of co-creating indicators with citizens can be, this section compares the results of an explorative co-creation workshop for the theme 'Safety' with the indicator base of the Ideal(s) City framework.

## Example of Safety (before and after co-creation)

In the current Ideal(s) City framework, safety is measured by 59 indicators. Examples of these indicators are shown below.

### Selection of safety indicators from the Ideal(s) City framework

- Number of juveniles with delinquency in court
- Number of warnings given by police
- Violent crimes (number per 1,000 population)
- Number of reports for shoplifting
- Thefts from home (number per 1,000 population)
- Number of victims of crimes
- Destruction and damage (in public places)
- Number of incidents Fire Department
- Number of GRIP situations (where multiple emergency services are involved)
- Number of reports of domestic violence
- Occupancy rates at shelters for domestic violence
- Risk of flooding
- Heat stress elderly
- Street lighting
- Feelings of unsafety
- Safety Index (recorded crime, perceived nuisance, perceived victimization, perceived unsafety.)

Looking at these indicators you can see that safety is primarily tied to objective indicators that deal with the number of crime reports such as theft or violence, or the number of people who have been in contact with the police or other organizations like youth care.

Merely, two indicators refer to the perception of safety by citizens; 'Feelings of unsafety' and the 'Safety index' that includes: recorded crime, perceived nuisance, perceived victimization, perceived unsafety.

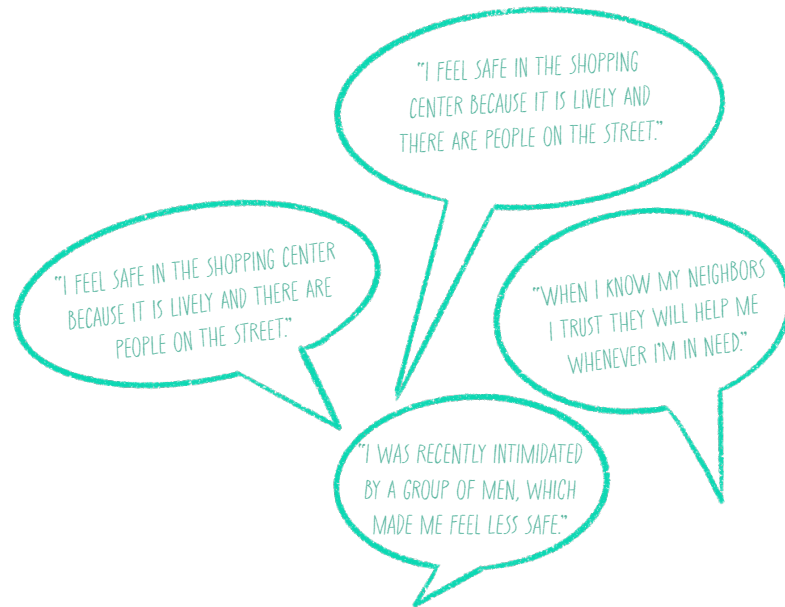
So the framework incorporates perception of safety, only to condense the entire experience of safety into a single index figure. Consequently, the different factors contributing to, for example, 'perceived nuisance' or 'perceived unsafety' are no longer clearly distinguishable.

Furthermore, these indicators predominantly focus on aspects that compromise safety; the list lacks indicators that demonstrate what contributes to improved safety.



## Example of Safety (before and after co-creation)

In the co-creation session for safety, eleven factors were identified. Four examples are shown on the right.



### CO-CREATED FACTORS FOR SAFETY

#### Connection with neighbors

The presence of familiar individuals in a neighborhood, such as recognizing people on the street or knowing neighbors, enhances the perceived sense of safety among citizens.

#### Loitering (groups of) people

Loitering (groups of) people can lead to feelings of intimidation and discomfort among citizens, thereby reducing their sense of safety.

#### Presence of people on the street

Active and lively neighborhoods, characterized by the presence of people on the streets, contribute positively to the citizens' feeling of safety.

#### Spatial openness & visibility

The degree to which public spaces provide unobstructed views, allowing for clear visibility of surroundings, this enables people to detect potential threats and be seen by others.

## Implications of including citizen perspectives in monitoring frameworks

In the case study for the Ideal(s) City framework three main roles were identified for local knowledge in monitoring framework. Looking at the theme safety, the following examples for these three roles can be given.

### 1. Identifying missing indicators in the current monitoring frameworks to minimize disparities between citizen perspectives and urban monitors.

For safety we identified, new indicators for example: 'Presence of people on the street'.

### 2. Providing new connections among indicators in the monitoring framework

New connections were identified with the factor 'Connection with Neighbors', as this was already present in the current monitoring framework for Social Connection, but not yet connected to safety.

### 3. Assigning weight of importance to indicators to reflect the diverse concerns and experiences of citizens

It was found that for safety, participants perceived the connection with neighbors as more influential than the spatial openness and visibility in a specific local context.

