DELIVERABLE

D2.5 Science-Policy-Industry Interface report

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0.2	24/09/2024	Christos Karelis	UAEG	Integration of results
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1.0	30/10/2024	Christos Karelis, Charalampos Alexopoulos	UAEG	Final version

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Executive Summary

This deliverable provides an updated overview of the value network in each of the COMPAIR pilot regions (Flanders, Athens, Sofia/Plovdiv, and Berlin). It highlights stakeholders, citizen science initiatives, and datasets associated with each pilot.

In the first version of this deliverable, D2.1, the pilot partners reported potential stakeholders, citizen science initiatives, and datasets they were aware of. Now, in D2.5, the pilot partners reported how they collaborated with the stakeholders they had highlighted and if they found new ones. The quadruple helix was present throughout all the pilots, though a small percentage of the stakeholders were part of the business group, suggesting extra effort may be required to engage such stakeholders in future projects. To achieve this, future projects should either identify the potential stakeholders better or attract their interests by identifying ways of possible added value from their participation, such as clear business opportunities, including access to potential new markets, collaborations with academic and government institutions, or the chance to pilot innovative solutions.

Furthermore, the pilot partners also described how they made use of other citizen science initiatives to further improve the project, as well as how the datasets they identified were used. Not many of the initiatives the pilot partners were aware of proved relevant to the COMPAIR project. The ways they engaged with the relevant science initiatives were either through exchanging data or through attracting participants in the pilot cases and workshops throughout the project. D2.2 CS Landscape Review provided a further analysis, expanding on more initiatives the partners were not aware of.

Moreover, the pilot partners reported the use of the datasets they had initially identified. Initially, the pilot partners identified 105 datasets. Of those, 30 were used, with the rest being not relevant. This is connected to the fact that the list of datasets was created before the initial drafting of the requirements for the project's tools had finished, meaning at least some of the data that wasn't used were out of the scope of the development process. During the project, 4 more were reported by the pilot partners. Also, other sources were used, which is elaborated in D1.7. Finally, the citizen engagement participation KPIs of the project were achieved even months before the project's end.

Following the introduction, Chapter 2 details the methodology followed to create this deliverable. Chapter 3 details the results, providing an update on the stakeholders, citizen science initiatives, and datasets engaged by the pilot partners.

1. Introduction

The goal of this deliverable is to provide an update of the result reported in D2.1 “Value Network Canvas”. At the start of the project, in deliverable D2.1, the pilot partners identified potential stakeholders, citizen science initiatives, and datasets that could be of interest to the pilots in Flanders, Athens, Sofia, Plovdiv, and Berlin. It acted as an initial overview of the landscape of each pilot region for these three distinct aspects. The Stakeholders overview was meant to act as a starting list of stakeholders that could be interested in participating in the project. The Citizen Science Initiatives overview would provide a list of other initiatives that the project could collaborate with, learn from, or possibly act as sources of data or participants. This overview was further analysed and expanded in deliverable D2.2 CS Landscape Review. Finally, the Dataset overview would act as a starting point for possible data sources to be used during and after the development of the COMPAIR tools.

The objective of the deliverable is to provide an updated version of those overviews. It is meant to highlight which stakeholders, citizen science initiatives, and datasets proved to be relevant to the pilot partners as well as for the development of the COMPAIR tools. This update is important because the initial overviews were created before the pilot use cases and the development requirements for the tools were finalised. This deliverable is self-standing and does not need to be read in parallel with D2.1, since it provides an updated overview.

The deliverable is structured as follows: Chapter 2 provides the methodology that was followed for the creation of this deliverable, and Chapter 3 presents the updated Stakeholder network, Citizen Science Initiatives, and Datasets in sub-chapters 3.1, 3.2, and 3.3 respectively. Sub-chapter 3.4 discusses the participant engagement during the project compared to the KPIs drafted at the beginning of it. Finally, Chapter 4 contains the conclusions of the deliverable along with lessons learned. Furthermore, at the end of the deliverable 3 Annexes provide the data collected for the creation of these overviews.

2. Methodology

This section gives a brief overview of the methodology that was used to gather the required input from the different COMPAIR pilot regions. In D2.1 the pilot partners were provided with a template and requested to provide input around three (3) categories:

1. Potential Stakeholders that may be interested in participating in the pilots of the COMPAIR Project
2. Other Citizen Science Initiatives that may either be interested in collaborating with the COMPAIR Project or whose results may be of use to the COMPAIR Project. These Citizen Science Initiatives were formed into a separate list from Stakeholders because some of them had concluded even before the project’s start. Finally, it is important to note that the initiatives reported here are only the ones the pilot partners were aware of in their respective region.

3. Datasets that may be of use to the COMPAIR Project. These datasets could be useful to the technical partners for the development of COMPAIR's tools or in any other way to the pilot partners.

This document provides an update on these three categories. To achieve this, a copy of the template that was filled in for D2.1 was provided to the pilot partners. New columns were added to the template for each category as seen in the following tables. The partners were asked to indicate any modifications that took place since their first input. This included filling in the new columns, as well as making any new additions.

***Table 1**: New columns of the Pilot Stakeholders category*

New Column	Explanation
Engagement Status	Was the Stakeholder involved in the project? The answers can be the following ● Yes, if the stakeholder was involved in the project ● No, if the stakeholder was not involved in the project ● New, if the stakeholder was involved in the project but was identified after the creation of D2.1
Modifications or updates	Did you collaborate with this Stakeholder? If yes, how? If not, why?
Problems and reasons for non-engagement	Did you face any problems communicating with this stakeholder? What is the reason for non-engagement?
Low SES Group Targeted	Did you target any LSES Groups through this stakeholder? If yes, which ones?

***Table 2**: New columns of the* Citizen Science Initiatives *category*

New Column	Explanation
Status	Was the Citizen Science Initiative involved in the project?
Modifications or updates	Did you utilise this Citizen Science Initiative? If yes, how? If not, why?
Low SES Group inclusion	Did you target any LSES Groups through this Citizen Science Initiative? If yes, which ones?

***Table 3**: New columns of the* Datasets *category*

New Column	Explanation
Status	Was the Dataset involved in the project?
Modifications or updates?	Did you utilise this Dataset? If yes, how? If not, why?

Pilot Cases Description

This section provides an updated list of the pilot cases, their connected SDGs, their Green Deal Domains and benefits, as well as the tools and technologies used in them. The list also includes pilot cases that were added at a date later during the project, when the use cases were better identified, so they were not listed in D2.1

Table 4: *Pilot Cases Overview*

Pilot	Case	SDGs	Green Deal Domain(s)	Tool(s)	Technology Component(s)
ATHENS	Carbon footprint & Air Quality dashboard	Sustainable Cities and Communities	Adaptation to climate change including societal transformation		AR App, Personal Mobile Air Quality Sensor, Gamification, CS Dashboards, CS Forum, Fixed Low-Cost Air Quality Sensor, Telraam Low-Cost Traffic count sensor, CS Data & Message Broker, Data API, Data Analytics
ATHENS	Urban Digital Twin	Sustainable Cities and Communities	Adaptation to climate change including societal transformation	Digital Twin Dashboard, Policy Monitoring, Citizen Science Sensors, Augmented Reality, Carbon footprint simulation, Visualisation of Dashboard	Digital City Twin Simulation, AR App, Personal Mobile Air Quality Sensor, Gamification, CS Dashboards, CS Forum, Fixed Low-Cost Air Quality Sensor, Telraam Low-Cost Traffic count sensor, CS Data & Message Broker, Data API, Data Analytics
BERLIN	Liveable City Environments	Sustainable Cities and Communities	Adaptation to climate change including societal transformation	Augmented Reality (AR) App, Citizen Science Sensors, Visualisation Dashboard	AR App, Personal Mobile Air Quality Sensor, Gamification, Citizen Science Lab, CS Dashboards, CS Forum
BERLIN	Car traffic-free zones	Sustainable Cities and Communities	Sustainable and smart mobility	Citizen Science Sensors, Visualisation Dashboard	Telraam Low-Cost Traffic count sensor, Personal Mobile Air Quality Sensor, Citizen Science Lab, CS Dashboards, CS Forum
SOFIA/ PLOVDIV	Mobile dashboard for commuting behaviours	Sustainable Cities and Communities	Sustainable and smart mobility	CS Dynamic Exposure Visualisation Dashboard, Carbon Footprint Simulation Dashboard, Policy Monitoring Dashboard	Fixed Low-Cost Air Quality Sensor, Telraam Low-Cost Traffic count sensor, Gamification, CS Data & Message Broker, Data API Data Analytics, CS Dashboards, CS Forum, Citizen Science Lab

SOFIA/ PLOVDIV	School Bus Service (improving air quality around schools)	Good Health And Well-Being	Sustainable and smart mobility	Citizen Science Sensors	Fixed Low-Cost Air Quality Sensor, Telraam Low-Cost Traffic count sensor, Personal mobile air quality sensor, Gamification CS Data & Message Broker, Data API, Data Analytics, CS Dashboards, CS Forum, Citizen Science Lab
SOFIA/ PLOVDIV	Comprehensive communication campaign	Partnerships for the Goals	Sustainable and smart mobility	Carbon Footprint Simulation Dashboard	Personal mobile air quality sensor, Gamification, Data Analytics, CS Dashboards, CS Forum, Citizen Science Lab
FLANDERS	Schoolstreet - local mobility impact	Good Health And Well-Being	Sustainable and smart mobility, Zero pollution, toxic-free environments, Adaptation to climate change including societal transformation, climate neutral and smart cities	Citizen Science Sensors, Policy Monitoring Dashboard, Digital Twin Dashboard	Fixed Low-Cost Air Quality Sensor, Telraam low cost traffic count sensor, digital city twin simulation, gamification, CS data & message broker, Data API, Data analytics, CS Dashboards, CS Forum, Citizen Science Lab.
FLANDERS	Dynamic exposure	Good Health And Well-Being	Zero-pollution, toxic-free environments	CS Dynamic Exposure Visualisation Dashboard, Citizen Science Sensors, Policy Monitoring Dashboard	Personal mobile air quality sensor, Fixed Low-Cost Air Quality sensor, CS Dashboard, Data Analytics, Data API
FLANDERS	Urban Digital Twin	Sustainable Cities and Communities	Adaptation to climate change including societal transformation	Digital Twin Dashboard, Policy Monitoring Dashboard	Digital City Twin Simulation, Gamification, CS Data & Message Broker, Data API, Data Analytics, CS Dashboards

A numbering method was created in D2.1 in order to codify Pilot cases, Stakeholders, Datasets, Epics, and User Stories. This numbering method is presented in the table below to help better understand the rest of the deliverable.

Table 5: *Pilot Cases numbering method*

Type		Pilot		Pilot Cases	
Abbreviation	Full Name	Abbreviation	Full Name	Abbreviation	Full Name
S	Stakeholder	AT	Athens	CFD	Carbon Footprint Dashboard
C	Case	BE	Berlin	UDT	Urban Digital Twin

D	Dataset	FL	Flanders	LCE	Liveable City Environments
E	Epic	SP	Sofia/Plovdiv	CFZ	Car traffic-free Zones
U	User story			MDCB	Mobile Dashboard for Commuting Behaviours
				SBS	School Bus Service
				CCC	Comprehensive Communication Campaign
				SS	Schoolstreets
				DE	Dynamic Exposure
				TCM	Traffic Circulation Measures
				BB	Bicycle Bridge
				WBD	Wood Burning Detection

For example, the Urban Digital Twin Case for the Athens Pilot can be codified as C_AT_UDT. Similarly, the School Bus Service 1 Epic can be codified as E_SBS_01.

3. Updated Stakeholder Network

3.1. Pilot Stakeholders

In D2.1, the pilot partners identified a total of 157 stakeholders that could be potentially engaged in the project. This number increased to 169, since Athens identified 3 more and Flanders 9 more, during the course of the project. For the case of Flanders, an additional reason for increasing the number of potential stakeholders was the addition of extra pilot cases, since during the time of creation of D2.1 the design of pilot cases hadn't concluded. As seen in Figure 1, of those 169, 56.8% of them (as in 96 stakeholders) engaged in the project in some way. The majority engaged with the Flanders pilot, comprising 44.8% of all stakeholders, followed by Sofia/Plovdiv at 32.3%, Athens at 19.8%, and Berlin at 3.1%. Figure 2 also presents the initial identification of potential stakeholders per pilot and the actual engagement during the project. As it is already mentioned, all KPIs in terms of actual user engagement were achieved.

Figure 1: *Engaged Stakeholders per Pilot*

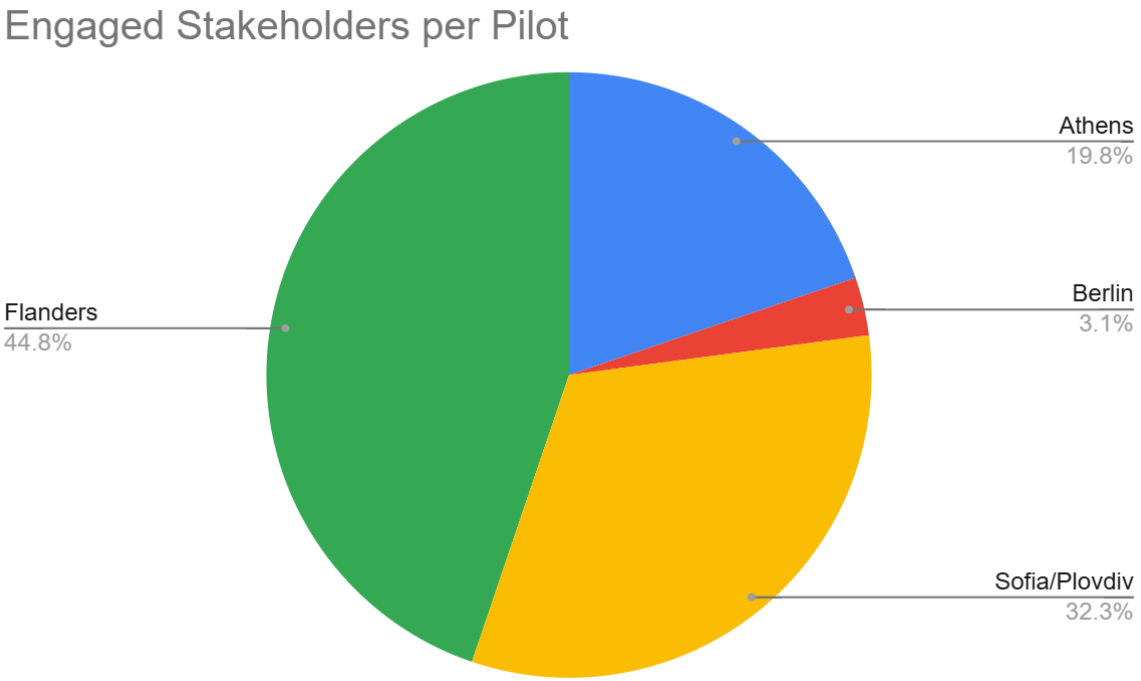
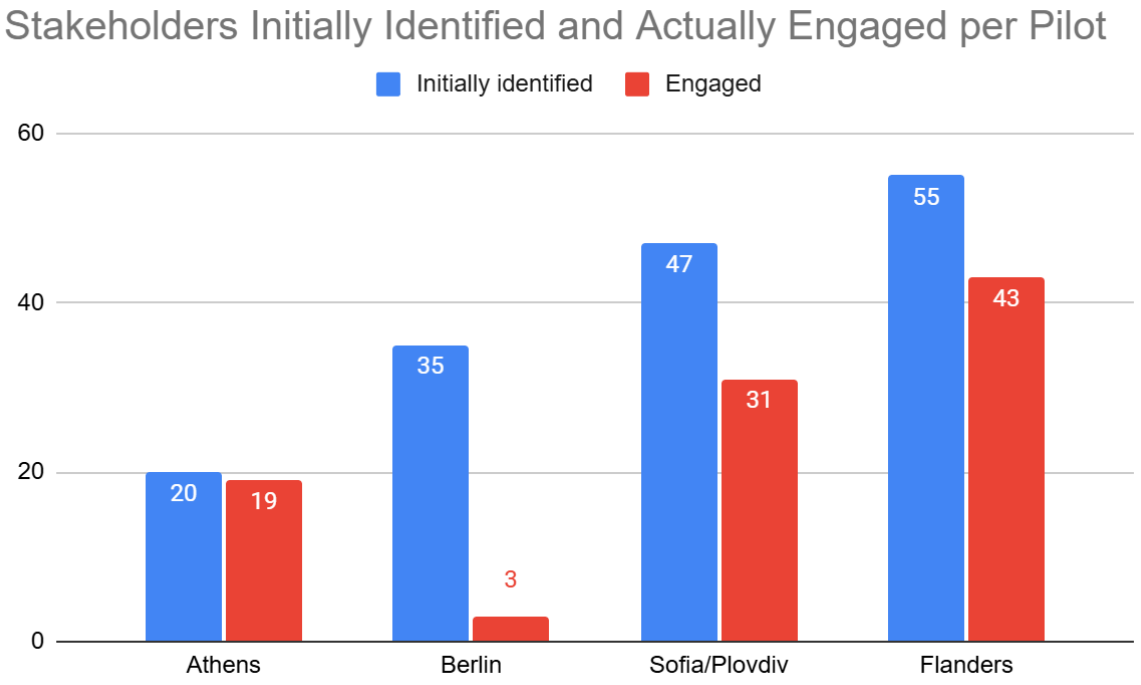


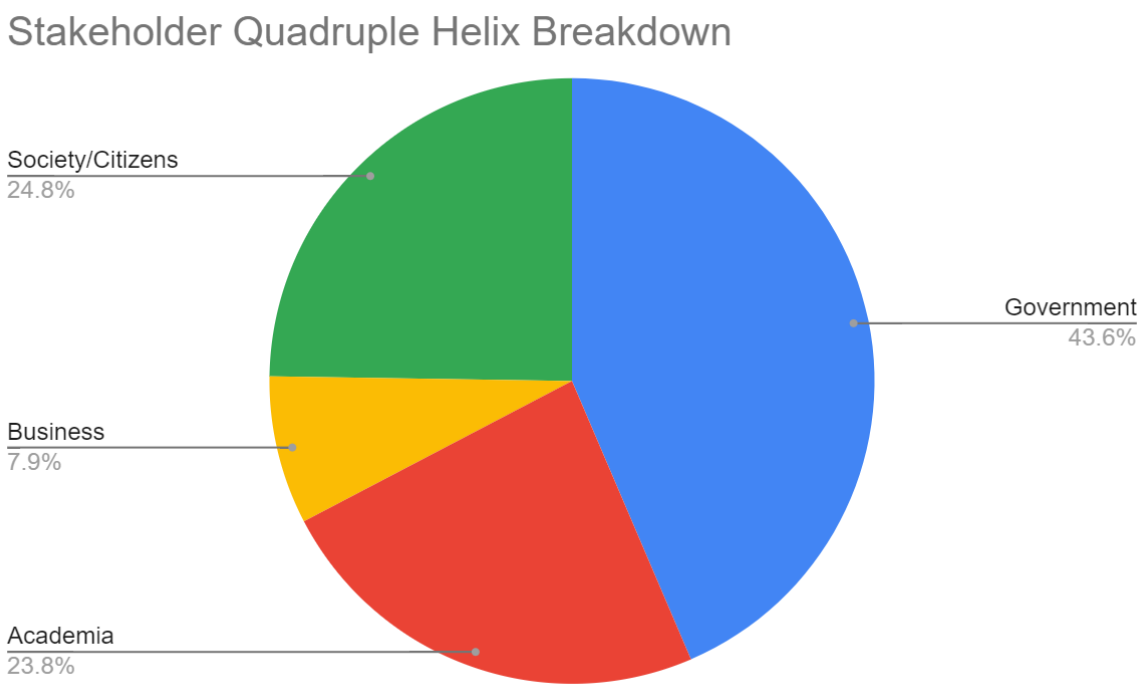
Figure 2: *Stakeholders Initially Identified and Actually Engaged per Pilot*



Concerning the participation from all groups of the Quadruple Helix (Figure 3), overall the presence of all groups remained similar over time, with the Government group leading with 43.6%, and the Society/Citizens group following. There was a slight increase in the Academia group since most of the later identified stakeholders belonged there, but it was not enough to

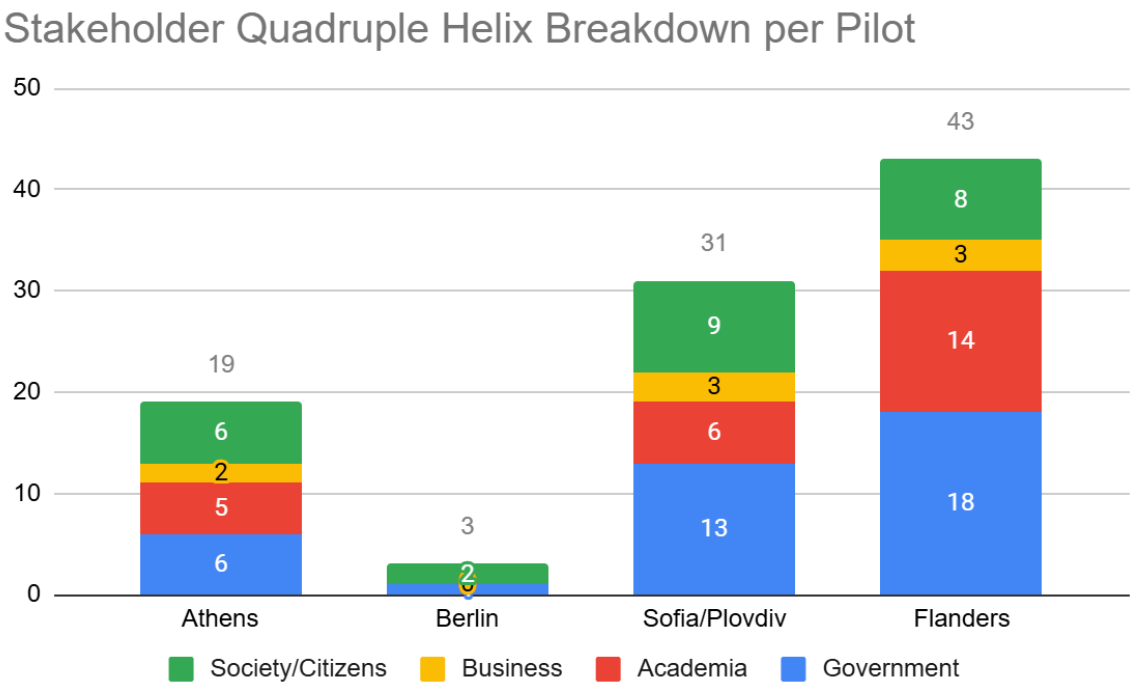
replace the Society/Citizens group as second. Both groups, however, show great interest with 24.8% and 23.8 respectively. Finally, the Business group is last with 7.9%.

Figure 3: *Stakeholder Quadruple Helix Breakdown*



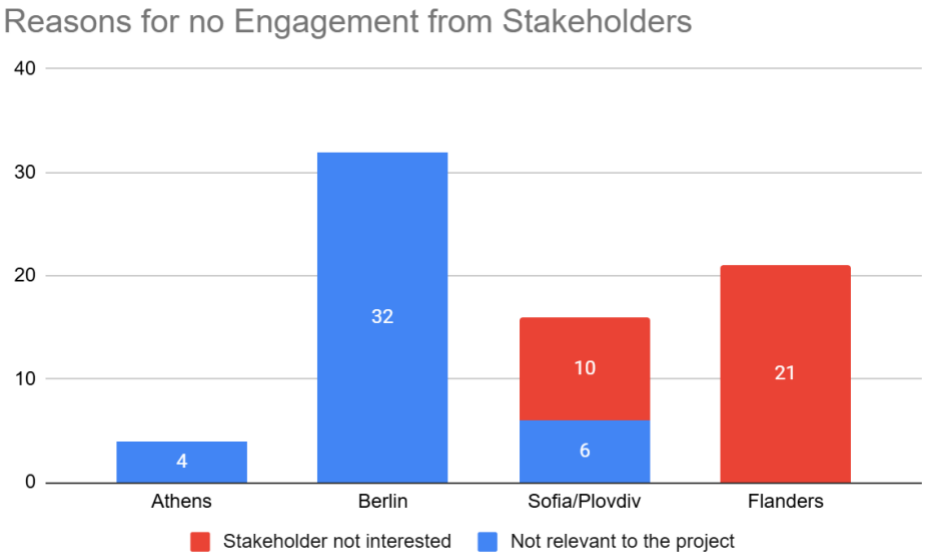
In the context of the Quadruple Helix within each pilot, Athens and Sofia/Plovdiv align with the previously mentioned pattern, featuring participation from all Quadruple Helix groups in the order of Government, Society/Citizens, Academia, and Business, from the largest to the smallest number of stakeholders. For the Flanders pilot, the Academia group takes second place in terms of numbers. Finally, the Berlin pilot reported the participation of only Society/Citizens and Government. A detailed breakdown of the Quadruple Helix groups within each pilot is available in Figure 4, below.

Figure 4: *Stakeholder Quadruple Helix Breakdown per Pilot*



Regarding the Stakeholders who were not engaged with the project, the majority of them were not engaged due to them not being too relevant to the project. The relevance of each stakeholder was decided by each pilot partner individually, after the design of the pilot cases had finished and they had a clear image of what kind of stakeholders they would need. The second reason for not engaging was a lack of interest on the Stakeholder's side. This also includes limited capacity to operate, forcing the Stakeholders to prioritise which projects and events they would engage with.

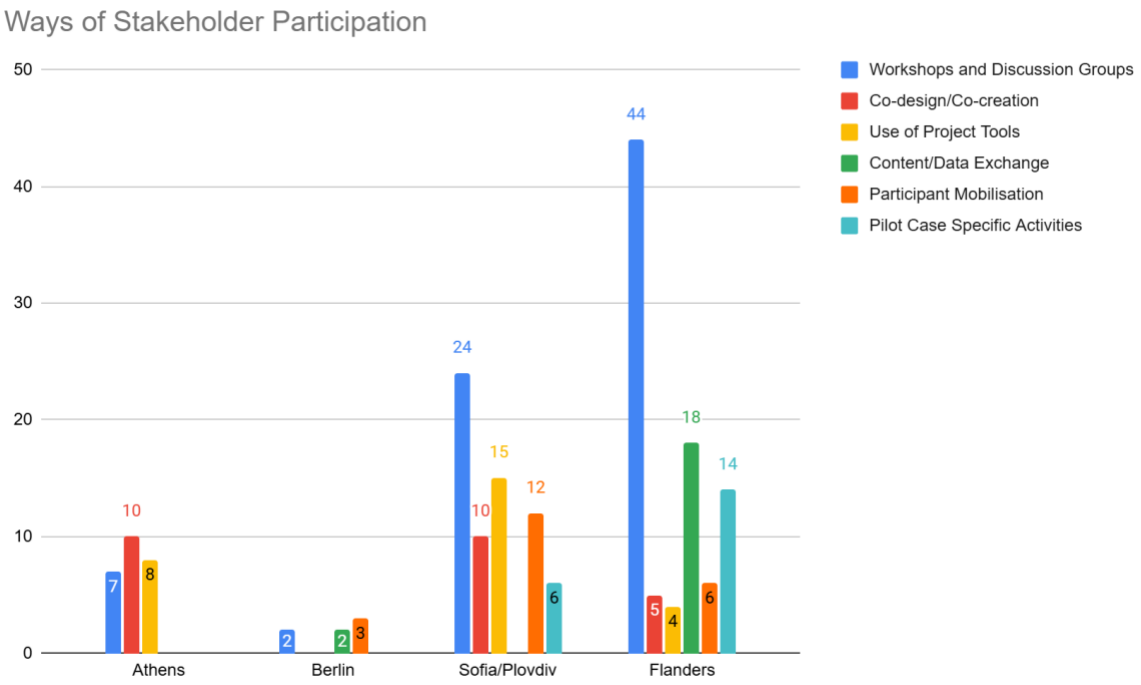
Figure 5: *Reasons for no Engagement from Stakeholders*



In terms of how the Stakeholders who were engaged in the project participated in it, Figure 5 provides a detailed breakdown of the various activities. The majority of stakeholders, accounting for 78.2%, participated in various workshops or discussion groups. The second and third most adopted ways of stakeholder participation were the use of the tools that were created during the project (such as the Mobile app, the various dashboards, and the sensors) and participation in co-design and co-creation activities, with 26.7% and 24.8% respectively. The mobilisation of potential participants with the help of stakeholders was fourth with 20.8%, followed by content and data exchange and activities tied to specific pilot cases, both at 20%. Not all pilot partners reported all the activities mentioned above, with the Flanders and the Sofia/Plovdiv pilots reporting the use of most of them.

It is important to note that while a pilot partner may have not reported the engagement of a stakeholder for a specific activity, that does not mean that such an activity did not take place in that pilot. For example, the engagement of stakeholders for the mobilisation of participants means that a pilot partner collaborated with a stakeholder to gain participants. This could be tied to the targeting of a specific Low SES group. The lack of engagement of a stakeholder by a pilot partner for this purpose does not mean that participants were not mobilised in the context of that pilot, but that it was achieved through other means.

Figure 6: *Ways of Stakeholder Participation*



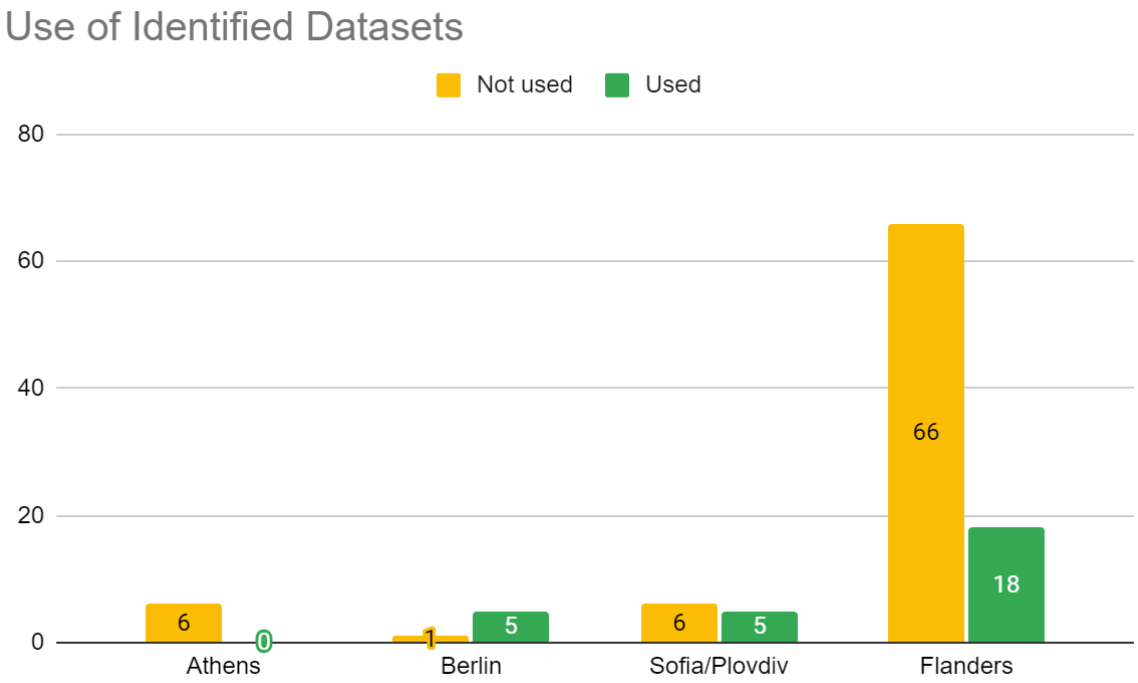
3.2. Pilot Datasets

Regarding datasets, the pilot partners identified 105 datasets that could potentially be used. The datasets that ended up being used during the project were 26. However, 4 more were identified and used, making the number of datasets 30. Some data was reported as impossible to integrate into any of the tools. This is connected to the fact that the list of datasets was created before the initial drafting of the requirements for the project's tools had finished, meaning at least some of the data that wasn't used were out of the scope of the development process. This is probably related to the initial search. Furthermore, while 5 datasets were identified by Flanders, their use in the project's tools was almost universal for the pilots, meaning those datasets contained data that were useful for all the pilot partners. Those datasets were incorporated in some of the tools developed by the project and proved helpful to all the pilot partners.

Other data streams and sources incorporated or used in the creation and calibration of the COMPAIR tools are reported in D1.7. They include:

- Data from traffic and air quality sensors used in the project, namely Telraam, SODAQ AIR, OnePlanet NitroSense, sensor.community and bcmeter.
- Data from official European air quality reference stations deployed by environmental institutes (source: European environmental agency Discomap[1])
- (Restricted) User habit, recycling, and travelling data for CO2 Dashboard
- (Restricted) User location data for Dynamic Exposure Visualisation App (DEVA) and Dynamic Exposure Visualisation Dashboard (DEV-D) and anonymized group data

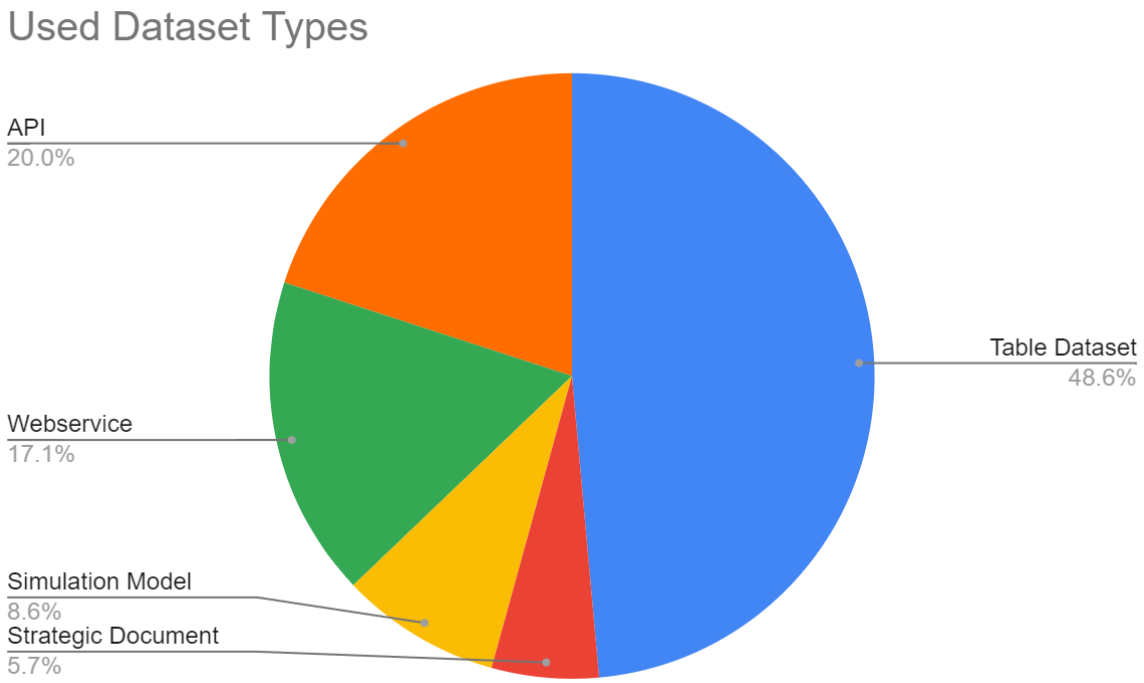
Figure 7: *Use of Identified Datasets*



[1]https://www.google.com/url?q=https://discomap.eea.europa.eu/Index/&sa=D&source=docs&ust=1728383941578066&usg=AOvVaw3x8XNYBIXkpgULfaCQz6De

The majority of the reported and utilised data was in the form of tabular datasets, followed by data obtained through APIs and web services. While simulation models were employed, their usage was significantly lower. Additionally, strategic documents were also identified as datasets.

Figure 8: *Used Dataset Types*



3.3. Citizen Science Initiatives

Regarding the identified Citizen Science Initiatives, 36 of them were identified by the pilot partners in D2.1. These were initiatives the pilot partners were aware of in their respective region and could potentially either be interested in collaborating with the COMPAIR Project or whose results may be of use to the COMPAIR Project. These Citizen Science Initiatives were formed into a separate list from Stakeholders because some of them had concluded even before the project's start. The overview of Citizen Science Initiatives was further analysed and expanded in deliverable D2.2 CS Landscape Review.

Of the 36 initiatives, the pilot partners managed to engage with 5 of them which are the most relevant and connected to the COMPAIR experiments. The ways they engaged with those science initiatives were either through exchanging data or through attracting participants in the pilot cases and workshops throughout the project.

It is important to mention, as a broader concept, the use of previous initiatives has also to do with any knowledge gained and lessons learnt from the COMPAIR partners that are applied to the design or implementation of the pilots and experiments. Following this concept, more or all initiatives are passively connected to the development of the COMPAIR project results and outcomes.

3.4. Participants Engagement

Regarding participant engagement, the relevant KPIs for the project are presented in Table 6. While some of the data presented were reported in February 2024, it is evident that the project achieved all the KPIs mentioned below. It is also important to mention that, in some cases, retrieving more detailed reports was not possible due to the sensitive nature of the data, and the pilot partners estimated the KPIs could be higher.

Table 6: *Citizen Engagement & Participation in line with KPIs*

Compair KPI	Flanders	Athens	Sofia/Plovdiv	Berlin
1/3 of participants from lower SES background	Approximately, 32 out of 92 pupils or students from LSES background	51 out of 54 users from LSES background	**Sofia:** Some children using the school bus service might be from Low SES groups - probably approximately 3-5 children in a class of 24	Over 3000 citizens targeted in three different neighbourhoods with a majority LSES residents

Compair KPI	Flanders	Athens	Sofia/Plovdiv	Berlin
			Plovdiv: approximately 21 of 35 volunteers/ citizens (elderly persons or receiving social aid); 7 children from LSES households directly involved with personal tasks (there are probably other children from such households - about 3-5 for a class of 26 students).	
Varied demographic balances (gender, age, education)		10 men 44 women	**Sofia**: Children from 1 to 5-6 grade (age 7-13) and their parents and teachers that are usually well educated. **Plovdiv**: Children from 5th to 7th grade (age 11-14), their parents, teachers, elderly people,	Ratio 65-35 in favour of male participants Roughly half are aged 25-45, about a quarter is aged 45-55, while the rest are above 55 years old.
300+ citizens involved in open and public experiments	154 citizens involved	54 citizens & 7 city officials involved	**Sofia**: around 200+ direct participants in workshops and measuring campaigns, and many more indirect **Plovdiv**: more than 280 citizens involved in trainings,	90 citizens were involved

Compair KPI	Flanders	Athens	Sofia/Plovdiv	Berlin
			measurements, workshops and rising awareness campaign	
1000 uses of Dashboards (personal, neighbourhood, city)	3640 visits between the CO2 Dashboard, the Policy Monitoring Dashboard, and the tools portal, at the time of reporting, with an average visit duration of 5 minutes and 5 seconds.			

4. Conclusion

This deliverable gives an updated version of the Value Network Canvas that reports relevant stakeholders, citizen science initiatives, and datasets for each pilot of the COMPAIR project.

In doing so, the deliverable presents the local networks created by the pilot partners and how they interacted during the project. Participation from all groups of the Quadruple Helix was reported and their percentage was as predicted in D2.1, with the Government being the largest interested group, followed by Academia and Society/Citizens. The participation of the Business group was smaller, which is something that needs to be addressed in future projects either through better identification of the partners or better attracting their interest through identifying ways of possible added value from their participation. While other citizen science initiatives were reported and pilot partners used them to garner more participants and data for the project, they were underused and in the future, further efforts to engage with them should be made, because each initiative and its results can prove to be valuable.

Moreover, the datasets reported at the start of the project were partially used. Most of them were not relevant to be used in the pilot use cases. Other data streams and sources were incorporated and utilised throughout the project, as elaborated in D1.7. Finally, the citizen engagement and participation KPIs were reached, marking this as a success. Some challenges in reaching LSES groups were reported by the pilot partners but they were successfully addressed.

Furthermore, while the project has been successful, it is important to highlight the difficulties faced so that future projects may have a better basis to start from.
Engaging citizens is a challenge on its own, and the pilot partners found engaging citizens from LSES groups more difficult, especially in co-design activities. The pilot partners followed a strategy of including multiple trusted channels and leveraging community influencers to be successful.
Through this deliverable, it was reported that a visibly smaller percentage of stakeholders belonged to the Business group of the Quadruple Helix. It is important to include a larger percentage, to have balance and to ensure that the group's expertise and innovation are

represented. In order to achieve this, projects should provide incentives for businesses and industry leaders, such as clear business opportunities, including access to potential new markets, collaborations with academic and government institutions, or the chance to pilot innovative solutions.

Finally, stronger collaboration with other citizen science initiatives is advised. Even if the initiatives have concluded, they may be sources of best practices, volunteer recruitment networks, and valuable data to further the quality of the projects.

Annex 1: Pilot Stakeholders

Flanders Pilot Stakeholders

Engagement Status	Organisation Name	Quadruple Helix type	Modifications or updates	Problems	Low SES Group Targeted
Yes	Agency for Internal Affairs (ABB)	Government	Invited them to the Round Table Meetings, gave status reports via SmartFlanders steering committee, invited them to COMPAIR study day, they helped raised awareness via social media	No	No
Yes	Agency for innovation and entrepreneurship	Government	Invited them to the Round Table Meetings, gave status reports via SmartFlanders steering committee, invited them to COMPAIR study day, they helped raised awareness via social media	No	No
Yes	Agency for education	Government	Participated in the Round Table Meetings	No	Indirectly, we used their public indicators about LSES pupils and students
Yes	Agency for roads and traffic	Government	Invited them to the Round Table Meetings, used their data on Counting Traffic Loops for	No	No

Engagement Status	Organisation Name	Quadruple Helix type	Modifications or updates	Problems	Low SES Group Targeted
			Digital Twin case, invited them to COMPAIR study day		
Yes	Environmental agency VMM (partner)	Government	COMPAIR-partner, internal newsletters, meetings with Climate departement, COMPAIR study day	No	Yes, all groups
Yes	Digital Flanders (partner)	Government	COMPAIR-partner, internal newsletters, meetings with Climate departement, COMPAIR study day	No	Yes, all groups
Yes	Department for mobility and public works	Government	Invited them to the Round Table Meetings, gave status reports via SmartFlanders steering committee, invited them to COMPAIR study day	No	No
No	Umbrella organisation for community education (gemeenschapsonderwijs)	Government	Invited them to the Round Table Meetings but they did not reply	N/A	N/A
No	Umbrella organisation for catholic education	Society/Citizens	Invited them to the Round Table Meetings but they did not reply	N/A	N/A
Yes	Knowledge Center Flemish major cities	Society/Citizens	Invited them to the Round Table Meetings, gave status reports via SmartFlanders steering committee, invited them to COMPAIR study day, they helped raised awareness via social media	No	No
Yes	300 Local communities	Society/Citizens	We gave them status reports via SmartFlanders steering committee, invited them to COMPAIR study day	No	No
Yes	13 major cities in Flanders	Government	Invited them to the Round Table Meetings,	No	No

Engagement Status	Organisation Name	Quadruple Helix type	Modifications or updates	Problems	Low SES Group Targeted
	(KVS)		gave status reports via SmartFlanders steering committee, asked them to be a candidate for public round, invited them to COMPAIR study day		
Yes	Flanders intermunicipal companies (VLINTER)	Government	Invited them to the Round Table Meetings, gave status reports via SmartFlanders steering committee, invited them to COMPAIR study day	No	No
No	Organisatie representing lokaal onderwijs	Government	Invited them to the Round Table Meetings but they did not reply	N/A	N/A
Yes	Umbrella organisation of the Flemish Provinces (VVP)	Government	Invited them to the Round Table Meetings, gave status reports via SmartFlanders steering committee, invited them to COMPAIR study day	No	No
Yes	Flemish Provinces	Government	Invited them to the Round Table Meetings, gave status reports via SmartFlanders steering committee, invited them to COMPAIR study day, did a pilot with the Province of East Flanders	No	Yes, all groups
Yes	VSV (Flemish foundation for mobility education)	Society/Citizens	Invited them to the Round Table Meetings, they contributed at regional network event about Herzele case, they contributed at the COMPAIR study day	No	No
Yes	VVSG (Flemish organisation of local communities) - Smart city representative	Society/Citizens	Invited them to the Round Table Meetings, gave status reports via SmartFlanders steering committee, invited them to COMPAIR study day	No	No

Engagement Status	Organisation Name	Quadruple Helix type	Modifications or updates	Problems	Low SES Group Targeted
Yes	Research institutes and universities	Academia	Students from 1 high school conducted AQ experiments with mobile solution	No	No
Yes	Individual schools	Academia	4 schools were local partner for cases in Herzele & Ghent	communicating with schools demands flexibility (you must be - physically - available during lunch hours and evenings when teachers have some spare time)	yes, pupils and students
No	Umbrella organisation of parents and parents organisations (VCOV)	Society/Citizens		N/A	N/A
Yes	Local police zones	Government	Collaborate on the design of the school streets and intermediate report	No	No
No	Grassroots organisations	Society/Citizens		N/A	N/A
Yes	Citizen science data providers (Mobility)	Society/Citizens	Information sessions/workshops/data cafés	No	Yes

Engagement Status	Organisation Name	Quadruple Helix type	Modifications or updates	Problems	Low SES Group Targeted
Yes	Citizen science data providers (Air quality)	Society/Citizens	Information sessions/workshops/data cafés	No	Yes
No	Netwerk voor duurzame mobiliteit	Society/Citizens		N/A	N/A
Yes	Pedestrians movement	Society/Citizens	Informed local chapters about local cases, invited umbrella to Round table and study day	No	No
Yes	Cyclists movement	Society/Citizens	Informed local chapters about local cases, invited umbrella to Round table and study day	No	No
No	Public Space Info Point	Society/Citizens		N/A	N/A
No	Umbrella organisation of the Flemish Urban and Spatial Planners (VRP)	Society/Citizens		N/A	N/A
No	Schools for Clean Air (Grassroots organisation)	Society/Citizens		N/A	N/A
No	Heroes For Zero (Grassroot organisation)	Society/Citizens		N/A	N/A
No	Leuven Climate 2030 (city partnership)	Society/Citizens		N/A	N/A
No	Umbrella organisations of family doctors	Society/Citizens		N/A	N/A
No	Umbrella organisations of pharmacies	Society/Citizens		N/A	N/A
No	Flemish Agency for Care and Health	Government	Invited them to the Round Table Meetings but they did not reply	N/A	N/A

Engagement Status	Organisation Name	Quadruple Helix type	Modifications or updates	Problems	Low SES Group Targeted
No	Department of Welfare, Public Health and Family	Government	Invited them to the Round Table Meetings but they did not reply	N/A	N/A
Yes	Health Insurance Funds	Business	indirectly, one of the CS Traffic was director of study body of a health insurance fund. Had a good change of ideas	No	No
Yes	Bicycle shops	Business	yes, we invited succesfully a bycle shop to particate in traffic counts in Herzel and involved them in the recruitment campaign	No	Unknown
Yes	Umbrella organization of social bicycle companies (Bicycle points)	Business	we did involve them in a tender for renting bikes to visit the pilot area of Saint-Nicolas	No	No
Yes	Public transport company - buses	Government	we involved them regarding solution for public busses passing through school street	No	No
No	Public transport company - trains	Government		N/A	N/A
No	Public transport company - tram	Government		N/A	N/A
No	Car sharing service (Cambio)	Business		N/A	N/A
	Umbrella organisation of the Flemish nature and environmental organizations	Society/Citizens		N/A	N/A
Yes	SCIVIL	Academia		No	No
Yes	Free University of Brussels	Academia	An expert on LSES gave a webinar for all COMPAIR pilots, she contributed also to Flemish COMPAIR study day	No	Indirectly

Engagement Status	Organisation Name	Quadruple Helix type	Modifications or updates	Problems	Low SES Group Targeted
No	Ghent University	Academia		N/A	N/A
Yes	Catholic University of Leuven	Academia	One of our reviewers is a professor at KUL	No	No
Yes	University of Antwerp	Academia	A health expert contributed to Flemish COMPAIR study day	No	No
No	Hasselt University	Academia		N/A	N/A
Yes	Flemish Institute for Technological Research	Academia	They performed the benchmarking of the AQ sensors in closed round, one of reviewers works there	No	No
Yes	IMEC	Academia	Invited them to Flemish COMPAIR study day	No	No
Yes	Provincial Center of Expertise on Environment and Health	Academia	Involved them in designing the measuring campaign of the bicycle bridge	N/A	N/A
Yes	Flemish Center of Expertise on Environment and Health	Academia	One of our reviewers works there	No	No
New	Inter-municipality SOLVA	Government	Lead experiment designer, support with recruitment campaign and with involvement of local actors	No	No
New	Municipality of Hezele	Government	Citizen communication, deciding school street measure	No	Yes, LSES students
New	City of Ghent	Government	Citizen communication, deciding on traffic circulation measures, adoption of tools & sensors	No	Yes,all
New	City of Saint-Nicolas	Government	Citizen communication, deciding on traffic circulation measures, adoption of tools & sensors	No	Yes,all

Engagement Status	Organisation Name	Quadruple Helix type	Modifications or updates	Problems	Low SES Group Targeted
New	Province of East-Flanders	Government	Responsible for bicycle high ways, builder of bicycle bridge, adoption of tools & sensors	No	Yes,all
New	Sint-Paulusinstituut (SP)	Academia	Main beneficiary of school street measure, closing and opening of the school street, communication with teachers, students and parents	No	Yes, LSES students
New	Gemeentelijke Basisschool De Kersentuin	Academia	Education about Traffic & Air quality	No	Yes, LSES pupils
New	Vrije Basisschool Herzele (VBSH)	Academia	Education about Traffic & Air quality	No	Yes, LSES pupils
New	Basisschool De Krekel	Academia	Education about Traffic & Air quality	No	Yes, LSES pupils

Athens Pilot Stakeholders

Engagement Status	Organisation Name	Quadruple Helix type	Modifications or updates	Problems	Low SES Group Targeted
Yes	Municipality of Athens	Government	Workshops, discussion groups	No	Yes
Yes	Department of Resilience & Sustainability - Municipality of Athens	Government	Workshops, discussion groups	No	Yes
No	Sustainable Urban Mobility Unit	Government	It is not relevant to COMPAIR	N/A	N/A

Engagement Status	Organisation Name	Quadruple Helix type	Modifications or updates	Problems	Low SES Group Targeted
Yes	Athens Digital Lab	Government	Participation in co-creation, workshops etc	No	Yes
No	Bike Associations, Shared vehicles associations (Lime, Uber etc)	Business	It is not relevant to COMPAIR	N/A	N/A
Yes	Atenistas	Society/Citizens	Through a mail campaign, they were invited to voluntarily use the PMD and CO2 tools	No	No
Yes	Office of Deputy Mayor for Climate Change and green spaces	Government	Workshops, discussion groups	No	Yes
Yes	Department of green spaces management	Government	Workshops, discussion groups	No	Yes
No	Department of Waste Management and Recycling	Government	It is not relevant to COMPAIR	N/A	N/A
Yes	PANhellenic infrastructure for Atmospheric Composition and climatE chAnge (PANACEA)	Academia	Through a mail campaign, they were invited to voluntarily use the PMD and CO2 tools	No	Yes
Yes	DevelopAthens	Business	Workshops, discussion groups	No	Yes
Yes	Climate Resilient Regions through Systemic Solutions and Innovations (ARSINOE)	Academia	Through a mail campaign, they were invited to voluntarily use the PMD and CO2 tools	No	Yes
No	Sustainable Mobility Unit Athens	Society/Citizens	It is not relevant to COMPAIR	N/A	N/A

Engagement Status	Organisation Name	Quadruple Helix type	Modifications or updates	Problems	Low SES Group Targeted
Yes	National Observatory of Athens	Academia	Through a mail campaign, they were invited to voluntarily use the PMD and CO2 tools	No	Yes
Yes	SynAthina	Society/Citizens	Workshops, discussion groups and posts in the SynAthina platform	No	Yes
Yes	Institute of Communication and Computer Systems ICCS, NTUA	Academia	Through a mail campaign, they were invited to voluntarily use the PMD and CO2 tools	No	Yes
Yes	DRAXIS ENVIRONMENTAL SA	Business	Through a mail campaign, they were invited to voluntarily use the PMD and CO2 tools	No	Yes
Yes	CONNECT YOUR CITY @ΑμΚΕΙΑΣΙΣ	Society/Citizens	Through a mail campaign, they were invited to voluntarily use the PMD and CO2 tools	No	No
Yes	ECOWEEK	Society/Citizens	Through a mail campaign, they were invited to voluntarily use the PMD and CO2 tools	No	No
Yes	Impact Hub Athens	Society/Citizens	Through a mail campaign, they were invited to voluntarily use the PMD and CO2 tools	No	No
New	National Centre For Scientific Research Demokritos	Academia	Through a mail campaign, they were invited to voluntarily use the PMD and CO2 tools	No	Yes
New	Natural Environment & Climate Change Agency (NECCA)	Government	Through a mail campaign, they were invited to voluntarily use the PMD and CO2 tools	No	Yes

Engagement Status	Organisation Name	Quadruple Helix type	Modifications or updates	Problems	Low SES Group Targeted
New	SCIENCE FOR YOU PNPC "SCIFY"	Society/Citizens	Through a mail campaign, they were invited to voluntarily use the PMD and CO2 tools	No	Yes

Sofia/Plovdiv Pilot Stakeholders

Engagement Status	Organisation Name	Quadruple Helix type	Modifications or updates	Problems	Low SES Group Targeted
Yes	Sofia City Council	Government	Some of the councillors took part in some of the workshops	Not all of them were able to participate although they were interested but overwhelmed with other tasks	N/A
Yes	Sofia Municipality	Government	Different departments of Sofia Municipality were involved in the relevant phases and activities of the project, as explained below.	No	N/A
Yes	Environmental Department	Government	Different representatives participated in almost all of the workshops and were involved in the awareness-raising campaign and the school bus service development	Some part of the project was a period of elections and political crises and after the elections, we needed to get in touch with the newly elected officials	N/A
Yes	Climate, Air and	Government	Different representatives participated in	No	One of their

Engagement Status	Organisation Name	Quadruple Helix type	Modifications or updates	Problems	Low SES Group Targeted
	Energy Department of Sofia Municipality		almost all of the workshops and were involved in the school bus service development		programs that we promoted, targeted citizens from low SES groups who could change their heating system to an ecological one.
Yes	Urban Mobility Department of Sofia Municipality	Government	We developed the school bus service together with the Transport Department in accordance with the citizens' feedback	No	N/A
Yes	Urban Mobility Center, an entity of Sofia Municipality	Government	Together we conducted the school bus service and also the EU Mobility Week activities and the awareness-raising campaign. also they participated in the sensor testing of Telraam, SODAQ, and Sensor.community	No	N/A
No	Ministry of Education and Science	Government	We were directly working with the school administrations itself	N/A	N/A
No	Regional Education Management Agency - Sofia	Government	We have already established the connections with the schools and there was no need to get in touch with them.	N/A	N/A
Yes	Education Department, Sofia Municipality	Government	We were directly working with the school administrations itself	N/A	No

Engagement Status	Organisation Name	Quadruple Helix type	Modifications or updates	Problems	Low SES Group Targeted
No	State Agency Road Safety	Government		N/A	N/A
No	Sofiaplan	Government	Only informed about the project	N/A	N/A
No	AirBG Foundation	Society/Citizens	Only informed about the project	The communication was not direct	No
Yes	Za Zemiata	Society/Citizens	They took part in some of the workshops and were testers in the CO2 tool campaign	No	No
Yes	Clean Air Fund	Society/Citizens	They were one of our partners and a connection with the TSA Foundation and the Roma community	No	Yes, they made the connection with the TSA Foundation and the Roma community
Yes	Move.bg	Society/Citizens	They took place in some of the workshops, especially the ones presenting the digital tools and promoting the CO2 calculator	No	No
Yes	Bulgarian representative for the EU Climate Pact	Government	We conducted a meeting and some interactions with a representative of the EU Climate Pack	We asked for feedback on the CO2 Calculator, but we didn't receive many useful recommendations	No
No	Gorichka	Society/Citizens	They are not operating so actively	N/A	No
No	Ministry of Environment and Water	Government	Not relevant to the project	N/A	No

Engagement Status	Organisation Name	Quadruple Helix type	Modifications or updates	Problems	Low SES Group Targeted
Yes	Executive Environment Agency	Government	We had some communication with them regarding the sensors		N/A
No	The Small Steps Foundation	Society/Citizens	We met once but they were at lower capacity and didn't operate so actively	N/A	No
No	Junior Achievement Bulgaria	Society/Citizens	Only informed about the project	N/A	No
Yes	Airate	Business	They took part in some of the workshops. They were a possible partner in the Kindergarten Use Case as they provide window meshes to prevent PM from entering children's rooms from outside.	Due to the mayoral elections and the unavailability of a budget for window meshes installation, the project was not voted as a priority one for the 2024 budget year and it is currently put on hold, waiting for approval from the Mayoral team.	No
No	Data Science Society	Society/Citizens	They were invited but didn't take part in the workshops	N/A	No
Yes	Sofenhagen	Society/Citizens	They were some of our volunteers testing the SODAQ sensors while cycling	No	No
Yes	Cleantech Bulgaria	Business	They were invited to test the CO2 tool and we took part in an event during the EU Mobility Week together	No	No
No	WWF Bulgaria	Society/Citizens	They were invited but didn't take part in the workshops	N/A	N/A

Engagement Status	Organisation Name	Quadruple Helix type	Modifications or updates	Problems	Low SES Group Targeted
No	Sofia University St. Kliment Ohridski	Academia	They were invited but didn't take part in the workshops	N/A	N/A
No	Imp-Act Agency	Business	We planned to make the communication strategy for the media campaign together but we made it directly with the PR team of Sofia Municipality		No
Yes	18 SOU William Gladstone	Academia	They implemented the school bus service measure at their school and also took part in the workshops on raising awareness and first testing rounds of the sensors	No	Some children using the school bus service might be from Low SES groups but we have not asked them directly as it's a sensitive topic. Schools don't collect such information and if they collect it, they don’t have permission to provide it to third parties.
Yes	32 School "St. Kliment Ohridski"	Academia	They implemented the school bus service measure at their school and also took part in the workshops on raising awareness and first testing rounds of the sensors	No	Some children using the school bus service might be from Low SES groups but we have not

Engagement Status	Organisation Name	Quadruple Helix type	Modifications or updates	Problems	Low SES Group Targeted
					asked them directly as it's a sensitive topic. Schools don't collect such information and if they collect it, they don't have permission to provide it to third parties.
No	Urban Mobility Department - Plovdiv	Government	Only informed about the project	N/A	N/A
Yes	Municipality Plovdiv	Government	Meetings, e-mails, co- organising of events, participated in co- creation workshops, use of the CO2 tool	No	Yes, they prepared a list of citizens, that received social aid and want to be a volunteers
Yes	Sofena Energy Agency	Society/Citizens	Meetings, e-mails, participation in co-creation, workshops, raising awareness campaign etc	No	No
No	Regional Education Management Agency - Plovdiv	Government	Was informed about the project and was invited to WS	No	No
Yes	Association of Bulgarian Energy Agencies	Society/Citizens	Participation in co-creation and workshops	No	No

Engagement Status	Organisation Name	Quadruple Helix type	Modifications or updates	Problems	Low SES Group Targeted
Yes	Primary schools in Plovdiv	Academia	Participation in workshops, experiments, they were invited to voluntarily use the PMD and CO2 tool	No	Identification of the students from LSES households
Yes	Regional Inspectorate of Environment and Water - Plovdiv	Government	Participation in co-creation and workshops	No	No
Yes	Department “Education” - municipality Plovdiv	Government	Participation in co-creation and workshops, deputy mayor signed invitation letters for participation in the project to the schools	No	No
Yes	Directorate “Ecology and waste management”, municipality Plovdiv	Government	Participation in co-creation and workshops, deputy mayor signed invitation letters for participation in the project to the schools	No	No
No	Municipal Commission for Traffic Safety, municipality Plovdiv	Government	Only informed about the project	No	No
Yes	BG BeActive	Society/Citizens	Participation in workshops, raising awareness campaign, sensors installation, they were invited to voluntarily use the PMD and CO2 tool	No	No
Yes	EVN Bulgaria	Business	Participation in workshops, raising awareness campaign, they were invited to voluntarily use the PMD and CO2 tool	No	No

Engagement Status	Organisation Name	Quadruple Helix type	Modifications or updates	Problems	Low SES Group Targeted
Yes	Medical University of Plovdiv	Academia	Participation in workshops, raising awareness campaign, they were invited to voluntarily use the PMD and CO2 tool	No	No
Yes	University of Plovdiv	Academia	Participation in workshops, raising awareness campaign, they were invited to voluntarily use the PMD and CO2 tool	No	No
Yes	Green Synergy Cluster	Society/Citizens	Participation in workshops, they were invited to voluntarily use the PMD and CO2 tool	No	No
Yes	Business for Plovdiv	Society/Citizens	Participation in co-creation, workshops, raising awareness campaign	No	No
Yes	Public Council for Air Quality Plovdiv	Government	Participation in co-creation, workshops, raising awareness campaign, sensor installation, they were invited to voluntarily use the PMD and CO2 tool	No	No

Berlin Pilot Stakeholders

Engagement Status	Organisation Name		Modifications or updates	Problems	Low SES Group Targeted
Yes	Senate Department for	Government	Exchange of content, discussion of how the data can be used for policy,	No	No

Engagement Status	Organisation Name		Modifications or updates	Problems	Low SES Group Targeted
	the Environment, Transport and Climate Protection		participation in the panel discussion at the closing event		
Yes	VCD	Society/Citizens	Received support in mobilising participants for the mobile measurement campaign	No	No
Yes	Changing Cities	Society/Citizens	Received support in mobilising participants for the mobile measurement campaign; exchange of content, discussion of how the data can be used for policy, participation in the panel discussion at the closing event; we have presented our findings at Changing Cities events	No	If yes, only a few since the target group of Changing Cities is still quite homogenous privileged
No	District Office Mitte Berlin	Government	It was not such a relevant stakeholder for the COMPAIR project	N/A	N/A
No	Office for Urban Greenspace and Mobility Planning in Mitte	Government	It was not such a relevant stakeholder for the COMPAIR project	N/A	N/A
No	Office for Environmental and Nature Protection in Mitte	Government	It was not such a relevant stakeholder for the COMPAIR project	N/A	N/A
No	District Office	Government	It was not such a relevant stakeholder for	N/A	N/A

Engagement Status	Organisation Name		Modifications or updates	Problems	Low SES Group Targeted
	Charlottenburg-Wilmersdorf Berlin		the COMPAIR project		
No	Office for Urban Greenspace and Mobility Planning in Charlottenburg-Wilmersdorf	Government	It was not such a relevant stakeholder for the COMPAIR project	N/A	N/A
No	Office for Environmental and Nature Protection in Charlottenburg-Wilmersdorf	Government	It was not such a relevant stakeholder for the COMPAIR project	N/A	N/A
No	KiezConnect	Society/Citizens	It was not such a relevant stakeholder for the COMPAIR project	N/A	N/A
No	Temporäre Spielstraßen	Society/Citizens	It was not such a relevant stakeholder for the COMPAIR project	N/A	N/A
No	Berlin 21	Society/Citizens	It was not such a relevant stakeholder for the COMPAIR project	N/A	N/A
No	Training Institute of the Heinrich Böll Foundation	Society/Citizens	It was not such a relevant stakeholder for the COMPAIR project	N/A	N/A
No	ADFC-TK	Society/Citizens	It was not such a relevant stakeholder for	N/A	N/A

Engagement Status	Organisation Name		Modifications or updates	Problems	Low SES Group Targeted
			the COMPAIR project		
No	Grüne Liga (Green League)	Society/Citizens	It was not such a relevant stakeholder for the COMPAIR project	N/A	N/A
No	Frauenalia	Business	It was not such a relevant stakeholder for the COMPAIR project	N/A	N/A
No	Frauencafé Berlin Global	Society/Citizens	It was not such a relevant stakeholder for the COMPAIR project	N/A	N/A
No	Mamis en Movimiento e.V	Society/Citizens	It was not such a relevant stakeholder for the COMPAIR project	N/A	N/A
No	BOX66	Society/Citizens	It was not such a relevant stakeholder for the COMPAIR project	N/A	N/A
No	Migration hub	Society/Citizens	It was not such a relevant stakeholder for the COMPAIR project	N/A	N/A
No	s27	Society/Citizens	It was not such a relevant stakeholder for the COMPAIR project	N/A	N/A
No	Refugees on rails	Society/Citizens	It was not such a relevant stakeholder for the COMPAIR project	N/A	N/A
No	Berlin Willkommen Zentrum	Government	It was not such a relevant stakeholder for the COMPAIR project	N/A	N/A
No	LAFI NK e.V	Society/Citizens	It was not such a relevant stakeholder for the COMPAIR project	N/A	N/A
No	Technik	Society/Citizens	It was not such a relevant stakeholder for	N/A	N/A

Engagement Status	Organisation Name		Modifications or updates	Problems	Low SES Group Targeted
	Museum		the COMPAIR project		
No	Naturfreunde Berlin	Society/Citizens	It was not such a relevant stakeholder for the COMPAIR project	N/A	N/A
No	Schreberjugend Berlin	Society/Citizens	It was not such a relevant stakeholder for the COMPAIR project	N/A	N/A
No	BUND friends of earth Germany	Society/Citizens	It was not such a relevant stakeholder for the COMPAIR project	N/A	N/A
No	Flicken	Business	It was not such a relevant stakeholder for the COMPAIR project	N/A	N/A
No	Flotte	Business	It was not such a relevant stakeholder for the COMPAIR project	N/A	N/A
No	Avocargo	Business	It was not such a relevant stakeholder for the COMPAIR project	N/A	N/A
No	Free University of Berlin, Institute of Geographical Science	Academia	It was not such a relevant stakeholder for the COMPAIR project	N/A	N/A
No	Berlin Institute of Technology, Institute for Ecology, Department of Climatology	Academia	It was not such a relevant stakeholder for the COMPAIR project	N/A	N/A

Engagement Status	Organisation Name		Modifications or updates	Problems	Low SES Group Targeted
No	Berlin Institute of Technology, Geoinformation in Environmental Planning	Academia	It was not such a relevant stakeholder for the COMPAIR project	N/A	N/A
No	Humboldt University Berlin, Institute for Climate Geography, Department of Urban Climate and Air Pollution	Academia	It was not such a relevant stakeholder for the COMPAIR project	N/A	N/A

Annex 2: Pilot Datasets

Flanders Pilot Datasets

Status	Dataset Name	Type	Pilot case expected to be used for	Modifications or updates
Yes	GRB LOD 1 (Spatial reference database 3D LOD 1)	Geospatial dataset	C_FL_SS	Used in C_FL_UDT
Yes	GRB 2D Base layer	Geospatial dataset, geospatial web service	C_FL_SS	Used in C_FL_UDT, C_FL_SS
Yes	Digital height model Flanders (1 meter, 5 meter, 25 meter, 100 meter)	Geospatial dataset, geospatial web service	C_FL_SS	Used in C_FL_UDT
Yes	Orthofoto medium scale (25 cm)	Geospatial dataset, geospatial web service	C_FL_SS	Used in C_FL_UDT, C_FL_SS
Yes	Soil Cover (BBK) (1 m)	Geospatial dataset, geospatial web service	C_FL_UDT	Used in C_FL_UDT
Yes	Soil Cover (BAK) (5 m)	Geospatial dataset, geospatial web service	C_FL_UDT	Used in C_FL_UDT
Yes	Water Impermeability Map (WOK) (5 m)	Geospatial dataset, geospatial web service	C_FL_UDT	Used in C_FL_UDT
Yes	Vegetation/greenery map	Geospatial dataset, geospatial webservice	C_FL_UDT	Used in C_FL_UDT
Yes	Forrest map	Geospatial dataset, geospatial web service	C_FL_UDT	Used in C_FL_UDT

Status	Dataset Name	Type	Pilot case expected to be used for	Modifications or updates
No	Spatial model flanders 2050 including optimisation models for land use and infrastructures	Simulation model		
No	Land use optimisation model	Simulation model		
Yes	Road Network (Mid scale) - 2D	Geospatial dataset, geospatial web service	C_FL_UDT	Used in C_FL_SS
Yes	Road Network (Mid scale) - 2D (INSPIRE)	Geospatial dataset, geospatial web service	C_FL_UDT	Used in C_FL_UDT
No	Road works (ongoing and planned) - GIPOD	Geospatial web service	C_FL_DE, C_FL_UDT	Used in C_FL_UDT
No	Loop-based traffic data - Detection loops	Sensor	C_FL_UDT	Used in C_FL_UDT
Yes	Loop-based traffic data - Detection loops	Geospatial web service	C_FL_UDT	Used in C_FL_UDT
No	DATEX2 feed traffic information (full version)	API	C_FL_SS, C_FL_UDT	Used in C_FL_UDT
No	Dynamic speed limit and lane indicator signs (RSS) traffic management data	API	C_FL_UDT	
No	Speed regimes (along numbered roads managed by AWV)	Geospatial dataset	C_FL_SS, C_FL_UDT	
No	LHV trajectory zones (Long Heavy Vehicles)	Dataset	C_FL_UDT	
No	Road signs geospatial register	Dataset	C_FL_UDT	
Yes	Bicycle highways	Geospatial web services	C_FL_DE	Used in C_FL_BB
No	Flemish multi modal traffic model	Simulation model	C_FL_UDT	
No	MatLabTrafficToolbox	Simulation model	C_FL_UDT	

Status	Dataset Name	Type	Pilot case expected to be used for	Modifications or updates
No	Administrative units	Geospatial dataset, Geospatial web services	C_FL_SS, C_FL_DE, C_FL_UDT	
No	Districts of the city of Antwerp (official) ("Districten")	Geospatial dataset, Geospatial web services	C_FL_SS, C_FL_DE, C_FL_UDT	
No	Subdivision of districts of the city of Antwerp ("Wijken")	Geospatial dataset, Geospatial web services	C_FL_SS, C_FL_DE, C_FL_UDT	
No	Districts of the city of Ghent ("Wijken")	Geospatial dataset, Geospatial web services	C_FL_SS, C_FL_DE, C_FL_UDT	
No	Districts of the city of Mechelen ("Wijken")	Geospatial dataset, Geospatial web services	C_FL_SS, C_FL_DE, C_FL_UDT	
No	Statistical units	Geospatial dataset, Geospatial web services	C_FL_SS, C_FL_DE, C_FL_UDT	
No	Address base register (CRAB)	Geospatial dataset	C_FL_UDT	
No	Companies and business units	Geospatial dataset, geospatial web service	C_FL_UDT	
No	IPPC-installations in Flanders (Industrial Emissions Directive)	Geospatial dataset, geospatial web service	C_FL_DE, C_FL_UDT	
No	IPPC-installations in Flanders (Industrial Emissions Directive) (POI)	Geospatial web service	C_FL_DE, C_FL_UDT	
No	IPPC-installations in Flanders (Industrial Emissions Directive) (INSPIRE)	Geospatial dataset, geospatial web service	C_FL_DE, C_FL_UDT	
Yes	AIR quality sensors (official sensors VMM/Irceline)	API	C_FL_DE, C_FL_UDT	Used in C_FL_SS, C_FL_TCM
No	AIR quality Citizen Science sensors	API	C_FL_DE, C_FL_UDT	

Status	Dataset Name	Type	Pilot case expected to be used for	Modifications or updates
	(Luftdaten Pumpe)			
No	Meteo information (VMM)	Dataset	C_FL_DE, C_FL_UDT	
No	Air quality model - ATMOPLAN (used by Irceline / VMM) -	Simulation model	C_FL_DE, C_FL_UDT	
Yes	Official schools (POI)	Geospatial dataset, geospatial web service	C_FL_SS, C_FL_DE, C_FL_UDT	Used in C_FL_SS
No	Childcare facilities (POI)	Geospatial dataset, geospatial web service	C_FL_DE, C_FL_UDT	
No	Care facilities (hospitals, elderly facilities, home care, ...) (POI)	Geospatial dataset, geospatial web service	C_FL_DE, C_FL_UDT	
Yes	Family doctors	Dataset	C_FL_SS, C_FL_DE, C_FL_UDT	Used in C_FL_SS
Yes	Pharmacies	Dataset	C_FL_SS, C_FL_DE, C_FL_UDT	Used in C_FL_SS
Yes	Demographic data	Dataset	C_FL_SS, C_FL_DE, C_FL_UDT	Used in C_FL_SS
No	Housing data	Dataset	C_FL_SS, C_FL_DE, C_FL_UDT	-
Yes	School population	Dataset	C_FL_SS, C_FL_DE, C_FL_UDT	Used in C_FL_SS
No	Antwerp LOD 2 model	Geospatial dataset	C_FL_UDT	-
No	Antwerp Bike sharing stations Velo	Dataset	C_FL_UDT	-
No	Antwerp Car Charging stations	Dataset	C_FL_UDT	-

Status	Dataset Name	Type	Pilot case expected to be used for	Modifications or updates
No	Antwerp Hospitals	Dataset	C_FL_UDT	-
No	Antwerp Family doctors	Dataset	C_FL_UDT	-
No	Antwerp Traffic model	Simulation model	C_FL_UDT	-
No	Antwerp City flows	Simulation model	C_FL_UDT	-
No	Ghent Traffic model	Simulation model	C_FL_UDT	-
No	Kortrijk - Parking data (on-street and public parking spaces)	Parking occupancy data from public parkings and parking spaces in the public domain.	C_FL_UDT	-
No	Leuvenair - air quality sensors		C_FL_DE, C_FL_UDT	-
Yes	Open Streetmap			Used in C_FL_SS, C_FL_TCM, C_FL_BB, C_FL_DE, C_FL_UDT
Yes	Sensor.community			Used in C_FL_SS, C_FL_TCM
Yes	Telraam			Used in C_FL_SS, C_FL_TCM, C_FL_BB, C_FL_UDT
Yes	Pupils with school allowance	Dataset	New	Used in C_FL_SS, C_FL_TCM
Yes	Ghent Threes (location)	Dataset	New	Used in C_FL_UDT
Yes	TrafficScout	Simulation model	New	Used in C_FL_TCM, C_FL_BB

Athens Pilot Datasets

No datasets of the ones reported were used

Sofia/Plovdiv Pilot Datasets

Status	Dataset Name	Type	Pilot case expected to be used for	Modifications or updates
No	Air Quality Data	air quality data	C_SP_MDCB	No interest from the data holder.
No	Air Quality Data	air quality data	C_SP_CCC	It was not possible to integrate the data.
Yes	Air Quality Forecast	air quality data	C_SP_MDCB	Included in the functionality of some digital tools. Working as part of Sofia Municipality projects
Yes	Maps with different layers	Geospatial dataset	C_SP_MDCB	Included in the functionality of some digital tools.
No	Bicycle network in Sofia	Geospatial dataset	C_SP_MDCB	They participated only as volunteers in the testing rounds of SODAQ air devices
Yes	Sustainable urban mobility plan	Strategic document	C_SP_MDCB	Designing projects in the PMD.
Yes	Air Quality Improvement Programme of Sofia Municipality	Strategic document	C_SP_CCC	Designing projects in the PMD.
No	GIS Portal Sofiaplan	Geospatial dataset	C_SP_MDCB	It was not possible to integrate the data.
No	Air Quality Improvement Programme of Plovdiv Municipality	strategic document	C_SP_SBS	Not relevant for PMD project design.

Status	Dataset Name	Type	Pilot case expected to be used for	Modifications or updates
No	Air Quality data	air quality data	C_SP_SBS	Other sources were used
No	Air Quality data	air quality data	C_SP_SBS	Other sources were used

Berlin Pilot Datasets

Status	Dataset Name	Type	Pilot case expected to be used for	Modifications or updates
Yes	Air quality trend	Geospatial dataset	C_BE_LCE, C_BE_CFZ	
Yes	Traffic-related emissions	Geospatial dataset	C_BE_CFZ	
Yes	Speed limits	Geospatial dataset	C_BE_CFZ	
Yes	Air quality measurement network	Table dataset	C_BE_LCE, C_BE_CFZ	
Yes	Social cohesion and neighbourhood management	Geospatial dataset	C_BE_LCE, C_BE_CFZ	
Yes	Schools	Geospatial dataset	C_BE_LCE, C_BE_CFZ	

Annex 3: Citizen Science Initiatives

Flanders Citizen Science Initiatives

Status	Initiative Title	Organisation Name	Modifications or updates	Low SES Group Inclusion
Yes	WeCount - Telraam	WeCount	Implementation of educational track in high school Herzele	Yes
No	Curiezeneuzen air	UA	The initiative was not that relevant to the COMPAIR project	
No	Curieuzeneuzen garden	UA	The initiative was not that relevant to the COMPAIR project	
No	Straatvinken	UA	The initiative was not that relevant to the COMPAIR project	
Yes	ZULU	VMM	Integration of citizen experimental design approach and context mapping	Not applicable
Yes	sensor.community (luftdaten)	sensor.community (luftdaten) - e.g. GentenAIR, LeuvenAIR, TruienAIR, MortselAIR, ...	Data integrated and used in COMPAIR tools. Sensor.community kits provided for STEM education to participating schools	Yes
Yes	Local initiatives	Local initiatives that work with sensor.community - e.g. GentenAIR, LeuvenAIR, TruienAIR, MortselAIR, AiRXL ...	Polled for ideas on experiments/policy implementations	No
No	HackAIR	HackAIR	The initiative was not that relevant	

Status	Initiative Title	Organisation Name	Modifications or updates	Low SES Group Inclusion
			to the COMPAIR project	
Yes	Luchtpijp	Luchtpijp	Sensor kits for participating schools and citizens	Yes
No	Meet mee Mechelen	Meet mee Mechelen	The initiative was not that relevant to the COMPAIR project	

Athens Citizen Science Initiatives

Status	Initiative Title	Organisation Name	Modifications or updates	Low SES Group Inclusion
Yes	DUET H2020 project	DAEM	The data from COMPAIR were integrated into the digital twin	No

Sofia/Plovdiv Citizen Science Initiatives

Status	Initiative Title	Organisation Name	Modifications or updates	Low SES Group Inclusion
No	Airbg.info	Air Sofia BG		No
Yes	Sofenhagen	Sofenhagen	They were some of our volunteers testing the SODAQ sensors while cycling	No
Yes	Edno Darvo (One Tree)	Edno Darvo	They were informed and	No

Status	Initiative Title	Organisation Name	Modifications or updates	Low SES Group Inclusion
			involved in some of the activities	
Yes	SofiaCoin	Sofia Municipality	They were part of some of the workshops	No
No	ANEMONE project (Assessing the vulnerability of the Black Sea marine ecosystem to human pressures)	Institute of Oceanology – Bulgarian Academy of Science (IO-BAS), Bulgaria	The initiative was not that relevant to the COMPAIR project	
No	FameLab	British Council (Bulgaria)	The initiative was not that relevant to the COMPAIR project	
No	Cafe Scientifique Bulgaria	British Council (Bulgaria)	The initiative was not that relevant to the COMPAIR project	
No	Sofia Science Festival	British Council (Bulgaria)	The initiative was not that relevant to the COMPAIR project	
No	European Researchers' Night	Ministry of Education and Science	The initiative was not that relevant to the COMPAIR project	
Yes	SySTEM 2020	Muzeiko Foundation	They were partner in a raising awareness campaign	
No	D-NOSES - Distributed Network for Odour Sensing Empowerment and Sustainability	Sofia Municipality	The initiative was not that relevant to the COMPAIR project	
No	RECONNECT - Regional cooperation for the transnational ecosystem sustainable development	Institute of Biodiversity and Ecosystem Research	The initiative was not that relevant to the COMPAIR project	

Status	Initiative Title	Organisation Name	Modifications or updates	Low SES Group Inclusion
No	DEHEMS	Energy Agency of Plovdiv	The initiative was not that relevant to the COMPAIR project	
No	SocKETs	Centre for Research and Analysis	The initiative was not that relevant to the COMPAIR project	
No	nanOpinion	British Council (Bulgaria)	The initiative was not that relevant to the COMPAIR project	

Berlin Citizen Science Initiatives

Status	Initiative Title	Organisation Name	Modifications or updates	Low SES Group Inclusion
Yes	PV2Go	Fraunhofer ISE	Fraunhofer ISE developed the DEV-A and also supported with the devices, AR-application and the final workshop	No
No	ArtenFinder Berlin	Berlin Nature Protection Foundation	The initiative was not that relevant to the COMPAIR project	-
No	SimRa	Einstein Center Digital Future	The initiative was not that relevant to the COMPAIR project	-
No	Healthy Air, Healthier Children	HEAL	The initiative was not that relevant to the COMPAIR project	-
No	enviroCar	52north exploring horizons	The initiative was not that relevant	-

Status	Initiative Title	Organisation Name	Modifications or updates	Low SES Group Inclusion
			to the COMPAIR project	