



# JRC Makers-in-Residence Programme

*Improving soft mobility at the JRC Ispra site*

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Joint  
Research  
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## Abstract

The use of soft mobility, such as walking or cycling, can promote the sustainability of cities, improve carbon efficiency, social inclusion, and human well-being. In line with this conviction and the EU Mission "Climate Neutral and Smart Cities", the Joint Research Centre (JRC) of the European Commission wants to transform its own premises where more than 42000 employees could use soft mobility in a daily basis. A workshop rooted in the methodologies of World Cafe and Design Thinking – highly efficient tools for a human-centred approach, prioritising collaborative work in multidisciplinary teams – was organised to reflect on the importance of walking and other soft mobilities in the JRC site, in Ispra.

Participants stressed the need to build bike lanes, increase the areas of bike sharing and have ready-to-use electric cars on the site. Furthermore, participants advocated for more zebra crossings and walking trails as well as improving access to the buildings.

## Acknowledgements

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# 1 Introduction

## 1.1 Context

If cities are to become the planetary centres for human development, people's mobility is critical. Until now, mobility has been addressed almost exclusively through hard means. However, the use of soft mobility, such as walking or cycling, can promote the sustainability of cities, improve carbon efficiency, social inclusion, and human well-being.

How can urban mobility systems meet the requirements of their users if they are not listened to and involved in the planning of solutions? There is plenty of evidence that participation of citizens should be part of these processes, as they bring the everyday experience of the policies that affect them. Many past and present projects have embraced people-centric urban planning approaches to ensure that solutions and strategies serve citizens (in (Bramley, 2018)).

Soft mobility is the third most popular mode of transportation for daily travel, after individual vehicles (cars, motorbikes, etc.). Soft mobility includes all the ways to move under your own steam (cycling, walking, skating, etc.), and is also called "active mobility". Many cities in various countries encourage soft mobility by restricting streets to traffic, encouraging the low-cost rental of bicycles, trolley cars, electric cars, in order to reduce greenhouse gas emissions and clear major roads of congestion from traffic. Active mobility is part of the green transition, with a clear trend: fewer combustion engines and more electric cars supplied by renewable sources of energy.

My contribution to the EU Mission "Climate Neutral and Smart Cities" within the framework of the second edition of the JRC's "Makers-in-Residence" programme began with a workshop rooted in the methodologies of World Cafe and Design Thinking. These methodologies are efficient tools for a human-centred approach as they prioritise collaborative work in multidisciplinary teams and reinforce the importance of prototyping in order to deliver concrete proposals that encourage and promote walking, cycling and other means of carbon-free mobility.

In this workshop, we focused on the concept of "desire lines". These are the informal paths that people take as an alternative to a formal path, as, for example, pedestrians instinctively do when they deviate from an established path to take a straighter path avoiding obstacles. The "desire lines" tell us a lot about how people interact with the world around them and how they take decisions.

So how does that fit into this workshop, you may ask? It is essential to understand the logic behind people's mobility to provide them with structured and appealing ways to move daily, while remaining environmentally friendly.

To this workshop, three general objectives have been set:

- Reflect on the importance of walking and other soft mobilities within the JRC site, in Ispra;
- Contribute to reducing the carbon footprint by limiting the individual use of the car;
- Increase awareness about climate-neutral smart cities.

The workshop took place over two half days, March 20 and 21, 2023. The reflection was based on three triggering questions:

- What would be the most suitable type of mobility in JRC site, without forgetting the aim of converging to a neutral-carbon mobility?
- What factors influence the choice of mobility inside the JRC? Share examples around your building.
- There are several "desire lines" in JRC site in Ispra. How might we rethink formal paths to include those "desire lines"?

For the result of the ideas presented in the first half of the workshop, participants selected two proposals, walking, through the desires lines, and lanes for bikes and other 2-wheel non-motorised vehicles. The Design Thinking methodology encourages the construction of prototypes to demonstrate the solution in a very concrete way. The prototype is intended to be a low-cost, easy-to-build intervention that can be scalable, once tested, to catalyse long-term changes.

The workshop does not present final solutions to the identified problems, not only because that was not the goal, but also because the prototypes made had not been tested with JRC employees, who use the space daily.

It would not be enough to involve only users to test the solutions presented, as it would be crucial to have someone from the Infrastructure Unit, to alert for possible real limitations of security and resources which could prevent progress with the proposals.

Next, we present the concept that frame the topic of the workshop, so that the issue we are dealing with is clear and objective.

## 1.2 What are desire lines?

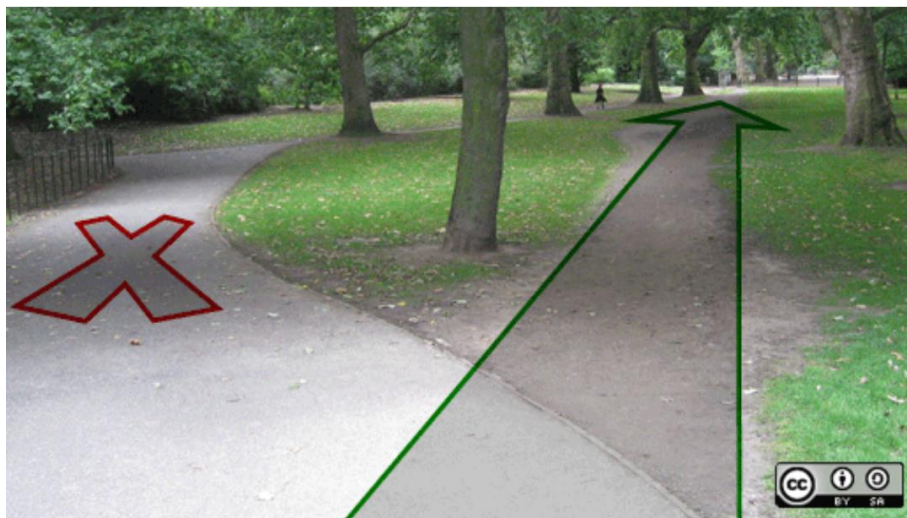
Desire lines (in (Bramley, 2018)) are “dirt” paths formed over time by human and animal paths. They usually describe the shortest or easiest route from one point to another. Their size shows the degree of demand to follow the chosen path instead of the specified path. They are the paths that people choose to follow, rather than those that urbanists or planners intend or anticipate. No matter how wonderful your landscape is, if you don’t provide a convenient method to get from point A to point B, people will find a way to bypass it.

The desire lines are a manifestation of human desire or natural purpose. The best method to develop paths that are consistent with usual human preferences is not to design them. Just put grass seeds and let the erosion tell you where the paths should be.

According to the architect and urban planner Riccardo Marini (in (Bramley, 2018)), despite spending a fortune installing granite stairs with a piece of landscape next to them, people still choose to climb the hill because their brains say it’s the fastest route, even if it means getting out of breath. Desire lines provide a significant indication of mobility preferences.

For Robert Macfarlane (in (Bramley, 2018)), desire lines are “paths made over time by the desires and feet of the walkers, especially those paths that run against design or planning.”

*Figure 1 – “Desire lines”*



*Source: Image cc-by-sa-opensourceway*

### 1.3 Report Structure

This report is structured in four chapters:

Chapter 1 is the introduction.

In Chapter 2 the methodologies chosen for implementing the workshop are presented. We opt for qualitative research, not only through diagnostic and final assessment surveys, but also by the World Cafe and the Design Thinking methodologies. Qualitative methods can reframe, explore, and facilitate different perspectives, which encourages dialogue and interaction between participants. A diagnostic questionnaire was chosen to understand the profile of the participant, the willingness to participate and the knowledge of the subject.

We used the World Cafe method to stimulate reflection and brainstorming around the three trigger questions, and we complement with the Design Thinking methodology for the organization, categorization and selection of the ideas that would be prototyped. In this section we discuss in detail a step-by-step implementation of the workshop.

Chapter 3 is devoted to the evaluation of the results of the diagnostic and final evaluation surveys. A SWOT analysis was performed to identify the strengths, weaknesses, opportunities (no threats were found) of the workshop, based on the analysis of data from the diagnostic questionnaire and the evaluation questionnaire.

Chapter 4 discusses and interprets research results considering the trigger issues presented in the introduction and developed in the implementation.



## 2 Methodology

In this workshop, we have chosen for qualitative research, not only through diagnostic and evaluation surveys, but also through World Cafe and Design Thinking methodologies.

It was decided to use qualitative methods since it values a holistic and exploratory research that develops hypotheses while helping in understanding specifics about the issue. Qualitative research can yield rich and thorough findings that are meant to study and describe rather than predict, as is in quantitative research.

We opted for a diagnostic survey to understand the participant's profile, willingness to participate and knowledge of the subject. At the end of the workshop, we asked participants to fill out an evaluation questionnaire, important for the facilitator to identify the strengths, the points to improve, as well as the opportunities, in order to raise awareness in the Infrastructure Unit, encouraging employee's participation.

We also use the World Cafe method to stimulate reflection and brainstorming around the three trigger questions. This is a method of collecting exploratory data as part of a qualitative research methodology that gathers individuals in a workshop to share their knowledge by rotating between numerous discussion tables, each concentrating on a different aspect of the broader issue.

We complement our research with the Design Thinking methodology that explores the fields of ethnography and sociology, emphasizing the refinement of problems and encouraging experimentation through prototyping. This methodology provides immersion in the user experience, changing the mindset of an innovator to a better understanding of the other, through empathy. Design Thinking gives meaning to data by organizing them into themes and patterns (clusters), allowing the discovery of new insights and possibilities.

This methodology encourages broad, deep, and divergent research to find a diversity of points of view, then moving on to the convergence of ideas, focusing on what really matters.

### 2.1 Questionnaire: diagnosis and evaluation

The diagnostic questionnaire aimed to understand how the participants faced the theme of mobility, which exemplified a concrete and significant situation that had marked them since the beginning of the year and, finally, whether they knew the concept of "desire lines".

The use of a questionnaire with open-ended questions was crucial not just for determining whether the workshop worked, but also for determining how and why it did. Open questions are very important because they encourage the participant to make his/her thought true, especially if asked to tell a story or give an example in the first person.

### 2.2 World Cafe

The World Cafe (in (Saioron, 2022)), also known as the dialogue café, is a participatory practice that fosters creativity. In a relaxed and inspiring environment, participants share and deepen their opinions and ideas, to build a joint vision on the issue and propose innovative strategies for the challenge of the session. This sharing is quite effective as all groups of participants go through all the tables. It consists of a group dialogue process, in which participants are divided into tables and talk around four issues, in a total of four rounds, each lasting 20 minutes. At the end of each round, the five main ideas that emerged from the groups are collected. At the end of the four rounds, the ideas are organized into categories and subcategories.

### 2.3 Design Thinking

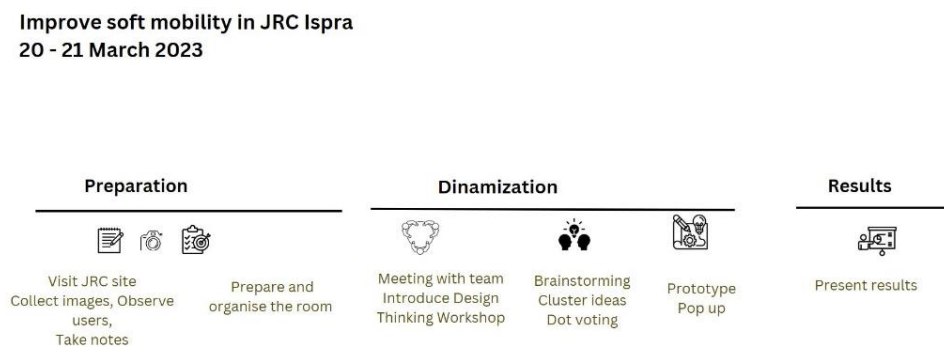
Design Thinking (in (Tschimmel, 2015)) is a problem-solving methodology that focuses on a complex combination of skills, procedures, and attitudes to assist individuals in coming up with novel solutions to issues. Design Thinking can lead to the creation of new things, concepts, or narratives. The appeal of Design Thinking stems from the idea that anyone can learn to do it. Design Thinking's suggest is that once learned, anybody can reinvent the systems, infrastructures, and organizations that shape our lives. Understanding human need is the first step. Empathy is very important in this method because it encourages you to put yourself in the user's shoes. Prototyping is the vehicle to find objective and concrete proposals, hands-on, to innovate. Design Thinking encourages building new solutions from sketches and prototypes, testing, and asking others for feedback, until a solution is found that can be built definitively.

## 2.4 Implementation of the workshop

The workshop took place over two mornings, on the 20th and 21st of March 2023. Ten participants from three different units (JRC.S2 – Science for Democracy & Evidence Informed Policymaking, JRC.C4 - Sustainable, Smart and Safe Mobility and JRC.R.I.4 – Infrastructure) participated in the workshop. For professional reasons, the participant from JRC.R.I.4 could not participate on the second day.

For the dynamization of the workshop, three moments were scheduled: the preparation (literature review, conception and design of the workshop tailored to JRC site and identification of the challenges on the ground in Ispra), the implementation (dynamization of the workshop step by step) and the evaluation of the results.

Figure 2 - Workshop planning.



Source: © Susana Silvestre

The workshop was structured in two parts.

During the first two days of the Residency, I observed how people move around the JRC site, keeping in mind that using light means of transport, such as walking or cycling, can help make the site more sustainable in the future, contributing to the reduction carbon footprint and people's well-being. To document the dynamics of the site, I noticed the way people moved between office buildings and the Mensa/ Canteen, taking notes, photos and recording videos. I witnessed that some people went on foot, others went by bicycle, and some used their own car, when they go for lunch at the Mensa.

On the first half day of the workshop, after a brief presentation structured by me, the scenario for the round tables was set. Participants were divided into small groups, each of 4-5 participants, to discuss challenges, opportunities and needs of the site for enhancing the most suitable type of mobility in JRC in Ispra, the factors that influence mobility and how “desire lines” should be the formal paths. Solutions and innovative ideas for overcoming the identified problems were also listed by participants. The second day was dedicated to the prototyping of the main solutions of each working group.

The main objective of carrying out this participation session was identifying alternative ways to the car to circulate inside the place, as well as the prototyping of solutions in the field, based on the concept of “desire lines”. We scoped the problem, brainstormed, and then grouped the ideas into categories and subcategories. Afterwards each participant voted, using dot stickers, for 5 ideas. The two most voted were selected for the next step: prototyping.

On the second half day, the groups made a descriptive memorandum of the idea and got their hands on the prototype. One group developed a prototype to encourage walking along the “desire lines”, another presented a prototype for a bike lane.

The proposals built in the field were photographed and recorded, and then were implemented in mock up, with the groups resorting to the storytelling technique to explain in more detail the solutions found.

### 2.4.1. Step 1: Definition of the problem

As already mentioned, the workshop focused on the concept of “desire lines”, namely on how JRC employees in Ispra use the space to walk around and reach different buildings and on the options, they take when circulating.

On the JRC site there are several formal routes for walking, and a few for cycling, but it turns out that they are not used because they do not fully answer to people's daily needs. Some formal pedestrian routes are interrupted when pedestrians follow a more direct route.

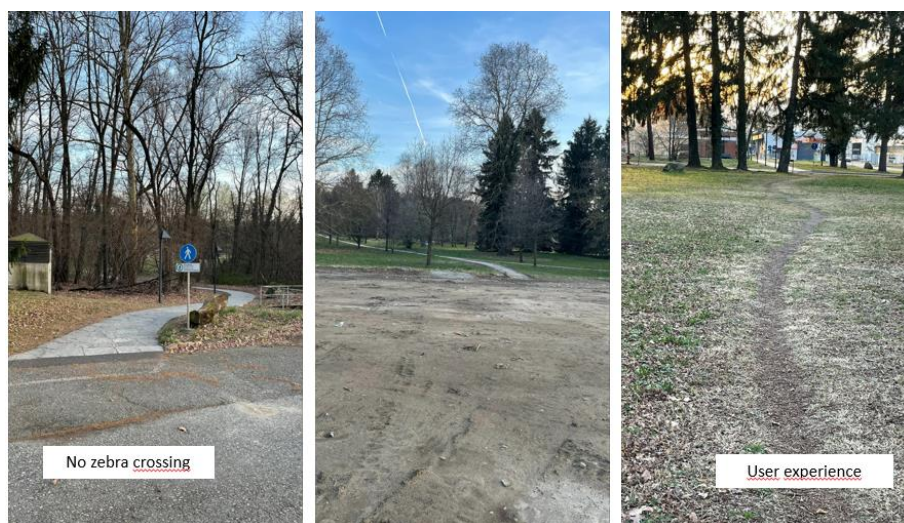
Figure 3 - Formal paths and "desire lines" in JRC site, in Ispra



Source: © Susana Silvestre

On the JRC site there are several "desire lines" created by people through regular use, which are faster or easier to go through than the formal way. These informal paths show people's knowledge of the place, as opposed to planners who designed them without listening to people and possibly without experiencing them.

Figure 4 - Different desire lines could be seen on the site



Source: © Susana Silvestre

#### 2.4.2. Step 2: Ideation, based on trigger questions

Using the World Cafe method, we encourage active listening and non-judgmental evaluation of everyone's contributions. The three trigger questions were provided, which motivated the dialogue between the ten workers, who were placed evenly on two tables.

- What would be the most suitable type of mobility in JRC site, without forgetting the aim of converging to a neutral-carbon mobility?
- What factors influence the choice of mobility inside the JRC? Share examples around your building.
- There are several "desire lines" in JRC. How might we rethink formal paths to include those "desire lines"?

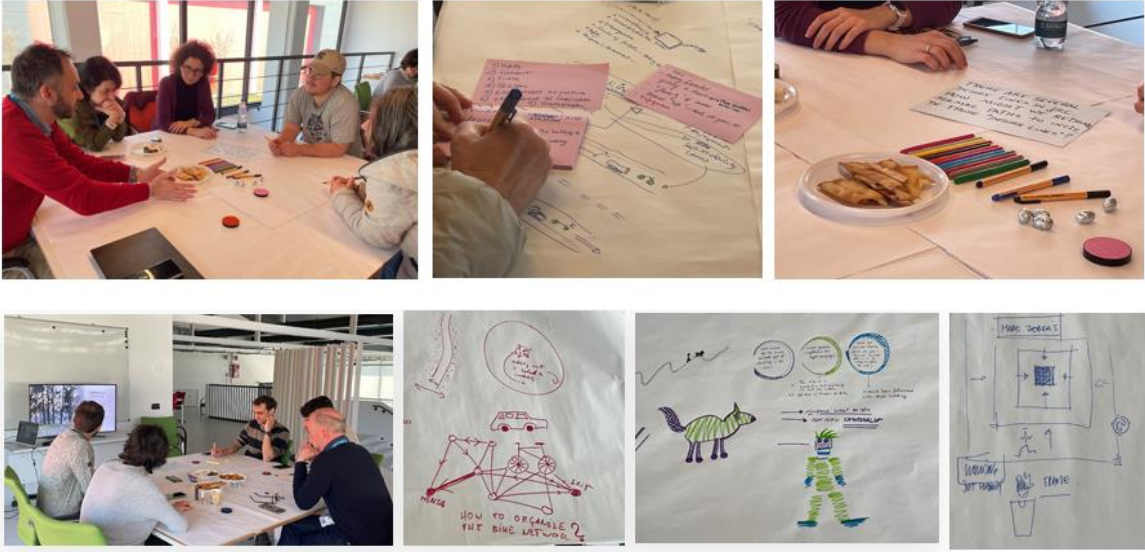
The data collection and the writing on the tablecloths and post-it supported the important emergent themes discussed in this report. Most of the writing was in the form of individual words and short comments. Each

round of questioning lasted 20 minutes and produced a variety of thoughts and points of view. Five concepts were chosen and systematized in post-its from the thoughts in each round of questions. Then we grouped them into related areas.

The response from the tablecloths and post-its was important data that validated the methodology's value. There hasn't been a lot of doodling/drawing on the tablecloths, and some of it has helped to highlight the ideas. The first image represented individuals walking for pleasure, whereas the second depicted people walking for business.

Figure no. 5 presents some moments of the participatory session and brainstorming results.

Figure 5 - Brainstorming around trigger questions



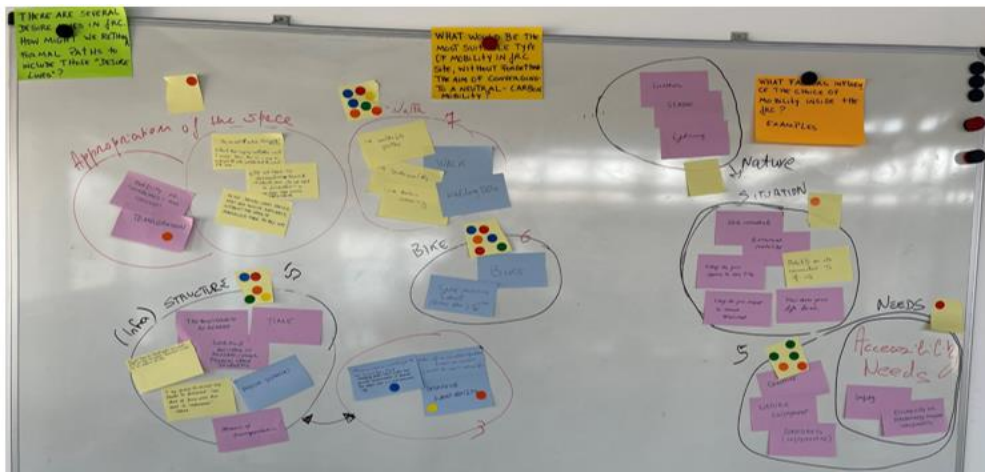
Source: © Susana Silvestre

Figure 6 - Analysis of ideas and clustering in categories



Source: © Susana Silvestre

Figure 7 - Big picture of the categories



Source: © Susana Silvestre

The table below presents the categories and subcategories created, by frequency of occurrence.

Table 1 - Content of each category, containing the ideas of the participants.

Appropriation of the space	Walk	Bike	(Infra) Structure	Nature	Situation	Needs		
Trangression	Walkable paths	safe mobility lane	Reduce distances	Wheather	Work vs schedule	Confort		
W	Walking paths		In my opinion desire lines should be formalised. I can think of formal paths that could be "deformalised" instead.	Season	External probility ??	Nature enjoyment		
Do we need to formalise desire lines?	Walk		Means of transportation	Lightning	Why do you come to the site Mobility on site connected to out of the site	Loneliness (enjoyment of)		
To me, desire lines should stay and envolve naturally without the need to formalise them in any way	Zebra crossing		Time					
Desire lines are a way to no respect the rules and take back the control of the space	Sidewalks		We just leave the formal paths since people still with ?? them. We improve "desire lines" so that we eas people to use them				Accessibility needs	
			The building to be reached					Safety
			Works - building in progress					Disability or temporary physical impediments
			Other physical space problems					
			Recommendations according to the area from A to B: Identifying various "zones" in JRC and formulate recommendations to commute from various areas in a most sustainable way					
			Improve what exists					
		New infrastruture don't include soft mobilities						
		Improve existing infrastruture						

The seven categories grouped are: Appropriation of space, Bicycle, Infrastructure, Nature, Needs, Situation and Walking. Each of them is examined in more detail below. Each category covers the information collected on the tablecloths and panel.

Table 2 - Analysis of each category, based on tablecloth and post-its

<p><b>Appropriation of space</b></p> <p>Some participants agreed that “desire lines” should be allowed to emerge spontaneously without being formalized. They stated that the existing and desired space must be fluid. Others refer that it should be formalised.</p> <p>“Desire lines” are a way not to respect the rules and take back the control of the space”.</p> <p><b>Bike</b></p> <p>Participants underline the need of building bike lanes with nice pavements to enhance cyclists’s safety and extend the area covered by the bike sharing system.</p>
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### Infrastructure

Participants note that cars predominate on the site since the space is large (1,44 km<sup>2</sup>), and circulation on foot or by bicycle is hampered by the bad weather and season conditions. People take a variety of routes between the Units and Mensa, including walking, riding, and driving their own cars.

Participants refer that the site is frequently under construction, and issues linked to soft mobility are not prioritised, thus they believe it is critical to listen to the employees. Participants also emphasise the importance of having electric cars ready for use on-site.

Ispra's access to the JRC site should be improved, since there are areas without sidewalks, and when there are, they are uncomfortable, do not respect the rules for use by people with reduced mobility, and there are no bike lanes. It would also be vital to increase access to the JRC by improving transport.

### Nature

According to some participants, "desire lines" come and disappear depending on the weather and seasons. Employees walk, cycle, and run more when the weather is pleasant. When it rains, the "desire lines" become muddy, and they drive more. The participants say, "desire lines" are seasonal lines.

### Needs

The employees have diverse demands, according to the participants, therefore, some use the car for safety, comfort, or because they have a permanent or temporary disability. Others prefer walking or cycling for the sake of being in nature or even for the sake of seeking isolation.

### Situation

According to the participants, there are numerous scenarios that cause employees to choose distinct modes of movement through the space. They believe it is critical for the Maintenance Unit to listen to people about how they move around the JRC and to find the soft mobility methods that individuals prefer.

### Walk

Participants advocate for more zebra crossings, sidewalks, and walking paths. They add the need to increase pedestrian areas and new ways of accessing the buildings.

Following cluster formation, each participant in each group was given five dots to vote on the categories they thought were most significant and for which they wanted to suggest solutions through prototyping. Bike & soft mobility and Walk received the most votes (6 dots), followed by Needs (5 dots), Appropriation of space (1 dot), and Situation (1 dot).

### 2.4.3. Step 3: Prototyping

A prototype should illustrate the concept in such a way that it can be tested on real people. Instead of simply providing knowledge about an idea, it is critical to provide something concrete with which people can interact and critique. The participants first sketch out and remember the prototype in detail. Then, on the designated area, they create a mock-up or design a pop-up concrete solution using various materials.

On the second day of the workshop, the groups focused on prototyping the most voted ideas, using the method of tactical urbanism (in *How to Implement Street Transformations: a Focus on Pop-up and Interim Road Safety Projects*, 2021). One of the groups developed a design for comfortable and safe riding paths. Another group provided two prototype solutions for making walking more appealing. Before heading to the field, the groups made a descriptive memory of what they thought was important to prototype and marked the spots to intervene on the site map.

### *Prototype of a Bike and other soft mobility vehicles Lane*

The first tactical intervention of the group that chose to prototype a bicycle lane was to design, with chalk, a pop-up bike path that could be used by bicycles, skateboarders, among others. They did so by drawing a treadmill on the tar next to a roundabout so that users could cross the road safely. Across the street, already on the ground, the group created a bike path with poles and balloons. Then they created a poster, made with cardboard, to signal the road, with the information "Smooth Mobility".

*Figure 8 - Prototype zebra crossing group, using chalk*



*Source: © Susana Silvestre*

The second intervention was carried out on the ground. The bike lane was installed one metre from the sidewalk. They used sticks and balloons to mark the path. Then they tried the route on a bicycle but found that for the road to be accessible and comfortable for everyone, the ground needed to be glazed so that the lane was safe.

*Figure 9 - Group prototypes a bike path, using sticks, balloons and a cardboard to signal the area*



*Source: © Susana Silvestre*

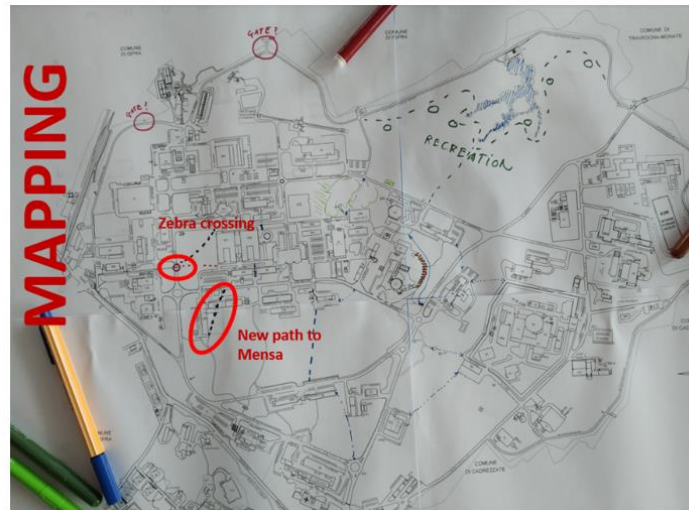
Then, they developed a [scenario](#) with plasticine and Lego® elements, produced a narrative using the storytelling technique, and discussed the need for having more bikes and lane bikes to promote soft mobility inside the site.



### Prototype of a Desire Line

The second tactical intervention was developed by the group that chose walkability. They selected two locations to intervene: one floor that connects Units to Mensa and another, through the creation of a walkway, to make the connection to the promenade and the “desire line”. The first step was to map the site and identify possible actions with the people who use it daily. The map below has been identified by JRC colleagues. The large map collects all the potential ideas.

Figure 10 - Group marks on the map the two areas where it will design the prototypes



Source: © Susana Silvestre

The first tactical intervention was to add a zebra crossing between a formal path and a “desire line”.

Figure 11 - Group marks a zebra crossing on the road and shows it as if they were wearing the skin of the Beatles



Source: © Susana Silvestre

The second tactical intervention was to create a proposal for a new path linking buildings to Mensa where a building used to stand. To mark the path, the group used stones and fine mdf boards cut on the maker space's laser printer. They connected each of the spots with a long rope to visually outline the path. Then they produced a cardboard poster with the words "Path to Mensa."

Figure 12 - Group defines the desire line, using stones and fine mdf boards and a cardboard to signal the area



Source: © Susana Silvestre

When they returned to the makerspace, they developed a [scene](#) with plasticine and Playmobil® figures and created a narrative using the storytelling technique to piece together the ideas that underpinned the prototypes. They state three concepts that influenced their prototypes: working with existing elements, that is, not adding new parts to order the built environment; make it visible and secure; and make the necessary adjustments. They also pointed out three steps that defined their work: mapping the existing needs and opportunities provided by the JRC Ispra site; prototyping, sharing, and testing. Finally, they called their prototype the “desire lane”.

### 3 Results

This chapter presents all the relevant results of the workshop. It begins with a qualitative analysis of the answers resulting from the diagnosis questionnaire, followed by an analysis of the evaluation questionnaire. Next, the results are analysed, relating them to the objectives and the trigger questions.

#### 3.1 Diagnosis questionnaire results

Before starting the workshop, the 10 participants were asked to complete the "Improve soft mobility Survey 2023", available at DIGIT-EU Survey, to perceive what the participants value and know about the topic. Only nine of the ten participants responded anonymously. Three questions have been raised, which we will now examine.

Have you ever thought about the issue of your own mobility?

All respondents answered positively to the question. Have you ever thought about the question of your own mobility? Respondent 5 shared that his research project dealt with mobility and so he was aware of the topic. Another interviewee mentioned that he was concerned about using the appropriate means to get to the usual places, even the farthest ones, without being dependent on the car.

Respondent 9 said he had this concern when commuting to work and circulating within the JRC site.

Could you share a moment/situation that was significant/marked you during this year regarding soft mobility?

According to respondent 2, some paths within the JRC are not well defined and some are not safe, considering the speed that cars circulate there. Respondent (3) stated that the works next to Mensa forced him to take a shortcut through the informal paths. Respondent 7 said that considering the size of the JRC site (42km), soft mobility is a challenge.

Respondent 9 said he was annoyed by the fact that he had to follow the formal paths, when they forced him to increase the time of circulation on the site.

Respondent 5, who is doing research on soft mobility, shared a story that changed his mindset for traveling. He took a 600 km bike tour from Italy to Austria, through the Alps.

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#### *Testimonials*

*"At the JRC sometimes obvious paths are not available. For example, from the dogana and all these buildings around the path to the canteen, it is not adequate neither to be safe nor to be effective." (Respondent 2)*

*"Yes, when I had to reach Mensa but due to some works, I had to pass through the fields. Otherwise, I had to do a huge shortcut... Not so important but first came to my mind." (Respondent 3)*

*"The campus is so big that moving with cars is at times necessary. Soft mobility is therefore quite challenging". (Respondent 7)*

*"I am particularly annoyed when I have to move along pre-determined paths that take me longer to reach my destination" (Respondent 9)*

---

**“Desire lines”**: do you know what **“desire lines”** are?

Of the 9 participants, 5 do not know the meaning of the lines drawn. Respondent 8 defines them as the connection of two points, through a shortcut.

Respondent 2 mentions that they are the paths that people choose intuitively and without logic, and not all people use it in the same way. He adds that he believes that **“desire lines”** could also be relational lines.

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*Testimonials*

*“I don’t but my intuition is that they are the paths we are intuitively more inclined to follow for not necessarily logic for other people. I also believe that they are relational lines.” (Respondent 2)*

*“Natural way of connecting 2 points, shortcutting.” (Respondent 8)*

---

### 3.2 Evaluation questionnaire results

Participants were invited to answer to the “Evaluation\_ImprovesoftmobilitySurvey2023” survey, which was available at DIGIT-EUSurvey, to evaluate the workshop held on the mornings of March 20 and 21. Only six of the ten participants responded to the anonymous poll. Three questions were posed, and we will now analyse them.

How do you evaluate your experience in this workshop?

The general satisfaction of the workshop participants is very high. Of the total respondents, 5 answered that their assessment of the workshop was that it had been a very rich and positive experience. One respondent did not answer this question. One respondent confirmed that the workshop allowed him to share and discuss ideas on soft mobility with other JRC colleagues he did not yet know, as well as to explore more liveable solutions for those who do not wish to drive a car. Another participant stated that the experience was a lot of fun, and the group was able to build answers and insights to mobility challenges on the spot, always relying on the facilitator’s support to back up what they thought.

---

*Testimonials*

*“I found the workshop well-structured, with a good balance between conceptual and hands-on activities. Never felt tired!” (Respondent 1)*

*“In 2 days we passed by the different steps of the Design Thinking process to make our Site more livable for those not willing to use the car.” (Respondent 6)*

---

How important was this experience?

According to one respondent, the experience demonstrated the importance of participatory processes in the JRC, especially when tackling local concerns. He claims that presently, a group of people decides how the area should be organized without consulting real users.

Another respondent stressed that it was fascinating to have conversations with other colleagues and give solutions to an issue that impacts them every day. The respondent also expressed interest in seeing how some of the solutions presented and prototyped could be implemented on the spot.

Respondent 1 declared that it was interesting to debate with other colleagues and give solutions to a subject that impacts them daily. The first expressed interest in seeing how some of the solutions suggested and prototyped could be implemented on the site.

Respondent 3 stated that the experience was highly fulfilling because they were able to learn more about soft mobility, and the prototype stage was helpful because they were able to concretize thoughts in an objective and concrete way.

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*Testimonials*

*“Currently, a group of people decides how things should be, how space is used and so on; these types of activities help with making visible that other approaches are necessary.”  
(Respondent 1)*

*“It is now also important to see how some of the solutions discuss (or prototypes proposed) can be implemented on-site.” (Respondent 2)*

*“It enabled me 1) to prototype for the first time 2) understand the potentials to carry out a similar exercise focusing on JRC external mobility.” (Respondent 5)*

---

What do you think should be improved in this workshop?

Three of the six respondents proposed that the session be spread out over a longer period. They emphasised that participants would have enough time to digest the topics and produce ideas that would go beyond brainstorming.

While they were in the prototyping process, one person commented that it would have been interesting to explore the site more.

Respondent 3 stressed that the exercises were not properly presented from start to finish because she was not sufficiently aware of mild mobility. She stated that the facilitator's directions were not always clear, so she completed certain tasks without understanding what they were for.

Respondent 5 suggested that the workshop methodology could be employed for a discussion on external mobility of access to JRC.

---

*Testimonials*

*“Overall, I think the workshop was well organised and delivered more than what I thought we would be able to achieve.” (Respondent 1)*

*“The overall integrity. For me the exercises should be explained from beginning to the end. I was doing some of the tasks not knowing what they are for. Instructions were not always clear.” (Respondent 3)*

*“I'd go for more interaction with the users during and after the implementation of the prototype. Somehow, the way the action have been developed only receives 'a posteriori' feedback that difficultly would shape the action. Anyhow, it's been great! Thanks, Susana”  
(Respondent 4)“I think a conversation about JRC external mobility (in relation to the internal one) is a perspective to consider, to put this methodology to work outside and in a policy context.” (Respondent 5)*

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### 3.3 SWOT Analysis (Strengths, Weaknesses, Opportunities, Threats)

We present below a swot analysis of the results, crossing with the objectives and trigger questions of the workshop.

#### Strengths

- The methodology of the World Cafe stimulated open participation, thinking in diversity and future possibilities, thinking creatively and outside the box, against stereotypes, favouring empathetic conversations among the participants, who mostly did not know each other.
- The Design Thinking methodology encouraged participants to generate various hypotheses. The trigger questions illustrated how important it was to pay attention to details, think broad and close, and think like a beginner (this means looking with "fresh eyes").
- Participants valued collaboration, creative thinking, and playfulness as elements of the workshop's success. They shared knowledge, thought of various future possibilities, out of the box, without stereotypes, and got their hands on in creating prototypes.
- The design of the prototypes in the field made it possible to materialise in a tangible and objective way, quickly and at low cost, the proposals presented.

#### Weaknesses

- Greater diversity of participants, coming from other Units and with different profiles, to further broaden the reflection and obtain more points of view. The response to the trigger questions would have been more diverse if there were participants with different profiles, backgrounds, and experiences, as well as those who disagreed with the topic of soft mobility.
- The workshop should have been extended in time, so that participants could test the prototypes with employees and evaluate what they liked, what they did not like and their proposals for improvement.
- The communication of the workshop should have been done earlier to have 16 participants.
- If the table discussions had been recorded or written by an editor, we could have additional information to the tablecloths and those systematized in the post-it notes.
- Participants said that if they had more time, it would have been important to explore the site and talk to users before moving on to prototyping.
- One respondent said that the steps of the workshop should have been explained in a more objective and concrete way, because she was not aware to the issue of soft mobility.

#### Opportunities

- It is suggested that the Infrastructure Unit read this report and initiate a broader participatory process, to hear from employees about the possibilities of soft mobility within the site. Both methodologies are human centred approaches, which focus on understanding people's needs.
- Respondents said it would be interesting to see some of the prototyped solutions implemented on site.
- The participants evaluated the workshop in a very positive way, demonstrating an optimistic and positive attitude towards the participatory processes, considering its benefits which could be used by Infrastructure Unit.

#### Threats

No threats identified.

## 4 Conclusions

This report sets the stage for exploring soft mobility at the JRC premises in Ispra as part of the EU mission 'Climate Neutral and Smart Cities', a topic of the second edition of the 'Makers-in-Residence' programme. A workshop rooted in the methodologies of World Cafe and Design Thinking - highly efficient tools for a human-centred approach, prioritising collaborative work in multidisciplinary teams - was promoted in March 2023.

One of three general objectives of the workshop, which reflects on the importance of walking and other soft motilities within the JRC site, as well as the specific goal, to find proposals for solving soft mobility problems, were achieved through prototyping. The remaining two objectives were: to contribute to reducing the carbon footprint by limiting the individual use of the car and increase awareness about climate-neutral smart cities, were reflected in the world cafe brainstorming.

Based on the literature review, the report presents the results of the workshop, crossing soft mobility and “desire lines”, with the trigger questions launched in the initial discussion of the World Cafe.

As for the question of what the most appropriate type of mobility at the JRC facilities would be, with a view to converging towards carbon-neutral mobility, the participants considered the possibility of walking and cycling. For this to happen, they stressed the need to build bike lanes with pleasant pavements to increase the safety of cyclists, as well as increase the areas of bike sharing. Participants also highlighted the importance of having ready-to-use electric cars on site.

Regarding the question of what factors influenced the choice of mobility within the JRC, the participants reported that there were several factors that led employees to choose different ways of moving around the site. In their opinion, employees use the car, for a matter of security, comfort, definitive or temporary disabilities. Also, the works on the site's pavements, the insecurity caused by the speed of circulation of the cars or the inexistence of bicycles next to the buildings. Participants advocate for more zebra crossings and walking trails, improving access to buildings.

For the last question, “how formal paths could be rethought to include the “desire lines”, the participants considered that a participatory process should be implemented to listen to the employees so that site managers can understand how the other employees use the place, how they move around and why they choose particular modes, and how they would like to move across the site.

As witnessed at the World Cafe, the exchange of ideas and perspectives among participants, the analysis and clustering concepts across categories, was quite useful to propose soft mobility solutions. The Design Thinking methodology boosted the experimentation of ideas, through prototypes. Hence, two prototypes were built: one to promote walking, another to illustrate the possibility of building bike and other non-motorised vehicles lanes.

The application of Design Thinking methodology, in participatory processes, is quite significant because it begins with the understanding of people's needs and motivations through empathy, and encourages multidisciplinary and collaborative work, solving problems and getting better and more innovative solutions. Design Thinking considers that mistakes are an important contribution to the learning process. In the case of the prototype of the bike lane, the participants realised that for the solution to work it was necessary to look for another location, since the chosen terrain was very steep. It would have been beneficial to test the prototypes with JRC employees who walk or cycle in the site, to receive inputs and insights on what worked well and what could be improved.

It would be interesting to continue the workshop, in collaboration with the Infrastructure Unit, based on the two prototypes, making improvements based on the new perspectives that the participants had, after reflecting on the solutions produced. Once the changes are made, it would be quite important to invite employees with different profiles, experiences, interests and from various Units to try and to evaluate.

Involving people from the beginning in a new project or in the redesign of an existing situation can make a difference when one needs to transform problems and challenges into opportunities for change and improvement.

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# Annexes

## Annex 1. Diagnosis survey results

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Export Date

ImprovesoftmobilitySurvey2023  
12/05/2023 08:55

	<b>Have you ever thought about the issue of your own mobility?</b>	<b>Could you share a moment/situation that was significant/marked you during this year regarding soft mobility?</b>	<b>Desire lines: do you know what desire lines are?</b>
1	Yes, as I don't drive it often turns up	Almost every day there are issues because of poor adaptation of the area to walking and biking	No
2	Yes.	At the JRC sometimes obvious paths are not available. For example from the dogana and all these buildings around the path to the canteen is not adequate neither to be safe nor to be effective.	I don't but my intuition is that they are the paths we are intuitively more inclined to follow for not necessarily logic for other people. I also believe that they are relational lines.
3	Of course, every day	Yes, when I had to reach Mensa but due to some works I had to pass through the fields. Otherwise I had to do a huge shortcut.... Not so important but first came to my mind	No
4	Yes, quit a lot	For sport activity I have no choice but taking the car.	Not really, apart from the workshop description
5	A lot, my research project deals with mobility and somehow I try to remain coherent with it!	For the first time, I did a cycle touring vacation, from Italy to Austria and Germany, +600km. It was an amazing journey through the Alps that changed my travel mindset, being rewarded by the movement itself, not just by the destination!	Yes
6	Yes, in the sense of using the appropriate means to get to the usual places where I need to go in the vicinity. Also - in terms of getting farther without having to rely on a car.	I cannot think of anything specific.	No, but I am very curious to find out.
7	Yes	The campus is so big that moving with cars is at times necessary. Soft mobility is therefore quite challenging.	I can understand what you are interested in and find it very fascinating
8	Yes	Bus	Natural way of connecting 2 points, shortcutting
9	Yes. When commuting to work and moving around jrc site	I am particularly annoyed when I have to move along pre determined paths, that take me longer to reach my destination	Yes. I am aware of the concept

## Annex 2. Evaluation Survey results

Alias  
Export Date

ImprovsoftmobilitySurvey2023  
12/05/2023 08:55

	<b>Have you ever thought about the issue of your own mobility?</b>	<b>Could you share a moment/situation that was significant/marked you during this year regarding soft mobility?</b>	<b>Desire lines: do you know what desire lines are?</b>
1	Yes, as I don't drive it often turns up	Almost every day there are issues because of poor adaptation of the area to walking and biking	No
2	Yes.	At the JRC sometimes obvious paths are not available. For example from the dogana and all these buildings around the path to the canteen is not adequate neither to be safe nor to be effective.	I don't but my intuition is that they are the paths we are intuitively more inclined to follow for not necessarily logic for other people. I also believe that they are relational lines.
3	Of course, every day	Yes, when I had to reach Mensa but due to some works I had to pass through the fields. Otherwise I had to do a huge shortcut.... Not so important but first came to my mind	No
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5	A lot, my research project deals with mobility and somehow I try to remain coherent with it!	For the first time, I did a cycle touring vacation, from Italy to Austria and Germany, +600km. It was an amazing journey through the Alps that changed my travel mindset, being rewarded by the movement itself, not just by the destination!	Yes
6	Yes, in the sense of using the appropriate means to get to the usual places where I need to go in the vicinity. Also - in terms of getting farther without having to rely on a car.	I cannot think of anything specific.	No, but I am very curious to find out.
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