

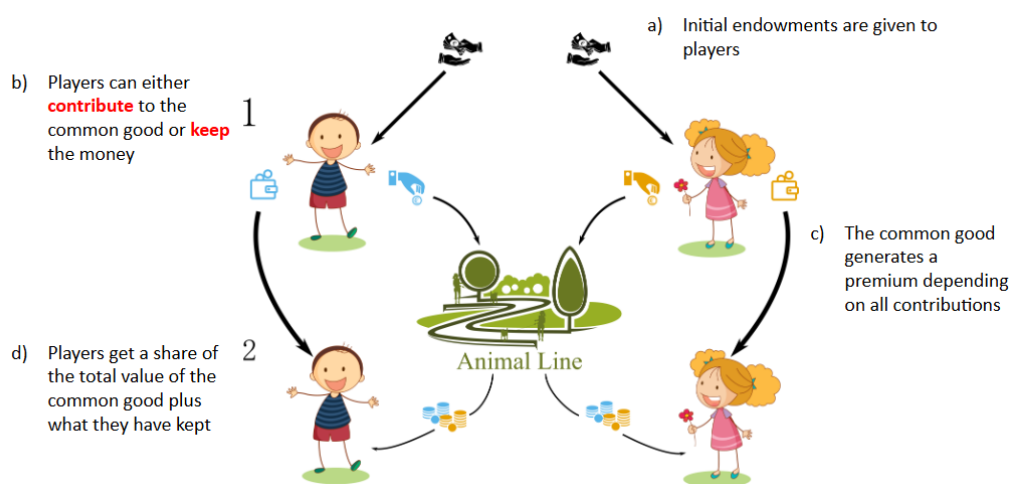
Annex 6 - Replication Sheet

Behavioural Game for Inclusive Outcomes

Pillar III – Welfare Outcomes | Case study: IN-HABIT – Córdoba

<p>What is replicated</p> <p>A behavioural game to measure:</p> <ul style="list-style-type: none"> cooperation trust collective action contribution to common goods 	<p>Why behavioural games</p> <p>Surveys miss behaviour.</p> <p>Games reveal:</p> <ul style="list-style-type: none"> real choices social norms hidden constraints 	<p>Key outcome logic</p> <p>Behaviour is an outcome.</p> <p>Games help assess:</p> <ul style="list-style-type: none"> inclusion trust-building interactions with social norms
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Behavioural game – core design	
<p>Game type</p> <ul style="list-style-type: none"> Common Pool Resource game Multiple rounds Individual decisions, group consequences 	<p>What is observed</p> <ul style="list-style-type: none"> Contribution levels Free-riding Cooperation and discrimination Response to incentives



Concrete implementation: Córdoba	
<p>Who participated</p> <ul style="list-style-type: none"> Residents of Las Palmeras, a marginalised neighbourhood Residents of Córdoba <p>What common-pool resource</p> <ul style="list-style-type: none"> Multifunctional green space 	<p>What the game revealed</p> <ul style="list-style-type: none"> Higher contribution to the common pool resource when it benefits the general population rather than the marginalized group. Participants adjust their own contribution depending on the collective contribution Gender gaps: men free-ride if the collective contribution is high enough, women reduce their contribution less strongly than men when collective contributions diminish

How to replicate Go to Annex 4									
<ul style="list-style-type: none"> Trained facilitator Neutral space 	<ul style="list-style-type: none"> Simple materials Clear rules 								
<ul style="list-style-type: none"> Ethical safeguards Inclusive recruitment 									
Process timeline									
<table border="0" style="width: 100%; text-align: center;"> <tr> <td>Design 6–8 w</td> <td>Preparation 4 w</td> <td>Implementation 0.5 w</td> <td>Data 3 w</td> <td>Analyses 6–8 w</td> <td>Reporting 1 w</td> </tr> </table>	Design 6–8 w	Preparation 4 w	Implementation 0.5 w	Data 3 w	Analyses 6–8 w	Reporting 1 w	<p>Next steps:</p> <table border="0" style="width: 100%; text-align: center;"> <tr> <td>Policy revision</td> <td>Action plan</td> </tr> </table>	Policy revision	Action plan
Design 6–8 w	Preparation 4 w	Implementation 0.5 w	Data 3 w	Analyses 6–8 w	Reporting 1 w				
Policy revision	Action plan								

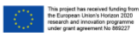
Replication takeaway
Behavioural games turn inclusion into observable outcomes and provide valuable insights to correct policy flaws.

Annex 4 - Behavioural Game Handbook for cities.



Table of content

- I. General objectives
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 - c) Behavioural games and VIS
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- III. Logistics
 - a) Preparation
 - b) Games logistics
 - c) Instructions for experimenters
 - d) Instructions for participants
 - e) Ethics
 - f) Preliminary protocol



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General objectives

- We will use a mix of behavioural games for understanding preferences in each of the different cities and for testing targeted interventions with a G&D approach
 - Run behavioural games to elicit preferences and find targeted solutions for collective problems
 - Study how to foster cooperation using CPR games
 - Reveal stereotypes and evaluate solutions
 - Test nudges to promote behaviour change

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Behavioural games at different stage of the project

- INHABIT will provide innovative ways to design, implement and appraise policy interventions (e.g. simple heuristics, hyperbolic discounting, use of social norms, nudges and behavioural games).
- Behavioural games will be employed to serve different functions at different stages of the work programme:
 - Studying preferences and decision-making: incentivized experiments to reveal decision making using within subjects design
 - Evaluating the impact of new measures: between subjects design with control and treatment groups

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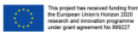


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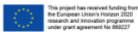
The role of preferences in fostering cooperation

- In the early stages of the project, games will be used as a method of preference elicitation from a broad sample of citizens in each of the cities (recruited via the community activators and neighbourhood observers).
- There is a long tradition in the use of behavioural games in the elicitation of preferences (Chaudhuri, 2009), especially around the allocation of public goods and resources (Andreoni, 1995), and they can be used to help understand the circumstances under which more equitable distributions of goods are likely to be accepted, and the key drivers at play in these circumstances.
- The preferences elicited will then help building a picture of the key drivers of behaviour and barriers to change in each of the focal communities and inform the design of the INHABIT-APP.
- In this phase of the project, behavioural games will be integrated with the baseline study on IHW carried by partner ISIM as well as with the co-design of VIS carried by the pilot cities and TSR. In fact these three processes will be performed in parallel, by involving the same group of local community representatives (“observers”) and using integrated methodologies.



The role of preferences in fostering cooperation

- *Present biased individuals* (eg. Hyperbolic discounting) may be less likely to perceive the long term advantages associated to cooperation and the adoption of sustainable lifestyle (Andreoni and Sprenger, 2012)
- Social norms and trust play a significant role in cooperation in addition to the fact that some people may be '*conditional cooperators*'. (Fehr and Fischbacher, 2004; Gächter, 2007)
- The way information is provided and the framing of uncertain future outcomes will impact differently individuals' willingness to act pro socially
 - Important to understand the behavioural characteristics of each community to design targeted interventions
 - Behavioural games will help to reveal those characteristics and inform future solutions

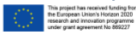


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The role of Stereotypes in Cooperation

- Stereotyping might influence individuals' perception of cooperation, from free riders to high contributors and affect the productivity of the group in managing CPR. (Andreoni and Petrie, 2008)
- Repeated CPR games offer a setting where stereotyping is possible (groups with several participants). Participants will have the opportunity to confront their expectations of behavior (based on stereotype) and if they match observed behavior. Participation in subsequent rounds will inform about how people adjust to their revision of stereotypes.
- We will run games to reveal stereotypes on gender and diversity and how people react/adjust to them in repeated interactions



Behavioural games for understanding barriers to cooperation and how to design VIS and INHABIT-APP

- The games have been co-designed to help reveal the perspective of marginalized target groups and those who should cooperate with them in the realization of the VIS for each city.
- In each city, the implementation of behavioural games will take place in the local language and will be facilitated by the LCAs and dedicated helpers to be recruited specifically for the purpose of running the games.
- The sample of participants will include a representative range of citizens with PCs who are often excluded in traditional sampling, by targeting citizens via services with which they are already engaged e.g. surgeries, schools, retirement communities. Games will be made available in paper version so as not to exclude those who might not have access to mobile technology.



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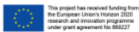
Behavioural games to test solutions

- In the later stages of the project (Yrs 4 & 5), behavioural games will perform a different function. Here we will instead employ games that are designed to help supporting and maintaining behaviour change.
- In these games we will build on the work done across the programme in understanding a “day in the life” of individual citizens (especially those within designated at-risk or marginal groups), to develop games that support perspective taking.
- These games will additionally be tailored to the specific context examined in each of the city focus concept (culture, food, animals, art and environment) ensuring that they are as closely aligned with the key inclusion goals as possible, taking into account the geographical, cultural and psychological context as much as possible and making use of the INHABIT-APP prototype.
- This includes testing solutions to promote the adoption of sustainable lifestyle such as nudges, reminder and frequency of reminders, information framing (figures, ranking, peer information) etc...



Common-pool resource games

- **Common-pool resources** are goods characterized by **low excludability** (difficulties to prevent that other individuals use the good) and **high subtractability** (the availability of the good decreases when the good is used/consumed).
 - e.g. fish banks, forests, water...
 - In IN-HABIT, **health and well-being**
- **Common-pool resource games**
 - Artificial situation where players have to manage common-pool resources. They may choose how much of the CPR to extract for their own good at the expense of the other players and their ability to extract again in the future.



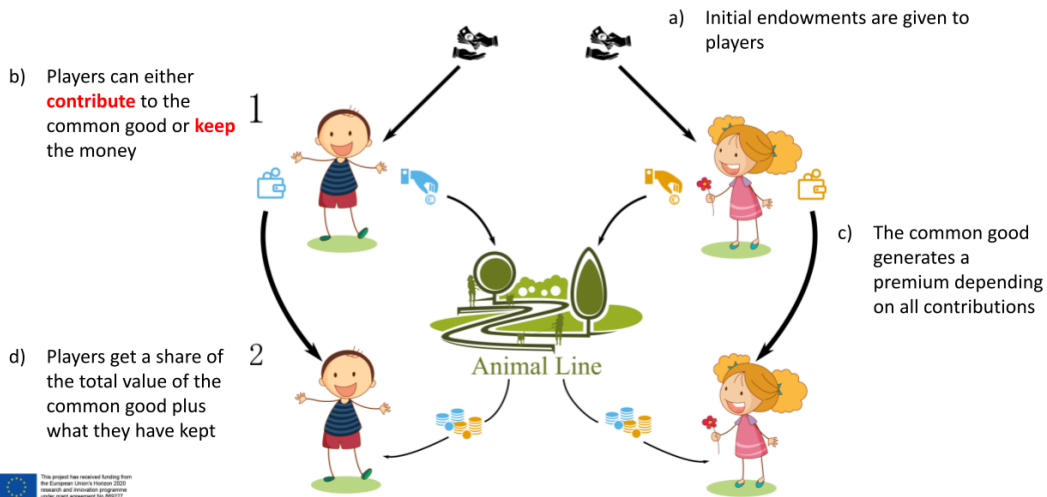
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Common-pool resources game

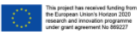


What are we testing

Competitive vs cooperative norms

- To what extent nudging social norms could increase cooperation within cities?
- How to best design your message to foster cooperation?

	Control	Treatment 1	Treatment 2
Step 1	Nudge 'neutral' norm 'what people in the city do'	Nudge 'cooperative' norm 'what people from <u>your</u> group do'	Nudge 'competitive' norm 'what people from the <u>other</u> group do'
Step 2	Common Pool Resource Game		
Step 3	City Intervention		
Step 4	Evaluation		



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Next steps

- Work with cities to co-design behavioural games TAILORED to their interventions (particularly around promotion of soft-solutions)
- Provide logistics support, training and resources for running the games



Preparation logistics

- Indicative number of participants: 150-200 per city (minimum 50 per group, C, T1, T2)
- Funds cover:
 - participation fees (e.g. mobility, child care, and other opportunity costs / special needs)
 - show up fee
 - game winnings up to 50 euros pp (including show-up fee)
 - Helpers
 - Games materials
- In advance of sessions materials will be translated into the local language. Two translators will enable back translation, in order to make sure translation introduces no biases.
- **Recruitment and training of helpers (at least two weeks before)**
 - 1 helper per 10 participants => ~6 helpers in total
 - Helpers will help with recruitment of participants, organization of spaces, running the games and entering the data collected (in spreadsheet prepared by UREAD)
- Recruitment of participants (tailored to target groups of each cities) (at least one week ahead, remember special needs participants need more time)
- **Organization of spaces (at least two weeks ahead)**
- Assignment of participants to groups (groups need to be diverse)
 - Groups have to represent all the targeted personal characteristics
- One member of UREAD will travel to assist and help coordinate the games



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Games logistics - Single round CPR game



- 30 participants per session
- 3 coordinators (one main coordinator + 2 coordinators)
- pen and paper for the participants
- numbers from 1 to 30 to identify participants and ensure anonymity (numbers to be reported on each individual answer sheets)
- one room with larger capacity, depending on the setting (space should be enabled between participant to facilitate privacy).
- 30mn-1h per session, up to 4 sessions per day
 - Comprises the CPR game
 - A sociodemographic survey
 - A short survey on pillar 2 gender landscape



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Instructions sheet for experimenters

Instructions sheet for experimenters

Materials for 30 participants:

- 30 consent forms
- 30 Pencils
- 30 numbered questionnaires
- 30 ID numbers
- 30 numbered envelope (for payment)
- 30 debriefing forms
- 30 evaluation forms
- Administrator's instructions
- 1 reserved room

Instructions sheet for experimenters

Introduction:

Thank you for agreeing to participate in our research.

- 1) Hand participants the consent form.** Please read this consent form which describes the study. You should feel free to ask any questions. If you agree to the terms of the research, sign the consent form. After they are done, collect the consent forms and place in a large, manila envelope.
- 2) Distribute the numbered questionnaires and pencils.** Before answering the questions, please read the instructions to the study. If you have any questions, raise your hand and a helper will come to you. Remember there are no right or wrong answers. Only your decision matters. This is a private and anonymous questionnaire, so please answer it privately. When you are finished, return the questionnaire to me.
- 3) Collect the materials and hand participants the debriefing form.** Be sure to collect the forms in a manner that ensures confidentiality. You might have the participants place them in a large manila envelope, or collect them "face down" so that you cannot view responses. Please read and sign the debriefing form. When you are finished, I will collect them. Collect signed debriefing forms and place in a separate, large, manila envelope. Thank you for your participation. Feel free to take a duplicate debriefing form with you if you care to have one. If you want the participant to keep a copy of the debriefing form, come prepared with two copies per participant.
- 4) Instruct participants to complete a Research Evaluation Form online.** Thank you again for participating in our study. We welcome you to complete an evaluation form to provide our department with feedback regarding this particular study and the experiment(s). Research Evaluation Forms are now available online.
- 5) While participant complete the debriefing form and the research evaluation form online, 2 coordinators compute the results to work out individual earnings.**



Instructions - double-click



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Instructions sheet for participants (to be read by LCAs to all participants)



Instructions sheet for participants

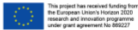
You are about to participate in a survey session about your preferences. For your participation, you will be paid a show-up fee of €7. In addition, you may receive some additional money based on your choices and the choice of others during the experiment. Your answers will remain anonymous. For that purpose, you have been assigned a unique ID number. This ID number appears on the questionnaire you have received.

Your earnings will be given to you after the session in cash in a closed envelope by a third party, to preserve confidentiality. You will only need to present your ID number to collect your earnings (the one attached to the questionnaire). This survey is personal and we ask you to remain silent during the whole time devoted to the survey. There is neither right nor wrong answers. We are only interested in your individual preferences. Fill in the questions as personally and accurately as you can. If you have any question, raise your hand and wait for a helper to come by you.

You will soon receive the survey and your ID number. Please do not start writing until you will be instructed to do so.



Participants - double-click



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Participant Information Sheet

Research Project: Inclusive Health And wellBeing in small and medium size cities (IN-HABIT)
Project Team Members: Pr. Marina Della Giusta (Principal Investigator), Dr. Sophie Clot, Dr. Florent Dubois, and Dr. Rachel McCreay

We would like to invite you to take part in a research study about public goods.

What is the study?

The study is being conducted by the University of Reading. IN-HABIT is a Horizon Europe research project that aims at improving health and well-being in 4 European cities (Globoša, Nitra, Lucca, Riga). Each city realises one of their neighbourhoods with a new public good to reach this goal. In your city, IN-HABIT is changing to improve health and well-being through it.

Why have I been chosen to take part?

You are living in the neighbourhood being realized or you are a potential user of the infrastructure being deployed. As such, you are directly concerned about how this public good will be used and maintained, and we would like to understand how and why you will use it or not.

Do I have to take part?

It is entirely up to you whether you participate. You may also withdraw your consent to participation at any time during the project, without any repercussions to you, by contacting the Project Principal Investigator, Dr Marina Della Giusta, Tel: 0118 378 5068, email: m.dellagiusta@reading.ac.uk.

What will happen if I take part?

You will be asked to complete a short survey and will participate in a social game. You will be given a show-up fee to compensate for your participation and you may earn an additional monetary reward at the end of the game.

What are the risks and benefits of taking part?

The information you give will remain confidential and will only be seen by the research team listed at the start of this letter. This study is entirely anonymous. You will not be identifiable in any published report resulting from the study.

Participants in similar studies have found it interesting to take part. You will learn about your own unconscious biases and new methods for you to have better and more inclusive teaching practices and environment. We anticipate that the findings of the study will be useful for teachers and learning staff in planning how they teach and/or support learners.

What will happen to the data?

Any data collected will be held in strict confidence and no real names will be used in this study or in any subsequent publications. No identifiers linking you to the study will be included in any sort of report that might be published. Participants will be assigned a number and will be referred to by that number in all records. The data will be stored securely on a password-protected computer and only the research team will have access to them. At the

end of the study, the data will be securely anonymized or pseudonymized so that it will erase permanently any way to identify individuals. The results of the study will be presented at national and international conferences, and in written reports and articles. We can send you electronic copies of these publications if you wish.

What happens if I change my mind?

You can change your mind at any time without any repercussions. During the research, you can stop completing the activities at any time. If you change your mind after data collection has ended, we will discard your data.

Who has reviewed the study?

The project has been subject to Ethical Review and has been approved by the ethics committee of the University of Reading to ensure all data collection, analysis and storage are in compliance with GDPR (you can check details here: <https://uk.europa.eu/>). The University has the appropriate measures in place. Full details are available on request.

What happens if something goes wrong?

In the unlikely case of concern or complaint, you can contact Professor Marina Della Giusta email: m.dellagiusta@reading.ac.uk

Where can I get more information?

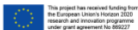
If you would like more information, please contact Professor Marina Della Giusta email: m.dellagiusta@reading.ac.uk

We do hope that you will agree to your participation in the study. If you do, please sign the associated consent form and wait for the coordinator's instructions.

Thank you for your time.



Information sheet - double-click



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Consent form

Research Project: Inclusive Health And wellBeing In small and medium size αTies (IN-HABIT)

Participant Consent Form

I have read the Information Sheet about the project and received a copy of it.
I understand what the purpose of the project is and what is required of me. All my questions have been answered.

Name of participant: _____

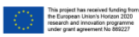
Consent form - double-click

Please tick as appropriate:

- I consent to completing a questionnaire.
- I consent to participating in a social game.
- I consent to completing a feedback form.
- I consent to be contacted for a follow up survey in 3-6 months.

Signed: _____

Date: _____



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Preliminary Protocol

A/Control 8/75

Anonymous questionnaires
Please ensure this questionnaire is private and as accurately as possible. There are no right or wrong answers.

Thank you for taking part in this survey. This survey is entirely anonymous and voluntary (you are free to withdraw at any time). You have been allocated a random number at the top of the questionnaire and on the corner of the sheet. Please scratch the number in the corner of the sheet. You will receive your payment which will be calculated based on your answers in this questionnaire, at the end of the session upon presentation of this number.

A sum of 30 euros has been allocated to you for this event: 20 euros to cover for your participation and 10 euros to be used as tokens in the game below, which could be either invested towards the community or that you can keep for yourself. If you invest tokens, you can earn from 0 up to 30 euros in addition to your 20 euros. You will also end the game with total earnings ranging from 20 euros up to 50 euros. Or you can choose to not invest tokens and end the game with 30 euros. This decision is entirely yours and we guarantee anonymity. The privacy of your decision is ensured by the number you have been allocated.

You have 300 tokens (5 euros = 30 tokens) to play the game.

This game is about investing in a (300 euro project). The specific type of project will depend on the fund collected. The project will benefit the entire community, but will target in particular people with very low incomes.

There are 4 stages in this game:

- Stage 1: starting the project.
- Stage 2 & 3: covering the project.
- Stage 4: benefits from the project.

At the end of the game, depending on your decisions as well as decisions from other people in your group, you will receive the benefits from the project. This benefit will depend on the state of the project, which relies on your decision and your group decision over the 3 stages. Each group is made of 5 individuals. You all have 300 tokens each.

At stage 4, the total number of tokens invested in the project from all members of the group is tripled, and then shared out equally between the group members. For example, if together you invest 1200 tokens altogether over the 3 stages, you will each receive a gain of 720 tokens (1200*3/5 participants) in addition to your participation fee, so 44€ extra total (36€ from the game + 8€).

You have 300 tokens in total and you can invest up to 300 tokens at each stage. Your final gain will depend from the state of the project.

Stage 1: Starting the project.

How many tokens you invest at this stage: _____ (from 0 to 100)

How many tokens, on average, do you think other people in your group have invested in stage 1? _____ (from 0 to 100)

Stage 2: Keeping the project.

For this second stage, we ask you to invest tokens depending on how many tokens other members of the group have invested in stage 1.

Total tokens invested in Stage 1 by your group	How many tokens you invest at stage 2 (0-100)
High: <100	_____
Medium: 200-300	_____
Low: >300	_____

How many tokens, on average, do you think other people in your group have invested in stage 2? _____ (from 0 to 100)

Stage 3: The maintenance stage - looking after the garden.

For this third stage, we ask you to invest tokens depending on how many tokens other members of the group have invested over stage 1 & stage 2.

Total tokens invested by your group - Stage 1 + Stage 2	How many tokens you invest at stage 3 (0-100)
Very High: >800	_____
High: 600-800	_____
Medium: 400-600	_____
Low: 200-400	_____
Very Low: <200	_____

How many tokens, on average, do you think other people in your group have invested in stage 3? _____ (from 0 to 100)

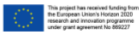
Stage 4:

This table shows your individual earnings depending on how many tokens you have invested as a group.

The total contribution will be calculated by adding up the sum invested in stage 2 and the corresponding sum collected as a group in stage 2 and 3. For example, if the total group contribution at Stage 2 is 200, then the corresponding amount invested in Stage 2 for the Medium level will be added up for the 5 members of the group.

Total contribution	Individual average contribution per group	Individual gain in euros	Total payment
_____	_____	_____	_____

Protocol - double-click



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