VALUE FLOWER METHOD
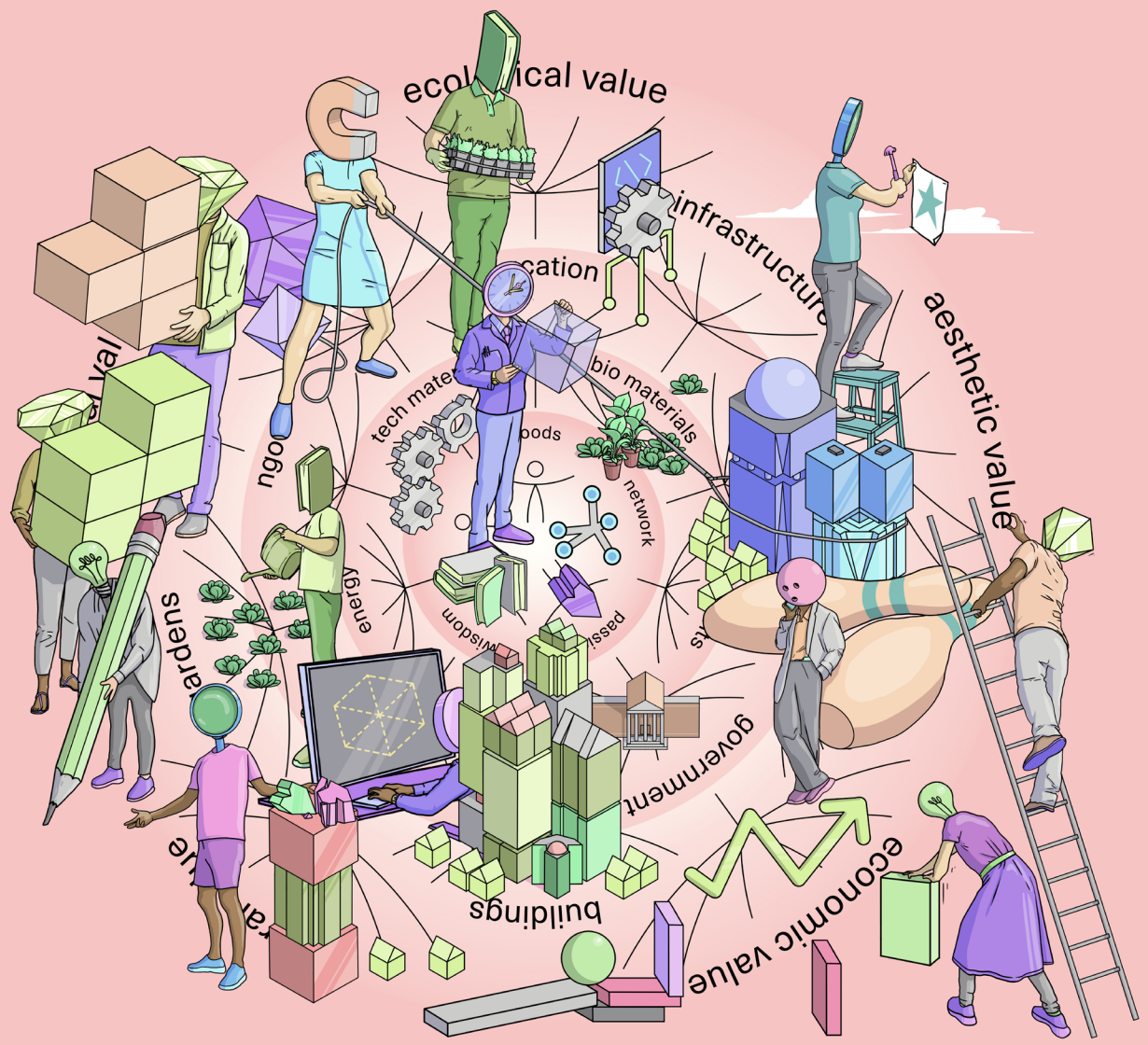
A Method for Strategic Impact Education

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Summary

Summary

How might educators approach the design of their course or module if they want it to embody impact-driven education? What kind of methods, tools and interventions can be used to support students in their learning journeys? In this publication we share a conceptual and structural approach called "The Value Flower Impact Method," which can be adopted and adapted by teachers and educational developers who want to incorporate (elements of) impact-driven education in their practice. It aims to inspire by providing both a practical and theoretical foundation to develop engaged and meaningful education.

This publication introduces an integrated impact-learning methodology that is based on the Value Flower introduced in the book 'Circular Communities' (Leclercq & Smit, 2022). This is a design methodology that is currently used to analyse and design neighbourhood initiatives with the ambition to transition towards circular communities by closing resource flows. The method is unpacked and transformed to make it fit educational contexts and was tested in the Erasmus University Rotterdam master honours programme "Tackling Inequalities" from 2020 - 2023. It consists of 7 steps that can be used as scaffolding for students while they engage with societal partners and research their specific contexts in a holistic way. It continues to support students in designing and evaluating an intervention that aims to make an impact. The seven steps are:

1. Identifying personal and team values and objectives
2. Learning about the context: master classes set the scene
3. Defining urgencies and ambitions
4. Engaging stakeholders
5. Developing alternative future scenarios
6. Designing an intervention
7. Evaluating impact

In this publication the 7-step Value Flower Impact Method will be introduced, complemented with useful learning activities, practical models and reflections from students and teachers who used the method during the course. In the last chapter student projects will be followed to provide examples of the method used in practice. The different steps can be adopted as a complete package, but we highly recommend to adapt them to your own needs, and blend in your own ideas and experiences to make them as effective as possible. Each of the steps relates to one or more learning objectives, so you can pick and choose the ones that are most relevant for you and your course. Ultimately this method can be used to develop learning trajectories that contribute to the transition towards a sustainable and just society, and to help scale the efforts of the institutions to make impact-driven educa-tion available to all students and teachers.

Impact-driven Education

With impact-driven education we embark on a trans-disciplinary journey in which students engage with societal partners and research their contexts. This means that students do not depart from a disciplinary perspective or case, instead students have to work together across disciplinary boundaries in order to create a holistic approach to research and design. With this type of education we want to prepare students for a world characterized by uncertainties, ambiguities and controversies. Future academic professionals will be confronted with intricate challenges related to erratic and unpredictable changes: demographic, political, economic, social, environmental, ethical or otherwise. Students should be given the opportunity to learn how to navigate and critically reflect upon upon these challenges and learn approaches and skills to be able to contribute to a more sustainable and just world, increasing inclusiveness and reducing inequalities.

Foundational elements of impact-driven education include:

1. The creation of a rich learning environment built around authentic concerns and urgencies;
2. The aim to develop the ability of students to relate to and deal with these concerns; which we call the student's 'impact capacity';
3. To involve and collaborate with actors and partners who deal with or are affected by the urgency;
4. Different modes of assessment that give students insight in their learning process; and
5. Application of approaches that are both reflexive and methodological in nature: for students, teachers and societal partners to consider themselves in relation to their (social) contexts and vice versa (Impact at the Core, 2023).

Who is this publication of interest to?

The Value Flower Impact Method described in this publication is meant for educators, learning innovators, and others who are interested in teaching students how they can make a positive contribution to society. The publication functions as an inspirational but also a practical guide on how one could shape impact education. In the different chapters the seven steps listed above will be further described. Each step comprises a lecture (only briefly referred to in the explanatory text) and a series of working materials that can be downloaded[1] to be used as print-outs or with online tools such as Miro or Mural. Each chapter is complemented with testimonials and reflections of students and teachers. In the last chapter student projects will provide examples of how the method works in practice.

[1] https://www.eur.nl/en/impactatthecore/value-flower-method-method-strategic-impact-education

1. Introduction

Impact education in academic courses

In recent years, universities increasingly position themselves as an active partner in 'making positive societal impact', both in the research they undertake and the education they provide. This (re)new(ed) societal focus can be partly seen as an answer to the apparent lack of adequate action that public government, private businesses and knowledge institutions individually provide to tackle the pressing challenges mankind is facing: climate crisis, growing inequality and a growing distrust in institutions and the realization that only collective, collaborative and integral approaches on multiple and interacting scales that do address the needs and concerns of citizens can have the desired transition to a sustainable planet and societies.

In order to be able to have this truly positive impact on society, it is essential to establish respectful, sustainable and reciprocal relationships with societal partners and citizens; in other words, impact driven research is not just providing impact for society but is also undertaken with society (Leclercq, et al., forthcoming[2]). This objective inherently requires an interdisciplinary approach, that is collaboration between researchers from different academic disciplines whereas, within the current funding, validation and accreditation regimes, they tend to operate within their own specialist domains. Additionally, when including other – non-academic – stakeholders including citizens in research and educational contexts, a transdisciplinary approach is demanded that includes capacity building, knowledge integration and creating communicative spaces.

When we transfer this objective to academic education, we aim to educate students to contribute meaningfully to a world that constantly surprises us and that requires us to continuously adjust our perspectives, by contributing to the development of new (academic) knowledge, the ability to implement that knowledge and the ethical awareness of the ramifications that our actions have on our society (Impact at the Core, 2023). Students acquire knowledge, skills and attitudes to identify and address societal urgencies by entering

into a reciprocal relationship with actors involved in a specific context, becoming aware of the ethical, social and political dimensions of their actions.

Learning objectives

The main aim of the method is to explore alternative and holistic paths towards multiple value creation, taking a multi-actor environment and the specificity of a spatial context into account.
With the development of impact-driven education, Erasmus University has identified principles that guide us in how we conceptualize and operationalize this new type of education. These principles can manifest themselves in different pedagogical approaches and methods, one of which is presented in this publication (see Impact at the Core's learning landscape for impact-driven education). Key aspects that are highlighted here are: the ability of students to listen to societal partners to detect urgencies and concerns, to develop, iterate and refine research questions and design ambitions over time, and to be able to critically reflect on the context and on their own assumptions about the

urgency and about other stakeholders that are involved in the process.
The Value Flower Impact Method allows students to incorporate these principles of the learning landscape by thinking and working systemically while simultaneously gaining insights in the complexity of ecosystems. And it enables students to structure a creative and collaborative process within a group with different interests and values. The key learning objectives are, based on the impact-driven education principles:
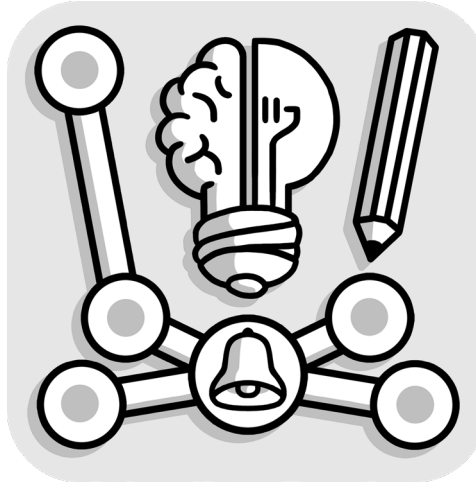
1. Positioning themselves in relation to their own, their group's and other stakeholders' values;
2. Understanding, experiencing and mapping the complexity and interrelatedness of issues associated with the urgency;
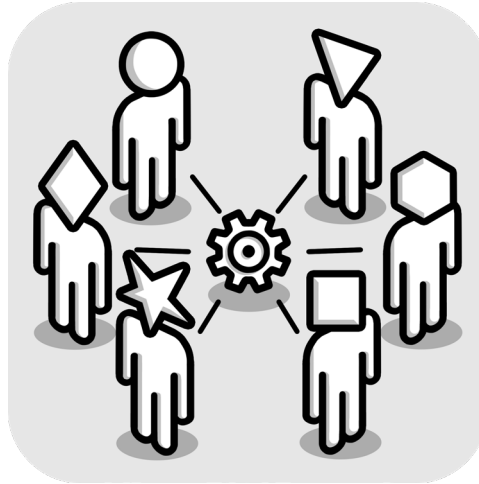3. Defining and redefining urgency following the insights, values and interests of relevant stakeholders;
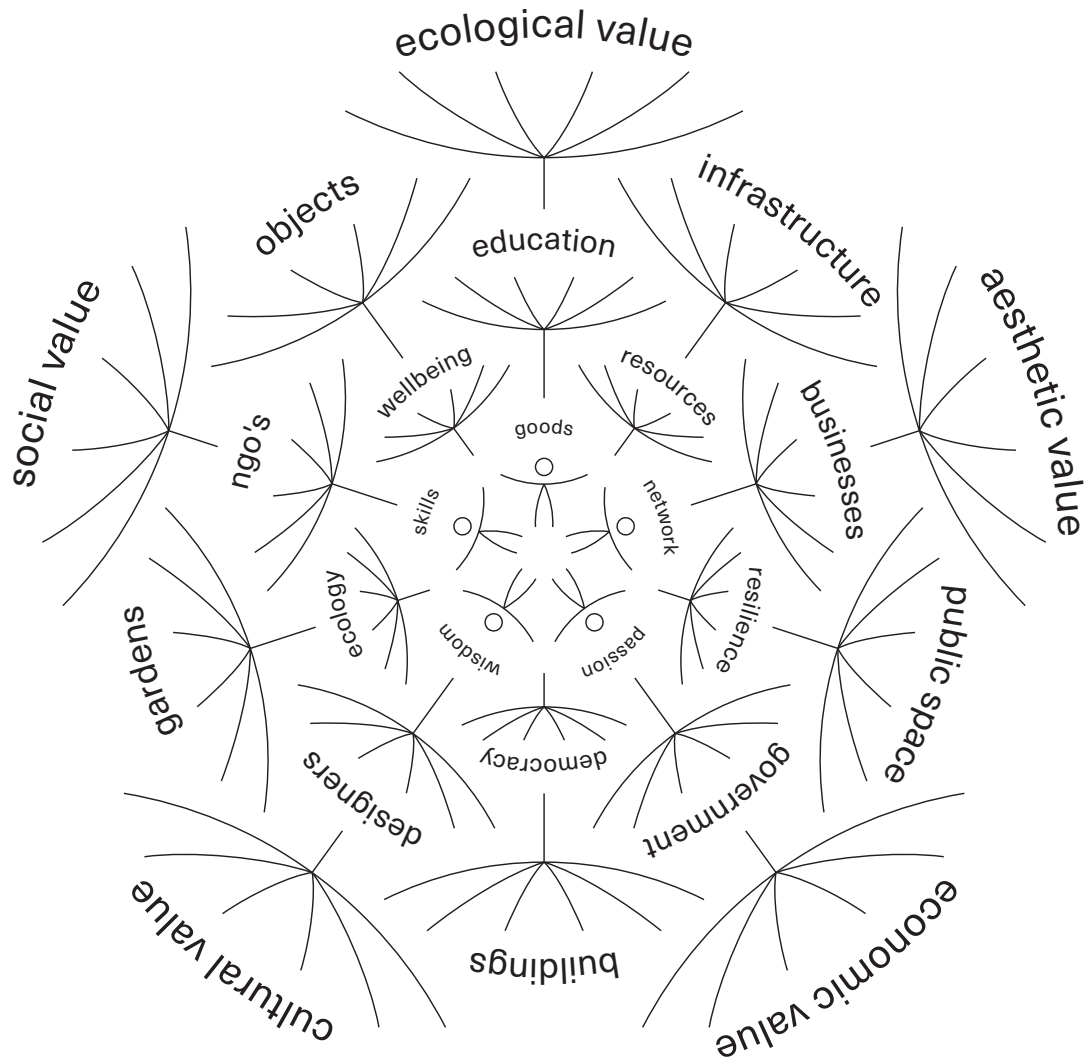4. Critically reflecting on your attitude and approach in relation to context and systems;
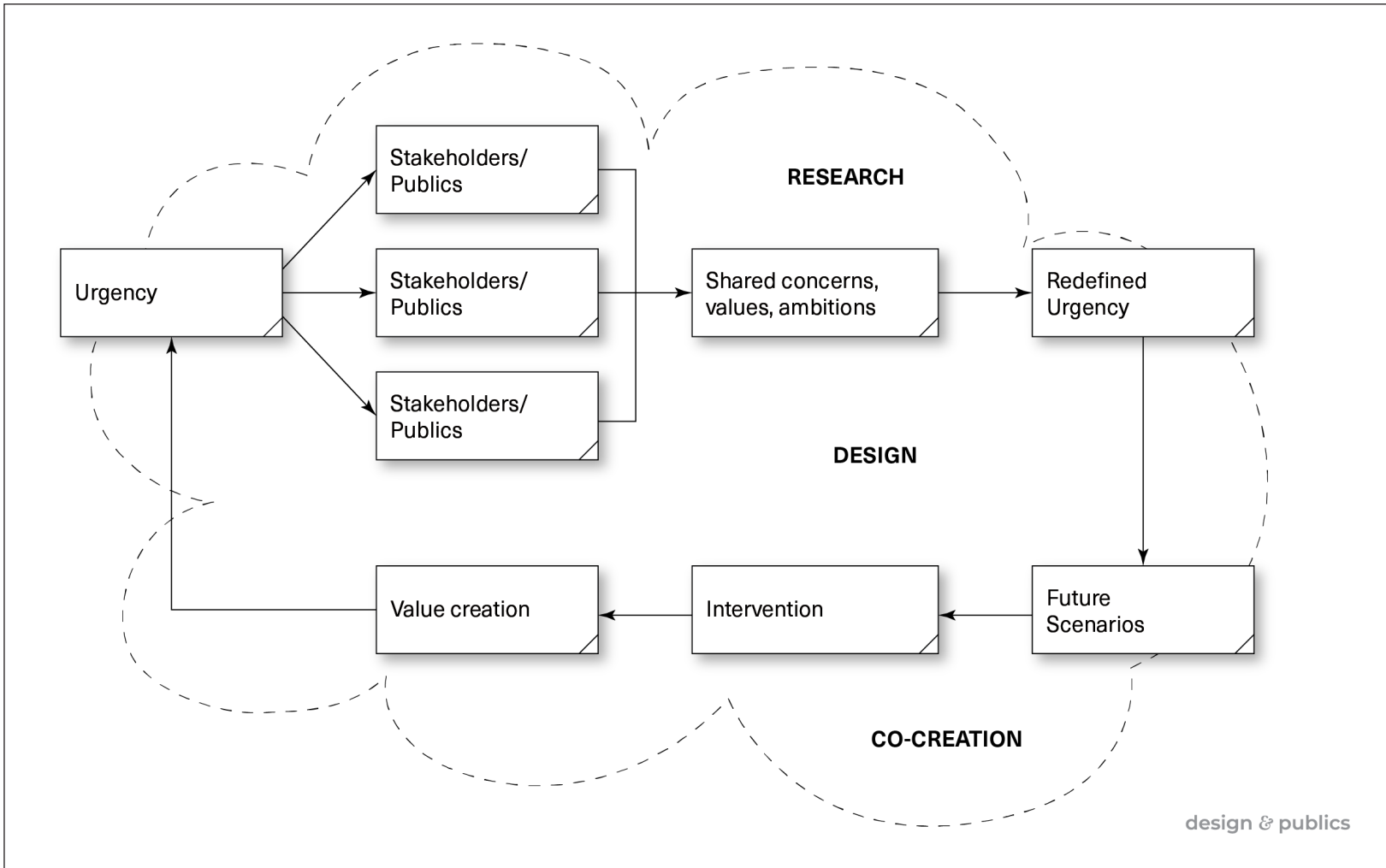5. Working in interdisciplinary groups.

1.

Positioning yourself in relation to your own, your group's and other stakeholders' values

2.

Understanding, experiencing and mapping the complexity and inter-relatedness of issues associated with the urgency

3.

Defining and redefining urgency following the insights, values and interests of relevant stakeholders

4.

5.

Critically reflecting your attitude and approach in relation to context and systems

Working in interdisciplinary groups

ecological value

objects

education

infrastructure

social value

aesthetic value

wellbeing

resources

goods

ngo's

businesses

skills

network

gardens

ecology

resilience

public space

wisdom

passion

designers

government

democracy

cultural value

buildings

economic value

Value Flower Method

The Circular Value Flower method (CVF) is developed to "organize the collective closing of resource cycles (bio and tech materials, energy, water and nutrients) on a neighbourhood scale and shows the added value (social, ecological, aesthetic, cultural and economic) that can be realized within the built environment" (Leclercq & Smit, 2022[3]). The method provides a valuable insight into the complex eco-system of a neighbourhood and community and how a transition to circular economy can be facilitated and accelerated within the complex field of numerous stakeholders with different interests and values, the spatial and social context. The Value Flower method can also function, in an adapted shape, as an insightful tool to accommodate other themes and disciplines to provide guidance for discovering new pathways to a sustainable and just society. It provides, for example, the ability to generate insight in eco-systems without detracting from the inherent complexity of neighbourhoods and communities.

The Value Flower Impact Method distinguishes itself from the traditional impact education approaches that tend to follow a course of a problem handed to the students by a stakeholder with the accompanying assignment to come up with a solution to this problem. The method proposed here queries the basis on which data the problem is defined and by whom and therefore acknowledges that those problems are often ill-defined. Students (and others alike) then often come up with solutions that are at best a partial answer to the original question. We believe it is educationally much more beneficial to provide students with the appropriate knowledge and skills to be able to define and redefine 'urgencies' - those things that truly matter to all stake-holders involved around a certain urban theme but are not necessarily captured in facts and figures. Local experiences, knowledge, stories and experiences are added to be able to formulate an urgency. After co-creation with these stakeholders students then do not design a solution but an intervention: a step towards the shared ambitions based upon the defined urgency.

Urgency

Stakeholders/
Publics

Stakeholders/
Publics

Stakeholders/
Publics

Shared concerns,
values, ambitions

Redefined
Urgency

Future
Scenarios

Intervention

Value creation

RESEARCH

DESIGN

CO-CREATION

design & publics

The Value Flower model guides students through this iterative process from urgency to intervention (see the Value Flower model on the lefthand page). The main urgency holder - (organised) citizens, community, entrepreneurs, ngo's, governmental departments or a student team - is represented within the centre of the model, symbolized with a circle of people. Their urgency based on shared values is translated into ambitions. For this, citizens rely on 'activating capital' (passion, wisdom, skills, goods and a network) and on collaboration with a variety of partners (government, businesses, knowledge institutions, ngo's) to turn their ambitions into interventions that are contextualised (they 'land' in a certain special context) and ultimately lead to multiple value creation within the community.

The Value Flower as an Integrated impact-learning methodology

The Value Flower Impact Method formed the basis for the development of one of Erasmus University's strategic impact education courses around the specific theme of tackling urban inequalities in the city of Rotterdam, led by two programmes of Erasmus University: Vital Cities and Citizens and Impact at the Core. During the course (Honours Programme[4]), students work in interdisciplinary teams around a theme of their own collective choosing, but with which they familiarize themselves through a series of 'masterclasses' that are given by urban pioneers who operate in Rotterdam. The impact course consists of an iterative co-creative process, in which students learn to critically reflect upon their initial (academically informed) assumptions through engaging with a wide variety of city stakeholders. At the beginning of this process, students explore their expectations and personal challenges for entering into a process without a fixed starting point and outcome, followed by a co-productive process with

stakeholders who have an affinity with alternative and innovative ways of addressing urban inequalities. The outcome of the co-creative process is an intervention that is a step towards a collectively developed future imaginary. The Value Flower is used throughout the 7-step impact education method to help students to acquire skills that allow them to navigate the complexities inherently involved in making positive societal impact.

The following chapter introduces each step of this 7-step methodology with corresponding learning objectives per step, reflections of students and accompanying working material.

[2] Leclercq, E., Rijshouwer, E., Van Eekelen, B. & Engelbert, J. (forthcoming). *Citizen's engagement in the Resilient Delta: How to meaningfully and respectfully integrate citizen's knowledge in academic research projects?*

[3] Leclercq, E. & Smit, M. (2022). *Circular Communities*. NAI010 Publishers. Open access via DOI: https://doi.org/10.34641/mg.62

[4] Tackling Inequalities is the official interdisciplinary Master Honours Programme open to applicants from all Master programmes at Erasmus University. The Programme is hosted by Vital Cities & Citizens and supported Impact at the Core, A.A. Van Beek Fonds and UNIC, the European University for Post-Industrial Cities. Students who successfully complete this extra-merit Programme (the equivalent of 15 EC) receive a special certificate signed by the Rector Magnificus.

2. Value Flower Impact Method
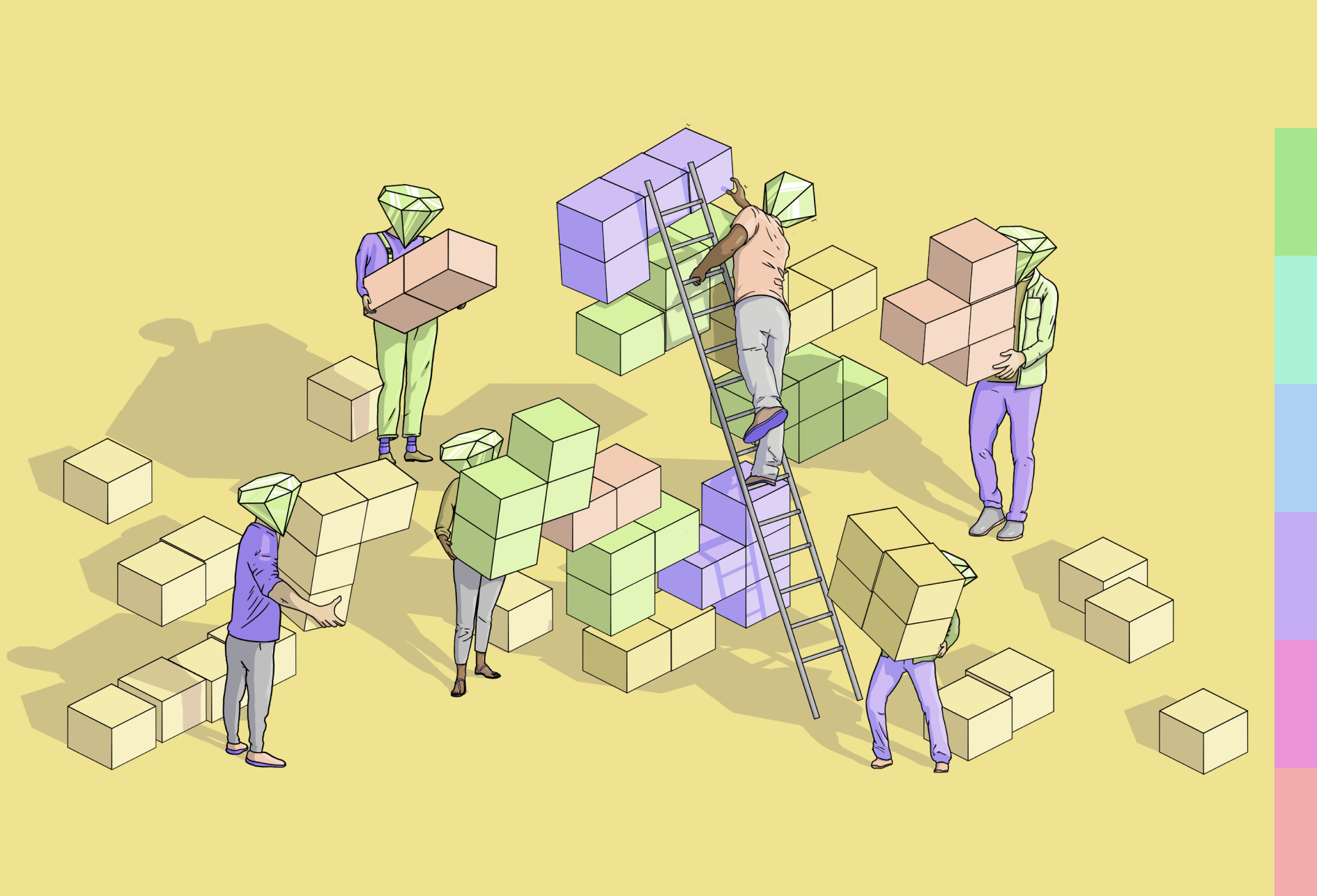
2.1. Sharing personal and team values and objectives
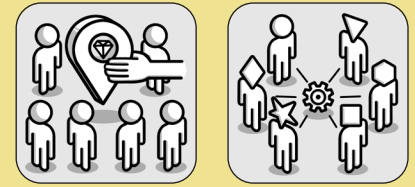
– What are the students' individual values and interests that they bring to the team?
– What are the shared values and objectives of the team?
– What are the individual students' talents, skills and personalities that they can bring to the group?

An introduction lecture to the programme is given in this first step, explaining the seven steps of the method, the attitude and skills that students are expected to have and learn (curiosity, ability to listen, humbleness, critical, creative) and, how the working materials can be used. Students then use the working materials to log their own values and individual talents, discuss their team's values and their individual talents.

In this impact-driven education method, collaboration and co-creation with group members as well as with external stakeholders take a central position, which is not easy and straightforward. Therefore step 1 of the method consists of building a strong team, in which all are aware of the team members' values, interests,

strengths and weaknesses. Ideally, students work in interdisciplinary groups, as their varying backgrounds, values and interests enrich the co-creative process.

Every student comes into the group with a unique set of values and interests. These values could include personal beliefs, work ethic, life experiences etc. Recognizing and sharing these values and interests with the other team members is important for building trust and understanding within the team. These individual values form the basis for establishing shared values within the group. Shared values are collective principles that guide the team's actions and decisions within the co-creative process towards interventions. These shared values also provide motivation in the

achievement of common goals. The collectively formu-
lated values can also act as an accountability check in
the last phase of the process: impact measurement.

Each student also brings their own unique talents, skills
and capabilities to the team. Identifying and discussing
these individual strengths and weaknesses benefit an
effective, open and transparent collaborative process,
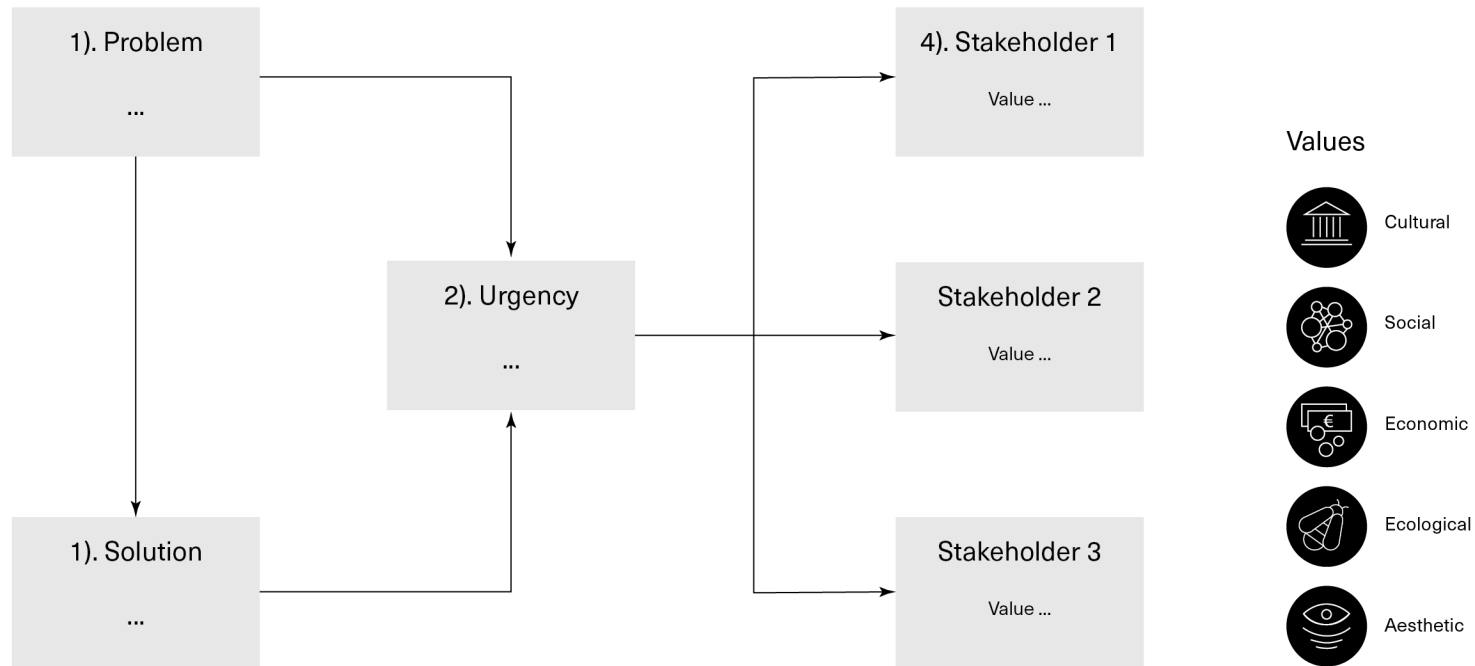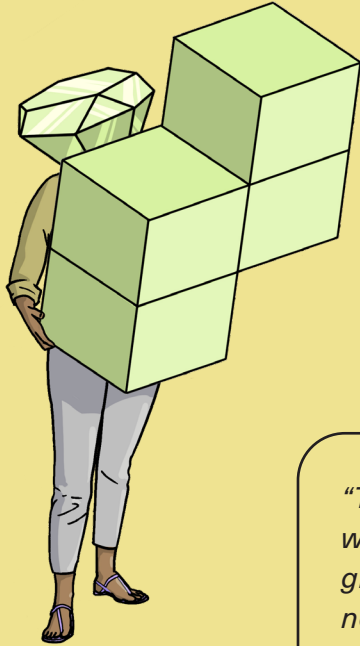in which students can make valuable use of each
other's abilities.
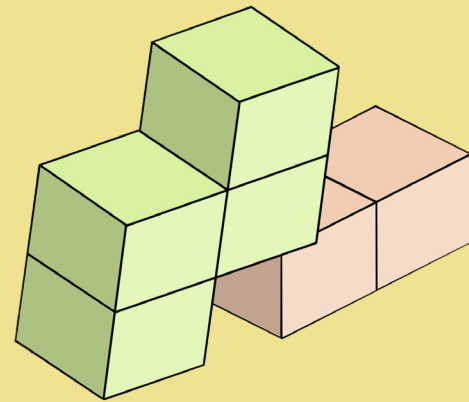
Meet the team *1). Express your expectations and objectives.*
2). Decide on organization.

	Team member X	Team member Y	Shared team values
With which attitude are you starting this project?			
What do you expect from this iterative co-creative process?			
What are your personal learning objectives?			
What are your personal challenges in this process?			
What type of (Belbin) team-player are you?			
What are important values for you?			
What are less important values for you?			
How could you help and support team members?			

From problem to urgency   *1). Write down your initial problem and solution.*
2). Think more abstractly and write your problem as an urgency.
3). Does your solution provide an adequate response to your urgency?
4). Think of potential stakeholders and values they operate from.

1). Problem

...

4). Stakeholder 1

Value ...

2). Urgency

...

Stakeholder 2

Value ...

1). Solution

...

Stakeholder 3

Value ...

Values

Cultural

Social

Economic

Ecological

Aesthetic

"I have come to understand that this programme's ambitions are appropriately well beyond its breadth, as the practical and theoretical knowledge that we have acquired will undoubtedly extend itself throughout our lifetime."

"The opportunity for collective thinking and learning with a wonderfully smart, engaged and diverse group of peers and experts was an enriching and novel experience for me."

"I think that this particular process heavily relied on my ability to open my mind in order to thrive in the unique multidisciplinary environment which this programme luckily offered. I have to confess that on our first sessions I was experiencing a lot of difficulties when communicating with my team members, as I truly felt that we were on completely different wavelengths, making the conversations hard to follow at times."
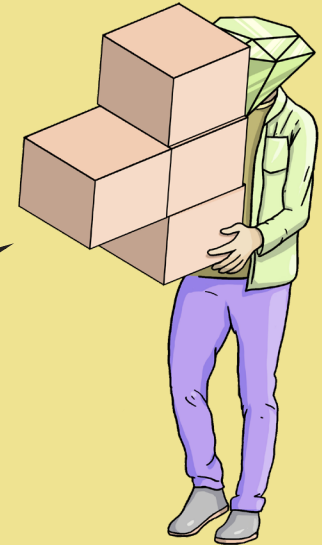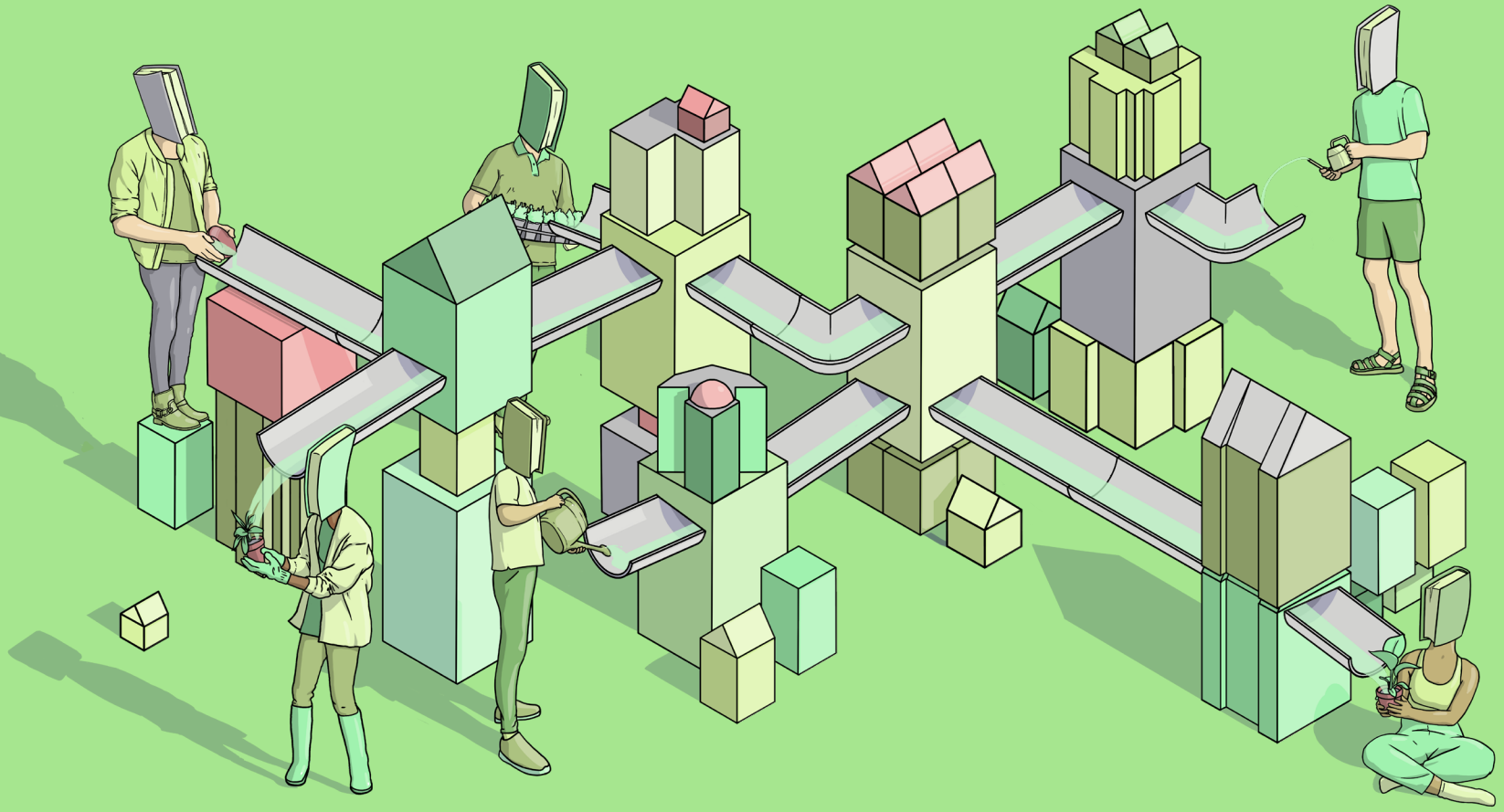
2.2. Learning about the context: master classes setting the scene
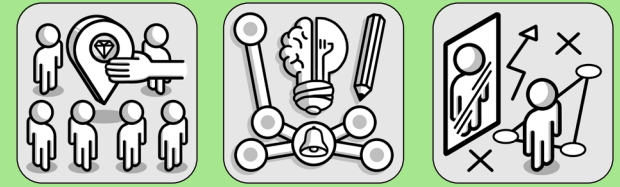
- Local non-academic stakeholders share their projects, processes, experiences and insights to make a societal urgencies practical and tangible for students
- Classes are held at characteristic locations within the city to literally connect students with local context

In a traditional academic setting, students learn about societal issues from textbooks and academic lectures. While this theoretical knowledge is crucial, master classes take learning a step further by allowing students to engage directly with those working on the frontlines of societal urgencies.

In the master classes local non-academic stakeholders, such as social entrepreneurs, community leaders and pioneering professionals, provide a unique perspective on various aspects of their communities. They share their projects, processes, experiences, and insights, offering students a profound understanding of actual challenges and opportunities faced by their city and its people. Through these lectures, students are provided with a critical perspective on how societal challenges can be dealt with in actual ways, taking the needs, concerns and wishes of local citizens and organisations seriously, rather than using established problem-solving tactics. The master classes thus connect students, local pioneers, citizens and the city itself. Through these classes students gain valuable insights into specific societal urgencies and learn alternative perspectives to critically reflect on the roles of politics, government agencies, policy-makers but also on their own position as academics.

Students must prepare the sessions by reading:
- provided (academic) literature related to the relevant topic (up to the teacher).
- about the guest speaker's background and, if applicable, about the speaker's organisation.
- about the specific location the lecture is held.

"Thanks to the programme I was enabled to genuinely reach out into the city, to connect with its wounds and inhabitants, with its fighters and pioneers, and to first and foremost listen."

"I felt that the urgency-intervention approach was very productive in increasing motivation and creativity, and I wonder why it is not implemented more frequently in education."

"The sessions where we visited the different neighbourhoods were very eye-opening. It was insightful and inspiring to see the many projects Rotterdammers are involved in to create a better future for the residents of their neighbourhood. What those sessions taught me is that local communities already have so many ideas and projects on how to improve things, but their voices are often unheard or silenced by those making the decisions such as big housing corporations or city governments."

"The program pushed me to think more critically about matters, rather than making assumptions or simply taking things for granted."

"I got very emotional because of the injustice we saw in the different neighborhoods. Just talking with the people fighting for their homes and their right to live in the city touched me deeply and motivates me to pursue an impact-driven career."

"The masterclasses were a truly unique experience, as they were no regular field trips but an impressive and realistic insight into all the issues currently playing in Rotterdam. But at the same time, they showed how Rotterdammers creatively come up with solutions and initiatives, which inspired me, mostly because they were refreshing compared to what I normally experience in the academic field."
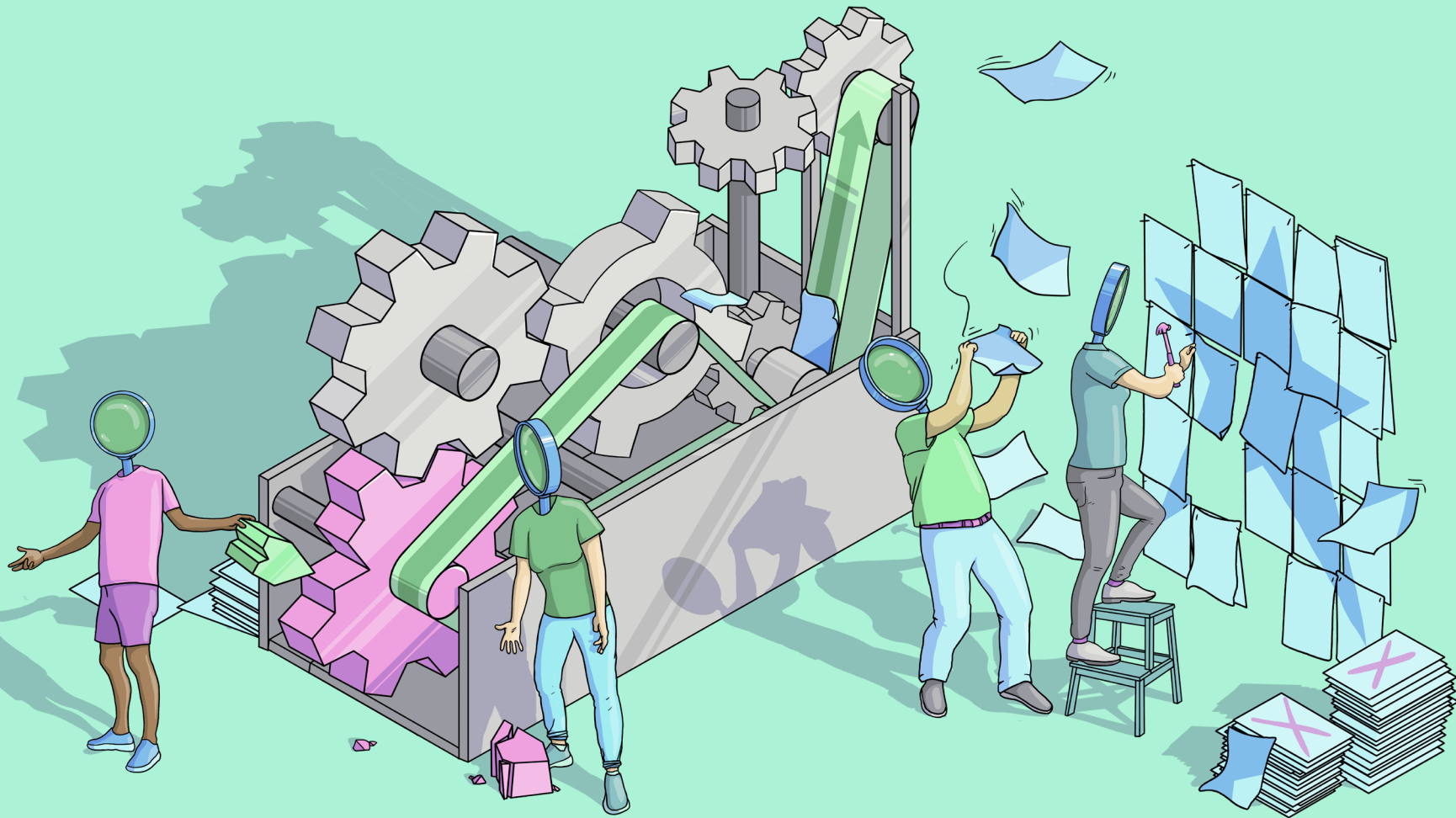
2.3. Defining urgencies and ambitions

- Student teams discuss their theme of interest
- Student teams formulate their initial urgency using a Value Flower mapping exercise
- Students teams present their outcomes
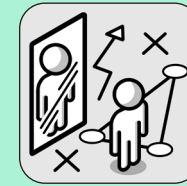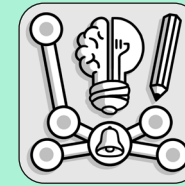
In this third step, students build upon the personal and team values they have defined in the first step and on the knowledge they gained through the master classes on the values, urgencies and interventions of local pioneers, by defining an urgency - a shared and immediate concern and ambition - around a certain topic. Students first receive a lecture on alternative value-systems to become acquainted with alternative economic models that take not just financial but also ecological and social values into account. This can be followed with a critical reflection and discussion on the values of the university's objectives on education and its current academic programmes.

Secondly, students are introduced to the Value Flower method and its holistic way of looking at current urban challenges and their interrelated connections, which make them complex in nature. Students use the Value Flower to scaffold an urgency: first by deciding on a topic of their group's interest (such as neighbourhood economy, digital illiteracy, gentrification, loneliness by elderly, obesitas of children, biodiversity and climate adaptivity, etc.), then through identifying possible subthemes, underlying issues, concerns and wishes, after which they formulate an initial description of their group's urgency.

Students must prepare this session by reading the provided (academic) literature related to alternative value-systems. During the session students work in their groups on the definition of their urgency using the exercises provided (which are by no means compulsory but act as a guide to provide structure in the group's process).
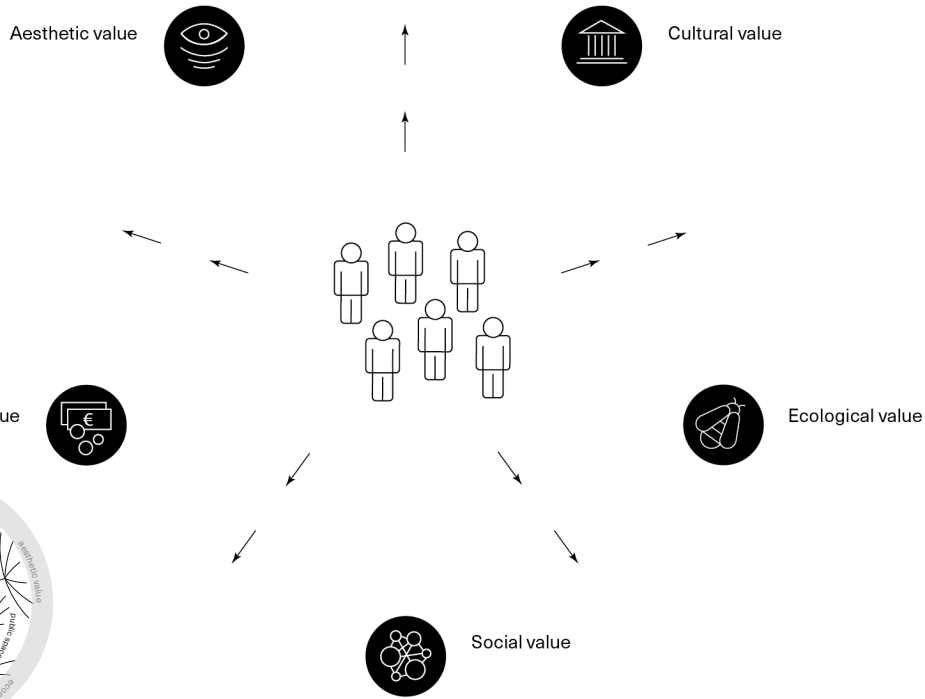
Urgency + values *1). Discuss a shared theme.*
2). Discuss what aspects you find important for each value related to a theme.
3). Think about a shared theme. Brainstorm about the issues related to this.
4). Define your urgency.

2).

Aesthetic value

Cultural value

Economic value

Ecological value

Social value

1). Shared theme

...

3). Related issues

...

4). Urgency

...

"The honours programme centered around "tackling inequalities" used an unprecedented approach - at least I had never encountered it - to challenge and engage students in overcoming (societal) issues. This approach consisted of replacing "problems" with "urgencies" and "solutions" with "interventions". The idea behind this approach is that problems and solutions often portray situations as absolute, whereas in real life "problems" tend to be multilayered and complex."

"I also gained a critical perspective on the existing forms of participation and the current ways that participatory democracy maintains existing inequalities and maintains the status quo. I also learned that to address public issues we must articulate a very specific issue that can be tackled, namely the urgency."

"To tackle these seemingly interconnected issues, an urgency-intervention based approach as introduced seemed illuminating since it offers scope for future improvements and doesn't assume that the issues will completely disappear."
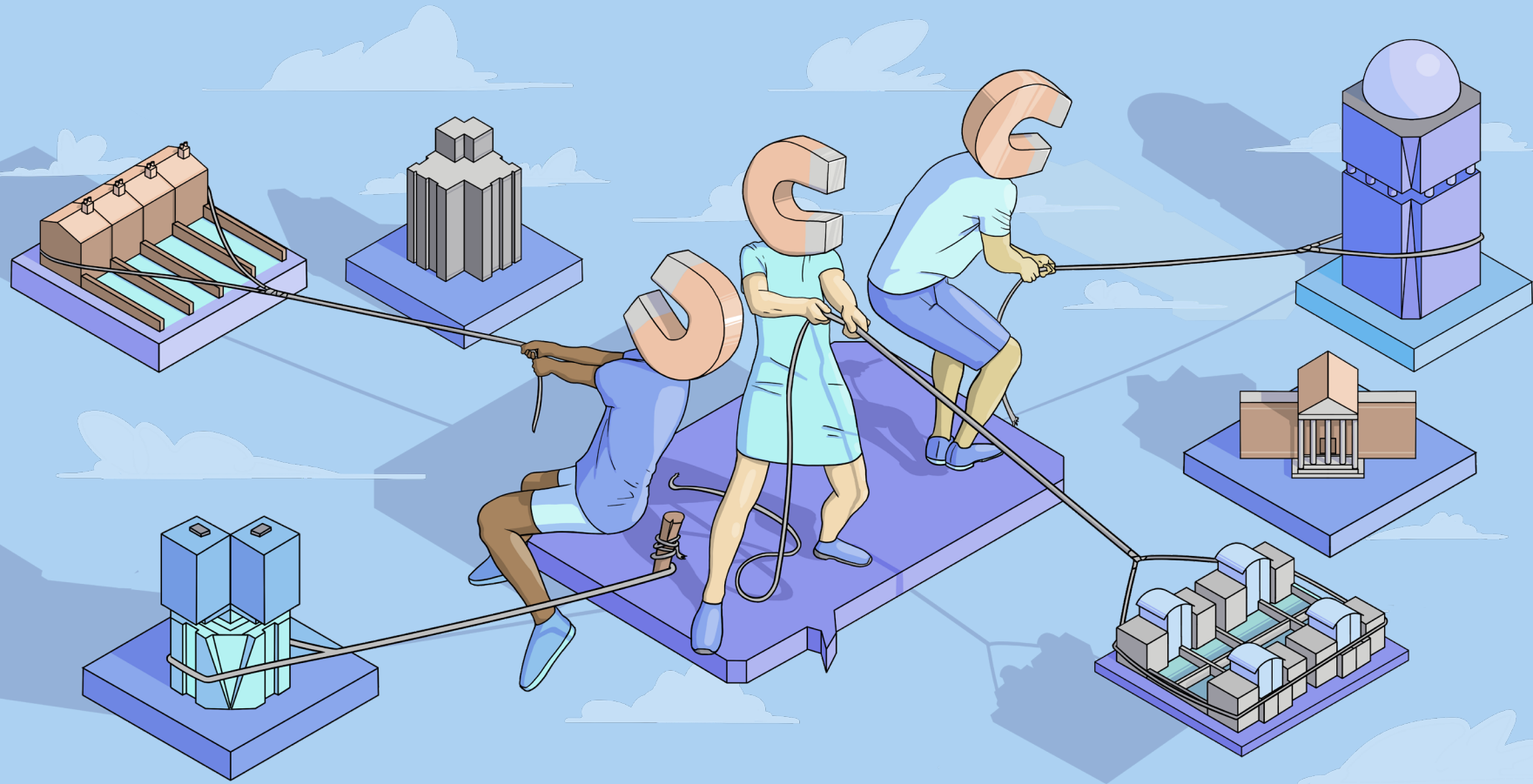
2.4. Engaging Stakeholders

– Students list stakeholders who are relevant to their urgency
– Students contact stakeholders to discuss stakeholders' values and interests and their position on the defined urgency
– Students reflect upon their own shared team values being one of the stakeholders themselves

After having defined their initial urgency, students are encouraged to contact and meet with stakeholders that are relevant to their urgency to learn about the other stakeholders' values and interests and to discuss the initial urgency in order to verify its validity. The student team is also a stakeholder and has to reflect on their shared team values as defined in step 1 and how they relate to their urgency and other stakeholders' values and interests.

In preparation, students receive a lecture that discusses alternative forms to governance systems (e.g. commons, community land trust, doughnut economy, wellbeing economy) and forms of citizen's engagement and empowerment. After this lecture students make a preliminary inventorisation of the relevant stakeholders and their values and interests following the Value Flower method. They also discuss how to approach stakeholders, how to ask relevant questions, etc. They are then well-equipped to contact stakeholders themselves, however, when students find themselves stuck, the teacher can provide his/her contact details from stakeholders that the teacher/research group already has a relationship with.

Students then reflect and reiterate upon their initial urgency and, based upon the new knowledge and insights, redefine the urgency. It is important for students that this (re)iteration is not a failure on their part, but a form of progressive understanding, which is an essential and positive element in a learning process. Based upon this redefined urgency, students formulate a number of ambitions.

Stakeholder Analysis   *1). Who are the stakeholders involved/affected?*
2). What are their (potential) interests?
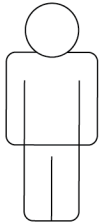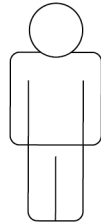*3). What are/could be their values?*
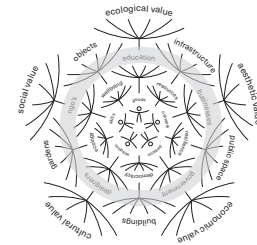
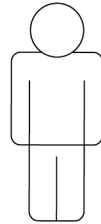| 2). Interests ...	Interests ...	Interests ...	Interests ...	Interests ...

1).

Business/ Industry	Civil Society	Citizens	Knowledge Institutions	Government
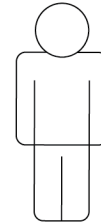
3). Value(s) ...	Value(s) ...	Value(s) ...	Value(s) ...	Value(s) ...

Values

Cultural

Social

Economic

Ecological

Aesthetic

Urgency & (Shared) Value(s)

1). Explore the stakeholders' values and perception of the urgency.
2). Determine shared values.
3). Refomulate urgency based on the conversations with stakeholders.

Value

Value

Value

Student team
(= Stakeholder)

Team ambitions

Stake-holder

Value

Value

Value

2). Shared Values
...

3). Urgency
...

1). Value

Value

Value

Stake-holder

Stake-holder

Value

Value

Value

Values

Cultural

Social

Economic

Ecological

Aesthetic
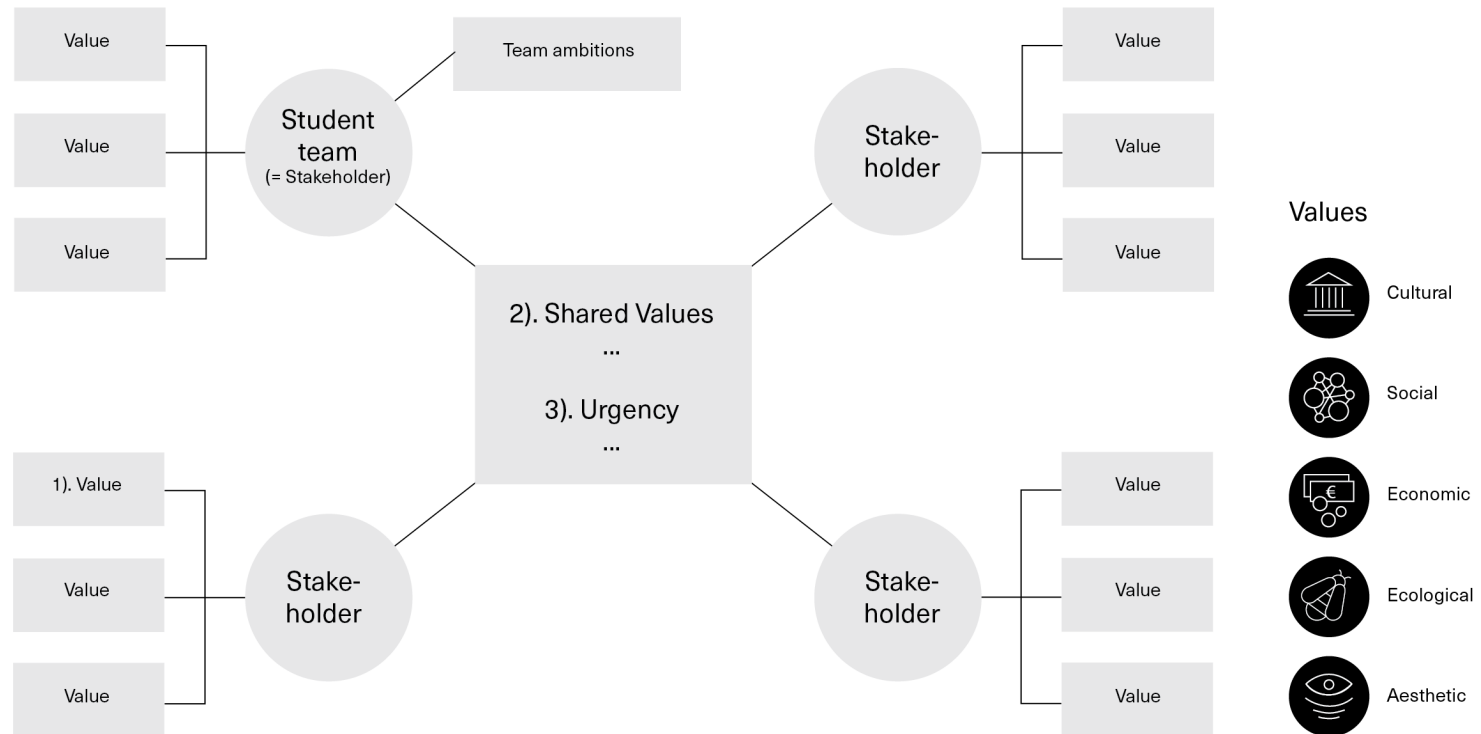
Evolution of Urgencies and Values *Record/Log of modifications to Urgency and Shared Value(s).*

	URGENCY	Reason(s) to change	SHARED VALUE(S)	Reason(s) to change
Start				
Modifiction 1				
Modifiction 2				
Modifiction 3				
Modifiction 4				
Modifiction 5				

"The program provided us with the opportunity to collaborate with Rotterdam residents, enabling us to develop a better understanding of their urgencies and create meaningful interventions together. This hands-on experience went beyond reading literature, statistics, and online information."
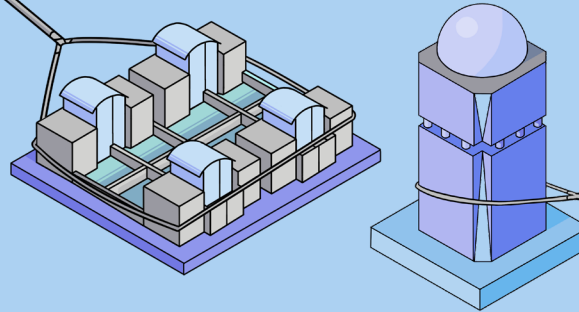
"I realized that by constantly adapting our urgency based on talks with stakeholders we will get closer to creating a meaningful intervention."

"Working with people from different social backgrounds, ethnicities, nationalities, and world views made for interesting discussions and new insights I was previously unaware of."
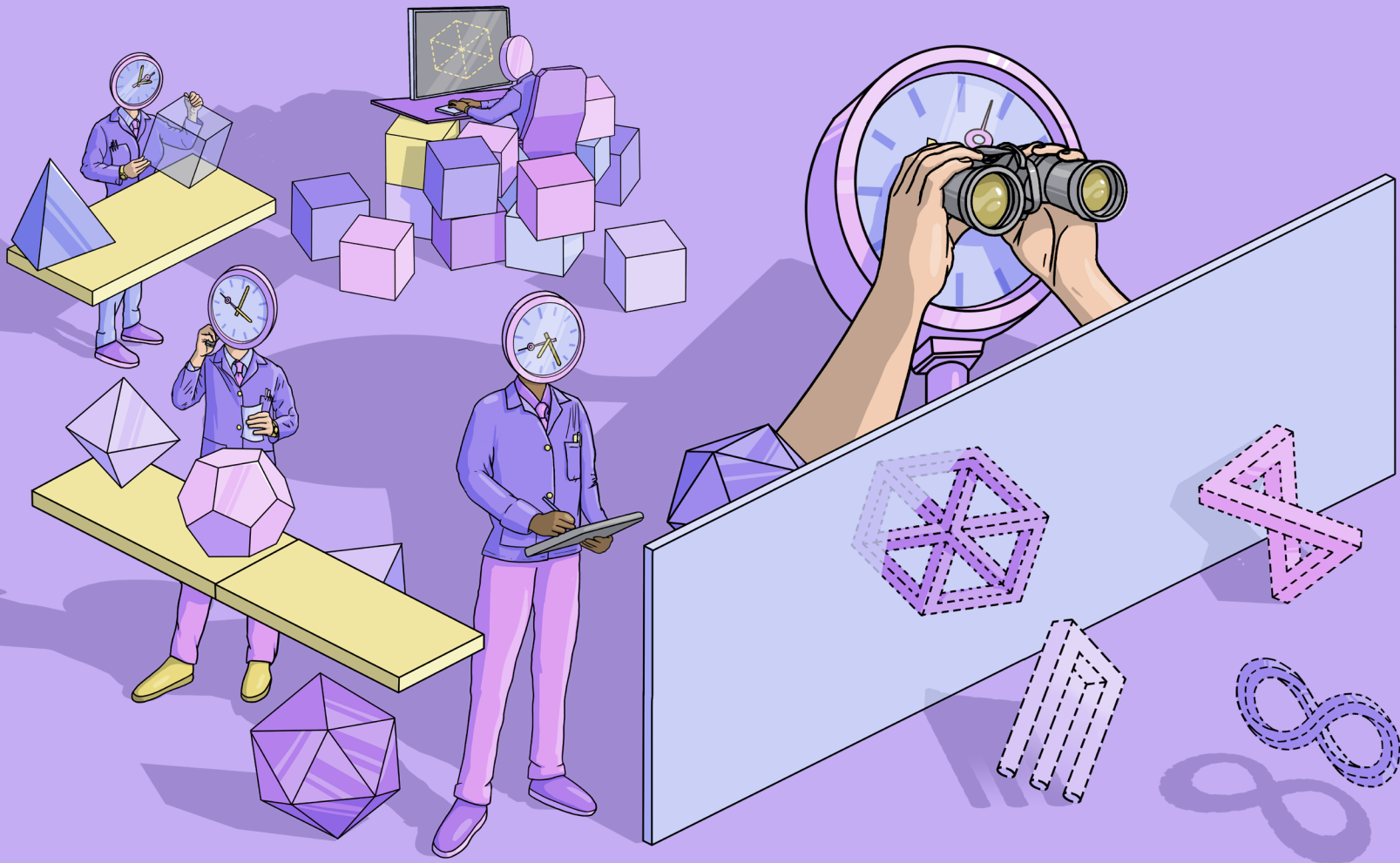
2.5. Developing Alternative Future Scenarios
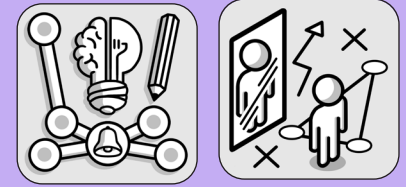
– Students develop an alternative future scenario following a scenario planning method
– Students visualise this scenario by imagining people's daily activities
– Students relate their urgency to this scenario and describe the consequences

The Value Flower Impact Method is fundamentally future-driven as it is meant to stimulate students and other stakeholders to imagine and work towards future sustainable, circular neighbourhoods and just cities. Future studies are methods that systematically assess trends, developments and uncertainties that might seriously affect (impact) urgencies, stakeholders, communities and cities at hand.

In this fifth step students learn how they can imagine alternative futures which enables them to think both creatively ('outside-the-box') and long term. The scenario's the students develop may be utopian or dystopian. Their intervention (in the next step) takes place in these potential futures and will therefore be a stepping stone towards or away from them.

A lecture will be given to the students about futures-driven design processes, which can be perceived as an effective means to collectively and collaboratively develop students' thoughts and to render their opinions and concerns regarding sustainable neighbourhoods tangible.

There is a wide range of methods for future studies. The most tried and tested of these is scenario planning, which students are taught in the Tackling Inequalities programme. This method consists of three steps (cf., Rhydderch 2017[5]):

1. Mapping developments and trends (together with a diverse group of stakeholders) - in the categories demography, economy, socio-cultural, technology, ecology,

political-institutional - and assess what their effect is on an issue, neighbourhood, city or organization using a future wheel.

2. Identifying those trends and developments that are most uncertain and that have the greatest impact: one would like to anticipate these.

3. Using the two most uncertain and most impactful trends or developments as 'scenario axes', which yield four quadrants on the basis of which four different scenarios (plausible future 'worlds') can be developed (written and visualized).

It is important to realize that scenarios are not predictions of the future, but plausible stories of what the context of an issue, neighbourhood, city or organization could be like if the developments and trends that were identified would manifest. Once these scenarios have been described and/or depicted, or already while describing them, students and stakeholders can have a discussion about what a certain issue or urgency could look like in plausible future worlds and which possible innovations, interventions (products, services, policies) could be considered to help accomplish or avoid (in case of undesirable or dystopian scenarios) the scenarios that were developed.

Working materials are provided to guide students through the three steps in order for them to 'design' a future scenario after which they can bring this to life through the exercise "a day in the life of..." in which they describe the daily activities of a number of characters.

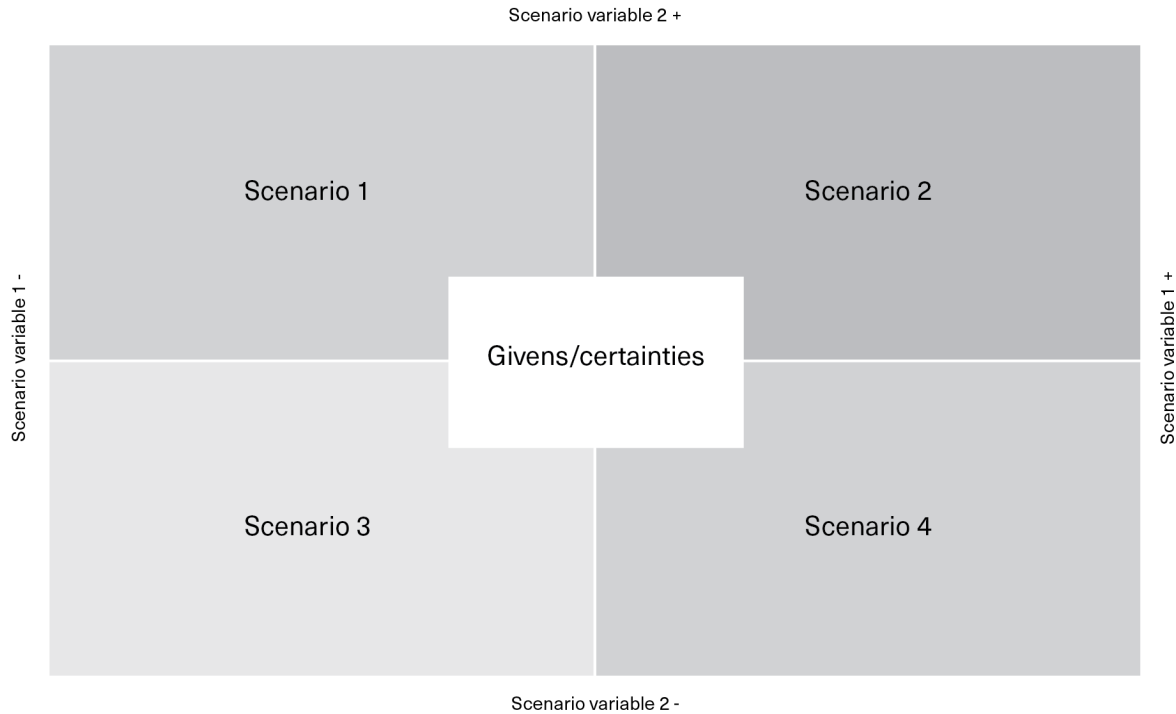[5] Rhydderch, A. (2017). *Scenario Building: The 2x2 Matrix Technique*. Futuribles.

Future Wheel *1). Make an inventory of trends and developments for the near and the far future in the fields of Demography, Economy, Society, Technology, Ecology and Politics.*
2). Work outside inwards: from more general/longer term drivers of change (outer parts of the diagram) towards the 'transactional space' (middle sections).
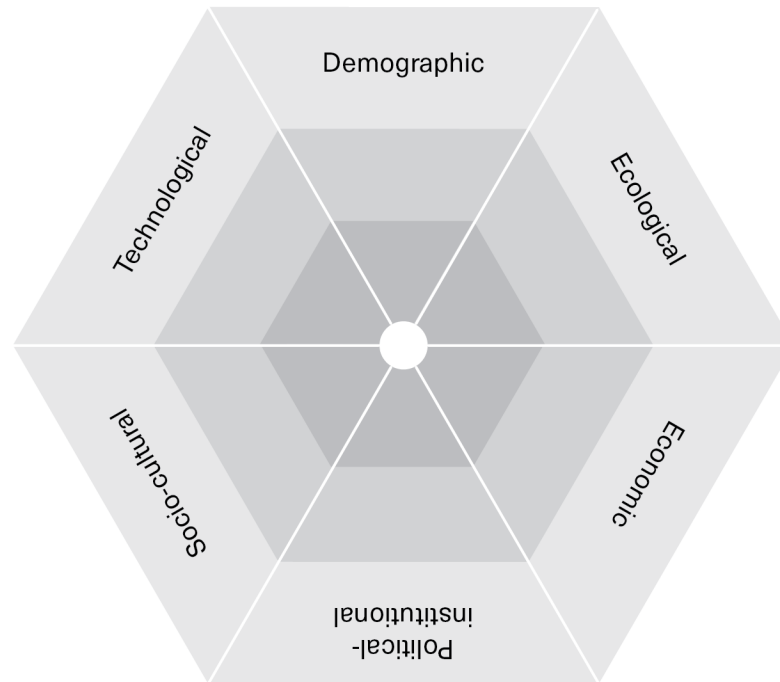
Impact and Uncertainty *1). To define the factors that inform your future scenario's, map the trends and developments from the Future Wheel regarding their impact and uncertainty*
2). Identify two of the most important and the most uncertain drivers of change ('critical uncertainties'). These are your scenario variables.

High uncertainty

Scenario variables

Low uncertainty

Low impact   High impact

Scenarios   *1). Write the two most interesting, promising, productive driving forces ('critical uncertainties') besides the axes of this diagram.*
2). Identify some of the salient characteristics of each scenario space.
3). Create a narrative consistent with the logic of the space. Give each scenario a name.

Scenario variable 2 +

Scenario variable 1 -

Scenario variable 1 +

Scenario 1

Scenario 2

Givens/certainties

Scenario 3

Scenario 4

Scenario variable 2 -

Days in the lives of... + ideas for interventions

Given one of the scenario's you chose to work with: What would a day in the life of your stakeholders look like in that scenario?
1). Describe one or more personas.
2). What activities does she/he perform during the day?
3). What products/services/policies/interventions are involved?

Persona A

Activities/interactions

Time

Products/services/policies/interventions

Persona B

Activities/interactions

Time

Products/services/policies/interventions
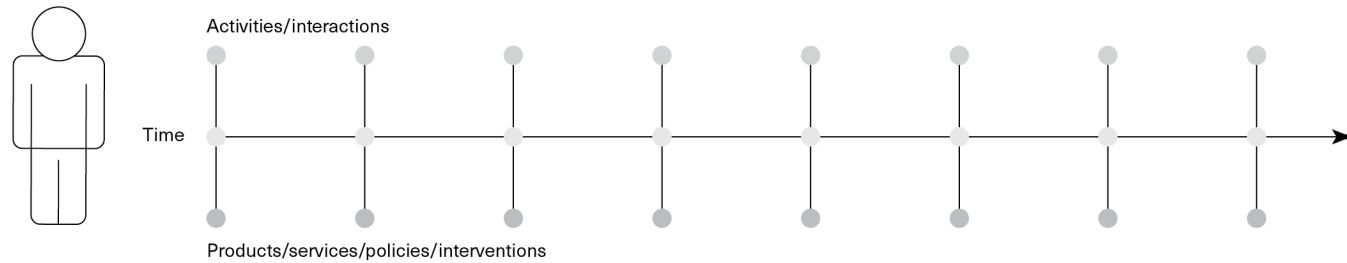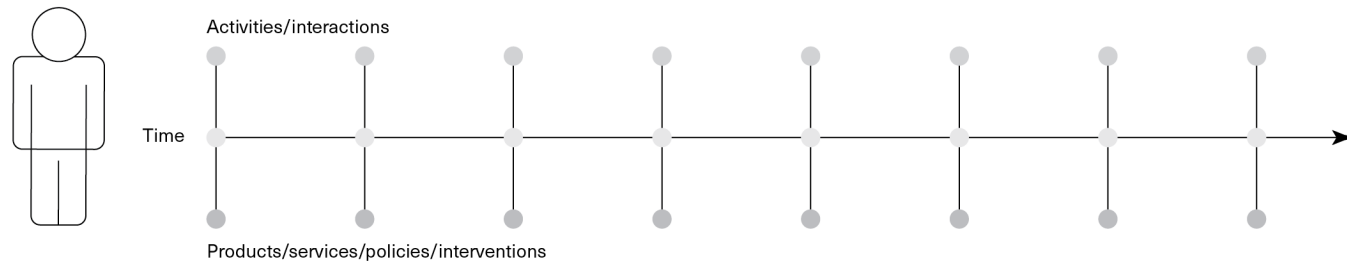
"I learned during this programme that you sometimes have to step outside the 'realistic' way of thinking because that gives the opportunity to explore different perceptions, ways of thinking and in this case interventions. What is defined as 'realistic' is just subjective in the end."

"Connecting the university with society and students with city residents is incredibly valuable. Especially given recent global developments (e.g. war, intolerance, homophobic rights passing in the US, etc.), I think it is important to commit to positive change and to make a positive impact where possible."
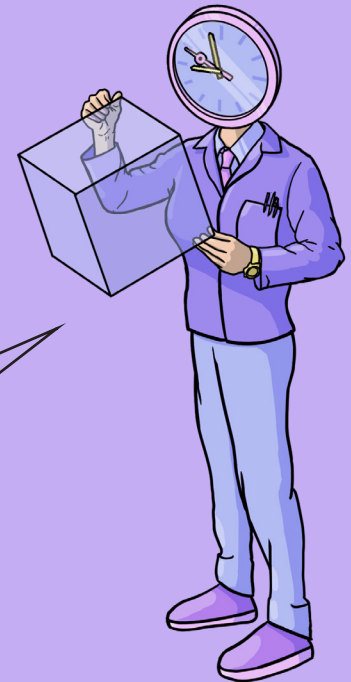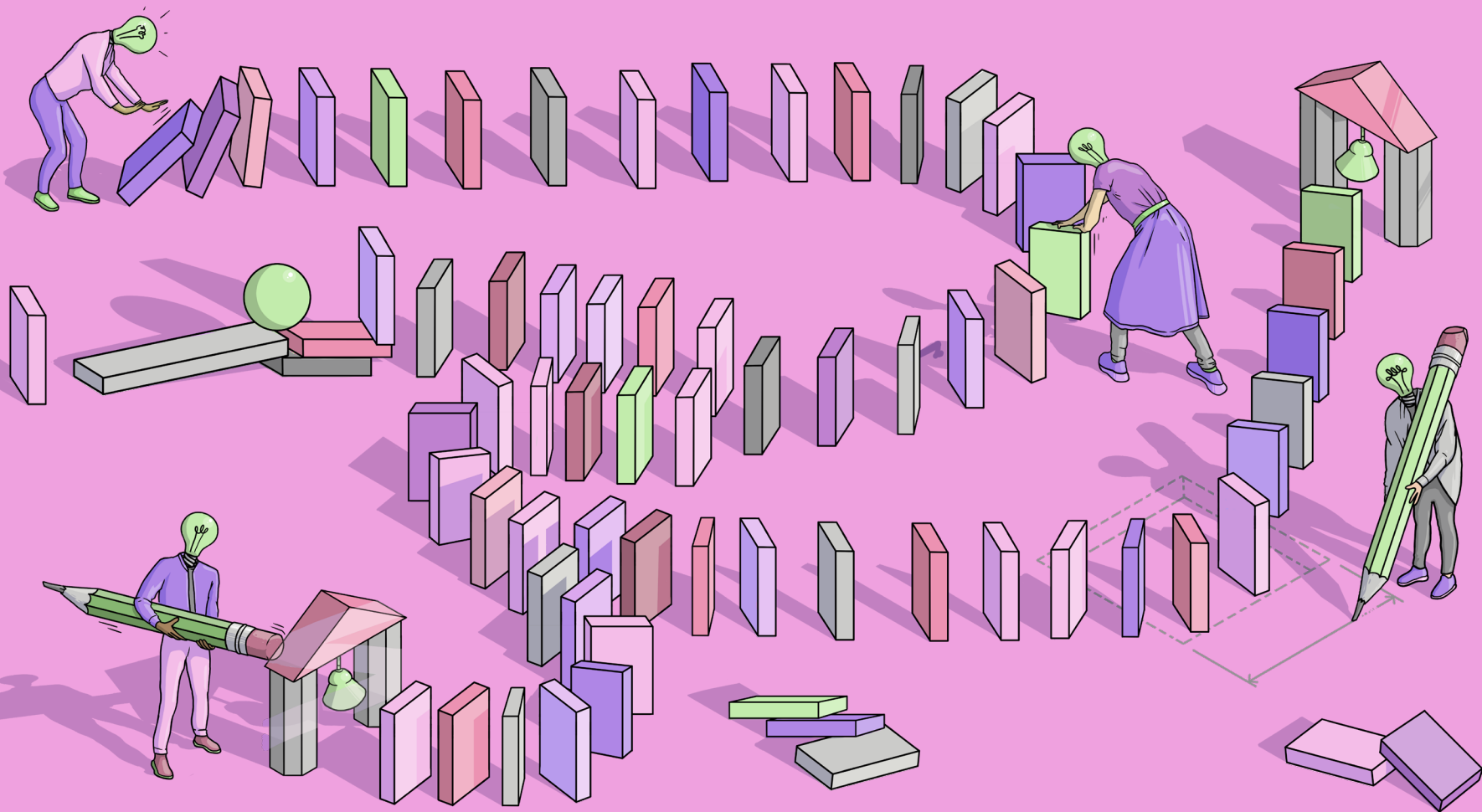
2.6. Designing an Intervention

– Students co-create an intervention with their group that 1) responds to their urgency 2) sits with their future scenario and 3) includes an innovative response to current systems
– Students hold co-creation sessions with their relevant stakeholders
– Students communicate their intervention to a wide audience

In this sixth step students are asked to co-design an intervention that responds to their urgency, sits within their developed future scenario and demonstrates a critical reflection on and provides an innovative response to the current political, economic or social system.

Students are taught the basic principles of design, co-creation and co-design and provided with insight in the difference between a 'solution' and an 'intervention.' An intervention does not try to 'solve' the pressing issues identified in the urgency as those issues are so multifaceted and complex they tend to require systemic changes to address them comprehensively. An intervention acknowledges this complexity and provides a step in the direction of tackling the identified urgency.

Subsequently, students use the Value Flower method's layer 'elements' to guide them in a first brainstorm session to practice their creative thinking skills. This layer of the method demands students to place their initial ideas for an intervention in the light of several domains: democracy, nature, resilience, resources and wellbeing.

This exercise is followed by another one in which the layer of the 'spatial context' takes a central position, asking students to relate their initial intervention to the living environment, as all interventions 'land' somewhere in a socio-physical context. Ideally, student groups take their initial intervention back to their relevant stakeholders and discuss this intervention with them or even organise a brainstorm session with them. Subsequently, student groups present their initial intervention adjusted according to the input of stakeholders to a panel of experts who give them valuable feedback on a number of criteria: communication, creativity, innovativeness, and process (from urgency to intervention). The form in which students communicate their intervention is free: eg., a film, poem, installation, presentation. After this panel session, students have time to incorporate the feedback and design a final intervention.

A report containing a summary of their group's process (which could include all the working materials provided) is handed in, together with the impact analysis (A4 landscape) of step 7.

How might we...? Kickstart your brainstorm

1). Use your urgency as a starting point for the brainstorm.
2). Optional: formulate your urgency in a Point of View (POV).
3). Brainstorm about possible 'How-might-we (HMW)-questions.'
4). Generate ideas.
5). Select ideas that are most relevant.

1). Our urgency:

3). What How-might-we questions would trigger our team (and stakeholders) to come up with possible interventions?

4). Empty your head: write down all your first ideas that immediately pop up when thinking about these questions.

5). Brilliant ideas

Reservation list

How to involve citizens? *Organize your ideas on how to involve stakeholders in co-designing an intervention based upon the potential success and the ease of implementing it.*

Ciao low impact	**How** Amazing ideas but difficult to implement
Now 'Okay' ideas to involve stakeholders/low hanging fruit	**Wow** Amazing/breakthrough ideas to involve stakeholders

How easy to implement?

How succesful is the idea?
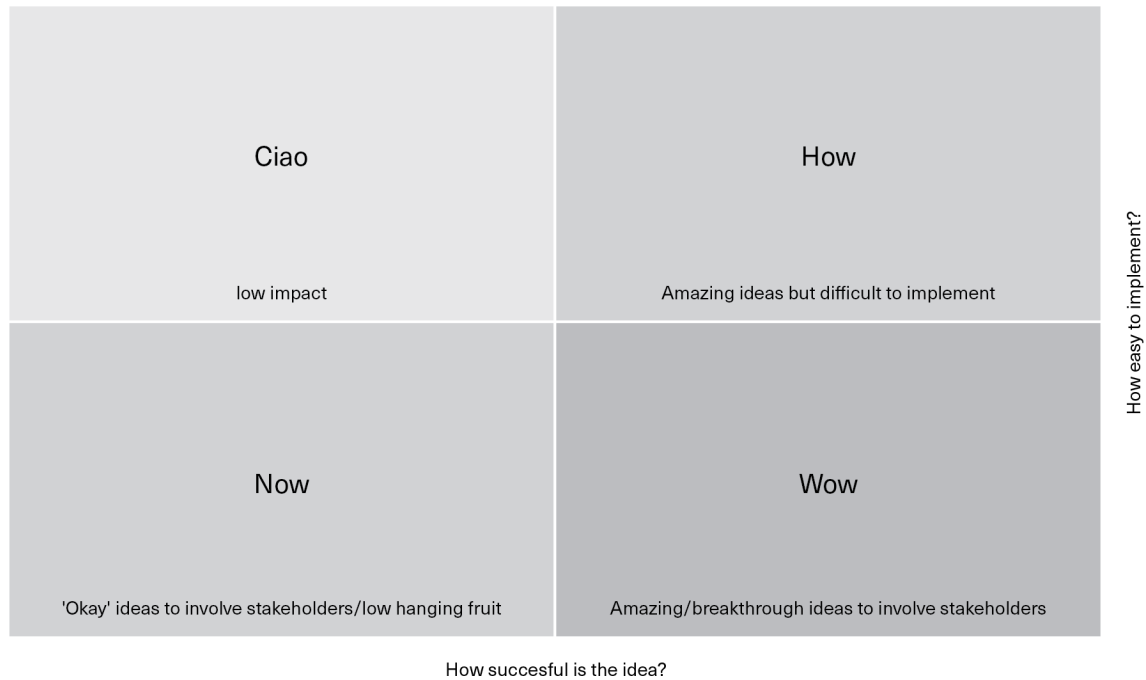
Potential interventions

1). Use your urgency as a starting point for a brainstorm on interventions.
2). Brainstorm individually about possible interventions related to each Value Flower theme.
3). Discuss your ideas within the group.
4). Select interventions that are most relevant.

Wellbeing

health
education
housing
food
employment

Resources

energy
water
nutrients
bio materials
tech materials

Nature

biodiversity
air quality
water quality
sound
climate

deliberation
equality
transparency
engagement
empowerment

Resilience

liveability
sustainability
adaptability
durability
collectiveness

Democracy
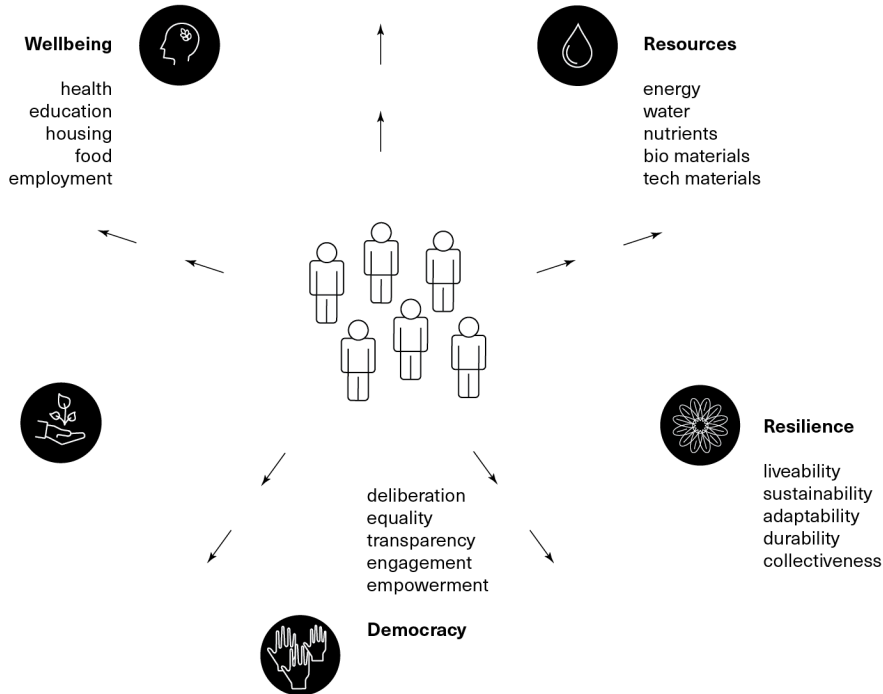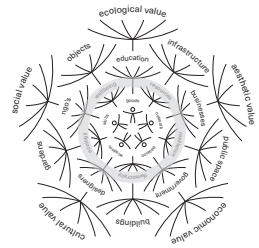
Brilliant ideas

Reservation list
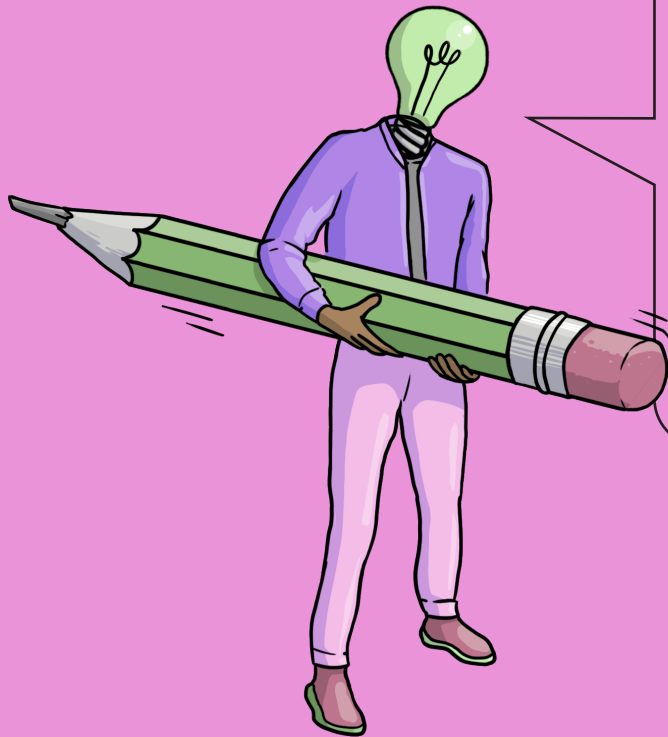
"This mainly relates to the idea that a couple of highly educated individuals go out into a community of 'others' about which they tend to know very little, identify a problem, and try to 'intervene' in order to 'make it better'. I see this thinking as characteristic of a certain disconnect between the academic world and the rest of society, particularly related to ideas regarding what communities are perceived to need versus what they actually want, and whose responsibility it is to provide or 'fix' this."

"The process allowed us to co-create interventions together, emphasizing the importance of involving the people affected by the urgencies rather than simply making decisions for them."

"I loved the program and loved creating an intervention. Everybody got creative and it was fun to see how, even though we all got the same directions, all groups came up with completely different interventions."

"Throughout the process, I learnt and noticed, that I thought of interventions that I thought would help people without thoroughly considering what the stakeholders actually need and want. I think the biggest learning I had from this programme was to learn how to truly listen to stakeholders."

"As I have a business background, I am being taught throughout my studies to follow a very clear and structured approach to problemsolving. During the programme, however, I had to learn to let go of some of the structure and "go with the flow", meaning that I needed to push myself to take steps back and not jump to conclusions."
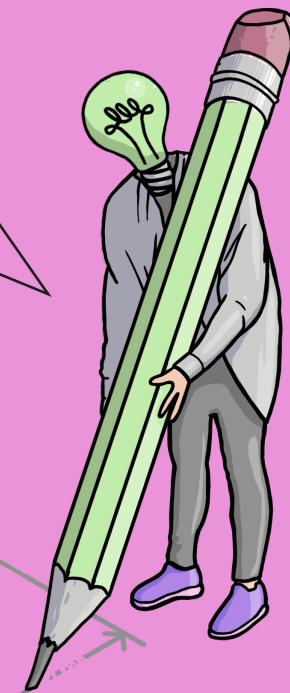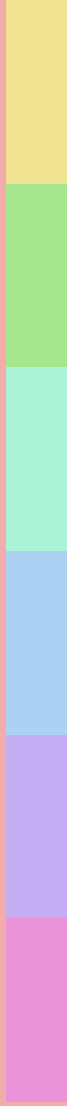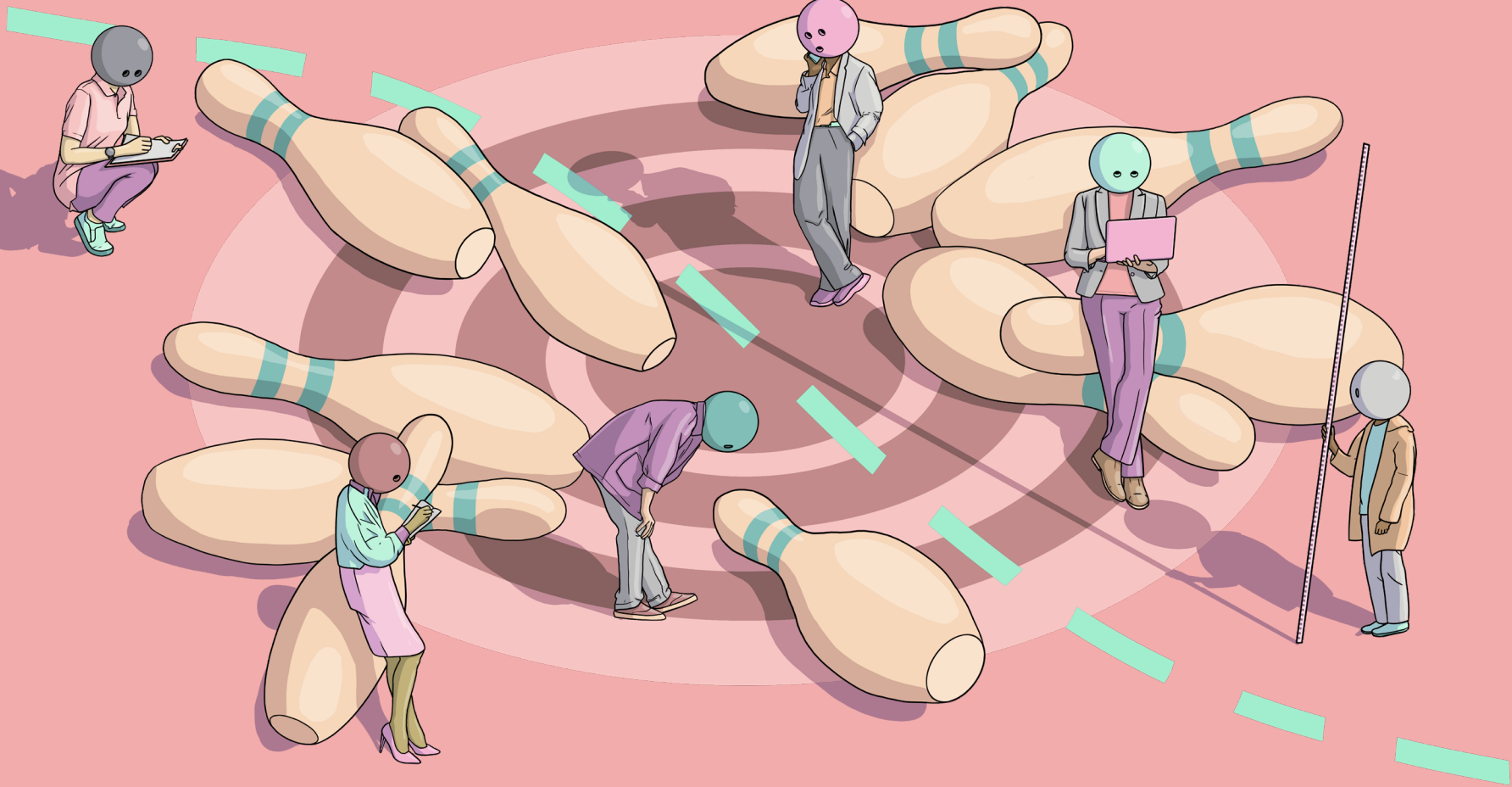
2.7. Measuring Impact
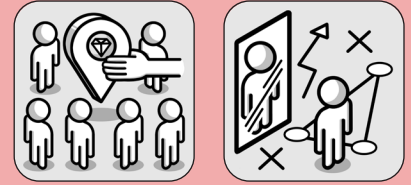
– Students analyse the impact of their intervention in a qualitative way using the Value Flower
– Students reflect upon their learning process

After the students have presented their intervention, they have to evaluate, per group, the potential impact of their intervention. Naturally, this will be a well-argued qualitative estimation of what this impact could potentially be. Students use a strict format that includes an analysis of the intervention based on all layers of the Value Flower.

This format has to be handed in, together with the report describing the group's journey from urgency to intervention.

The reflection on the student's learning process is an individual assignment and this can be based on 1) development of impact capacity, 2) learning landscape, 3) own values and objectives as stated in step 1. The output has a maximum of 400 words.

Impact anlysis *Assess the potential impact of your intervention considering the Value Flower.*

Title of the intervention:
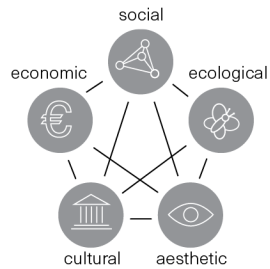
Images of the intervention:

designers / professionals

education   government

civil society   business

Actors

…

passion

skills   wisdom

goods   network

Enablers

…

buildings

public space   gardens

urban objects   infrastructure

Spatial elements

…

well-being

nature   resources

resilience   democracy

Elements

…

social

economic   ecological

cultural   aesthetic
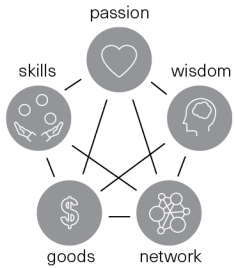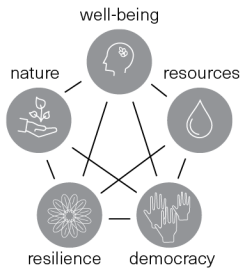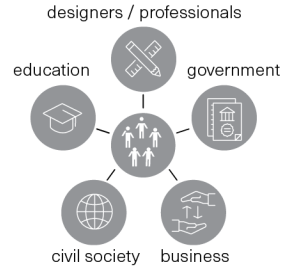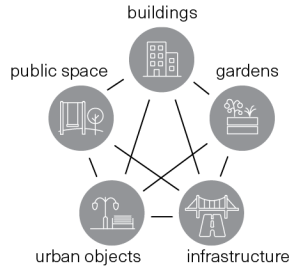
Values

…

"As the course progressed I gained more interest in the topic, and every week it felt more and more as if we were tackling a real issue, which I had never experienced before."

"Even though I knew that I was driven to create a positive change, I never realized that my way of approaching an issue is perhaps not the way that such issue should be approached. "

"While we did care about creating an end 'product', being successful in that way was not a priority. It was more about working together to create something that took into account the needs of our stakeholders and that we could all stand behind and call our own, and to enjoy the process of doing so."

"One crucial lesson I learned is the significance of continuous inquiry, always questioning assumptions, and actively involving the individuals directly affected by the issues at hand."
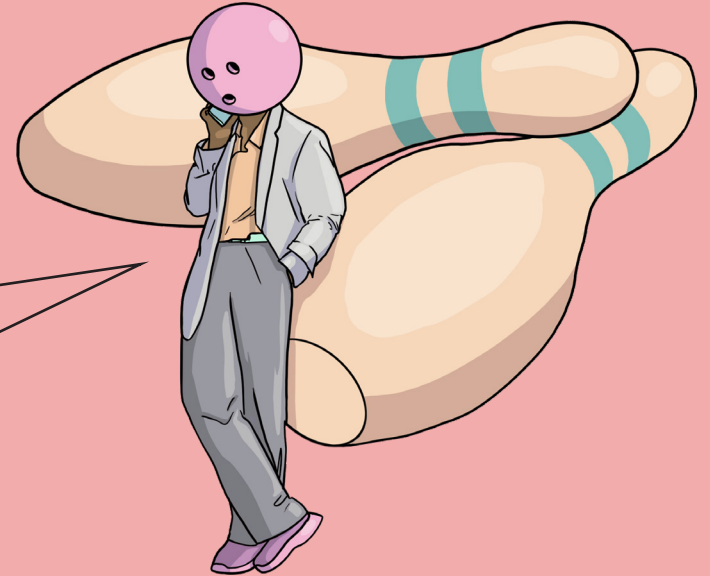
3. Student Projects

The City Mirror

In this section we present *The City Mirror* - a project of the '22-'23 cohort, in which students worked towards an intervention, following the 7-step methody of the programme to overcome biases that citizens of Rotterdam have regarding the inhabitants of the southern part of the city.

Our Urgency

Address the biases and misconceptions against Rotterdam South amongst Rotterdam citizens living in other areas of the city.

END PRESENTATION

27 JUN, 2023

Goals

SECONDARY GOALS

PRIMARY GOAL

- Create awareness around these biases and misconceptions among Rotterdam residents.

- Increase social cohesion/ community feeling among Rotterdam residents.

- Provide a safe space and tools for critical reflectivity, socio-political engagement, and acknowledging each other in our similarities and differences.

27 JUN, 2023

Stakeholders

Alliantie Hand in Hand,
Gemeente Rotterdam

(ROY DE ZWART)

Program Manager

Zuid. Boijmans
van Beuningen

(LIES BRILLEMAN)

Staff member in the
Education Department

27 JUN, 2023

Shared social values

| 1 | 2 | 3 | 4 |

The need to immerse yourself in the context of Rotterdam South to create awareness and self-reflection around prejudices towards the Southern part of Rotterdam

Acknowledging biases as a necessary step towards challenging and dismantling them.

Importance of bottom-up perspective.

Create a community and thus unity.

END PRESENTATION

27 JUN, 2023

Target group

Young adults between the 18 and 35 years old living on the northern side of the Maas.

27 JUN, 2023

The City Mirror

(INTERVENTION)

The idea for implementation translate into **a 3-fold experience**, which includes:

1. **An interactive installation** designed as a physical mirror and placed in different art institutions in Rotterdam.
2. **Storytelling guided videos** narrated by people who have experienced bias towards the Southern part of Rotterdam up close,
3. **A discussion panel.**

END PRESENTATION

27 JUN, 2023

The City Mirror

ON-THE-GO INTERACTIVE INSTALLATION

END PRESENTATION

27 JUN, 2023

END PRESENTATION

27 JUN, 2023

END PRESENTATION
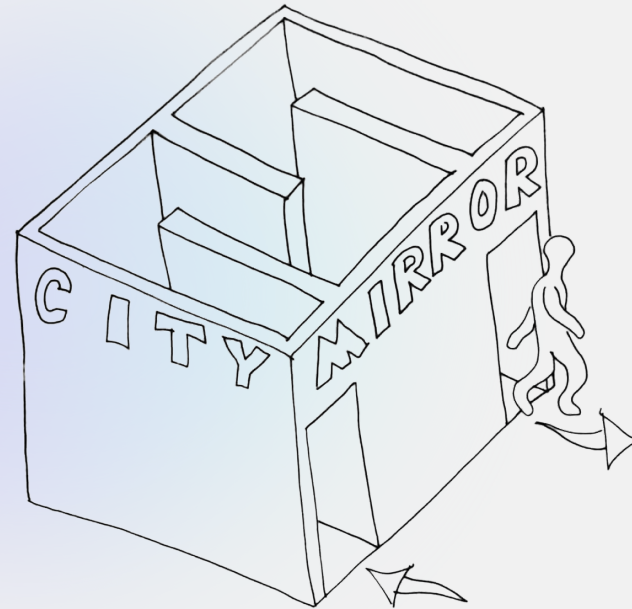
27 JUN, 2023

**Title of Initiative:** City Mirror: Across the Bridge

Elements

By holding up a mirror, we aim to confront people with their biases, hoping to contribute to increasing social cohesion. A city where people can see each other for who they are instead of who they are thought to be. Besides, our intervention strives to contribute to citizens' well-being and resilience, opening doors to transparent conversation, one of the pillars of a sound democracy.
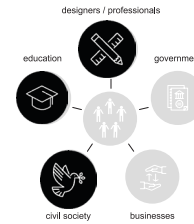
Actors

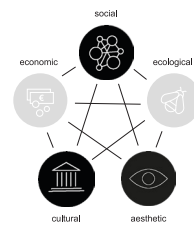Four important actors are defined to make this intervention work:

1. Experience designers who will create the installation,
2. Community experts will share their stories, helping participants empathize with the issue and allowing them to comprehend how harmful biases can be.
3. The target group is people willing to listen to other people's points of view.
4. Professionals specialized in implicit biases.
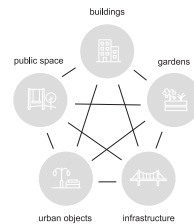
Spatial elements

On-the-go interactive installation that could be placed in different art institutions in Rotterdam. A location option could be De Kunstblok, which are a collective of art organizations, including MaMA, TENT, CBK R'tterdam, V2, Melly, and Worm.

Another option could be the Depot Boijmans van Beuningen, which would serve as the mirror we want to use for our intervention.

Enablers

The goal of this campaign would be to encourage self-reflection and introspection, as the mirror represents the biases we most likely hold. To explore this, we will ask participants to confront their biases by completing statements like the ones below. With this, the campaign emphasizes the importance of acknowledging biases as a necessary step towards challenging and dismantling them, hopefully starting the conversation and increasing awareness.

Values

The City Mirror has social and cultural value. We hope that it will contribute to more social cohesion within the city of Rotterdam. Also, it has cultural value because it contributes to the cultural sector of Rotterdam; people would visit art institutions and museums to see our installation. Furthermore, by seeing that art institutions give attention to social issues such as (implicit) bias, they contribute to legitimizing the issue, which could lead to people taking the issue more seriously. Moreover, it has aesthetic value because the installation will look cool.

Interventions

On the following pages 'snapshots' of other student projects are presented.

Tackling health inequalities in Rotterdam: Improving COVID-19 vaccine willingness

Who are we?

We are a group of enthousiastic students from various Master programmes at Erasmus University Rotterdam. Together, we want to tackle an inequality related to (digital) health inequities. In this infographic, we tell you more about our defined urgency, goals and designed intervention.

ERASMUS UNIVERSITEIT ROTTERDAM

Conversations with stakeholders

Academics   Health care workers   Religious leaders

Community leaders   Policy makers   Consultants

Talking with many different parties has given us a broad view, has shown us the importance of our urgency, and has directed us to a non-digital intervention

Initial urgency: Increasing inequity in Rotterdam as a consequence of not vaccinating

Redefined urgency: programmes addressing vaccine willingness in Rotterdam not collaborating (enough), eventually leading to inequalities due to inefficiency

Our urgency

Our goals (1, 2) and final intervention (3)

1 Creating a bridge between stakeholders and sharing knowledge to improve collaboration regarding and execution of programmes addressing vaccine willingess in Rotterdam

2 Ensuring sustainability through passing the idea on to another party that can use our knowledge and network now and in the future

3 Joining the *Geneeskunde Studenten in de Samenleving* (GIDS) vaccination initiative, the *Corona Vragen Bus,* and helping them in execution and improvement by making available our knowledge and network

Vaccination Bus

A mobile service contributing to (digital) illiteracy concerning Corona vaccins among Rotterdammers ('20-'21).

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Digital Skills & Inequalities in the Rotterdam Labour Market

Tackling Inequalities Honours Programme

The Quest for Digital Literacy:

In an ever more competitive world, people without digital skills are disadvantaged to get a job. Rotterdam is no exception, as many unemployed citizens struggle through the virtual environment to find new opportunities.

Our intervention brought together 14 representatives of various stakeholders from academia, public and private sectors to transcend the binary conception of digital [IL]literacy and co-create a more holistic understanding of how to better tackle digital inequalities in the labour market. The goal is to inform the Municipality on the best practices to design and offer a digital skills course that can help bridge the digital gap through education. This report presents the main findings and recommendations resulting from these brainstorming sessions.

10 Key Findings:

1. There are disparities amongst Rotterdam's residents regarding the quality and quantity of labour market opportunities, consequence of the **unequal distribution of digital capital within society.**

2. It is vital to **identify different stakeholders**, acknowledging their distinct interests and shared values to co-design a participative intervention.

3. An effective intervention requires agreement among stakeholders on what is defined as the **'urgency,'** so there is sufficient awareness on why the problem needs to be tackled.

4. The [Dis]connected dichotomy must go beyond to an understanding of **digitalization as a spectrum in which people progresses** according to their digital skills and use of technology in their daily lives.

5. Digital skills are needed for **getting a job,** even if its tasks do not require them. Employers increasingly use online recruiting channels for their hiring processes; people that cannot access them are disadvantaged.

6. There is **no one-size-fits-all recipe** when it comes to which digital skills to learn. An effective course must be tailored-designed according to the targeted types of jobs and the skills these require.

10 Key Findings:

7. Digital illiteracy results in associated **emotions and self-perspectives in the job seekers** that can negatively impact their education. For example, **fear can be an important inhibitor when learning digital skills.**

8. People are more prone to enroll in digital skills initiatives if they are close to their homes. Also, they are more likely to participate in **communitarian-base programmes that are easily accessible.**

9. **Digitally unskilled Individuals around 55-years old and with a migrant background** are defined as a disadvantaged concern group, as they are still economically active but not trained to find a job online.

10. Participants of digital skills courses often lack **putting their learnings daily into practice.** For example, by browsing public transportation options, using digital banking or government portals.

Recommendations:

1
Design digital skills courses in a way that are relevant both for job search but also for a continuous use. Practical training is key for learning digital skills and applying them on a daily basis.

2
A digital skills programme must aim to make the digital world more 'intuitive,' to increase the ease of acquiring digital knowledge for participants.

3
Focus on the emotions arising from digital illiteracy as a foundation for the learning programme. For example: fear, anxiety, self-consciousness and embarrassment.

4
Device accessibility matters! Create a campaign to refurbish and donate technological equipment discarded by the municipality, such as laptops or smartphones.
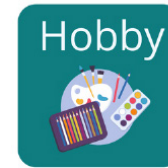
WHICH DIGITAL SKILLS ARE MOST NEEDED?

A. Basic knowledge for using different devices, such as **smartphone versus computer.** For example: how to turn them on and off, create a user and password, and switch on and off the microphone and camera.

B. Skills to use standard apps, like **email, WhatsApp digital banking and DigID.** More advanced programmes include: **Maps, public transport apps and Microsoft Office**.

C. Skills that allow **finding and contacting employers online**. For example, how to make a CV and upload it to LinkedIn or other job portals.

D. **Basic cyber-security:** how to create strong passwords and prevent phishing scams.

Tackling Digital Illiteracy

Interventions to tackle the emerging urgency for a large group of people of needing digital skills ('20-'21).

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The network

Rap bus

Police

SOL

Municipality

Like je wijk

Sportspullen bus

Talentz Skool

Local inhabitants

Local business

Oeverloos

Neighborhood manager

Schools

Buurtkli maatjes

Library

Pick and play

Sports

Hobby

Social

Health

Learning

Music

Notify me

Suggestion?

Need help?

Pick and Play

Turning around demand and supply in organising youth activities in Rotterdam South ('21-'22).

Knowledge Bridge
A platform for bringing students, entrepreneurs
and talented but troubled youth together ('22-'23).

Expo Connect
A festival connecting local music organisations
and children ('22-'23).

Colophon

Colophon

Impact at the Core   Resilient Delta   design & publics

In this publication we share a conceptual and structural approach called "The Value Flower Impact Method," which can be adopted and adapted by teachers and educational developers who want to incorporate (elements of) impact-driven education in their practice. It aims to inspire by providing both a practical and theoretical foundation to develop engaged and meaningful education. It consists of 7 steps that can be used as scaffolding for students while they engage with societal partners and research their specific contexts in a holistic way. It continues to support students in designing and evaluating an intervention that aims to make an impact.