Building a sustainable future together

Co-creating the local energy transition in Venserpolder

van Leeuwen, G.E.; Singh, A.

DOI
10.4233/uuid:3c5c8d64-12ee-4d7b-a774-82dabc987149

Publication date
2025

Document Version
Final published version

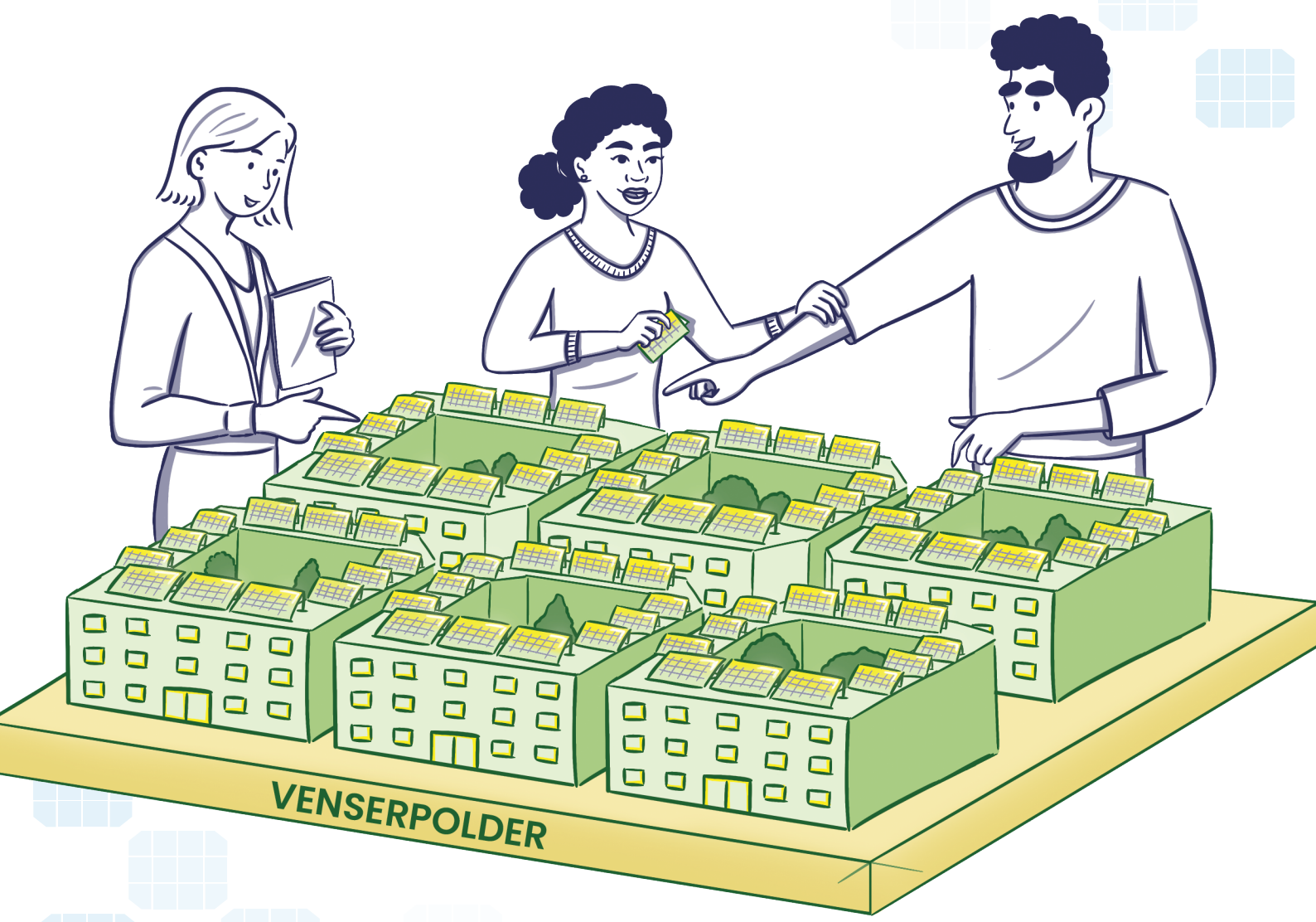
Citation (APA)
van Leeuwen, G. E., & Singh, A. (2025). *Building a sustainable future together: Co-creating the local energy transition in Venserpolder*. Delft University of Technology. https://doi.org/10.4233/uuid:3c5c8d64-12ee-4d7b-a774-82dabc987149

EN version

BUILDING A SUSTAINABLE FUTURE TOGETHER

Co-creating the local energy transition in Venserpolder

Gijs van Leeuwen
Abhigyan Singh



Life Local Inclusive Future Energy
TU Delft | Industrial Design Engineering
Coforce

Building a sustainable future together:
Co-creating the local energy transition in Venserpolder

In references, please refer to this publication as follows:
Van Leeuwen, G., & Singh, A. (2025). Building a sustainable future together: Co-creating the local energy transition in Venserpolder. Delft University of Technology.
https://doi.org/10.4233/uuid:3c5c8d64-12ee-4d7b-a774-82dabc987149

This booklet was created based on the insights gained from design anthropological research as part of the Local Inclusive Future Energy (LIFE) City Platform project, which was funded by the Missiegedreven Onderzoek, Ontwikkeling en Innovatie (MOOI) subsidy program from the Netherlands Enterprise Agency (RVO). The RVO is part of the Dutch Ministry of Economic Affairs.

Contributions

Gijs van Leeuwen (TU Delft)
Writing – original draft, conceptualization, investigation

Abhigyan Singh (TU Delft)
Writing – review & editing, conceptualization, investigation, supervision

Lina Li (TU Delft)
Visualization, conceptualization

Wouter Methorst (CoForce)
Conceptualization, writing – review & editing

Ayushi Acharya (TU Delft)
Visualization

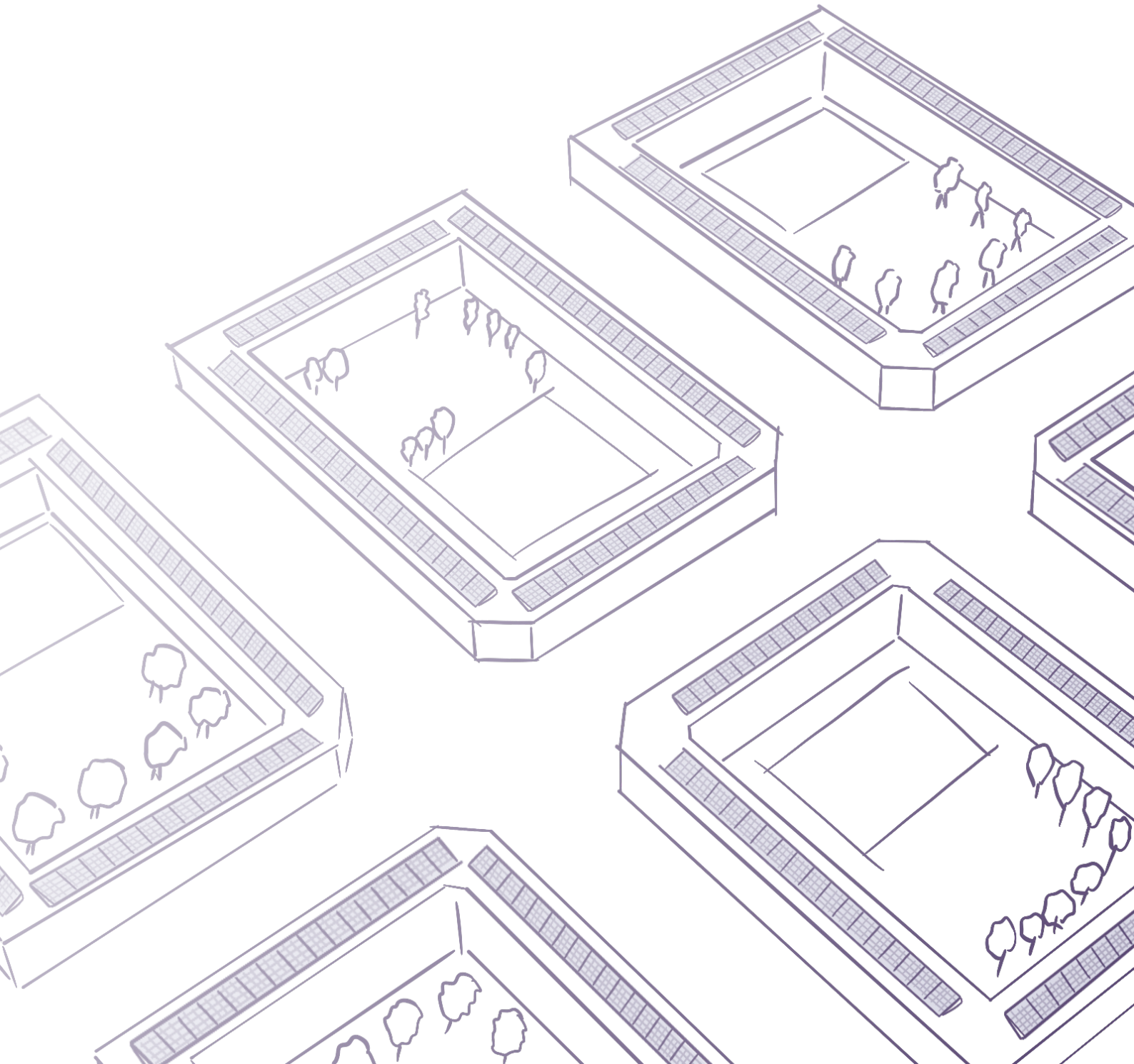
Local Inclusive Future Energy

TU Delft | Industrial Design Engineering

CoForce

BUILDING A SUSTAINABLE FUTURE TOGETHER

Co-creating the local energy transition in Venserpolder



This booklet describes the outcomes of four years of research and co-creation in the Venserpolder neighborhood. This research was done as part of the **Local Inclusive Future Energy (LIFE) project**. The LIFE project ran from 2021 to 2025 and was a collaboration between research institutions, the municipality of Amsterdam, companies, and local stakeholders in Amsterdam Southeast.

The project had two goals: first, to develop smart solutions to reduce the congestion in the electricity grid. Second, to explore how such solutions can reduce energy poverty in Amsterdam Southeast. From this second goal, the initiative emerged to establish an **energy community** in Venserpolder.

This booklet describes how residents, researchers, and local actors collaborated as much as possible. We describe the **co-creation activities** and the common responses and concerns of residents. Additionally, the booklet provides information on what an energy community is, how it functions and how a neighborhood can transition away from natural gas in the future.

First of all, this booklet is intended for residents: to provide information about the research but, more importantly, as an **invitation** to participate. Together, we can ensure a stable and low energy price, energy security, and stronger cooperation within the neighborhood. This booklet may also be of interest to researchers, municipal employees, and other professionals working in the energy transition.

1. Where do you start with participation? 08

2. Co-creation workshops 10

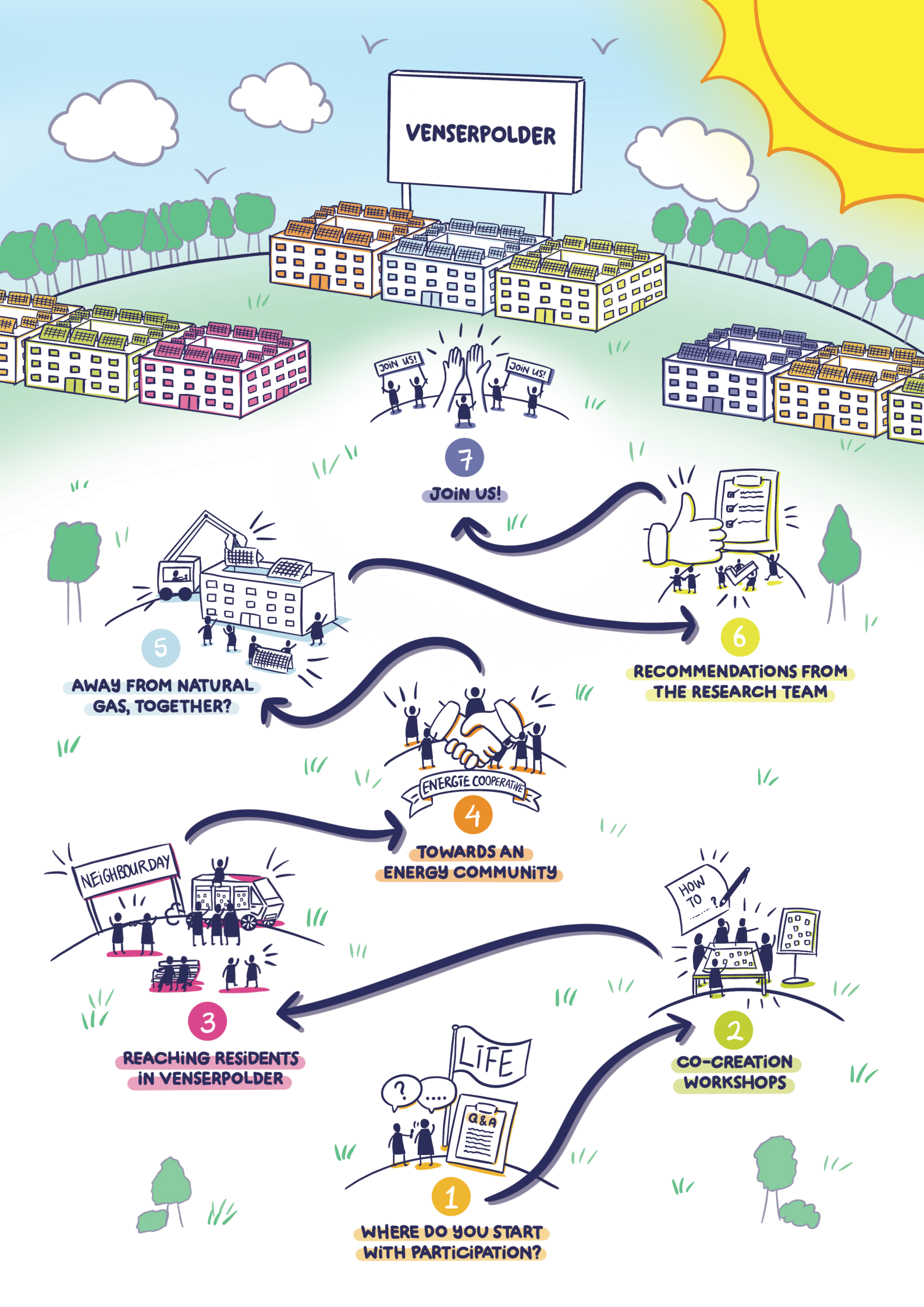
3. Reaching residents in Venserpolder 12

4. Towards an energy community 16

5. Away from natural gas, together? 20

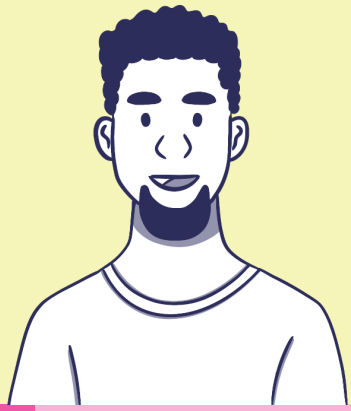
6. Recommendations from the research team 26

7. Join us! 28


VENSERPOLDER
JOIN US!
JOIN US!
7
JOIN US!
6
RECOMMENDATIONS FROM THE RESEARCH TEAM
5
AWAY FROM NATURAL GAS, TOGETHER?
ENERGIE COOPERATIVE
4
TOWARDS AN ENERGY COMMUNITY
NEIGHBOURDAY
3
REACHING RESIDENTS IN VENSERPOLDER
HOW TO ?
2
CO-CREATION WORKSHOPS
LIFE
Q&A
1
WHERE DO YOU START WITH PARTICIPATION?

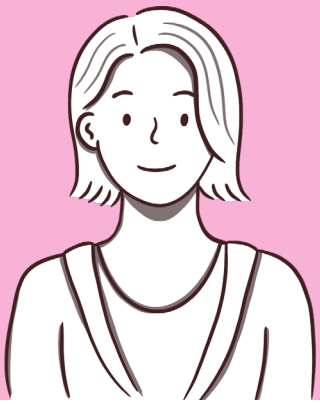
Nice to meet you!

My name is Joyce, I live in the neighbourhood for 20 years and am active in local community-building. I believe that sustainable projects should strengthen cooperation within the community and align with the daily lives of the residents.



I am Mo, and I moved to the neighbourhood a few years ago. I have a busy job in construction and I don't have much time to focus on energy. My main concern is keeping the energy bill affordable.

I am Petra, a researcher in the LIFE project. I focus on engaging residents in the energy transition.



Joyce, Mo and Petra are starting the conversation to explore the possibilities in Venserpolder. The characters and their conversations are fictional, but inspired by findings from the LIFE project. Some reactions and expressions are exaggerated for dramatic effect, to better convey certain tensions.

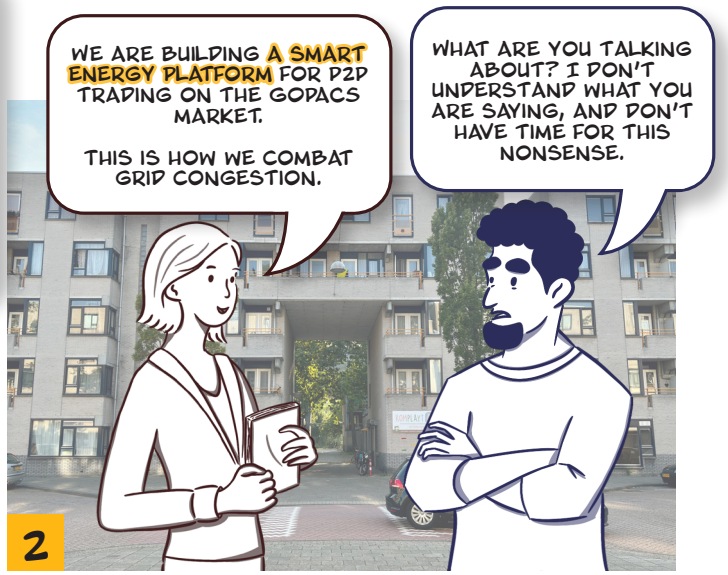

WAT ZOU JE WILLEN BIJDRAGEN?
KAR VOOR ELEKTRICITEIT OP LOCATIE


ENERGIE VOOR VENSERPOLDER
ENERGY FOR VENSERPOLDER
ABIDE

2022-2023

1. Where do you start with participation?

How does a conversation between residents and visitors emerge? At the beginning of the project, this was a challenge. We visited community centers and approached people on the street. Many people have "participation fatigue", and were not eager to participate in research.



While the LIFE project focused on the smart energy platform, residents were concerned with the renovation of their homes. Cold air coming through window frames was a common issue. The smart energy platform did not initially align with residents' needs, making it challenging to start a collaboration.

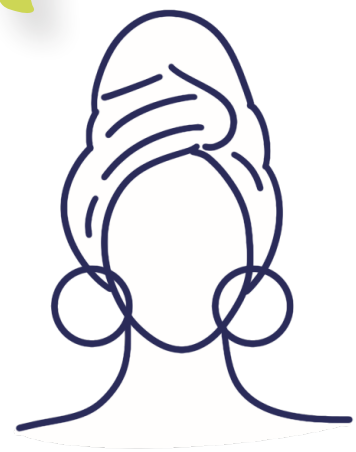
In March 2022, an introductory meeting was held with Stichting Co-Force and Stichting !WOON. This meeting included members of sustainability committees from homeowners' associations (VvE's) in Venserpolder.

The VvE's play a crucial role in the local energy transition, and their board members work hard to keep the homes livable.

At the beginning of 2022, the war in Ukraine broke out. Energy prices rose sharply, and energy poverty suddenly became an urgent issue, including in Venserpolder. In September 2022, we took to the streets to distribute flyers, informing residents about energy coaches — who provide support to those struggling with high energy bills.

"Alot of researchers already come here. What is your research bringing to the neighbourhood?"

"We'd rather not have researchers present here. [this community center] should be a safe environment for residents."



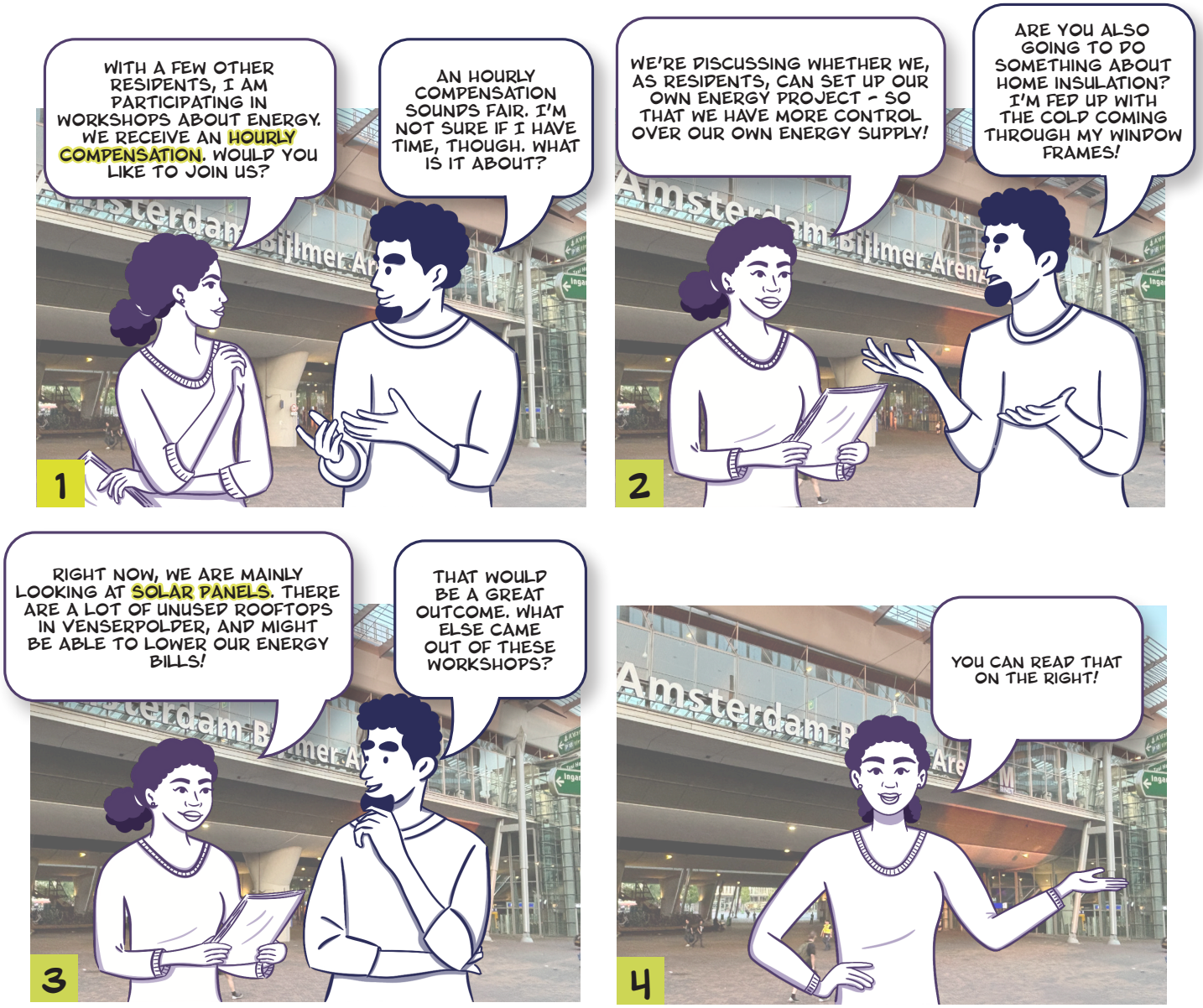
On average, households can save more than 100 euros a month after a visit by an **energy coach**. This is thanks to energy saving measures, such as draft strips, a water-saving showerhead, and radiatorfoil.

Would you like an energy coach to visit your home? Scan this QR code!

July 2023 - January 2024

2.
Co-creation workshops

With the first group of interested residents, we organized four co-creation sessions. These sessions focused on the opportunities for a local energy project in Venserpolder: with control and benefits for residents. The sessions explored the available options and discussed what is important for the community.



What did the **residents** find **important?**

"The goal is to save money, not to end up paying more. If it doesn't lead to lower costs, 90% of the neighborhood will lose interest."

"I believe everyone in Venserpolder should be able to participate."

"[we would like] professional support [for organizing it]. We're not going to do everything ourselves."

"A sense of community. That people know that they are connected to the same energy system."

What were other important outcomes?

01

A local energy project should lower the energy costs for all residents.

02

A local energy project should be organized with democratic participation.

03

A local energy project should strengthen social cohesion.

04

Residents should have the freedom to decide what they do or do not want to organize themselves.

05

A 'step-in model', where a few pioneers start and others join later, should be explored.

06

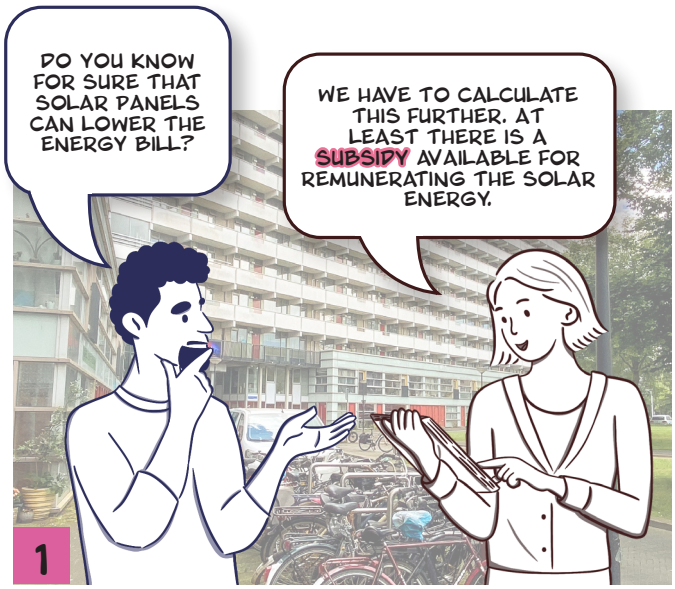
A local energy project could contribute to the stability of the electricity grid.

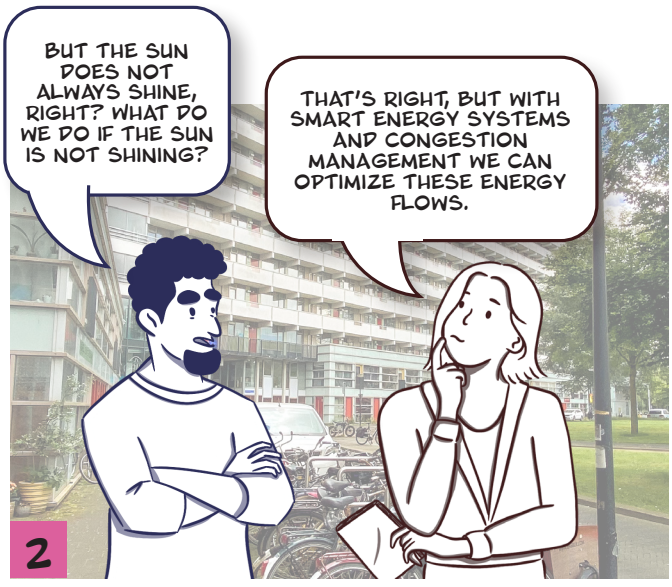
May - December 2024

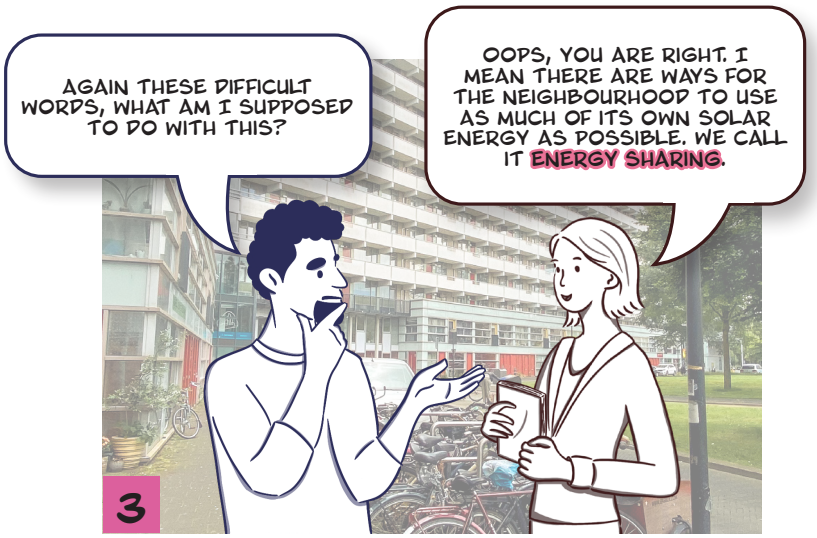
3. Reaching residents in Venserpolder

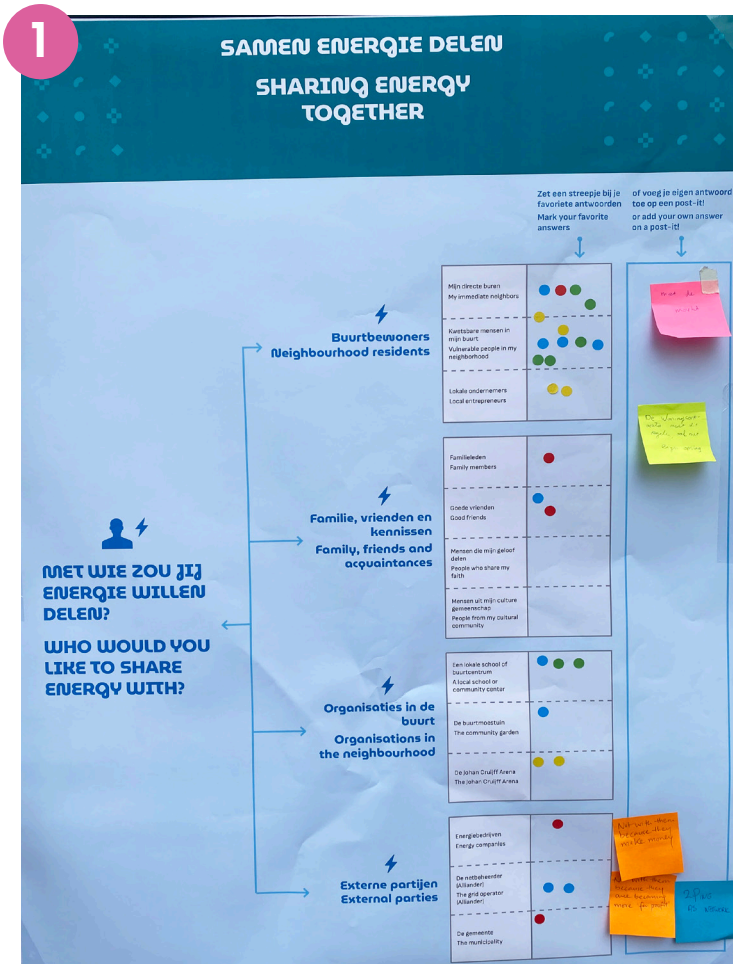
We summarized the outcomes in a flyer and went into the neighborhood to engage a broader group of residents. The focus was on installing solar panels.

The Week van Zuidoost and Burendag Venserpolder were good opportunities to be visible on the street Afterwards, five more co-creation sessions were organized, where new participants joined each time.







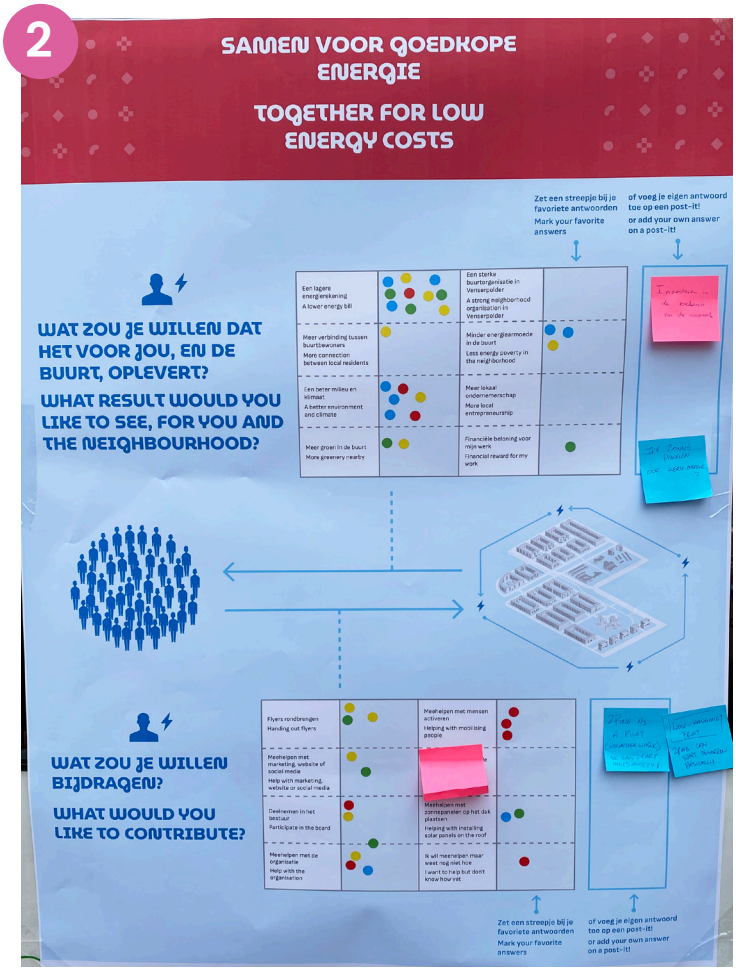


At the Week van Zuidoost, we asked residents to answer a few questions. Here are the results!

The first question was: With whom would you like to share energy?

The most common answer was "vulnerable people in my neighborhood."

Other popular answers were "my immediate neighbors" and "a local school or community center."



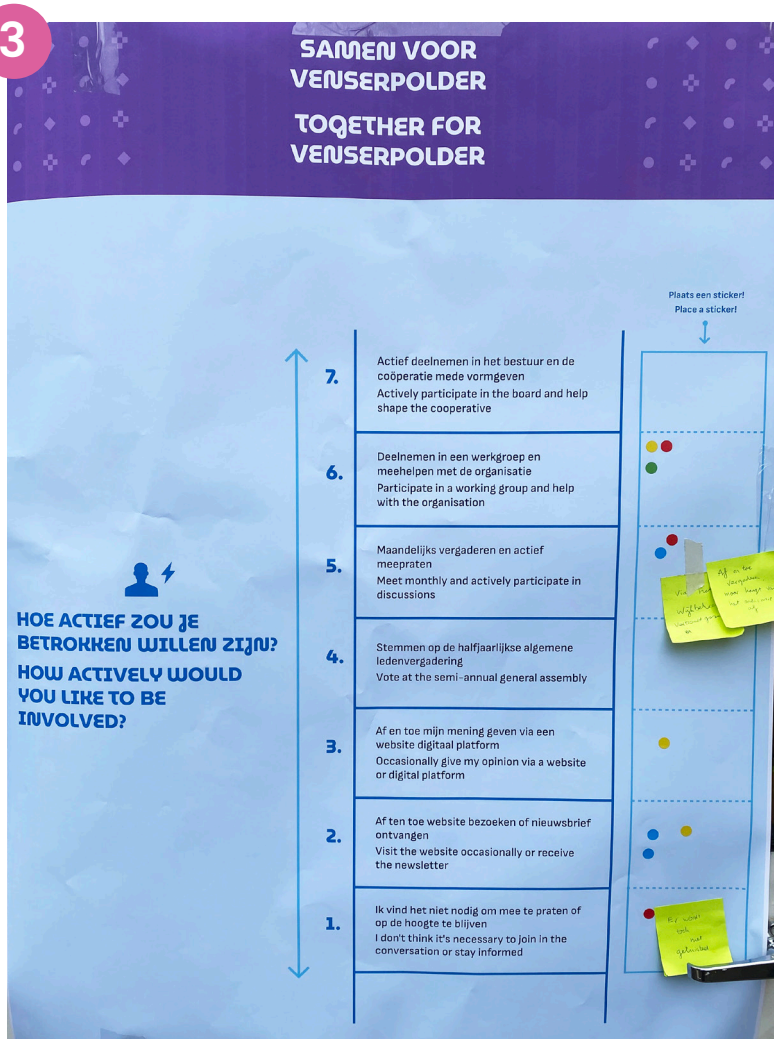
The next question for residents was: "What result would you like to see, for you and the neighborhood?"

The most common answers were "a lower energy bill" and "a better environment and climate."

For the question "What would you like to contribute?" we received a wide range of responses.

Residents are eager to help by distributing flyers, assisting with organization, managing the website and social media, and engaging the neighborhood.

3



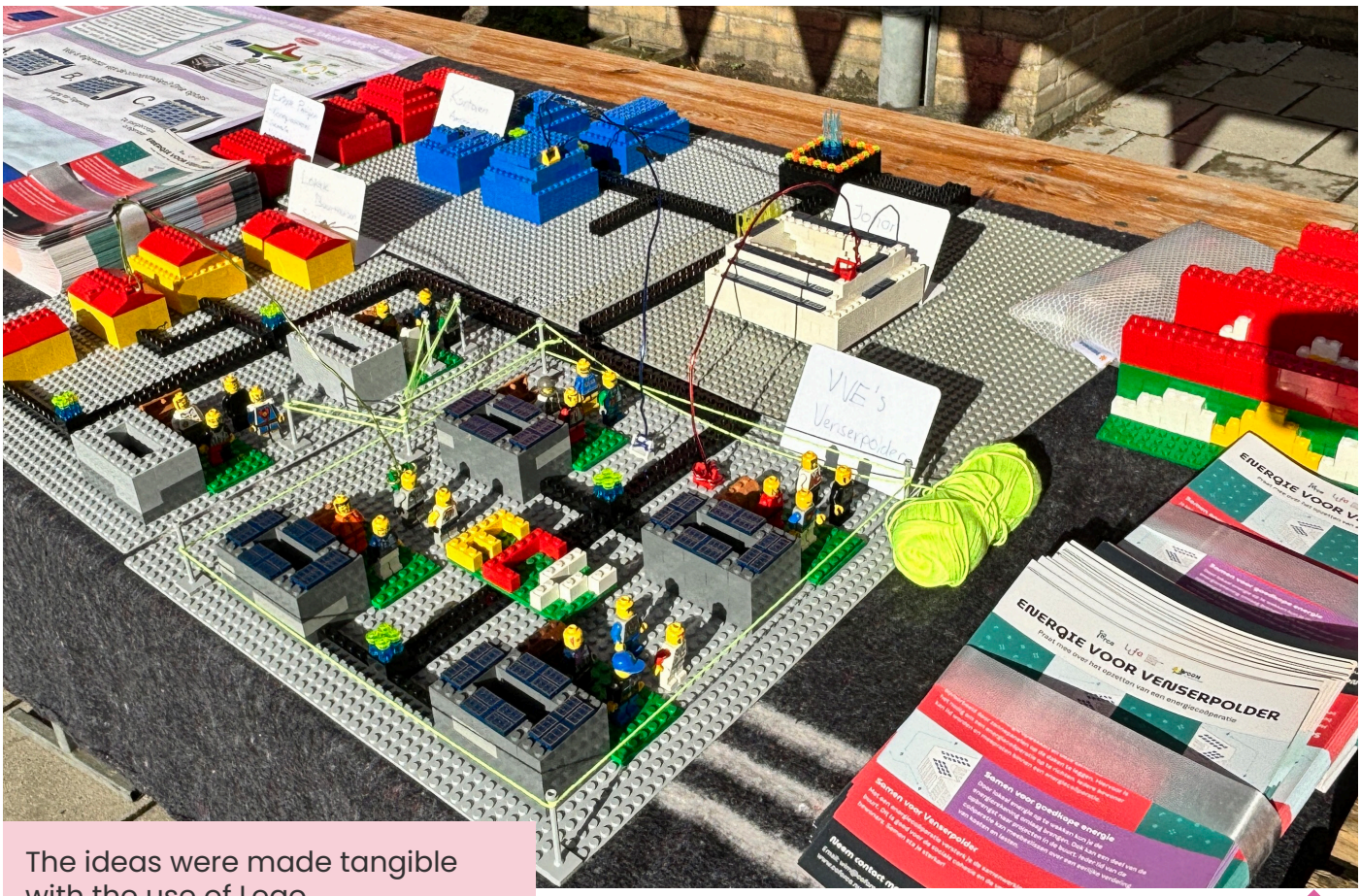
Finally, we asked residents to place themselves on the participation ladder — a way to indicate how closely they would like to be involved in the project.

Half of the residents indicated that they would like to be actively involved, for example, by joining a working group or attending monthly meetings.

The other half preferred not to participate actively but would like to stay informed through a website or newsletter.

Outdoor gathering during the Week van Zuidoost.

Poster that was used to inform residents.



The ideas were made tangible with the use of Lego

Early 2025

4. Towards an energy community

A group of residents has joined a pioneer group, which met several times in early 2025. Many of the participants are involved in the homeowners' association of their building. The pioneer group is further exploring the option to install solar panels on the rooftops in Venserpolder. The residents of Venserpolder will collectively own these solar panels, ensuring that the benefits stay within the neighborhood.

By working together in the neighbourhood you can form an energy community. This is an organization where residents make collective decisions about their local energy supply.

Together, they set goals such as:

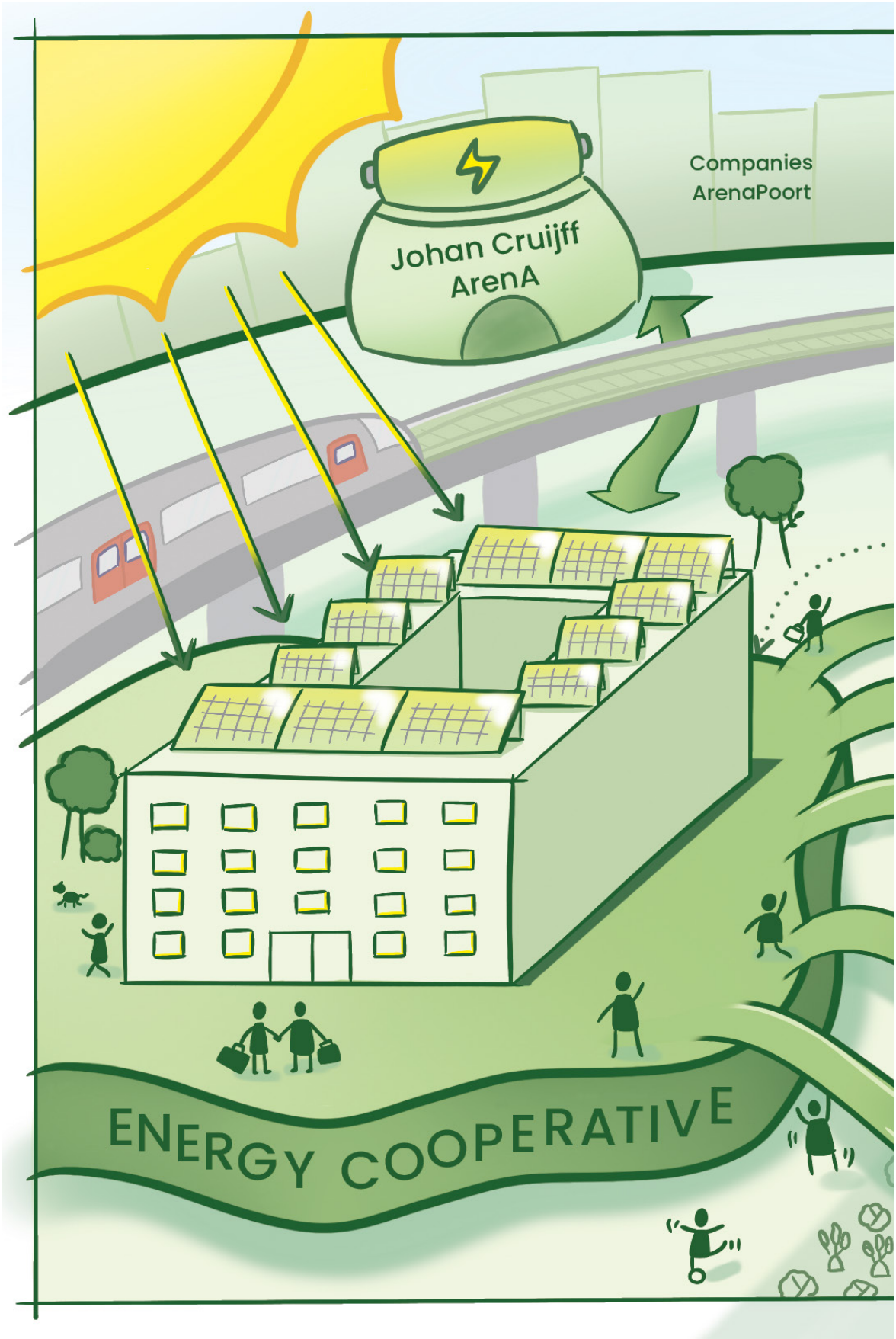
I. Reducing energy poverty
II. Strengthening social cohesion
III. Safeguarding the stability of the energy supply

They also decide on strategies to achieve these goals, including:

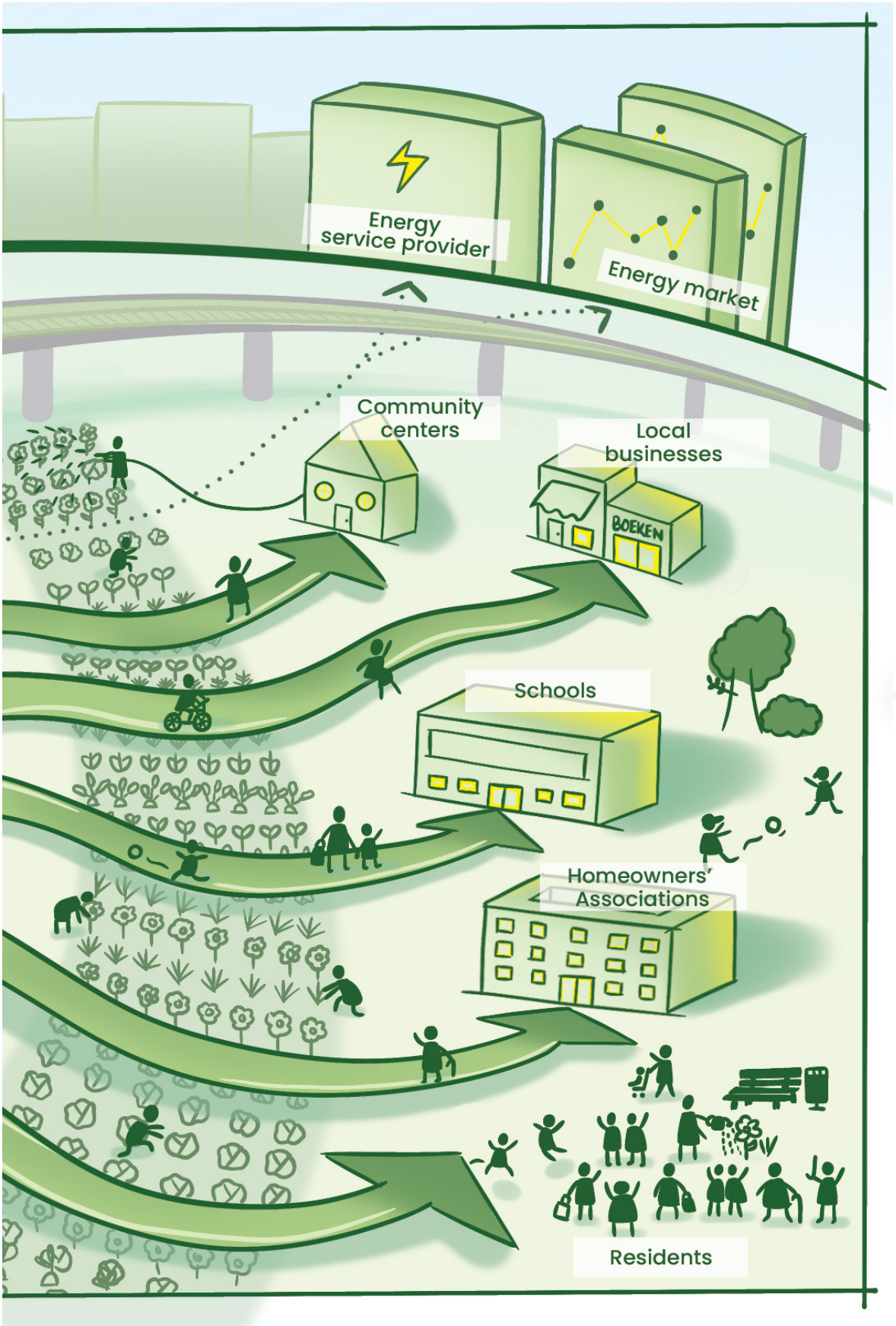
I. Installing solar panels
II. Developing a local heating network
III. Raising awareness about energy saving

Establishing an energy community can only be done together. It requires a new way of collaborating and a fresh perspective on your local energy system. An energy community is not driven by profit. It exists as a new entity alongside the market and the government, with local societal interests at its core.

Many participants are active in the homeowners' association (VvE) of their appartment block. Participation of the VvE's - and the housing corporations - is important for the energy community. The map below shows which VvE's have been reached so far. Is your block not involved yet? Join us! You find the contact details on page 28.



As an energy community, your neighborhood can become its own energy supplier. The usual organizational form for this is an energy cooperative. The electricity can be delivered to residents, local schools, community centers, or businesses. In the future, you might collaborate with companies in the ArenAPoort area or invest in a neighborhood battery.



When the sun shines, residents can use solar energy from their own roof. By generating your own energy, you become less dependent on the energy market, especially if prices rise again like they did in 2022. Becoming your own energy supplier keeps the value within the neighborhood, rather than flowing to an external energy company. If all roofs in Venserpolder would be covered by solar panels, it could cover a quarter (25%) of all electricity usage in the neighborhood!

After 2030

5. Away from natural gas, together?

The energy transition is a marathon, not a sprint: much will change in the coming decades. The municipality of Amsterdam wants to transition away from the use of natural gas completely. All residents will have to replace their heating system. You can do this just for your own house, or you can have a collective system with your neighbours. It helps to start thinking about this already, so you will not be surprised.

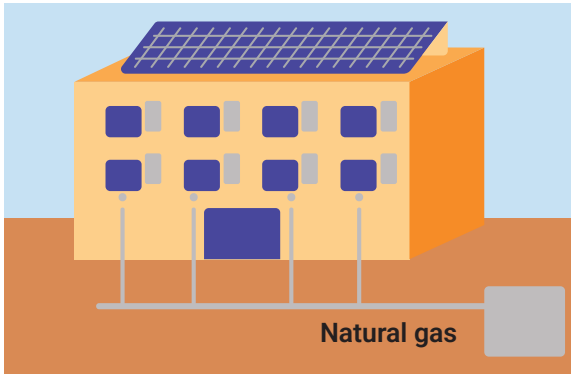
Since late 2024, the municipality of Amsterdam has officially recognized energy communities as key players in the energy transition. By joining an energy community, you can have a say in what happens in your city. An energy community allows you to stand strong together in the energy transition—towards the municipality, energy companies, and other stakeholders.

It requires a different way of thinking and a new way of working with your neighbors. Not only is this an exciting and engaging process, but it also gives you more control and independence. And, of course, it contributes to a cleaner earth.

Installing solar panels is a great first step, as electricity use will continue to increase. In the future, more people will drive electric cars, and homes may also switch to electric heating. Within the LIFE project, we have explored several different options for going gas-free.

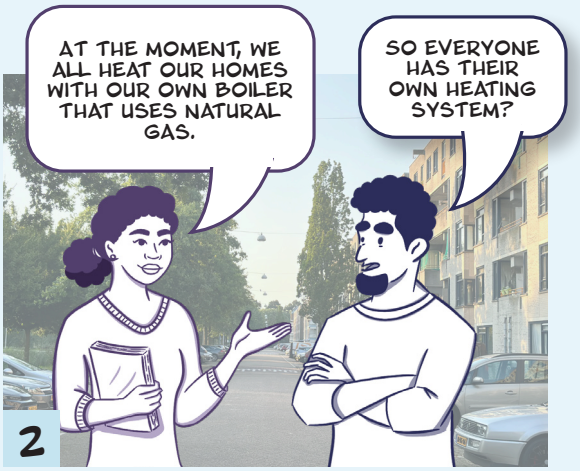
On the following pages, you can read more about these scenarios for heating your home. In the end, you and your neighbors can decide together which option suits you best.

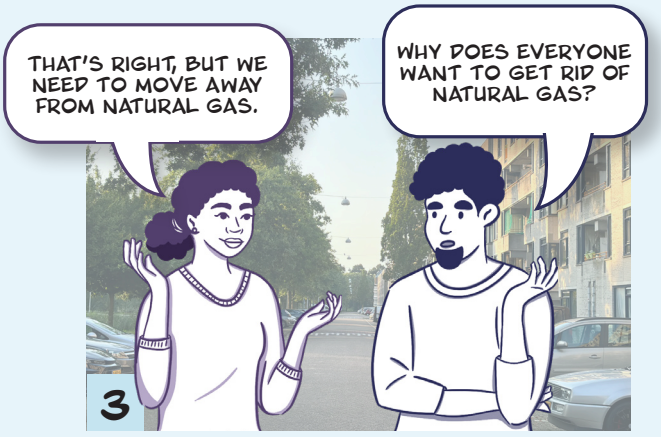
Scenario 1

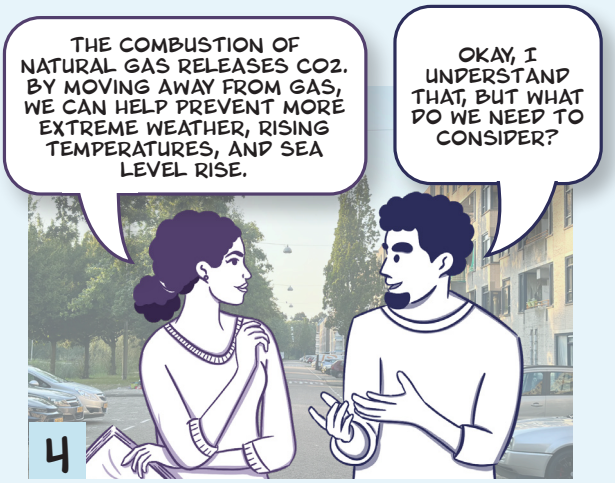


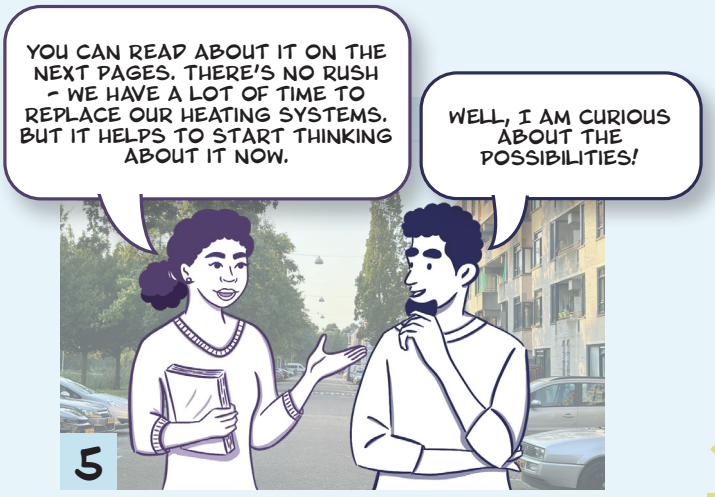
Heating with a boiler

- Each home has its own individual heating system
- Natural gas emits polluting CO2
- Dependent on affordable gas prices
- Flexible and easy to use

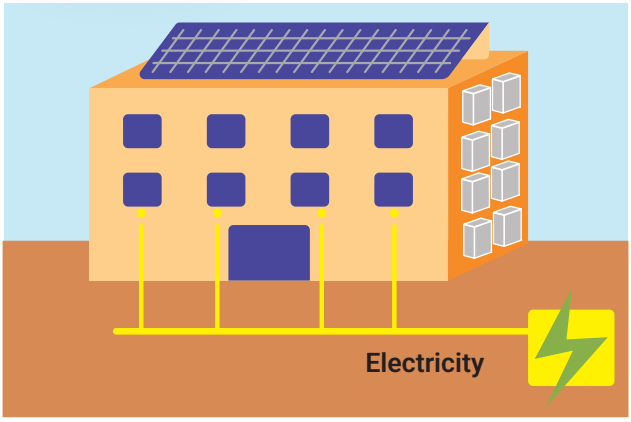






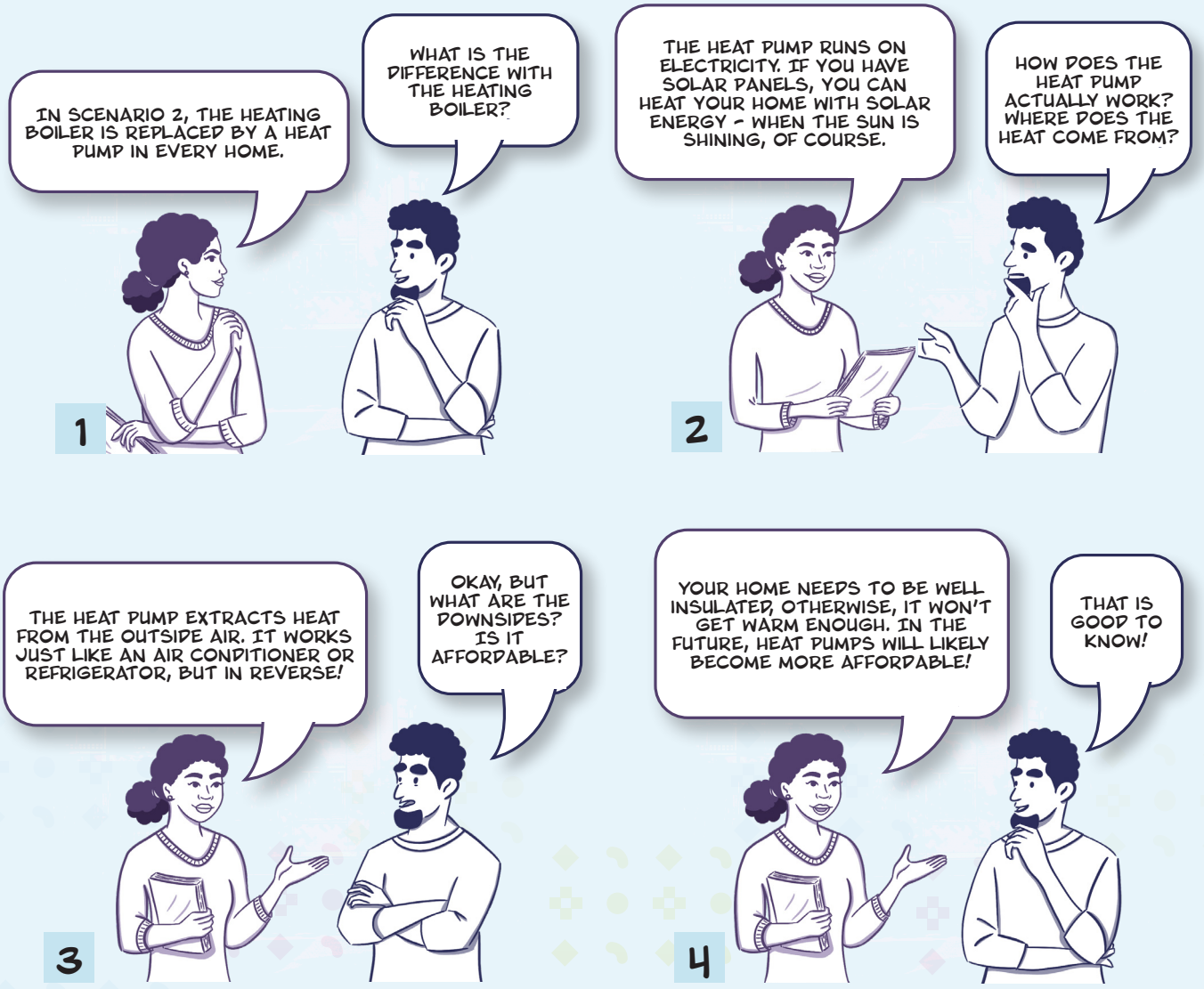


Scenario 2



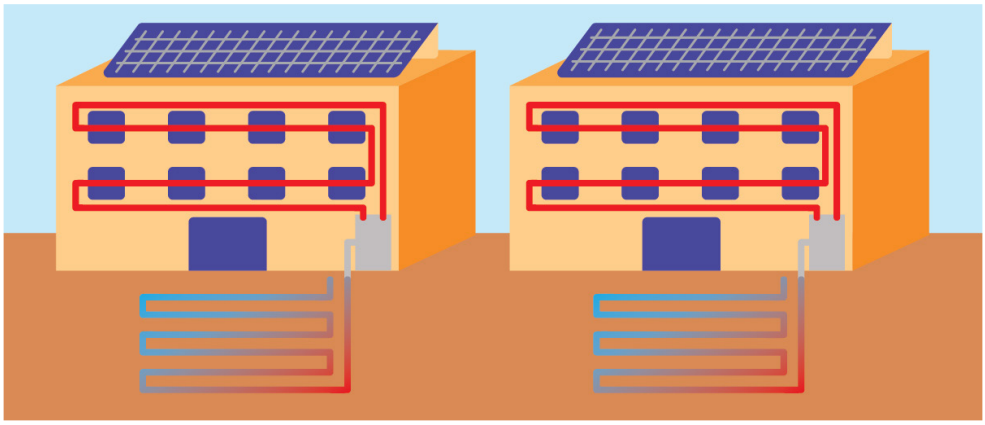
Heating with individual heat pumps

- Each home has its own individual heating system
- Does not emit CO2 when using green electricity
- The home must be well insulated
- Not dependent on gas prices

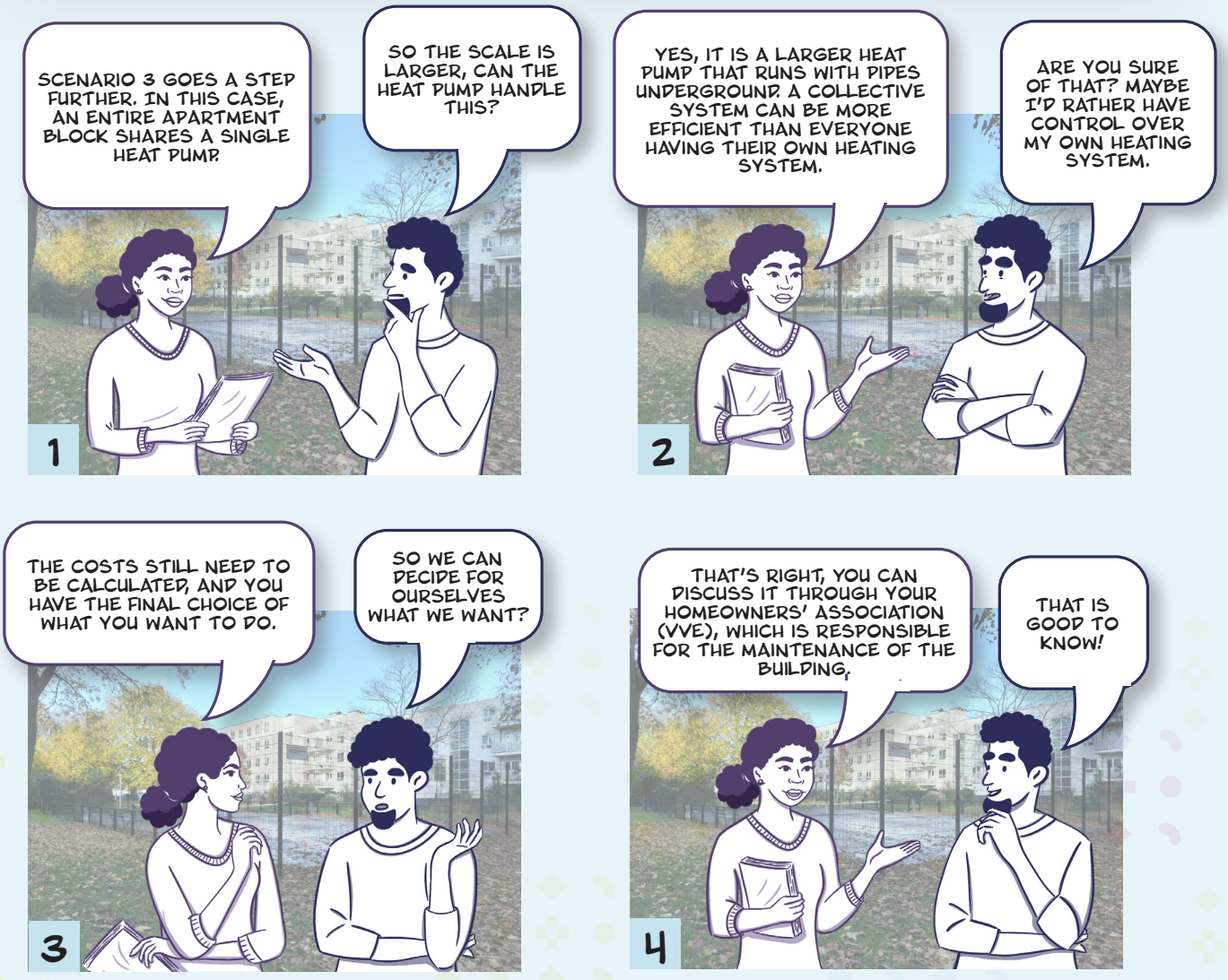


Scenario 3

Collective heating with ground source heat pump

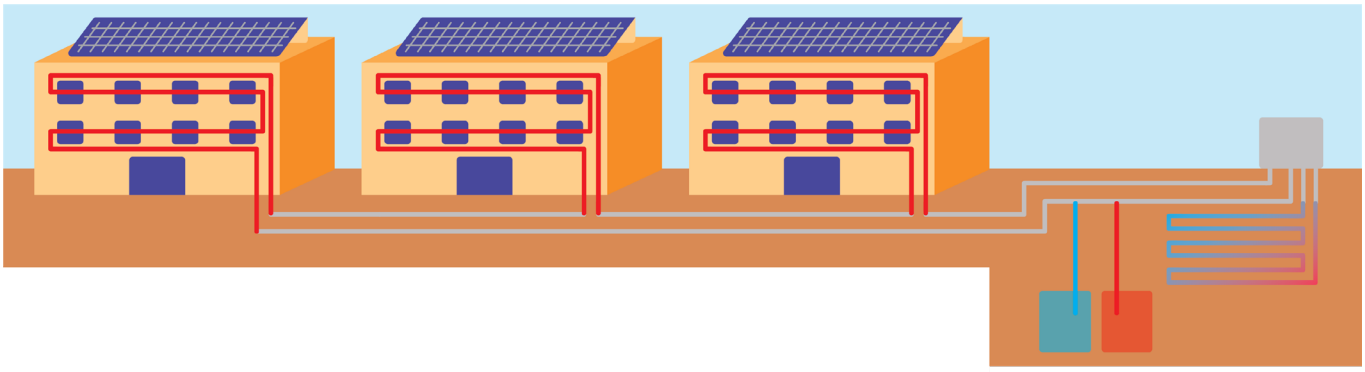


- A shared heating system for each appartment building
- Does not emit CO2 when using green electricity
- Potentially more efficient and cost-effective
- Technically and organizationally complex

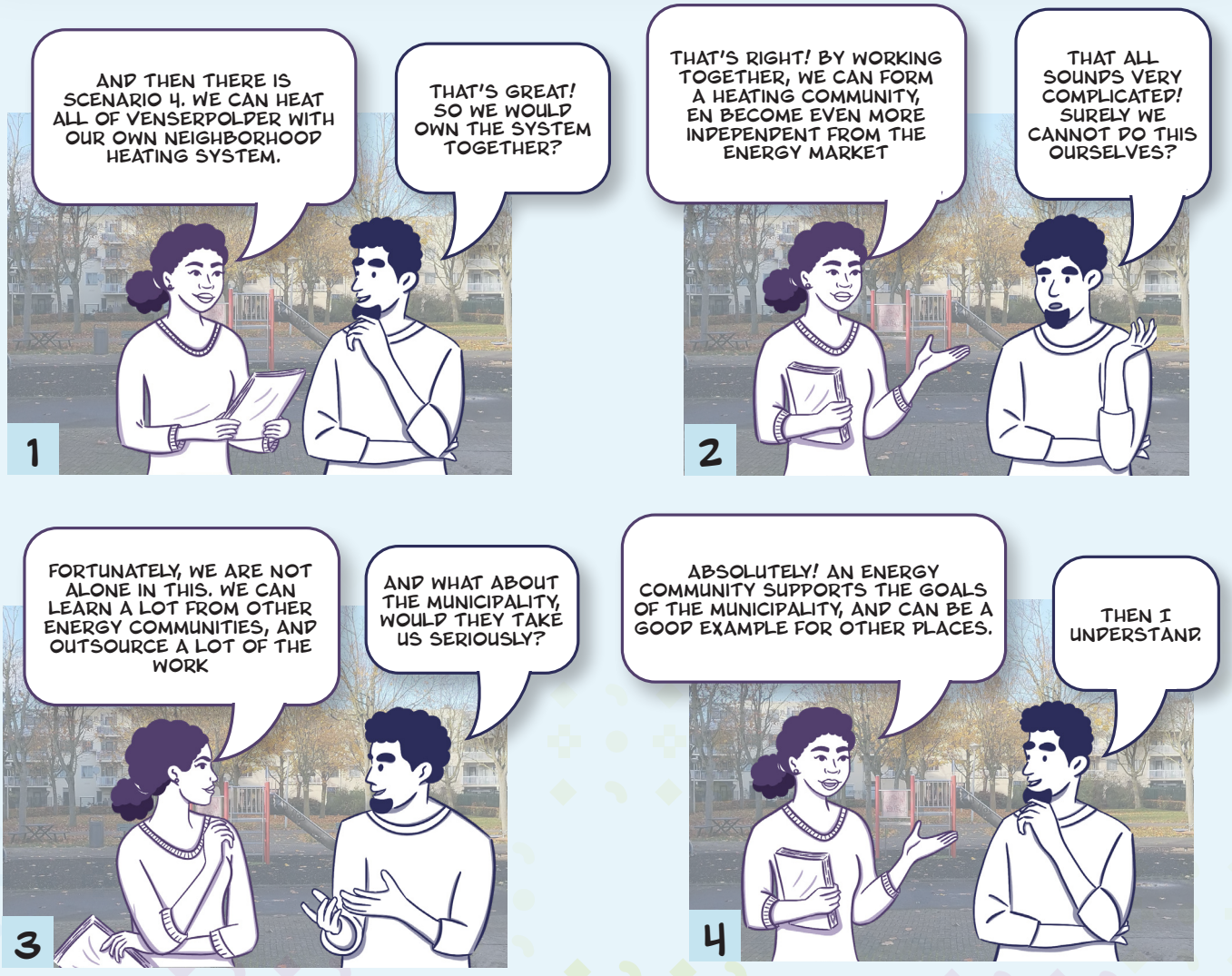


Scenario 4

Neighbourhood heating system

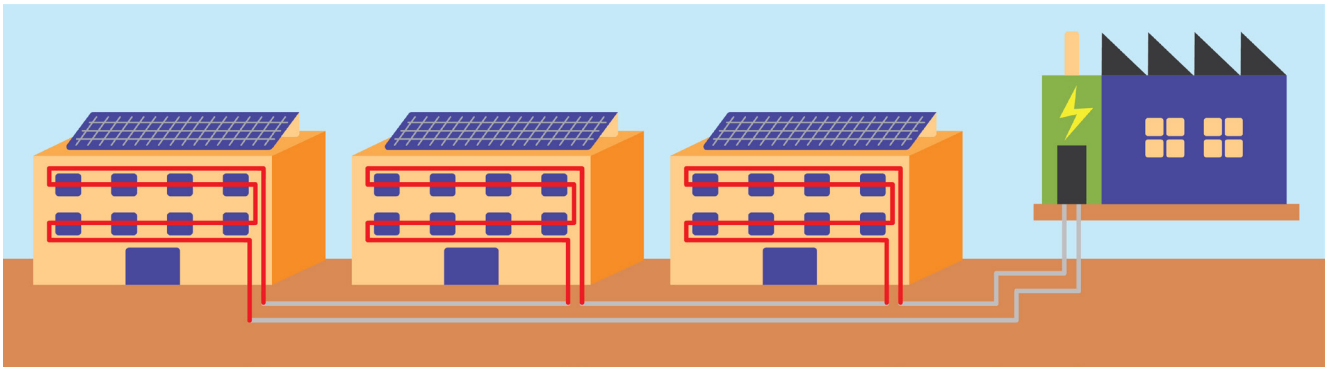


- Collective ground source heat pumps for sustainable heat generation
- A local heating network allows heat to be exchanged throughout the neighborhood
- Thermal energy storage balances heat between summer and winter
- Requires collaboration from everyone in the neighbourhood!

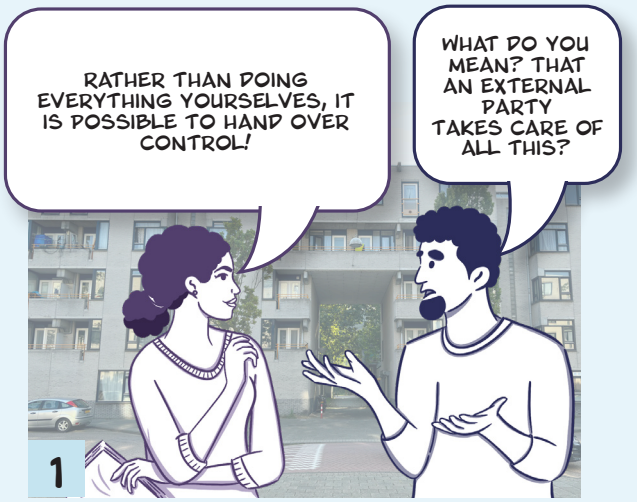


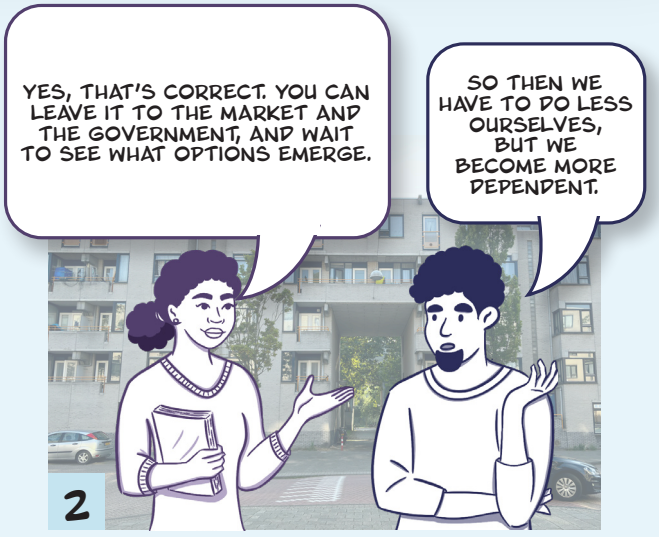
Scenario 5

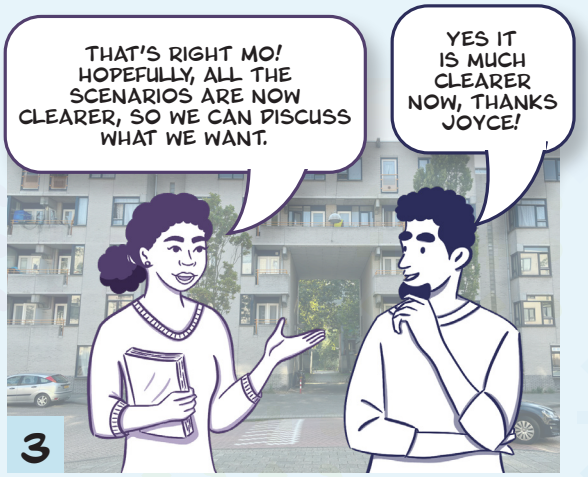
Handing over control



- Wait for the government or market to come up with a solution
- Less local power and control, more dependency
- Less personal responsibility







6. Recommendations from the research team

1. **Embrace uncertainty – do not be attached to predetermined outcomes.** Stay open to new connections, unexpected results, and surprising insights
2. **Do not rush the process - meaningful participation requires patience.** The energy transition is a marathon, do not expect to solve everything in a couple of years!
3. **Find a balance between encouraging residents to participate pro-actively, and unburdening them to provide a lower barrier to entry.** Some want to be closely involved and take responsibility, while others prefer to support without obligations.
4. **Collaborate with trusted local partners.** They know where to start and what to be mindful of.
5. **Ensure that the trusted local partners are involved as early as possible so that they can shape the project's goals and directions right from the start.**
6. **Include local residents in the research team.** This ensures a more equal partnership and deeper community engagement, and you can cross-check your findings with them.
7. **Use games, playful activities, and tools like Lego to spark enthusiasm, encourage creative thinking, and make the future energy system tangible.**
8. **Everyone loves ice cream!** Use food and local events to create a welcoming atmosphere and attract diverse groups, such as children and the elderly, to make complex topics more accessible.
9. **Energy transition is boring for some people —** designers and artists can help to make it exciting and meaningful.
10. **Put extra effort into making space for the voices of marginalized and underrepresented social groups.**
11. **Participation involves shared ownership between residents and external organizations.** Make sure roles, responsibilities and decision-making power are clearly defined.
12. **Disagreements and arguments are part of collaboration—engage with these openly, instead of forcing consensus.** They often lead to deeper understanding and stronger outcomes.
13. **Acknowledge that power dynamics are always part of collaboration and participation –** Be aware of them and strive for a fair balance between partners.

14 **Reciprocity between stakeholders - especially residents and larger organizations—is essential for the energy transition.** Actively highlighting each other's diverse contributions and mutual dependence can help build stronger collaboration.

15 **Energy transition projects can include unfair exchanges between stakeholders—**take collaborative efforts to co-create more equitable partnerships.

16 **Include budget to compensate residents for their time, effort, and expertise.** Go beyond symbolic gestures like gift cards or volunteer reimbursements.

17 **Ensure that local organizations receive financial support, just like larger institutions.**

18 **If you are an expert, help people to understand your subject.** In return, be open to learn from them – residents are experts in their local environment.

19 **Long-term agendas and infrastructural changes should not overlook short-term needs and urgencies in people's life today.**

20 **New energy innovations should be embedded in existing local practices and networks, rather than intruding from the top-down.**

21 **Marking an area as "developmental neighbourhood" can be an alienating starting frame** - be careful with using such language.

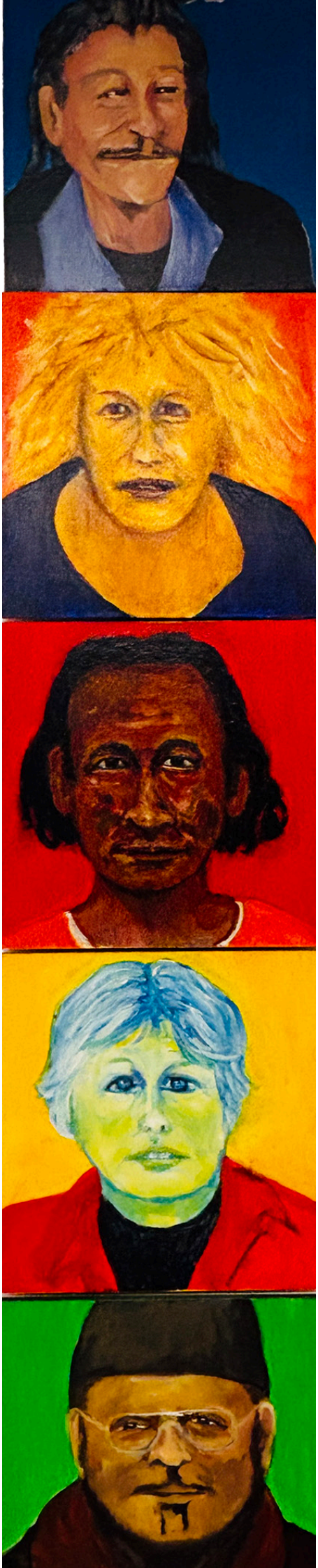
22 **Beware about jargon: phrases like "grid congestion", "energy transition", "flexibility" are meaningless to many people.** Try to use everyday language and techniques such as story-telling.

23 **Don't merely provide information:** help to make energy transition more understandable, and support the learning process of people.

24 **Hire local content creators for your communication campaigns,** they know what resonates with local communities.

25 **Promote sharing energy within your neighbourhood, not just trading it on the energy market.** Community-focused sharing builds solidarity, whereas trading profits individuals.

26 **Energy transition may seem boring, but participation is important for your future.** Just like salad is less tasty than a burger, but better for your health!



Now

7. Join us!

We invite all residents from Venserpolder to join the conversation about the future of the neighbourhood. Do you want to join, or contact us for another reason? Feel free to send an email!

Contact Details

Pioneer group Venserpolder

Energy coorperative Venserpolder
energiecooperatievenserpolder@gmail.com

TU Delft

Gijs van Leeuwen
g.e.vanleeuwen@tudelft.nl

Abhigyan Singh
a.singh@tudelft.nl

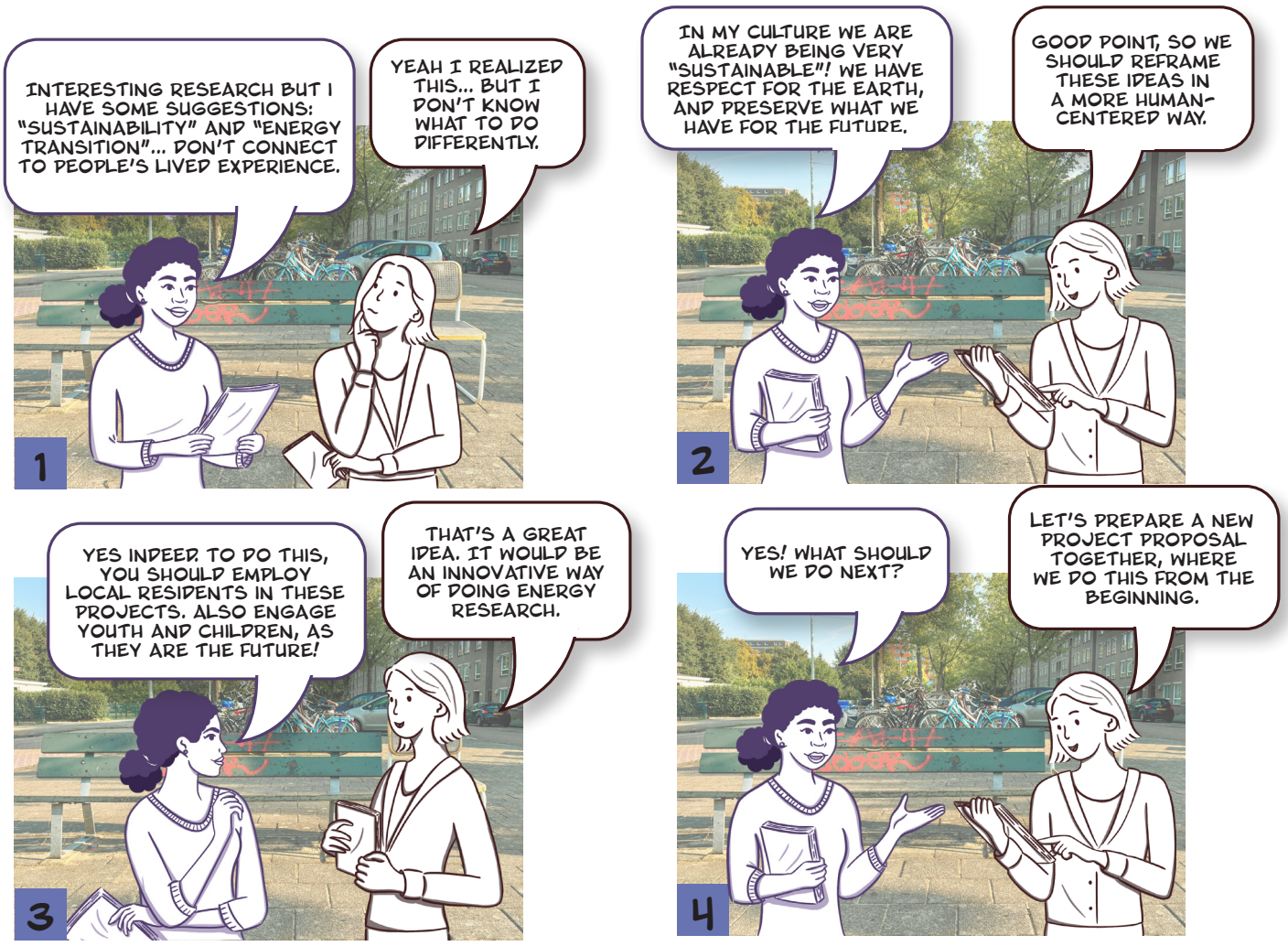
Foundation Co-Force

Wouter Methorst
woutermethorst@xs4all.nl

Wim van de Kamp
wim@coforce.nu

Photo of painted portraits at De Kandelaar, Amsterdam Southeast

If you want to see more of the results of this project, scan this QR code!



Thank you to the Venserpolder residents and LIFE partners who were part of this project!

Photo of wallpainting at Boeninhuis / Stichting SES in Venserpolder

Building a sustainable future together

Local Inclusive Future Energy

TU Delft | Industrial Design Engineering

coforce