



Inclusive energy transition

What if we involve designers?

Arno Peekel – 15 March 2021

Two projects

Two districts

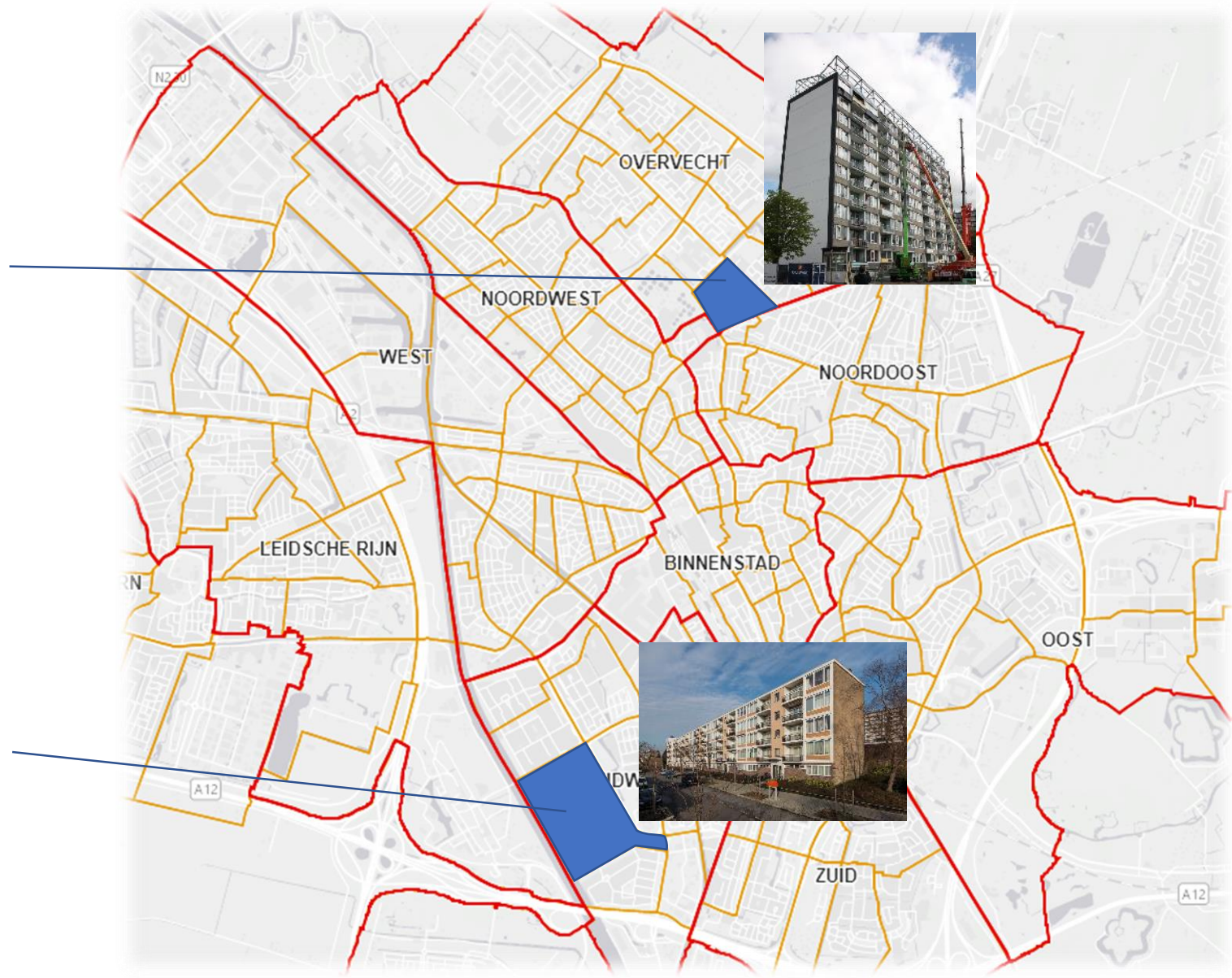
Overvecht District - Henriëttedreef
PEB refurbishment

<https://tki-inside-out.nl>
Topsector Energie



Horizon2020
<https://iris-utrecht.nl>

Kanaleneiland-Zuid District
NZEB refurbishment and 6 other measures



District *Kanaleneiland-Zuid*

Before refurbishment

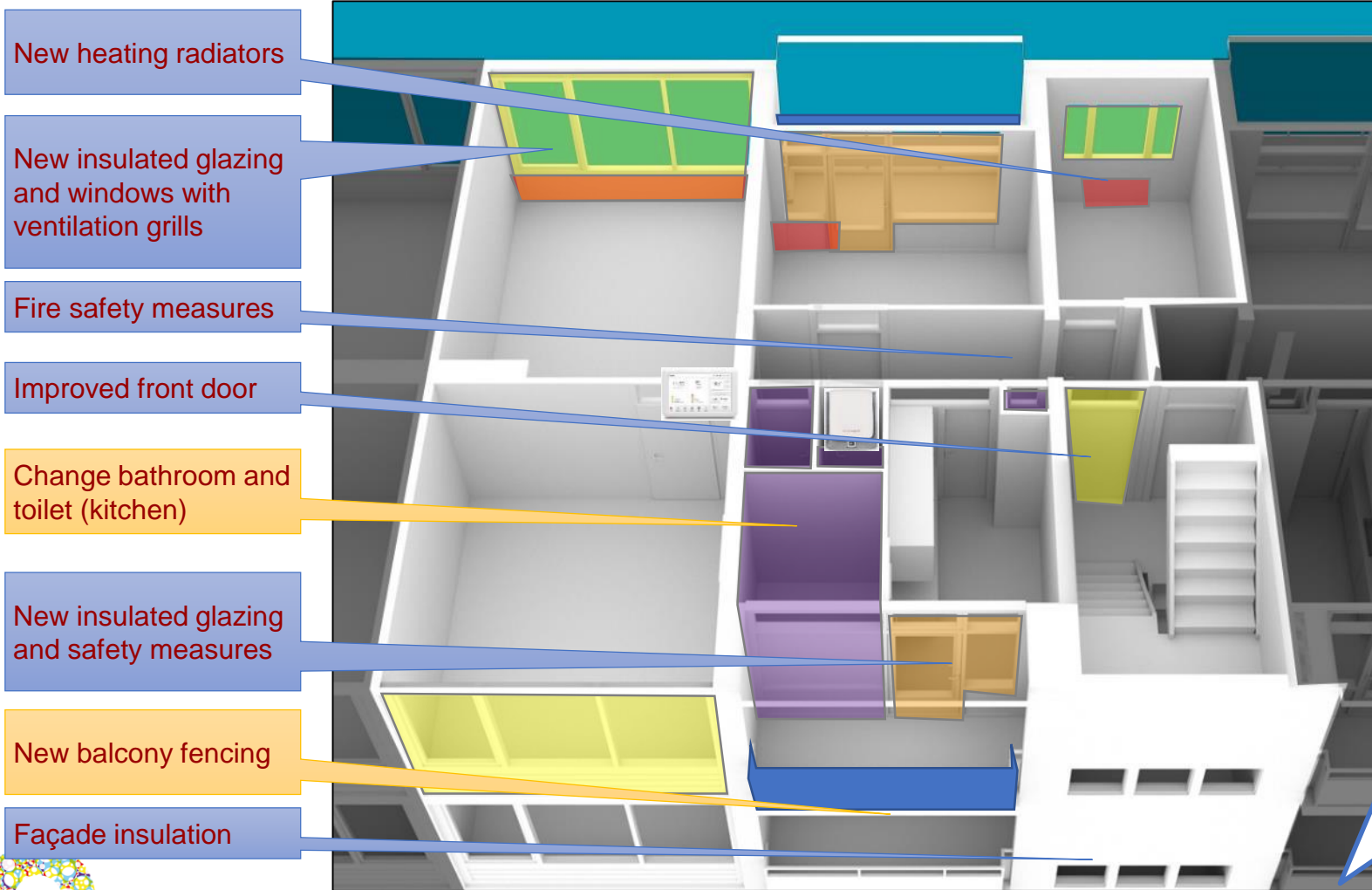


After refurbishment



644 dwellings (12 apartment blocks)

District *Kanaleneiland-Zuid*



And also:

- Asbestos removal
- New tubes and pipes and meter cupboard
- Mechanical ventilation system (individual)
- New ironmongery
- PV-panels on the roof
- Insulation on the ground floor and roof
- Satellite connection
- Painting works

District Overvecht



First positive high-rise energy building in Europe!

Overview Positive Energy Building (Overvecht)

Additions to rooftop:

- BIPV (540 PV panels)
- Centralized heatpumps for space heating and hot tap water

BIPV by:

- Integration of 160 PV in facades and parapets
- Integration of 106 PV in balconies

Monitoring of performance, energy usage, comfort levels



Prefabricated modular facades with:

- Deep insulation
- Decentralized HVAC
- Aluminum window frames and triple glazing
- Screens to prevent overheating in summer




Individual hot tap water boosters and storage in dwellings

Residents in the driver's seat

Smart grid with battery storage and V2G





What if we involve designers?

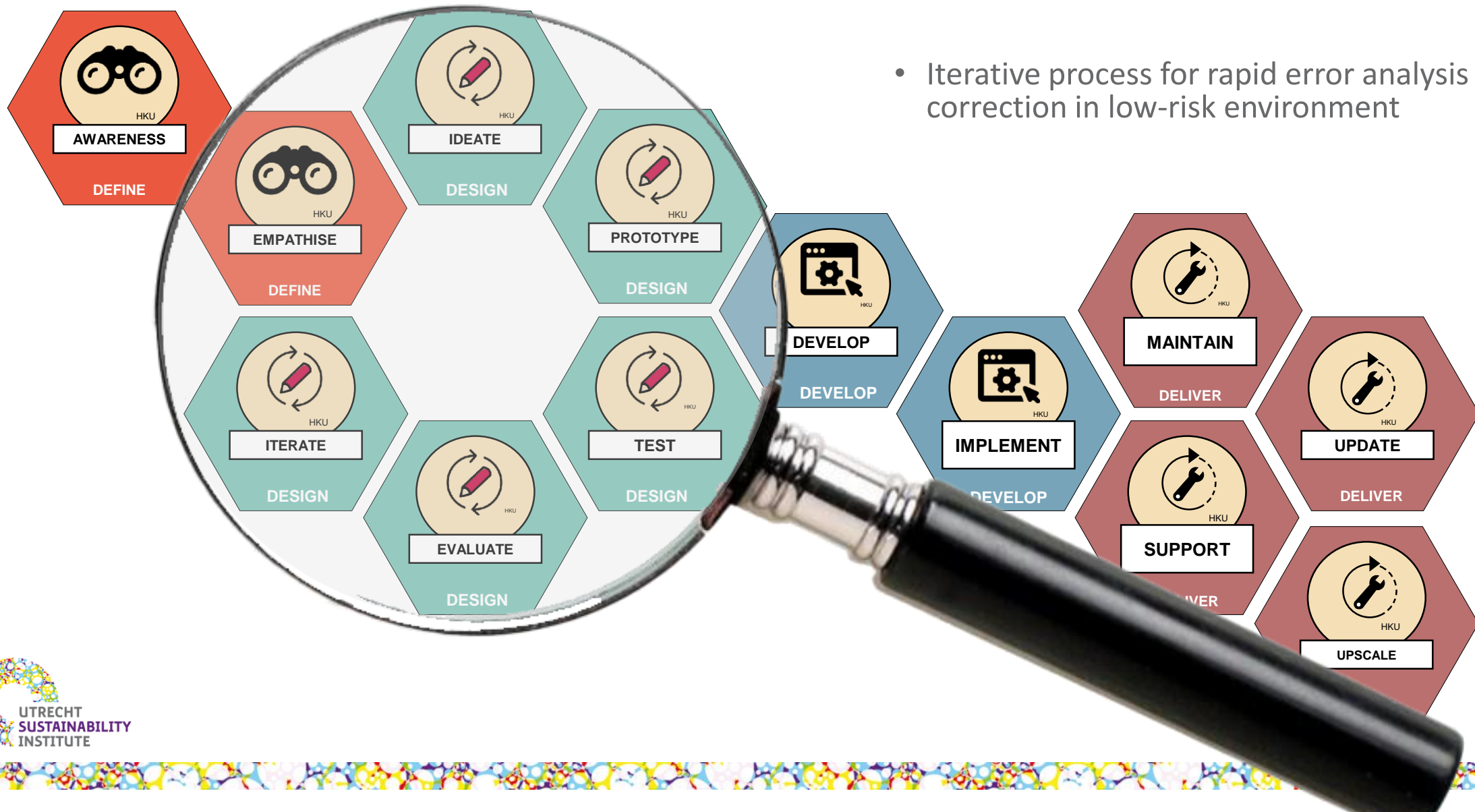
~~Teach~~
Community

Honesty with
ourselves

Strong
Design
Skills


THE PROCESS LE

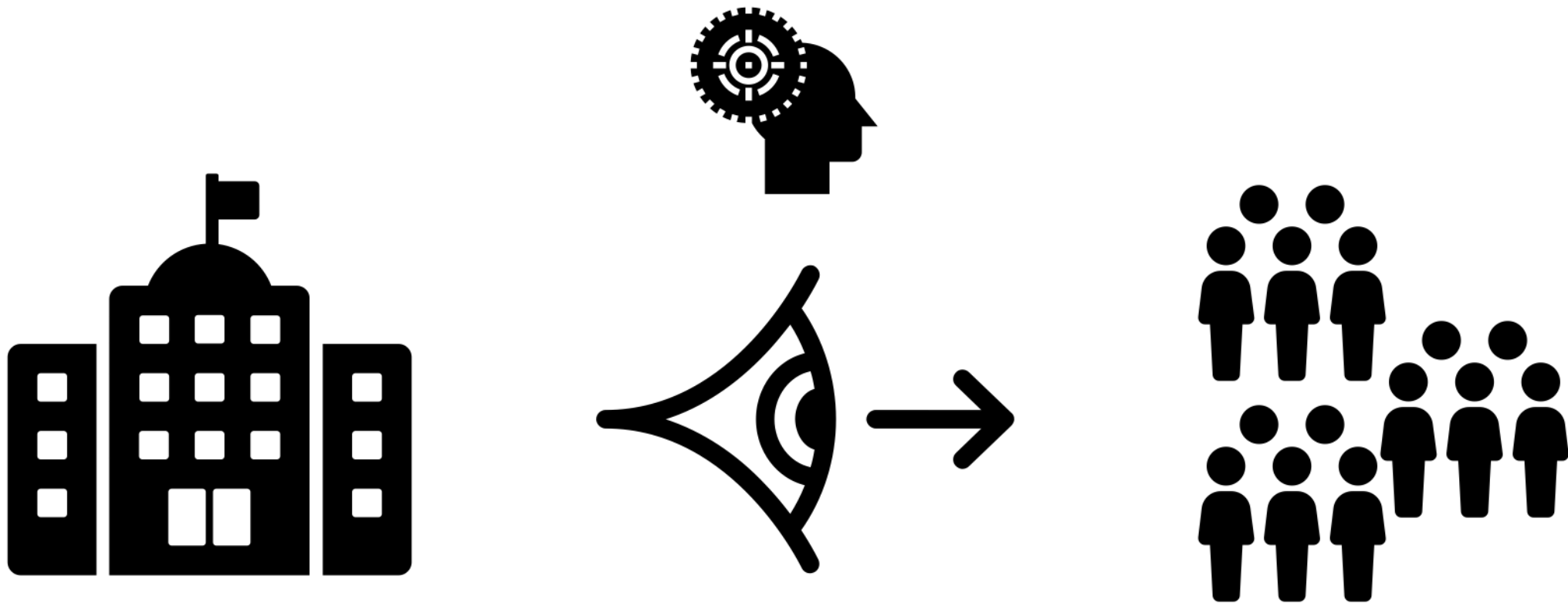
THE PROCESS LENS – DESIGN THINKING

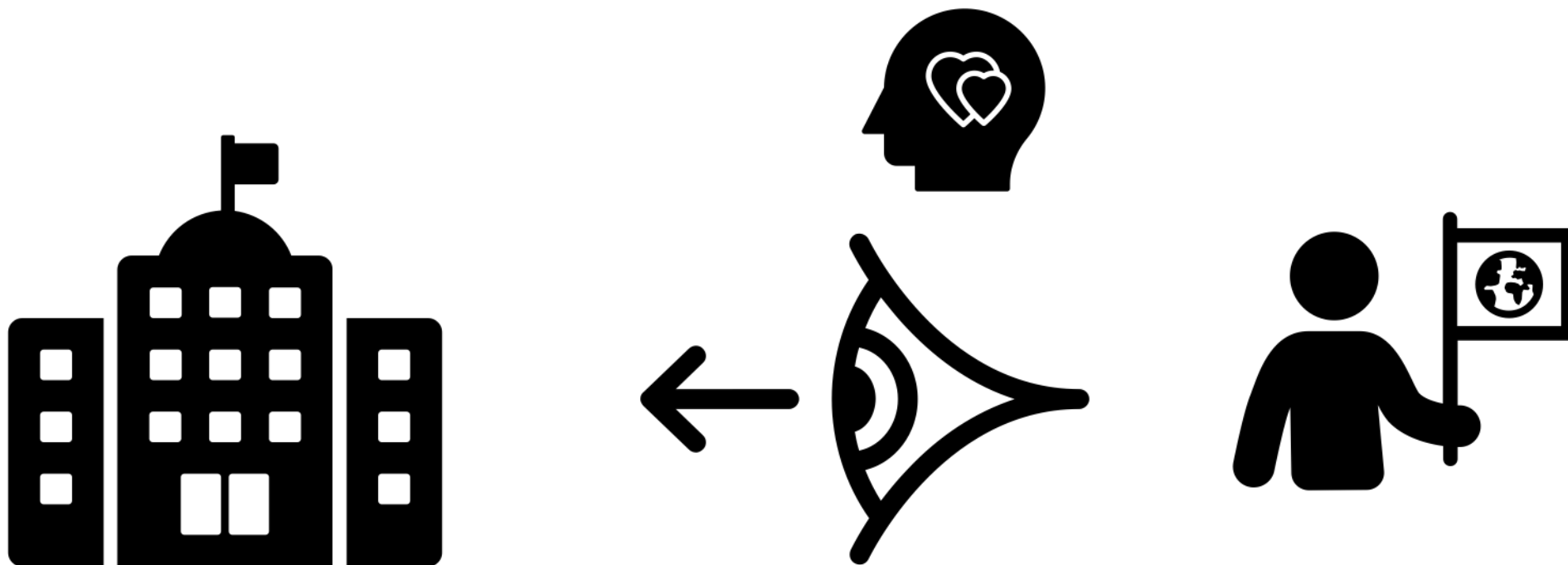


- Iterative process for rapid error analysis and correction in low-risk environment

THE EMPATHIC LENS







Emphasize - Get to know your target group

- Use demographic data
- Invest in local networks in the district
- What drives people?
- What needs to be solved beforehand? Social renovation



Current timeframe

Individualism

- Strong opinions

Polarization

- What's in it for me?

Internet

- Feeling of being well-informed

Social media

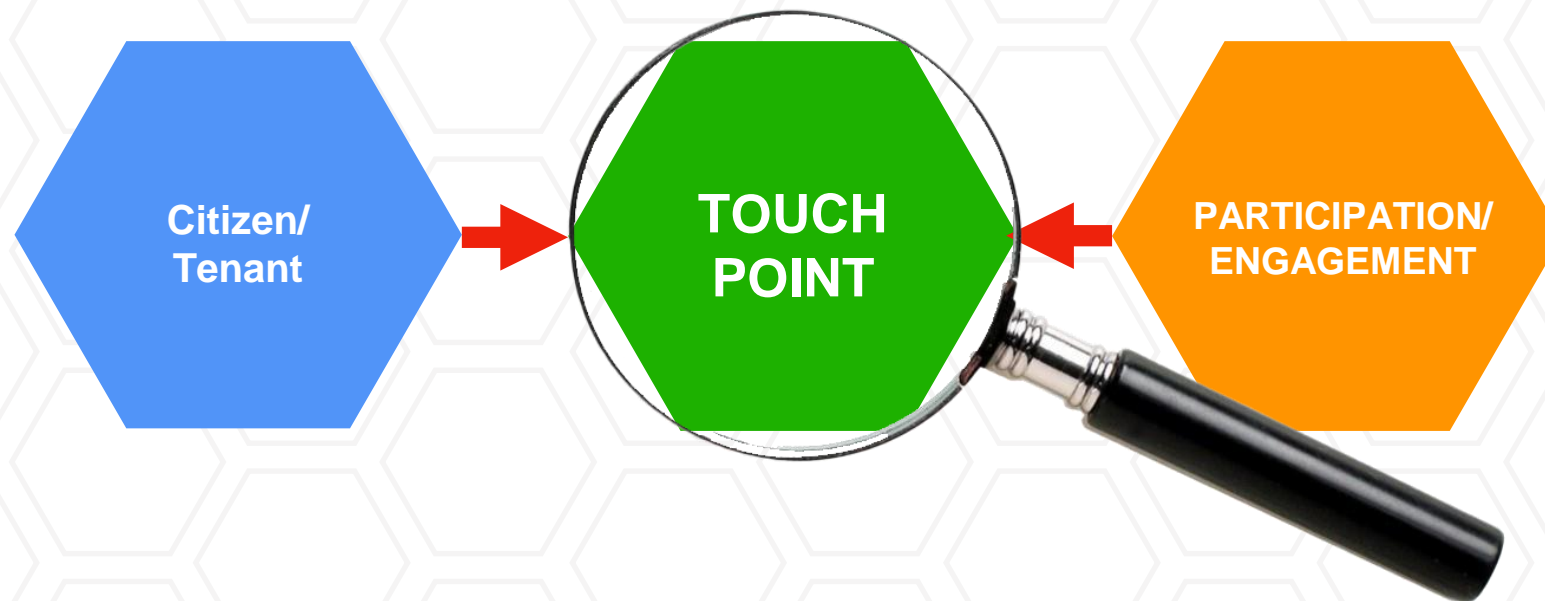
- Disinformation

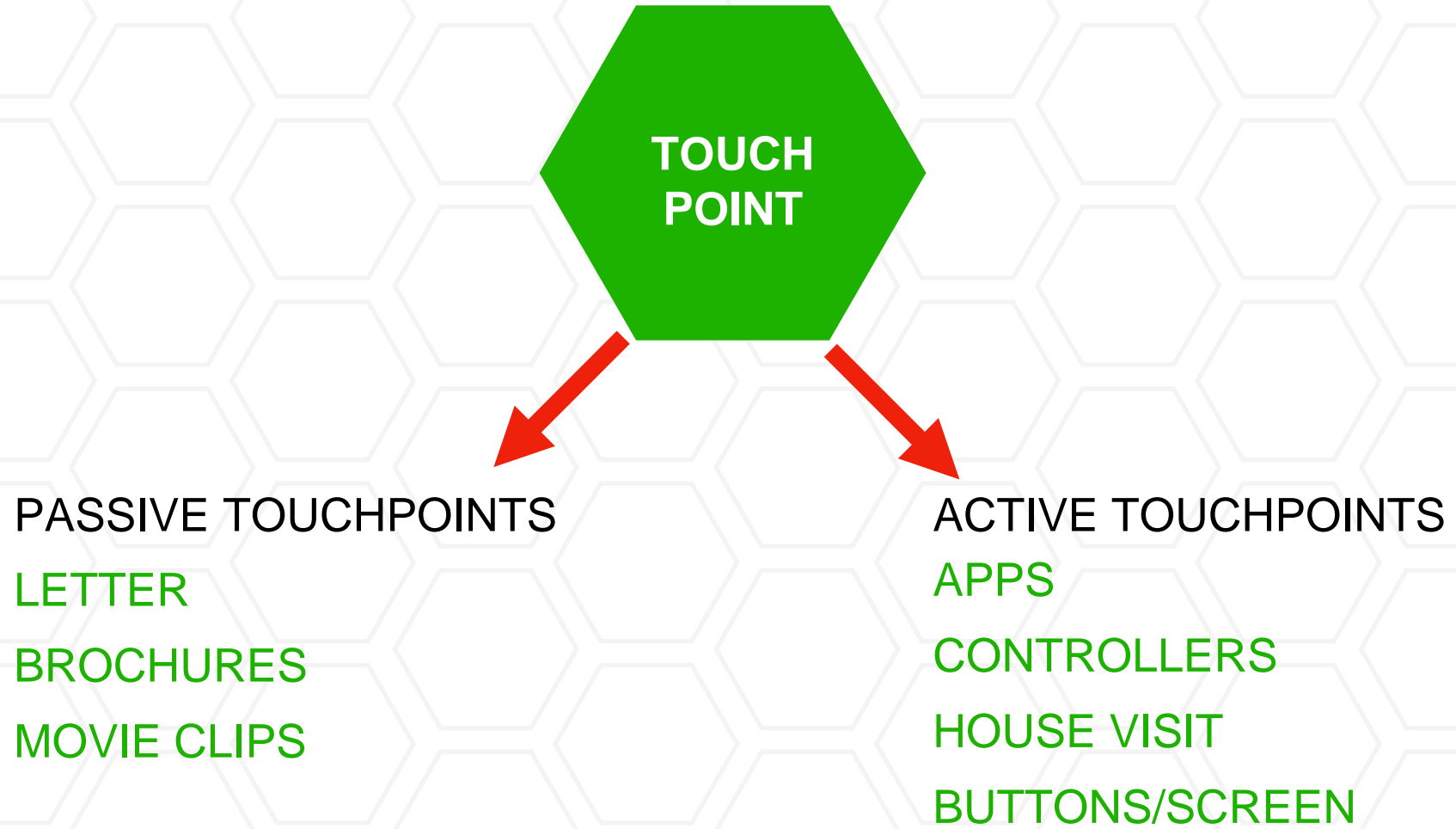


THE TOUCHPOINT LENS

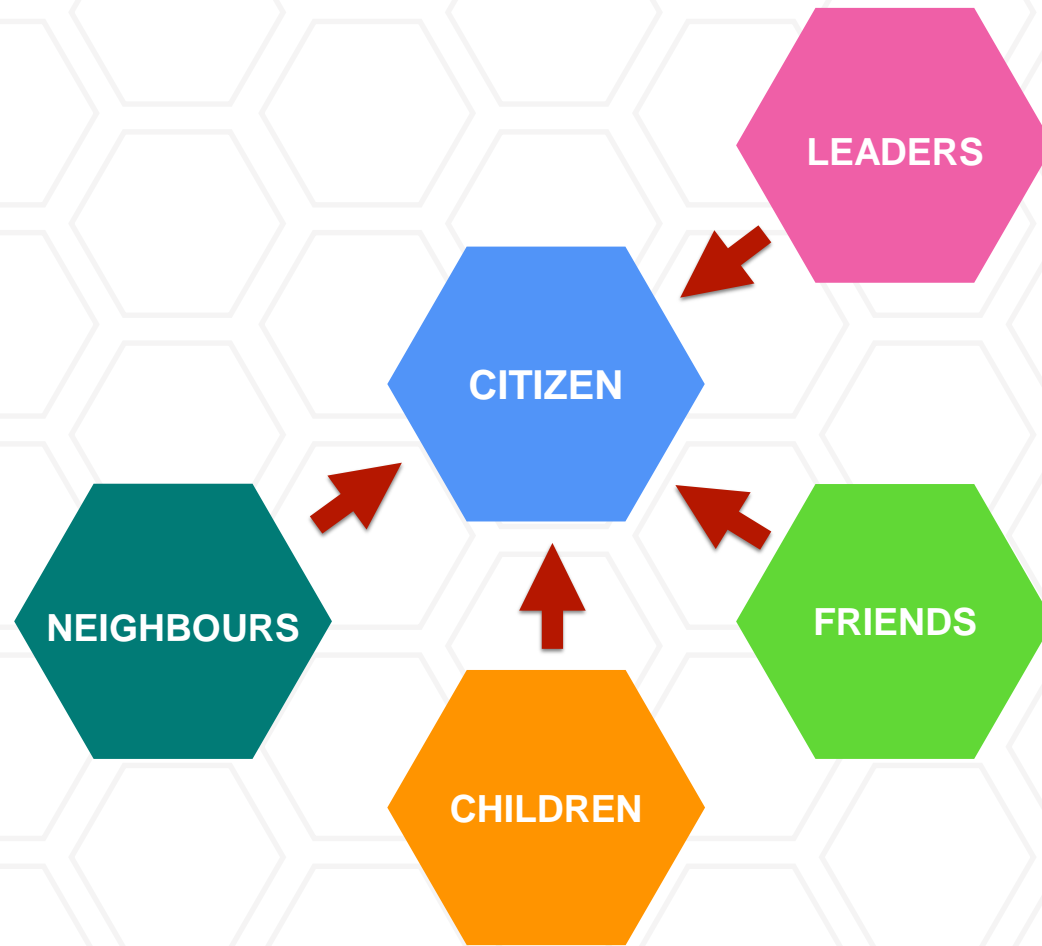


IMPORTANCE OF TOUCHPOINTS FOR PARTICIPATION





INFLUENCERS AS TOUCHPOINT



CITIZEN ENGAGEMENT: FROM CHALLENGE TO RESULTS

Multi-cultural districts
High unemployment rate
Low-income level
High level of social housing
Low-energy profile building stock
Densely populated
Safety issues



Mismatch



IRIS
Utrecht



**Inside
Out**

Smart city
Sustainability
Energy transition
Shared mobility solutions
Solar panels

RETROFITTING APARTMENT BUILDINGS

- Common approach of housing corporation Bo-Ex worked fine for years
- In first IRIS demonstration buildings the 70% ratio of tenant plan acceptance was not obtained
- Last years more time needed for interaction with tenants
- Leading to a.o. discontent and delay in schedule

Need for change of tactics: what if we involved designers?

WRONG ASSUMPTIONS:

1. the better people are informed, the more likely they are to act on the information provided (*... they might still have different opinion or feel overloaded with information*)

SNAP Service



- Many people are illiterate
 - Afraid to open letters
 - Difficult to understand
-
- Several people read letters and tell what is unclear
 - SNAP Service helps to make easier to read letters

Need for change of tactics: what if we involved designers?

WRONG ASSUMPTIONS:

1. the better people are informed, the more likely they are to act on the information provided (*... they might still have different opinion or feel overloaded with information*)
2. If you provide people with the opportunity to participate / give their opinion / contribute to a public cause, they will in numbers act on it. (*... in our 8 000 inhabitants districts only 15 show up*)

PARADIGM SHIFT:

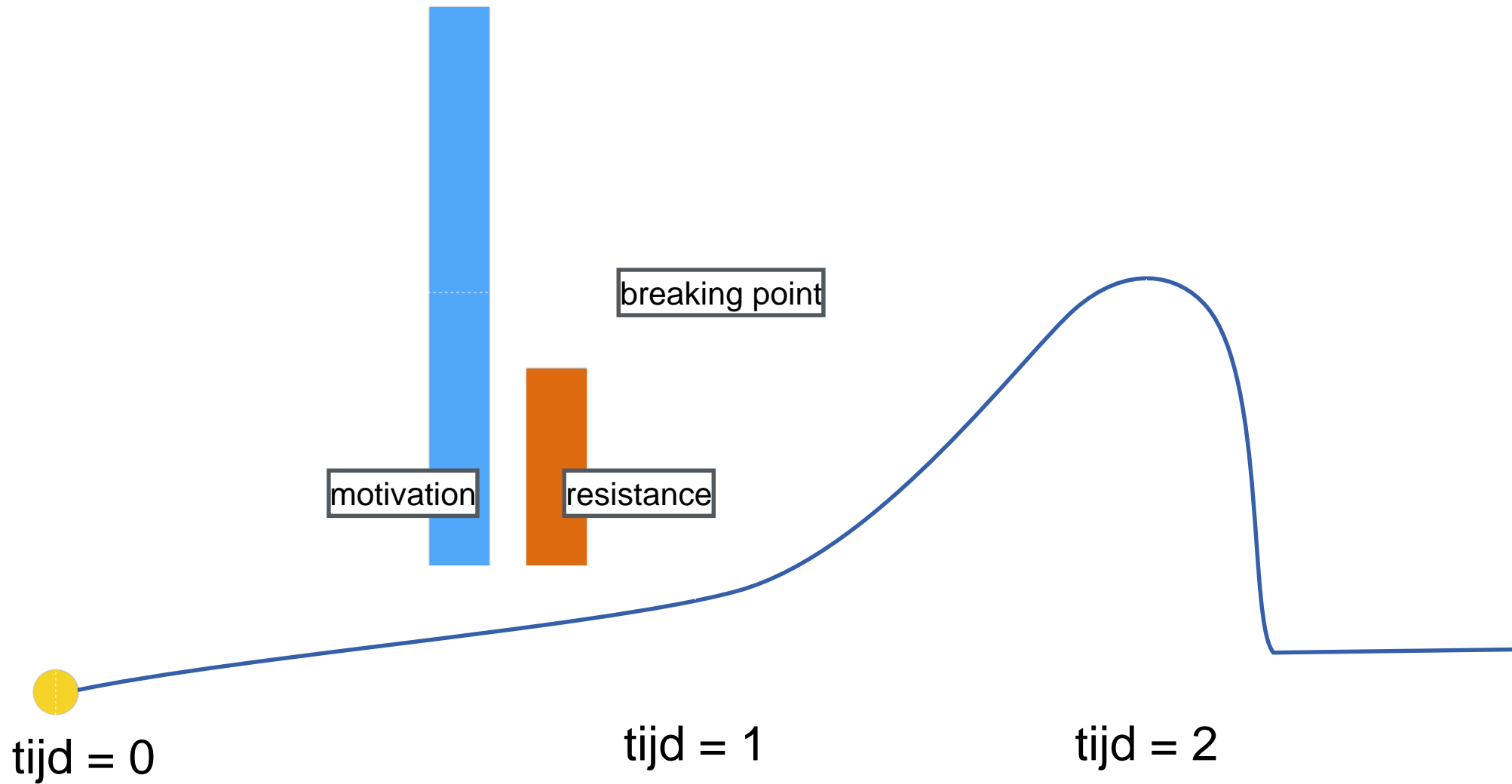
1. Raise intrinsic motivation from people to participate (beyond more information)
2. Lowering the effort for the person to achieve the goal we have in mind

We call this Low Effort design

This means lower effort on the side of the citizen but higher effort on the side of the party formulating the ambition

THE LESS IS BETTER LENS





Less

- hassle
- process steps
- money
- effort
- words
- jargon
- breaking points in the process
- annoyance

Low effort design

Implemented change of tactics

Communication in
different languages



Dutch, English, Turkish, Arabic



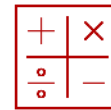
Newly produced brochure
Model house

More responsibility tenants

Tenants training/
communicating to other
tenants



More contact moments
smaller porch meetings
plenary meeting
Independent chairman



Individual energy calculations (before
and after)

Individual house visits

Cooperation Agreement Document
Project Agreement Document



Excursion trips
Celebrate together



Experience new installations



Key lessons learned

All too often a lack of capacity leads to a very limited implementation of citizen engagement activities or even none at all.

- Build capacities into your projects or organisations.
- Timely engagement and frontloading. Will build trust
- Low effort design: try to get into their 'comfort zones' instead of inviting them to our 'comfort zone'
- Use local ambassadors as change agents
- Allocate higher percentage of budget to citizen engagement to create low-effort designs

<https://smartcities-infosystem.eu/content/citizen-engagement>





Thank you for attending

Questions?



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