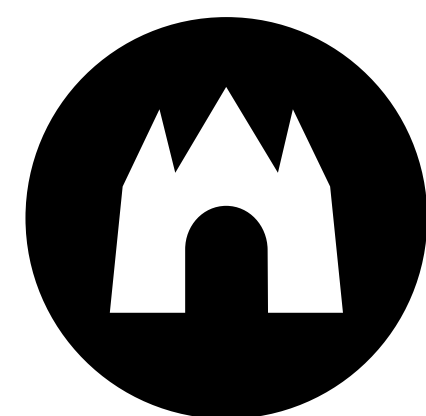




open-
-fair
inclu-
-sive



waag
technology & society

Urban entanglements

3rd annual conference Institute of Network Society:
Panel 3: Intelligent Organs

21-11-2018, Hangzhou
Chris Julien, Research Director Waag



about waag

‘Making technology & society more open, fair and inclusive.’

An independent research institution founded in 1994.

60 employees, a total of circa 150 associated researchers and makers annually.

Ethos based on hacker/maker culture, artistic collaboration and activism.



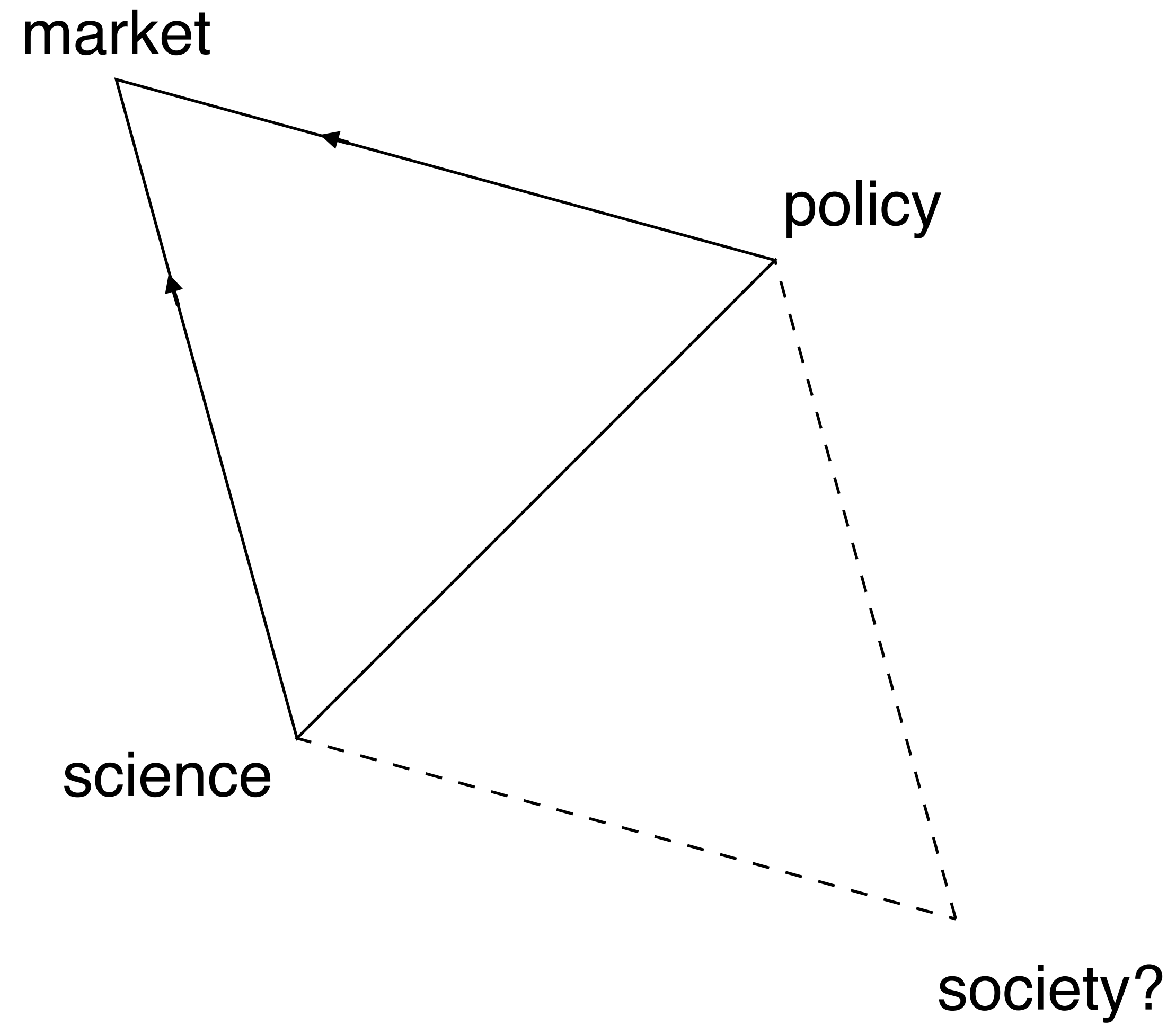
d'oude S^t Antonies poort te amsterdam



1. innovation schema

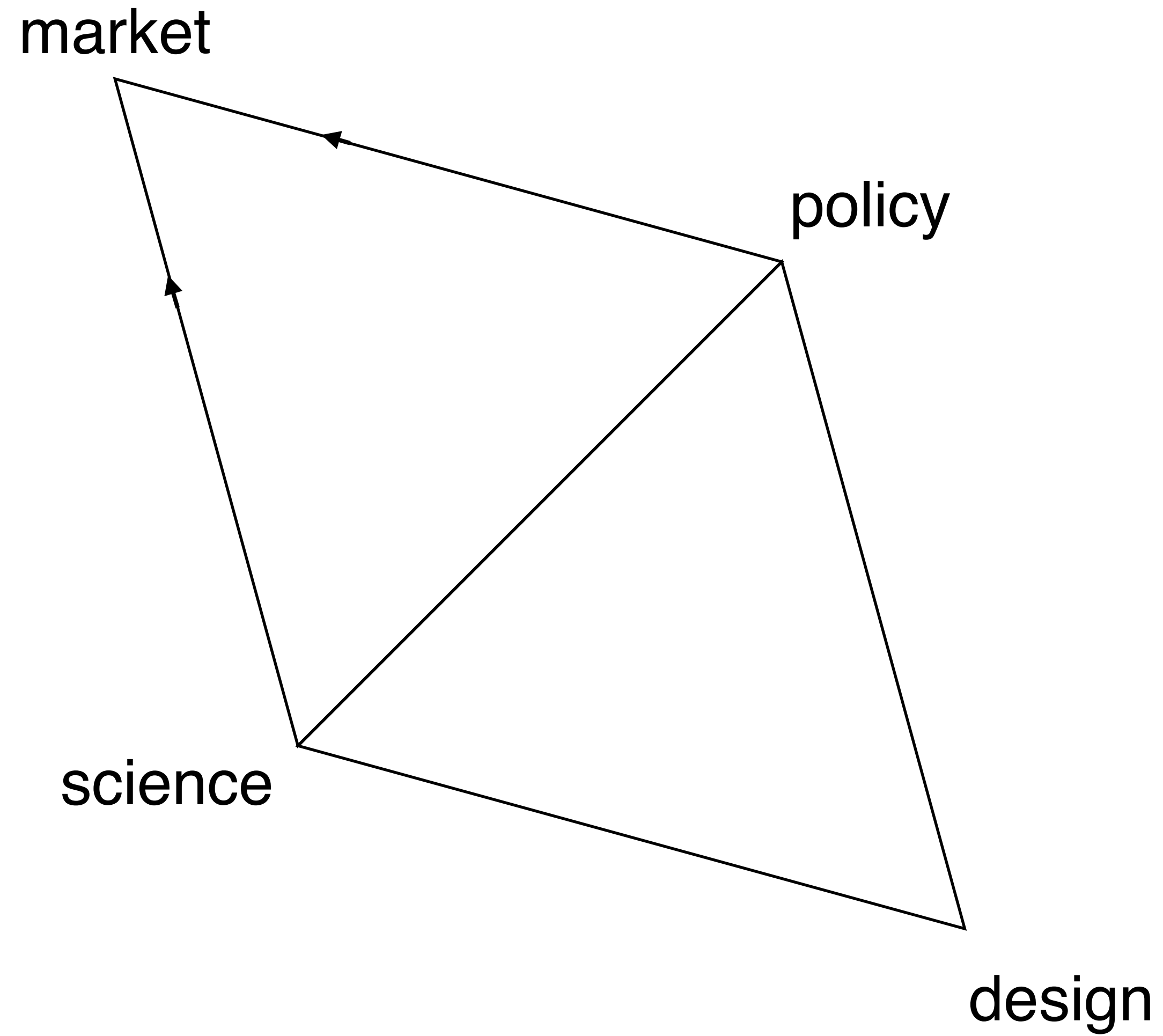


innovation schema





innovation schema





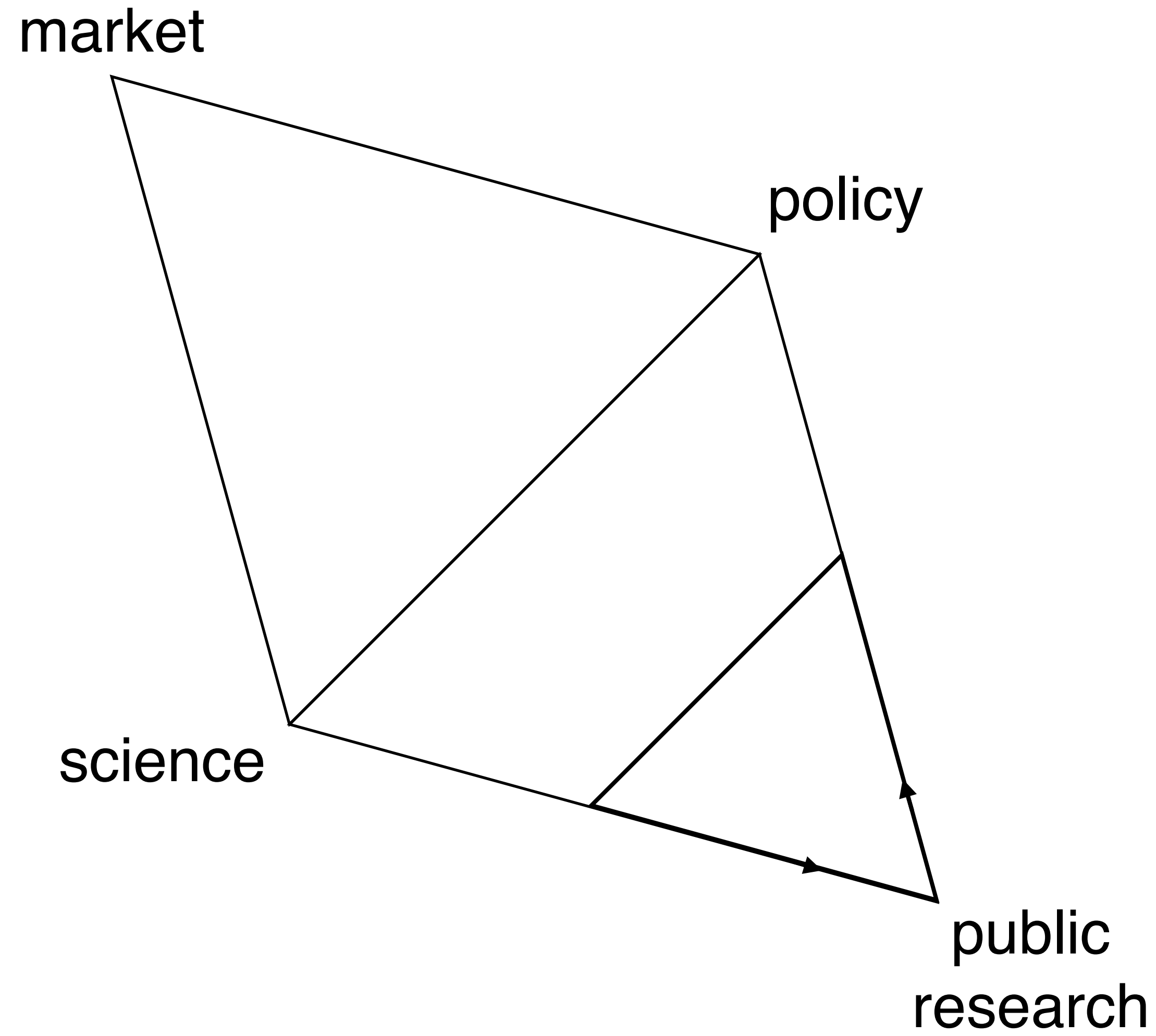
innovation schema

"The city is defined in part by how people witness each other, reflect on events and have shared authorship in decision making. Design can shape such processes, is plural and inclusive, which is why it has a new and major role in the city."

— Caroline Nevejan, Chief Science Officer Amsterdam (2018)

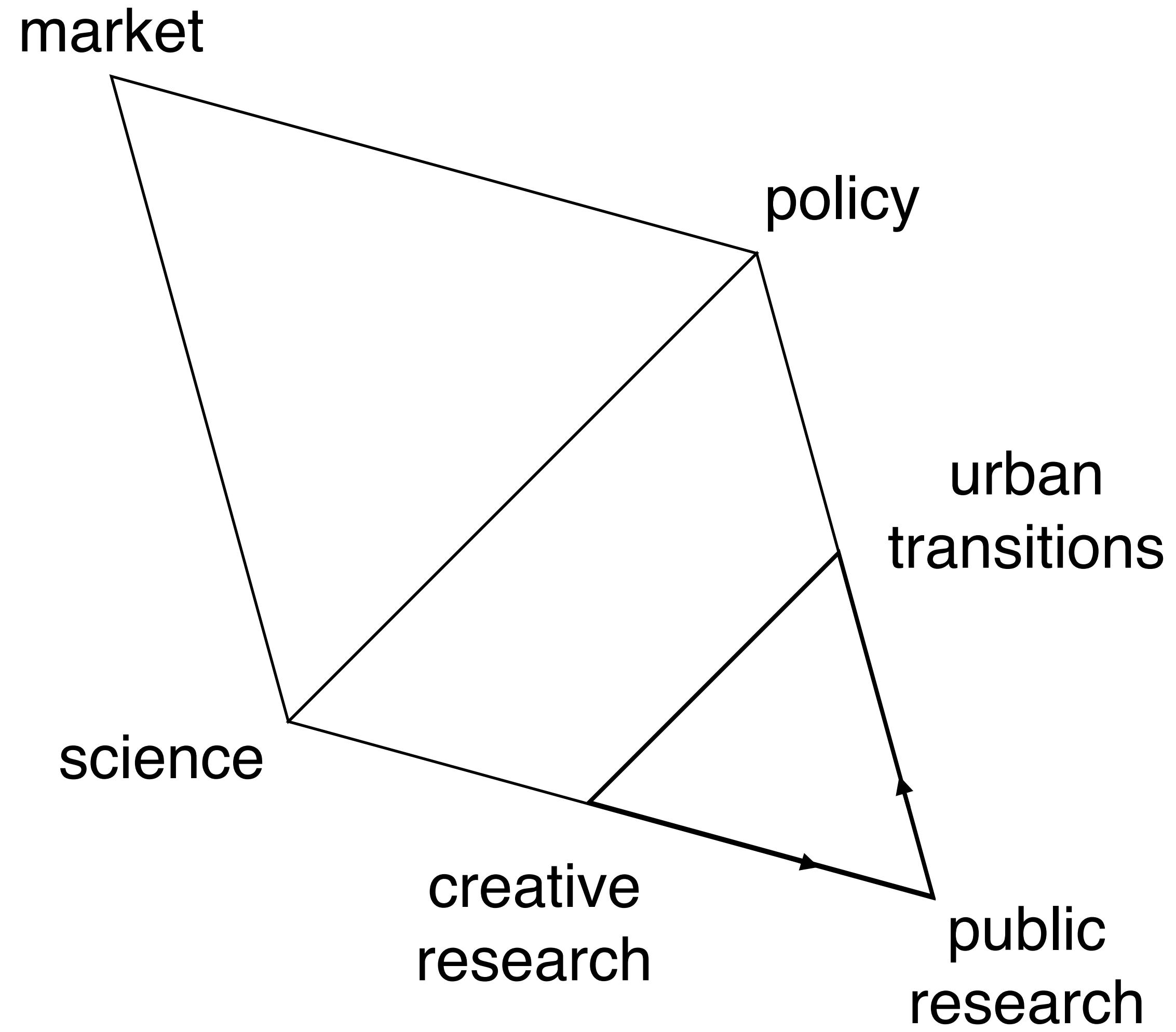


innovation schema



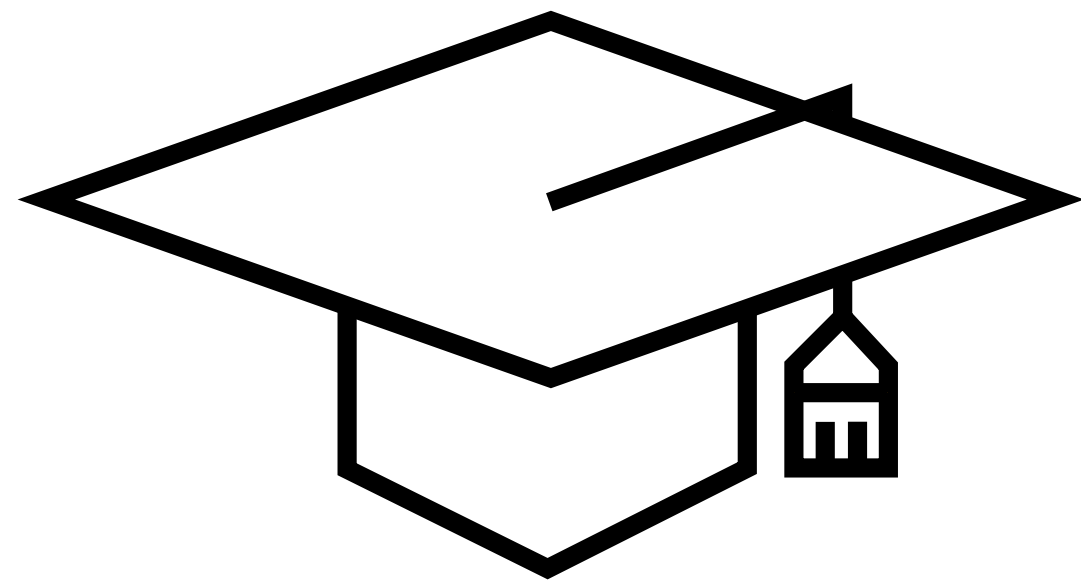


innovation schema

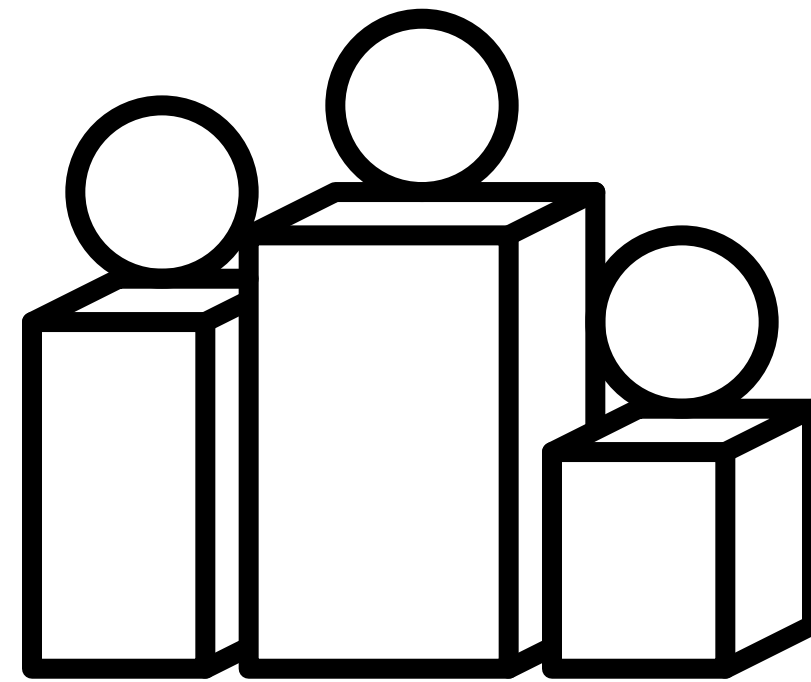




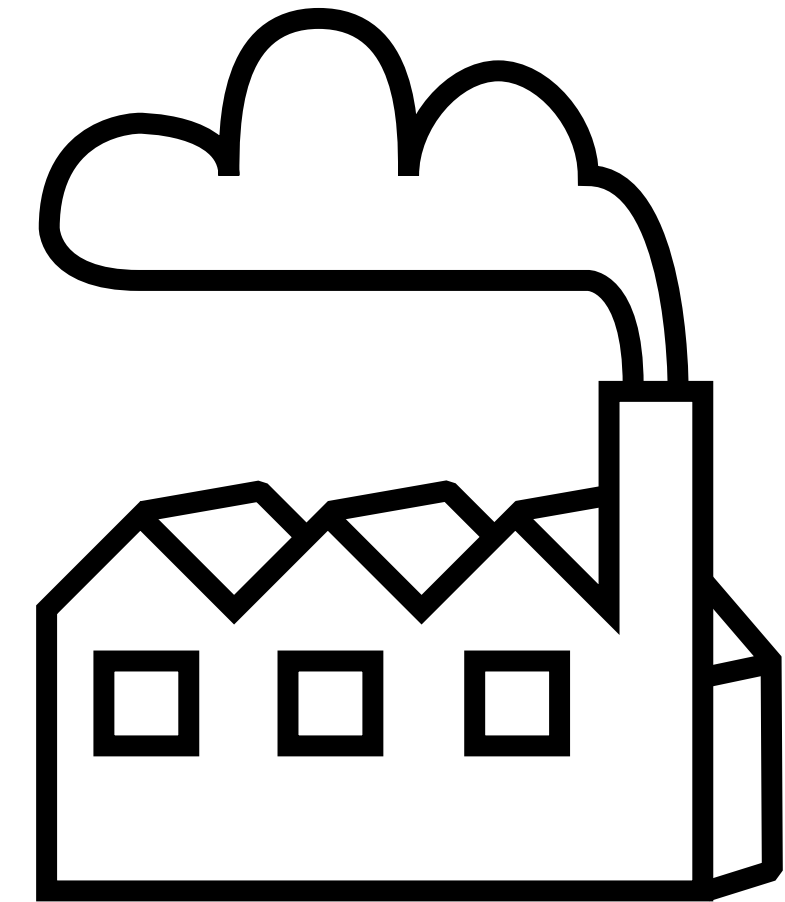
public research



academic research
matters of fact



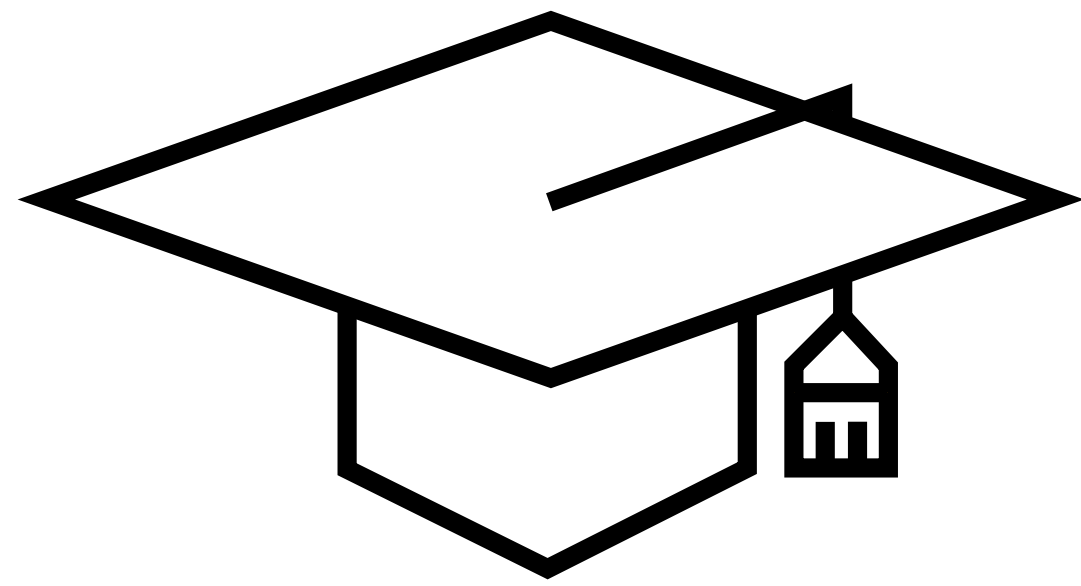
public research
matters of concern



industry research
matters of interest

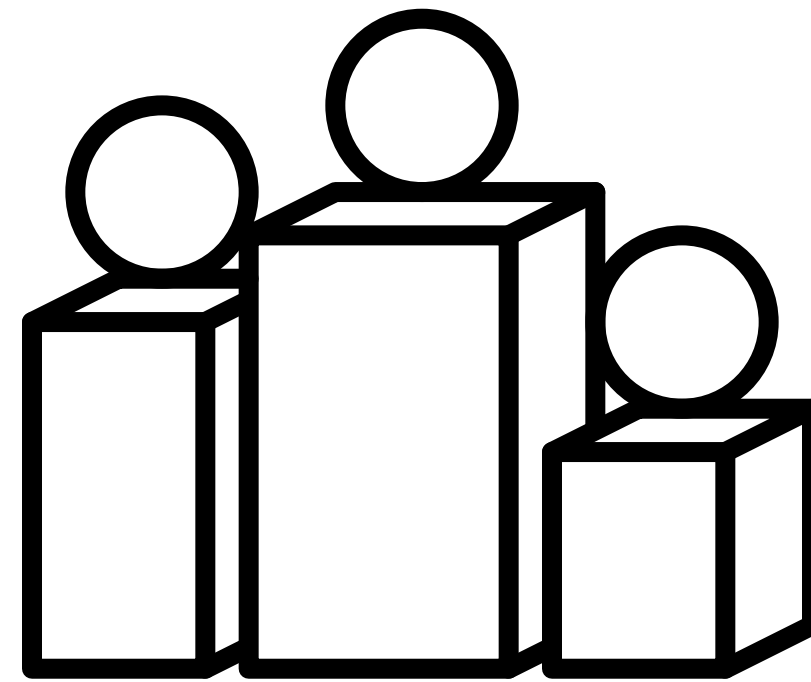


public research



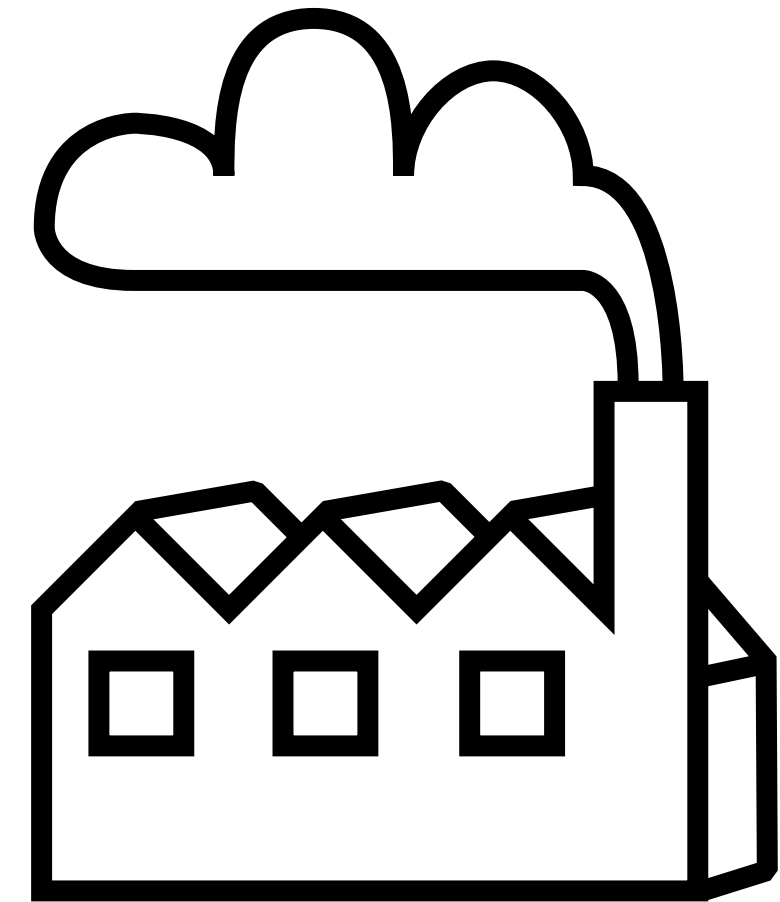
academic research matters of fact

Disciplinary heritage
Scientific community
Scientific questions
Objectivity framing
Peer review/falsification



public research matters of concern

Interdisciplinary approach
Society as research community
Ethical questions
Cultural framing
Societal relevance of outcomes

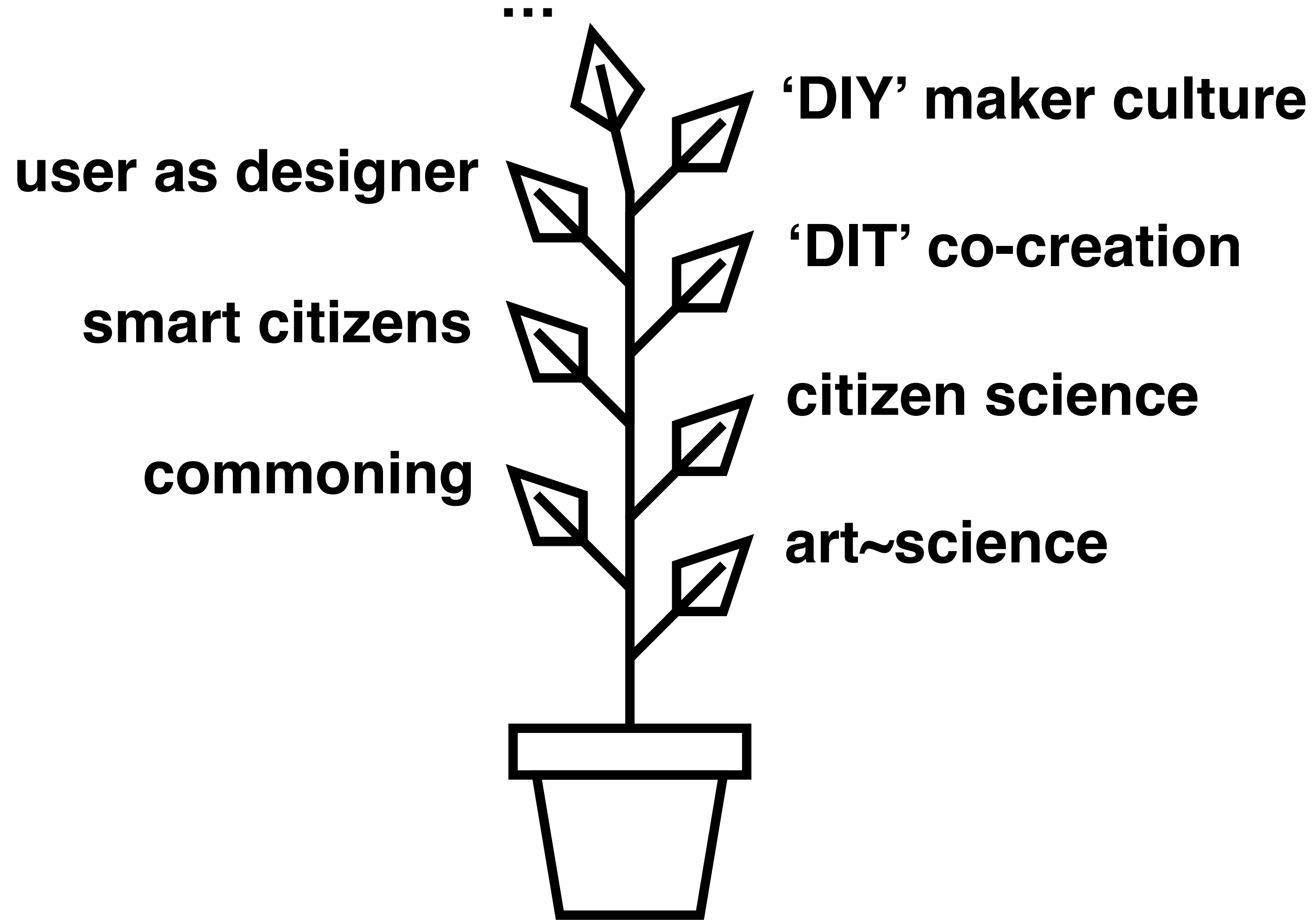


industry research matters of interest

Solutionist approach
Market validation
Entrepreneurial questions
Utilitarian framing
Commercial viability



public research - practices





2. urban entanglements





installing subjectivity

the city as a networked machine



“A thoroughly heterogeneous set consisting of discourses, institutions, architectural forms, regulatory decisions, laws, administrative measures, scientific statements, philosophical, moral and philanthropic propositions ... The apparatus itself is the network that can be established between these elements.”

— Michel Foucault, in an interview, 1977



installing subjectivity

installing the urban subject



“What was new, in the eighteenth century, was that ... the disciplines crossed a ‘technological’ threshold. First the hospital, then the school, then, later, the workshop ... became apparatuses such that any mechanism of objectification could be used in them as an instrument of subjection.”

— Michel Foucault, *Discipline and Punish*, 1977



unpacking the stack

state in the machine

“For our purposes it is far less important how the machine represents a politics than how ‘politics’ physically *is* that machinic system... At stake is more than a new way for states to operate or a new set of technologies requiring governance; rather, it is a scale of technology that comes to absorb functions of the state and the work of governance.”



— Benjamin Bratton, *the Stack*, 2017



unpacking the stack

software subjection

For any grid, the reversible interfacial surface of the urban fabric can produce a durable *User* subject because it also by definition is a potential technology of capture and control ... In software, the design of a program both enables and configures the quality of a *User's* agency in relation to particular hardware and sets of actions that might be taken with it. ”



— Benjamin Bratton, *the Stack*, 2017



entangled phenomena

meta position



‘Technology is not neutral. We're inside of what we make, and it's inside of us. We're living in a world of connections — and it matters which ones get made and unmade.’

— Donna Haraway, *Cyborg Manifesto*



entangled phenomena

knowledge/reality machines



“Apparatuses are the material conditions of possibility and impossibility of mattering; they enact what matters and what is excluded from mattering. Apparatuses enact agential cuts that produce determinate boundaries and properties of ‘entities’ within phenomena.”

— Karen Barad, *Meeting the Universe Halfway*, 2007



3. intelligent organs





intelligent organs

Making Sense:
participatory sensing

By collectively measuring and making sense of our environment, citizens can become aware of how they affect the ecosystem and be inspired to adopt more sustainable behaviour.



Making Sense

**A NEW APPROACH TO
CITIZEN SCIENCE**

Co-creating technology for change with concerned communities



intelligent organs

Amsterdam Sounds: participatory sensing

Setting up a citizens' measuring network for sound to combat sound pollution with the CTO and Ombudsman of Amsterdam.





intelligent organs

Co-creation navigator: creating research communities

A toolkit that guides practitioners through the steps of co-creation, from preparation to execution, using diverse methods from Waag and others.

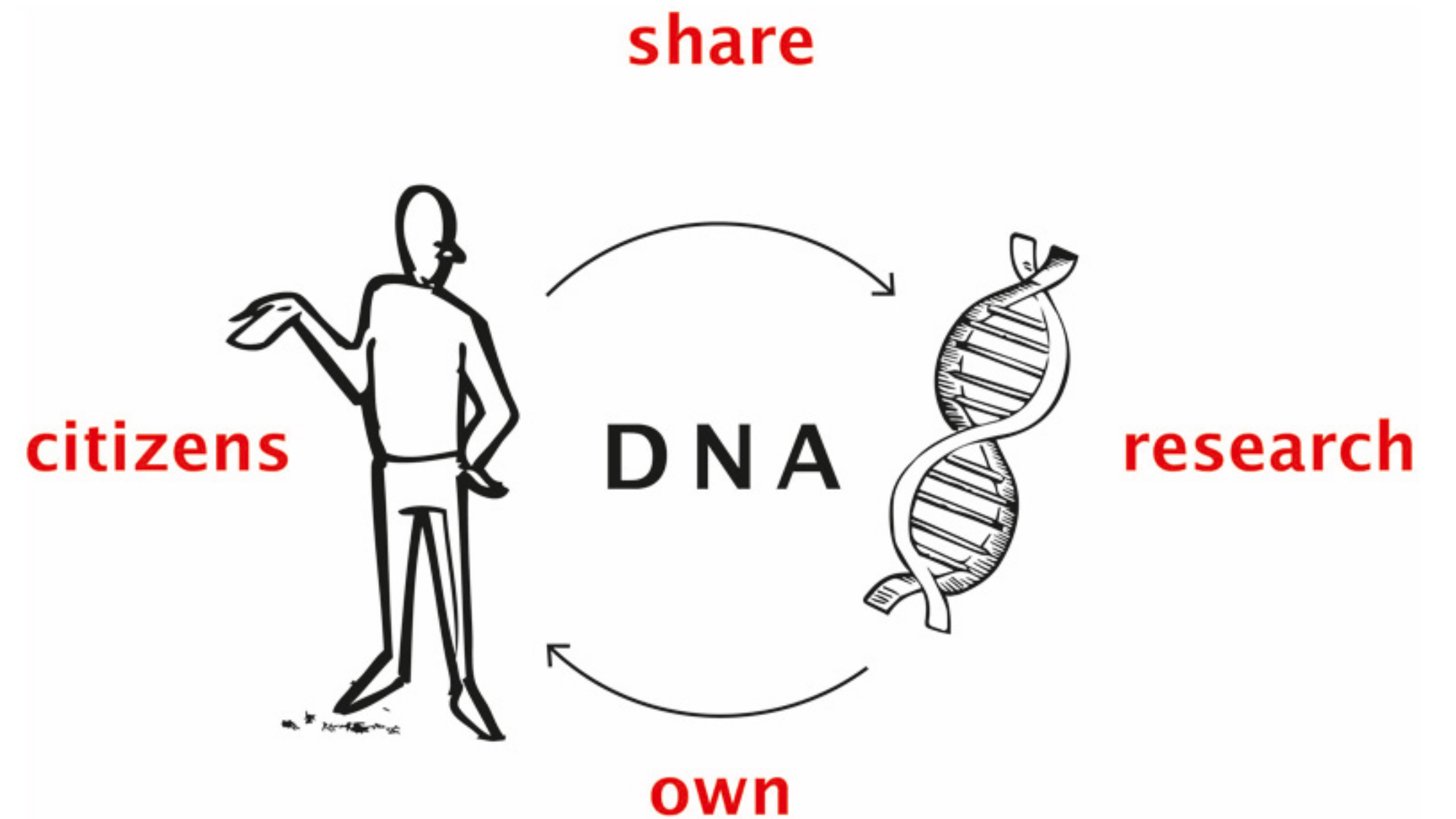




intelligent organs

Gene.coop:
cooperative genetic database

Gene.coop is a cooperative in which your DNA is stored and only made available to third parties under conditions determined by you.



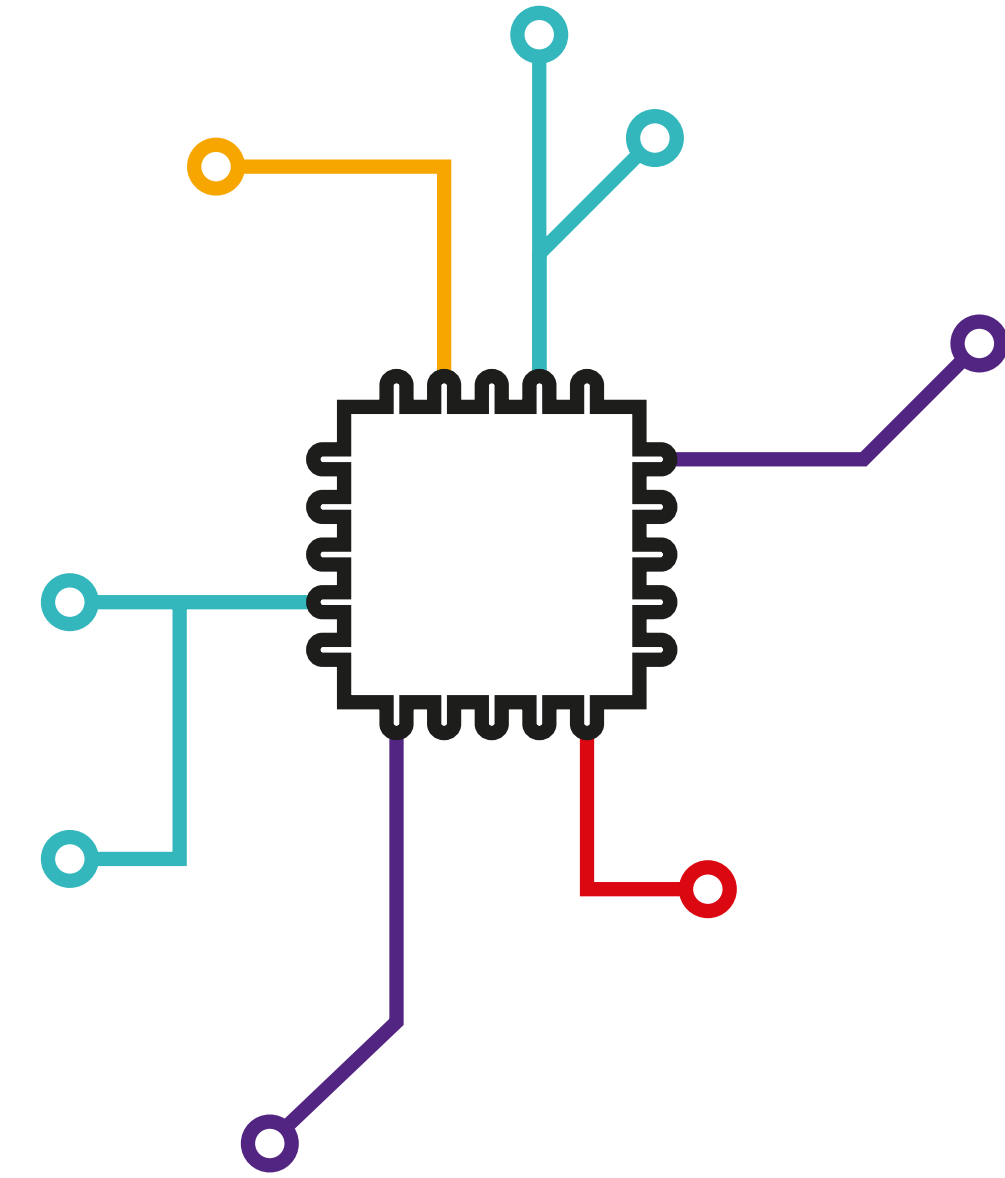


intelligent organs

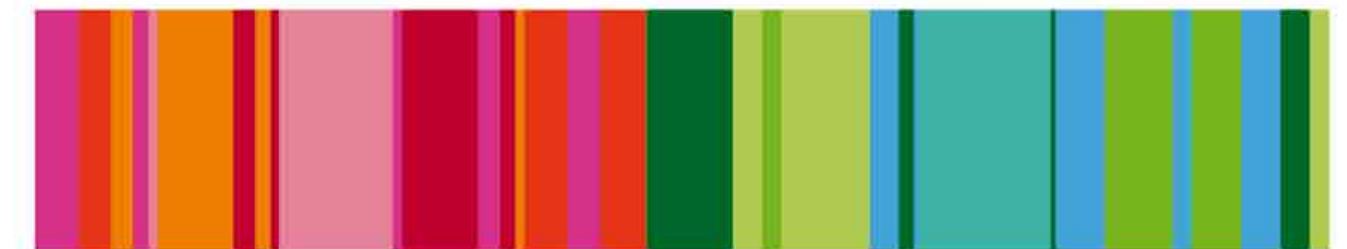
AI for Society:

understanding bias as culture

Collaborative research between
artists and scientists into creative
and civic use-cases for AI.



AMSTERDAM
SCIENCE PARK





Thank you.

chris@waag.org

