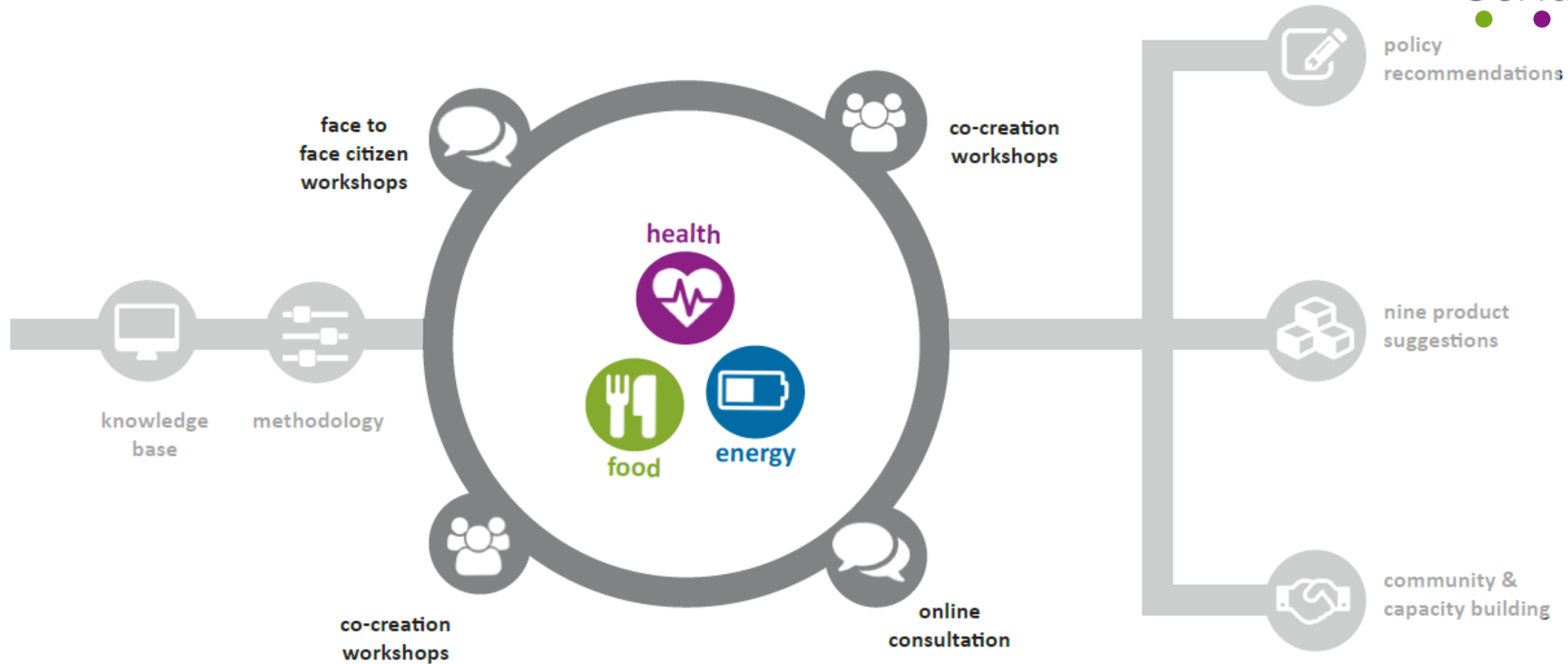
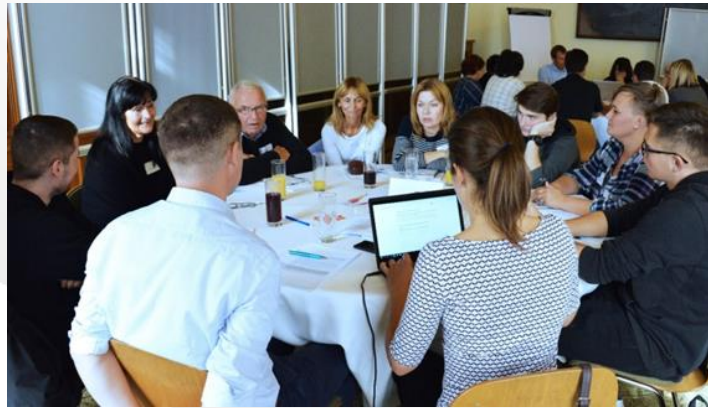


# Co-creation process



# Results from the citizen consultation

## Nanotechnologies in Food



## Nanotechnologies in Energy






## Nanotechnologies in Health



gonano-project - youtube

# Results from the citizen consultation

Where and when	# participants (m/f)	Characteristics of participants
<b>Nanotechnologies in Food</b> , The Technology Centre of the Czech Academy of Sciences, Prague, Czech Republic, October 20, 2018	48 (24/24) 	Balanced across gender, age, education, economic activity, and place of residence.
<b>Nanotechnologies in Energy</b> , Royal Melbourne Institute of Technology Spain, Barcelona, Spain, October 26, 2018	21 (6/15) 	Majority female, <b>highly educated</b> and mostly from urban centres, wide age range.
<b>Nanotechnologies in Health</b> , DesignLab, University of Twente, the Netherlands, November 24, 2018	50 (27/23) 	Most demographic criteria were fulfilled, except for the level of education. Citizens were mainly <b>higher educated</b> , a few middle-educated, but no lower-educated people participated in the citizen consultation.

# Results from the citizen consultation



Workshop format:

- (i) discussion of future scenarios,
- (ii) creation of ideal technologies,
- (iii) messages to stakeholders.

# Results from the citizen consultation

Workshop format:

(i) discussion of future scenarios,

Future visions of  
nanotechnology and  
food in 2030

Dreaming of Carrot Cake



# Results from the citizen consultation

## (ii) creation of ideal technologies

### Nano-bal (IQ bal)

This product is a smart package which can be used mainly in the food area, particularly food packaging. The plastic bottles, sachets, bags, etc. will not be required anymore. This nano-package is able to monitor the durability of the product (in the form of colour scale of the traffic lights).

It's possible to regulate durability according to the type of product thanks to so called accelerator in a powder form, which enables the package to decompose within a few months.

#### Benefits:

- End users
- Store chains
- Farmers
- Future generations



# Results from the citizen consultation

## (ii) creation of ideal technologies

### MES (Mobile Energetic Sheet)

A sheet-like structure for climate control in buildings.

- Transparent appearance, unnoticeable from outside.
- Lightweight and rollable.
- Easily to use and possible to personalise.
- Adaptable to any space.
- Easy to mount.
- Made from recyclable materials.
- Self-cleaning.
- Blocks infra-red. Captures solar energy. Results in huge energy savings.
- Improves our daily lives without disrupting the surroundings at any time of the year.



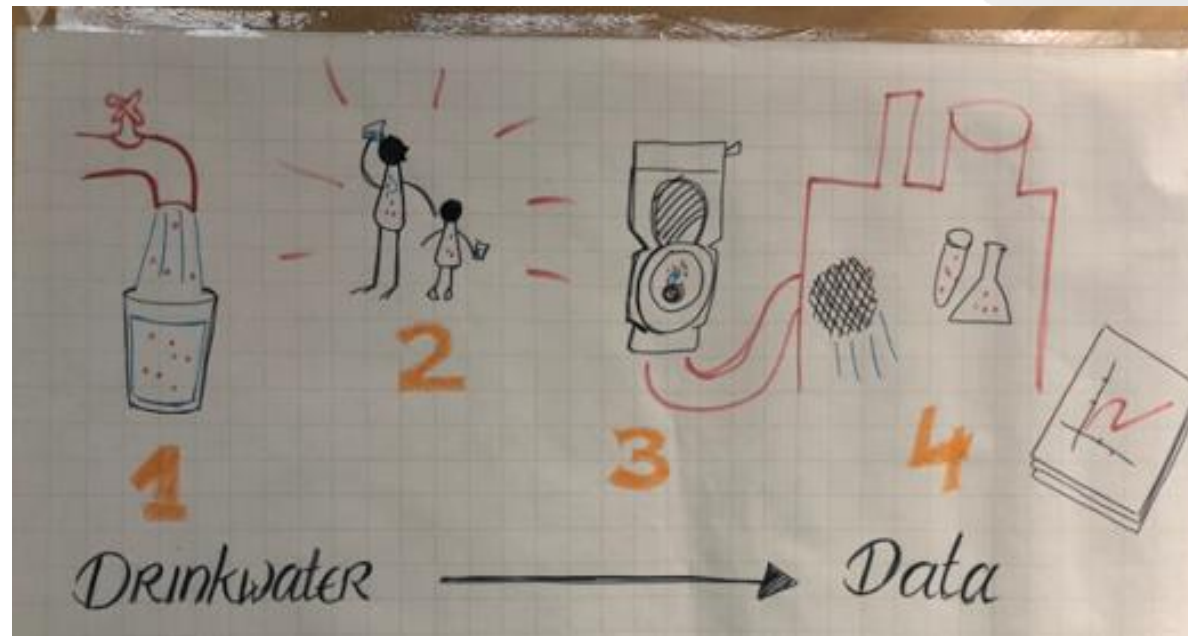
# Results from the citizen consultation

## (ii) creation of ideal technologies

### Health monitoring through urine

A device that can be placed on toilets and measures biomarkers in urine. Data is going to a regional database, that measures and recognizes patterns of health on a regional scale. Based on these data the municipal health authority can launch targeted health campaigns, and targeted actions (e.g., regional health check). Also (potential) epidemics can be detected.

- Not individually based, but based on large amounts of data
- Regionalized healthcare
- Targeted campaigns
- Early detection of epidemics
- Pattern recognition
- Non-invasive
- Can be placed in public toilets



# Results from the citizen consultation



Workshop format:

- (i) discussion of future scenarios,
- (ii) creation of ideal technologies,
- (iii) messages to stakeholders.**

# Results from the citizen consultation



*“Policy makers should support and invest in research. Simple and clear legislation should make the implementation of new technologies easier.”*

*“Technologies should be safe and they should protect the environment.”*



*“I want batteries that last longer, are more sustainable, and are highly recyclable.”*

*“I want sustainable products, with no programmed obsolescence and easy maintenance.”*



*“When developing technologies that collect and/or store data, make sure these data are collected in a secure way.”*

*“Developments in healthcare should not be at cost of accessibility to healthcare.”*

Social needs / values	Food	Energy	Health
Sustainability	x	x	x
Affordability	x	x	x
Accessibility	x	x	x
Human health	x	x	x
Trust			x
Environmental protection	x	x	x
Respect for nature	x	x	
Family (future generation)	x		
Responsibility	x	x	x
Safety	x	x	x
Reliability	x	x	x
Wellbeing	x	x	x
Transparency	x	x	x
Recycling (circular economy)	x	x	
Water protection	x	x	
Freedom of choice		x	x
Privacy (data)			x