waag
future lab

Data commons and chronic health
NeLL 27.11.20

Marleen Stikker

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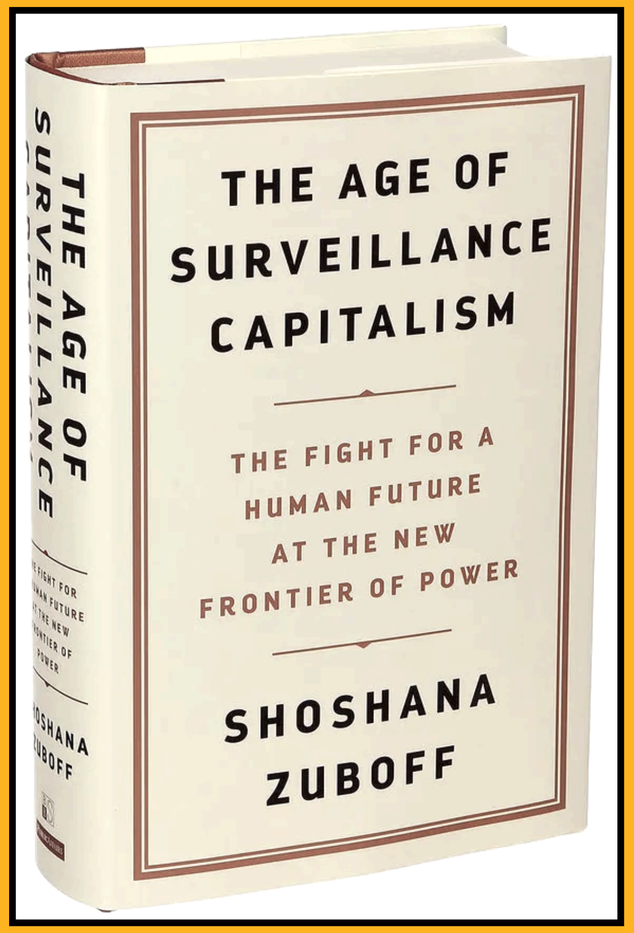
The internet is broken ...


WE DO NOT
CONSENT TO YOUR
TECHNOCRACY
DON'T BLOCKCHAIN
OUR BABIES! WORLD
ECONOMIC FORUM


THE AGE OF SURVEILLANCE CAPITALISM
THE FIGHT FOR A HUMAN FUTURE AT THE NEW FRONTIER OF POWER
SHOSHANA ZUBOFF


MAKE THE ROAD NEW YORK
amazon
PUT KIDS IN CAGES
ICE DIDNT DO IT ALONE
WWW.MAKETHEROADNY.ORG


NOT OK
Google


'Utterly horrifying': ex-Facebook insider says covert data harvesting was routine


Walkout
FOR REAL CHANGE
go/walkout-info
11/1 @ 11:10am

It’s the businessmodel, stupid

“ THE SPINNER

Get your partner to...

... propose marriage!
... try polyamory!
... get a breast augmentation!
... quit gaming!
... quit smoking pot!
... accept your gaming habit!
... accept your pot smoking habit!”

Bron: thespinner.net

“The most potent weapon in the hands
of the oppressor is the mind
of the oppressed.”

- Steve Biko

... but we can fix it

1. Change the Narrative

demystification | societal intelligence

2. Rule of Law

Break up big tech

3. Reclaim Economics

Commons not markets at the centre

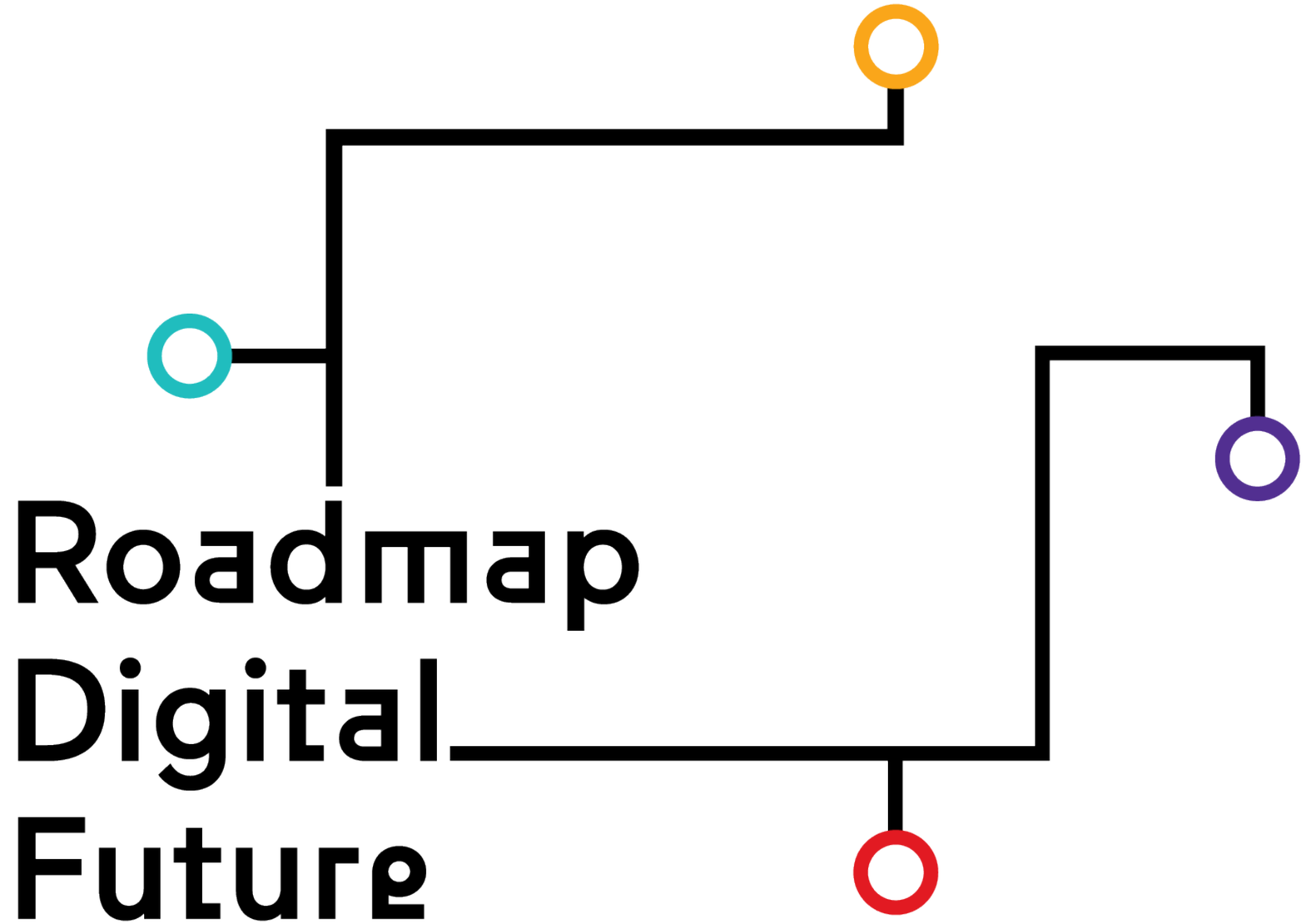
4. Transformative Innovation

Interdisciplinary and inclusive design

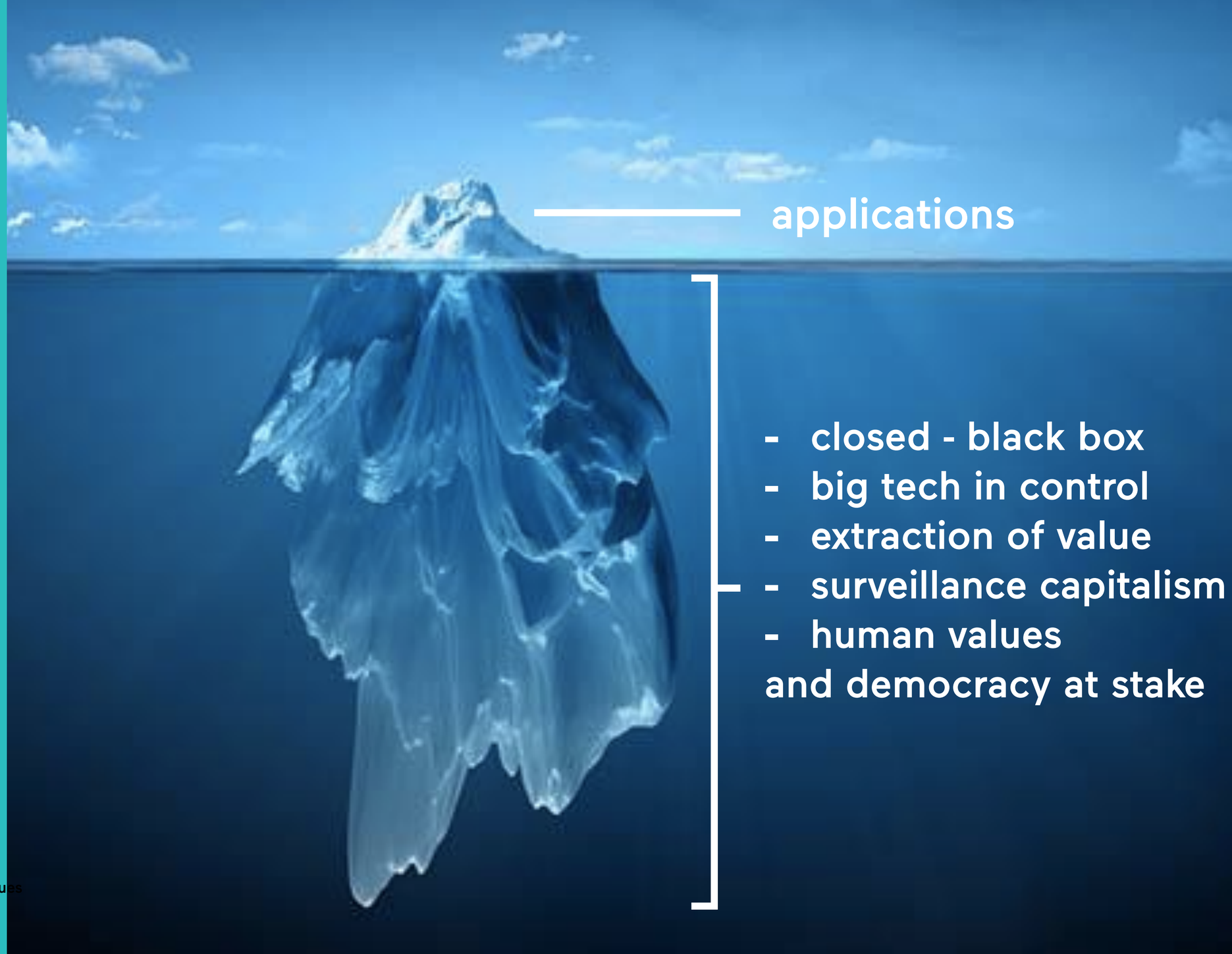
5. Open Digital Public Spaces

Internet as a commons

technology is not neutral

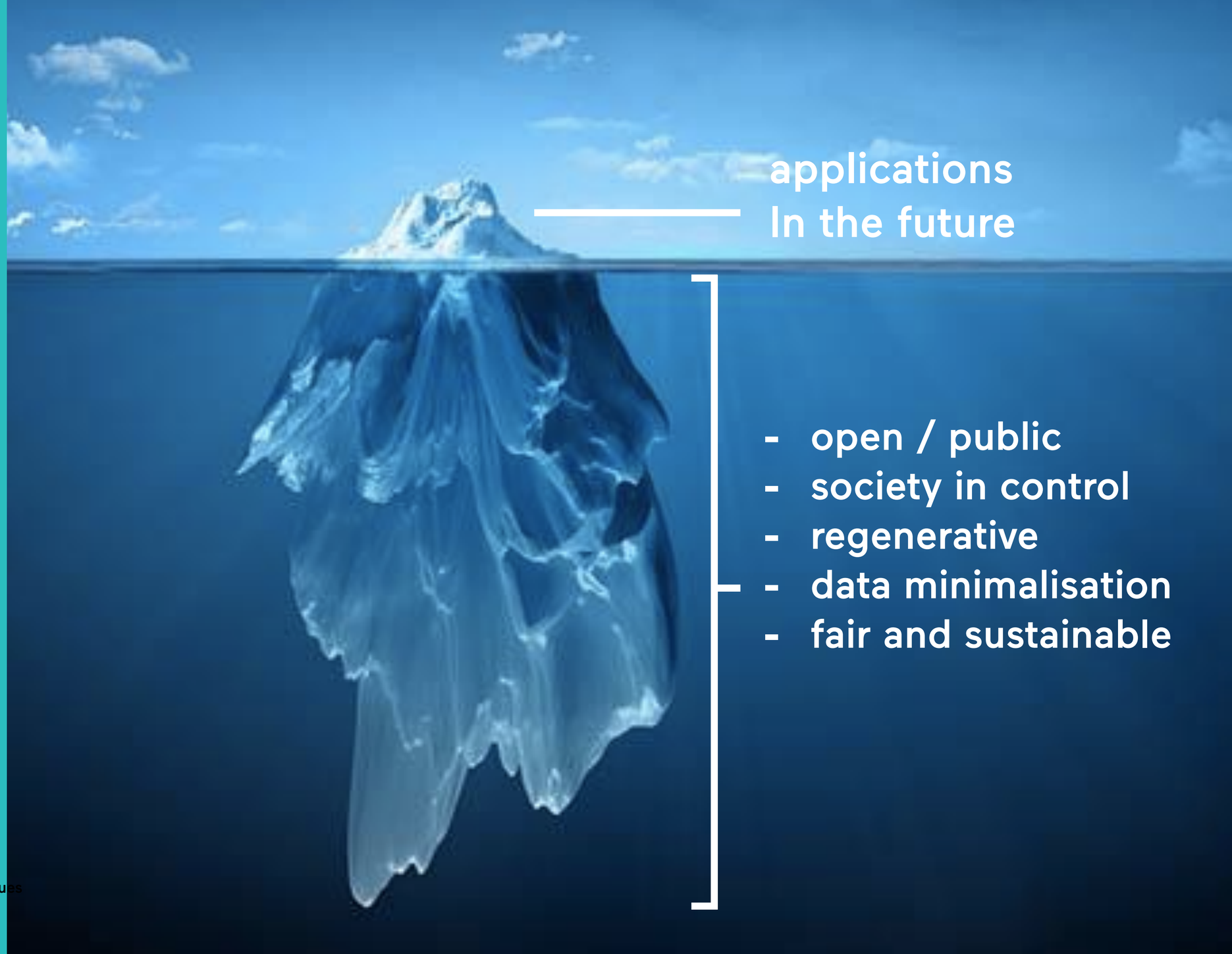


Where we are



values

Where we want to go



values

How to keep critical and essential technologies open?

Da Vinci surgical systems

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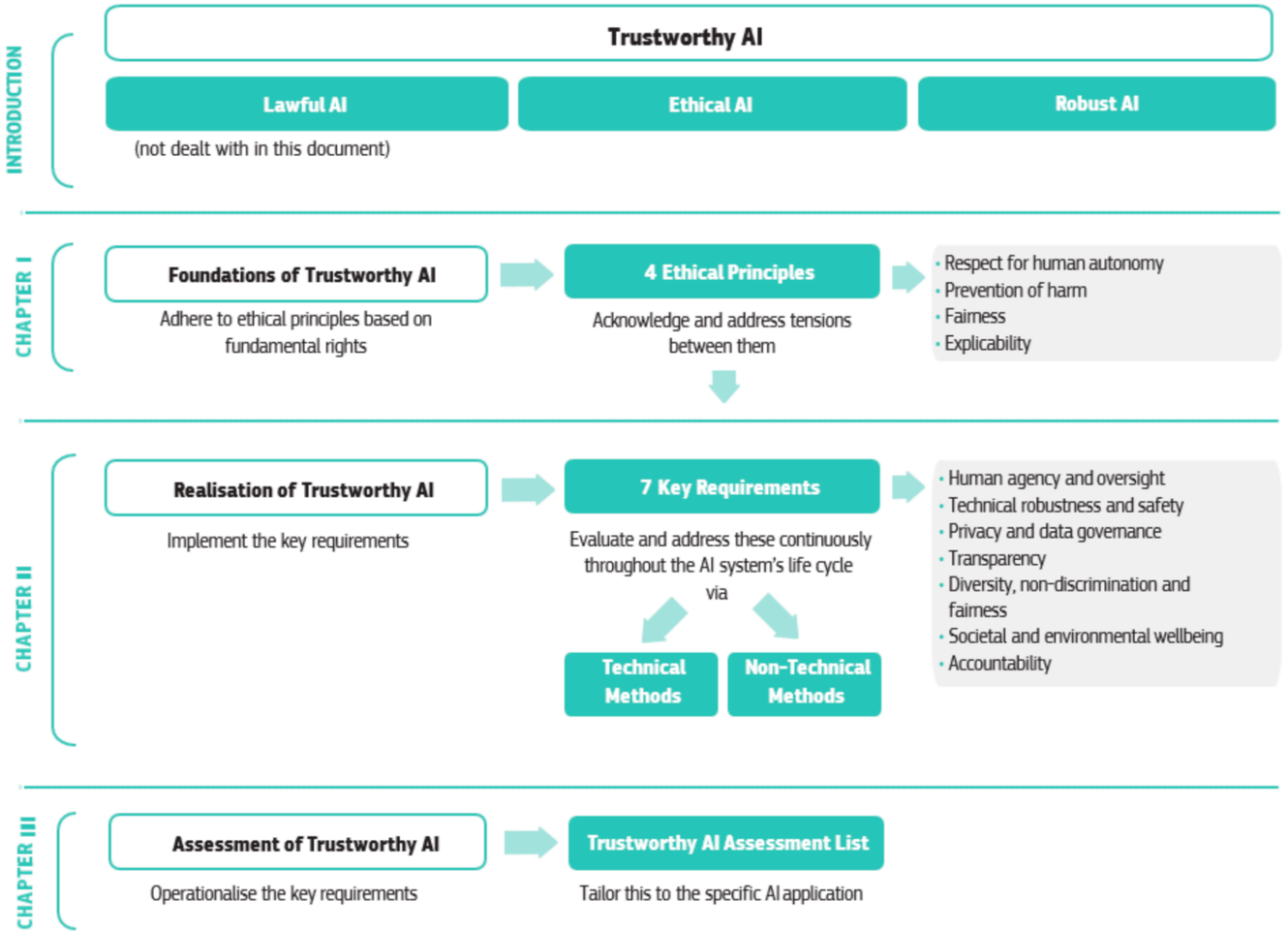
Open Surgery (2016)

Frank Kolkman

Frank Kolkman investigates whether DIY surgical tools could be an accessible alternatives to the costly medical health services worldwide. Inspired by the discovery of a slew of YouTube video’s in which uninsured Americans can be seen performing basic operations for others to imitate, the project extrapolates on this phenomenon by proposing a DIY robot assisted surgery system for domestic keyhole surgery.

Who owns the AI?



https://ec.europa.eu/digital-single-market/en/news/ethics-guidelines-trustworthy-ai

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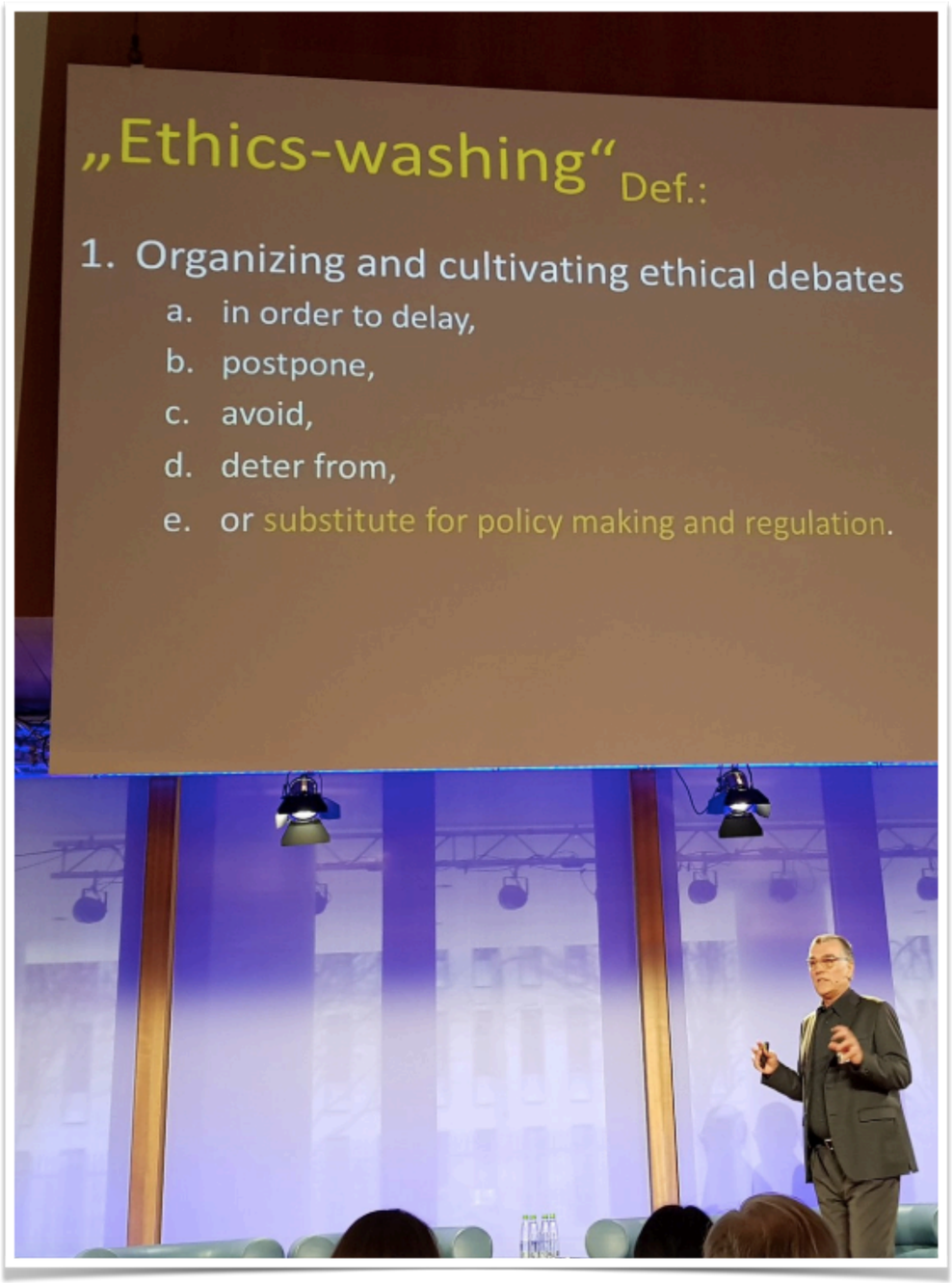
Beware of Ethics-washing

Definition by Thomas Metzinger:

Organising and cultivating ethical debates
in order to
a. delay,
b. postpone,
c. avoid,
d. deter from,
e. or substitute for policy making and regulation.



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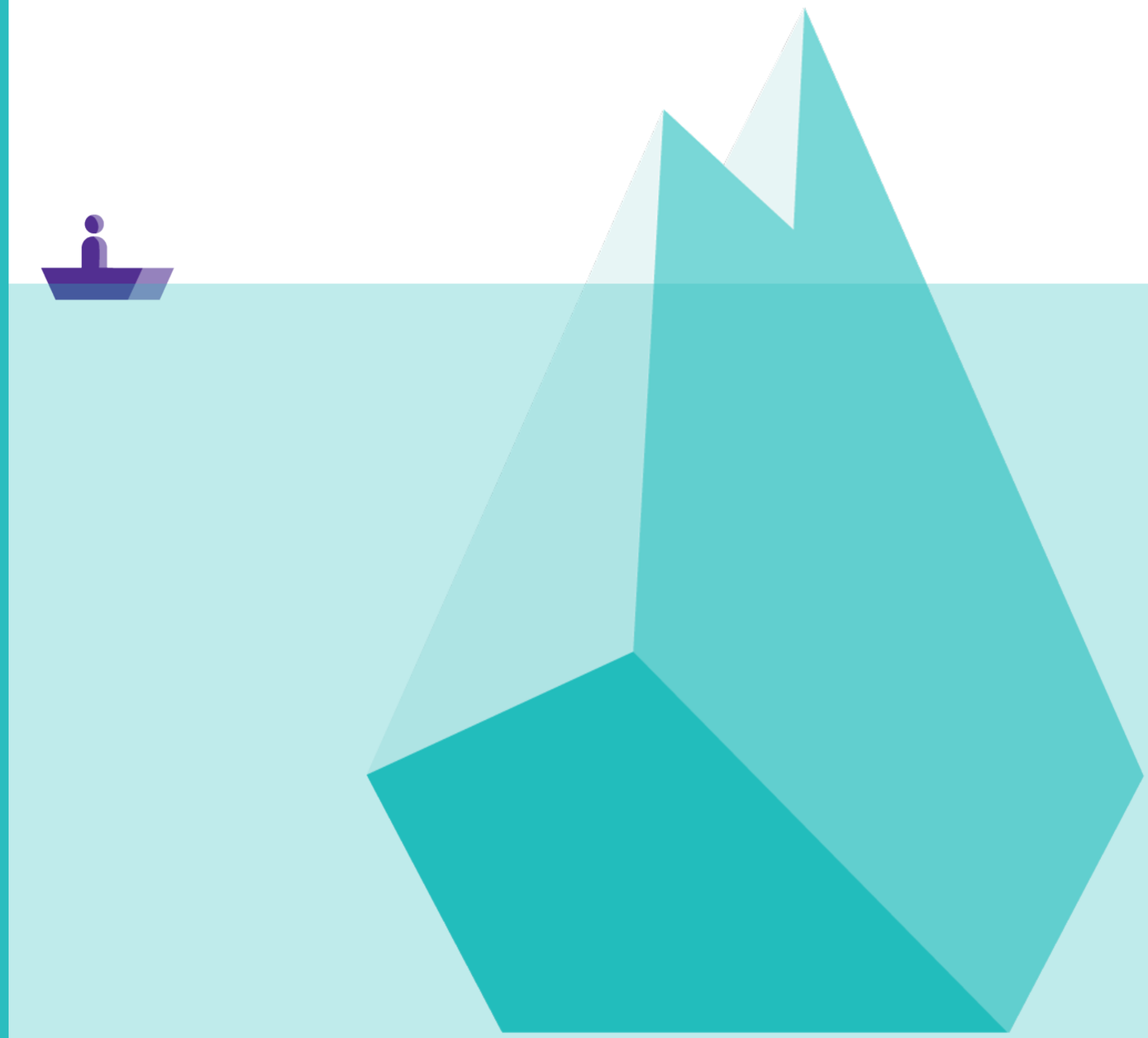
IF YOU CAN'T
OPEN IT,
YOU DON'T OWN IT
makezine.com

most of technology is invisible



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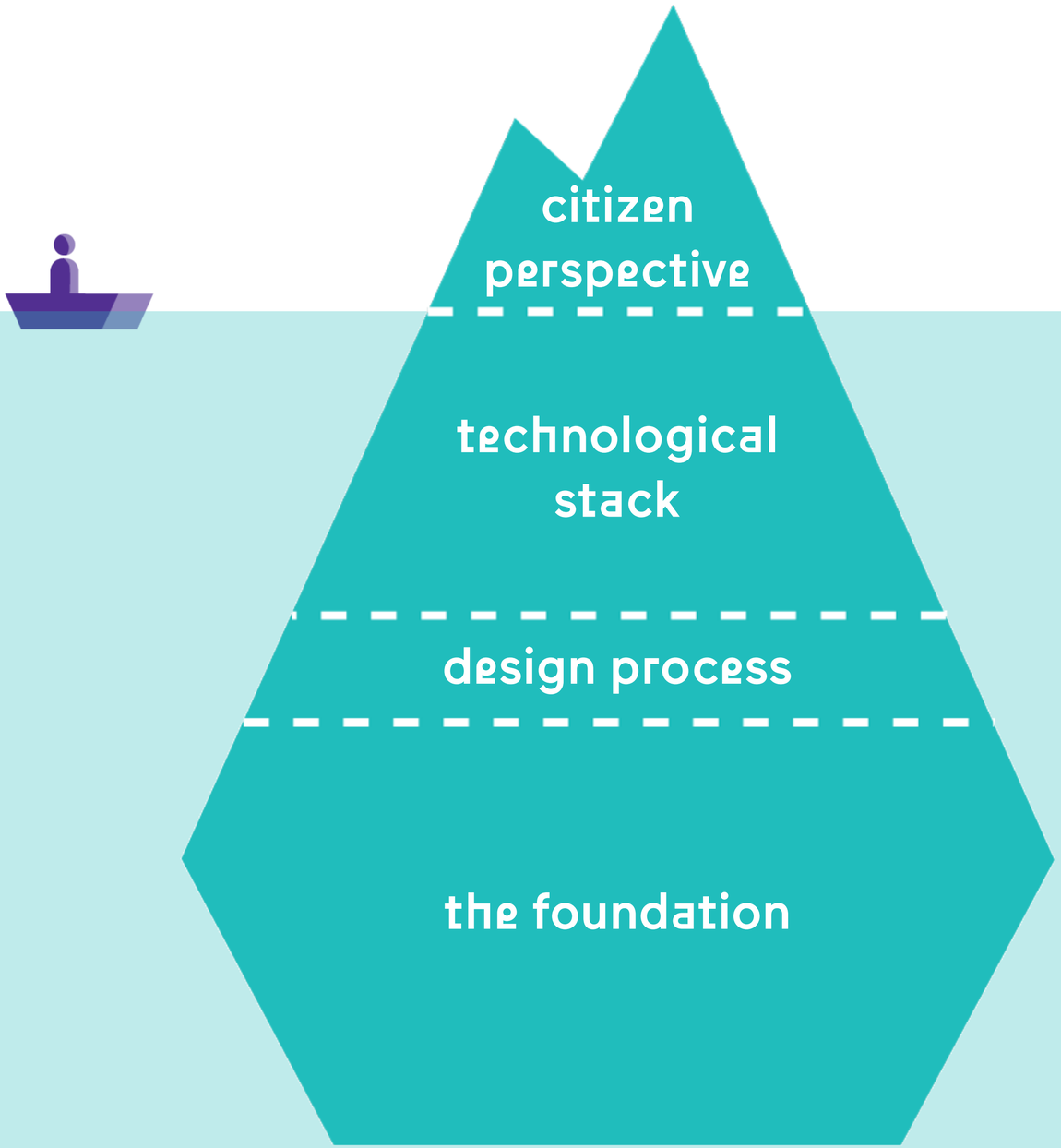
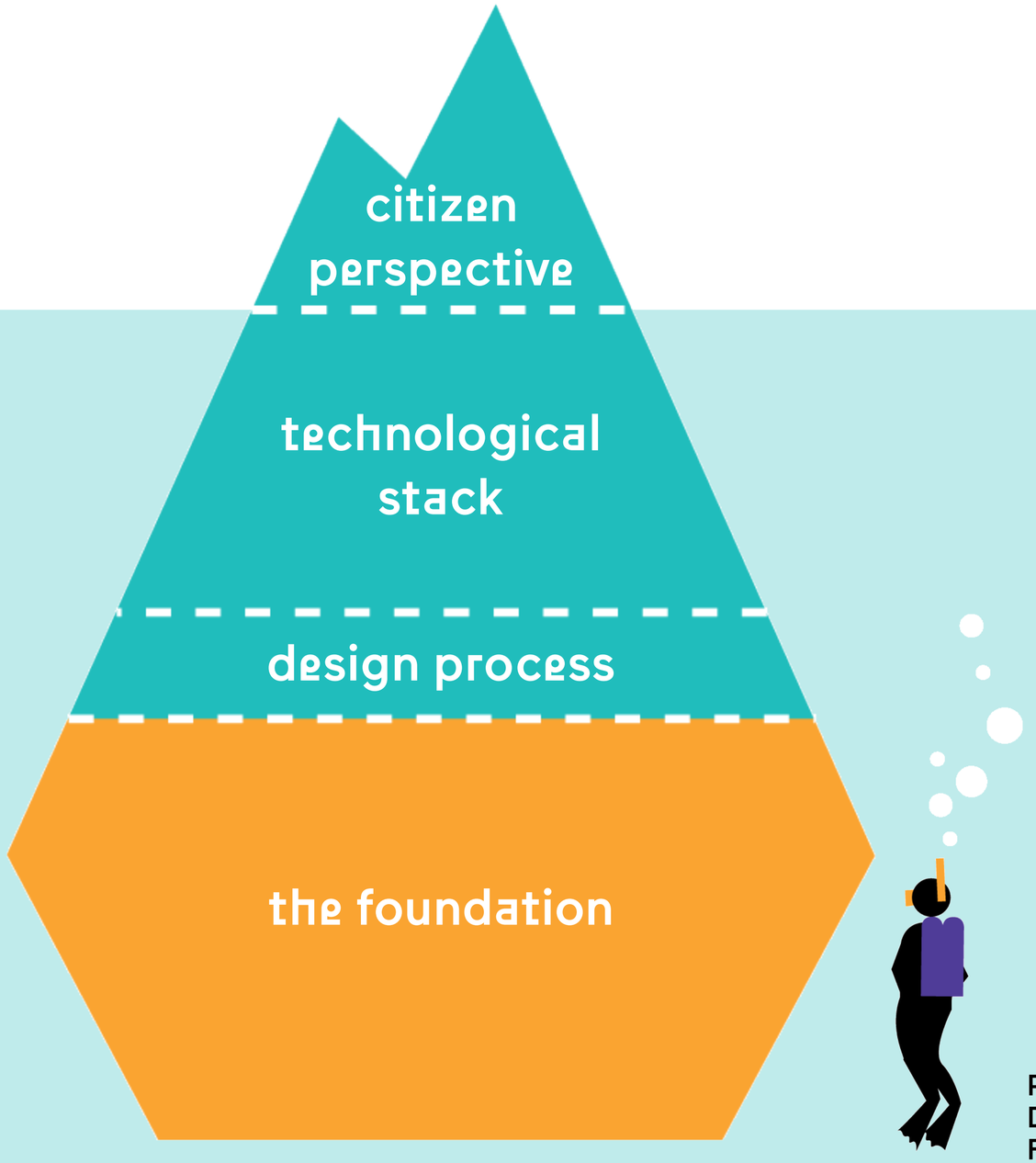
more than technology



Roadmap Digital Future

can we make sure that the technology stack is inclusive, safe and just

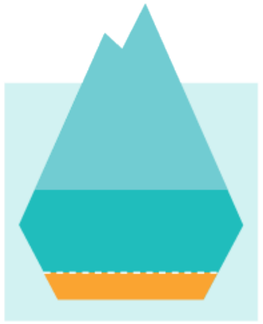


Roadmap Digital Future

acknowledge that humans are bias

by default

and so is technology



the foundation:

1. starting points and assumptions

What is your worldview? Your privilege?	Who defines the problem? Who defines success?	Where are we optimising for?	...

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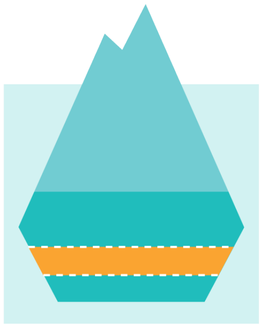
human rights guaranteed and public values respected



the foundation:
2. fundamental rights and values

How does the initiative safeguard fundamental rights?

In what way is society represented?

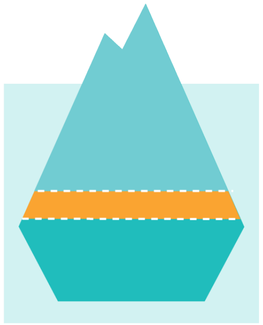
How do shared public values resonate in this initiative?

...

Roadmap Digital Future

financial-economic model regenerative

non-extractive

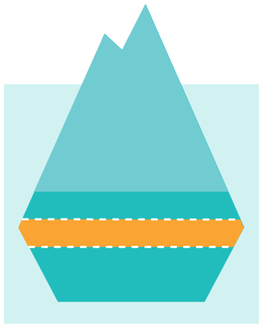


the foundation:
3. socio-economic considerations

What is the financing model? Who owns?	How are risk and profit shared in society?	What is the environmental impact of the intended technology?	...

Roadmap Digital Future

society in control



the foundation:
4. governance and supervision

How is governance organised?	Who is accountable for this initiative, and to whom?	How is supervision involved after completion of the initiative?	...

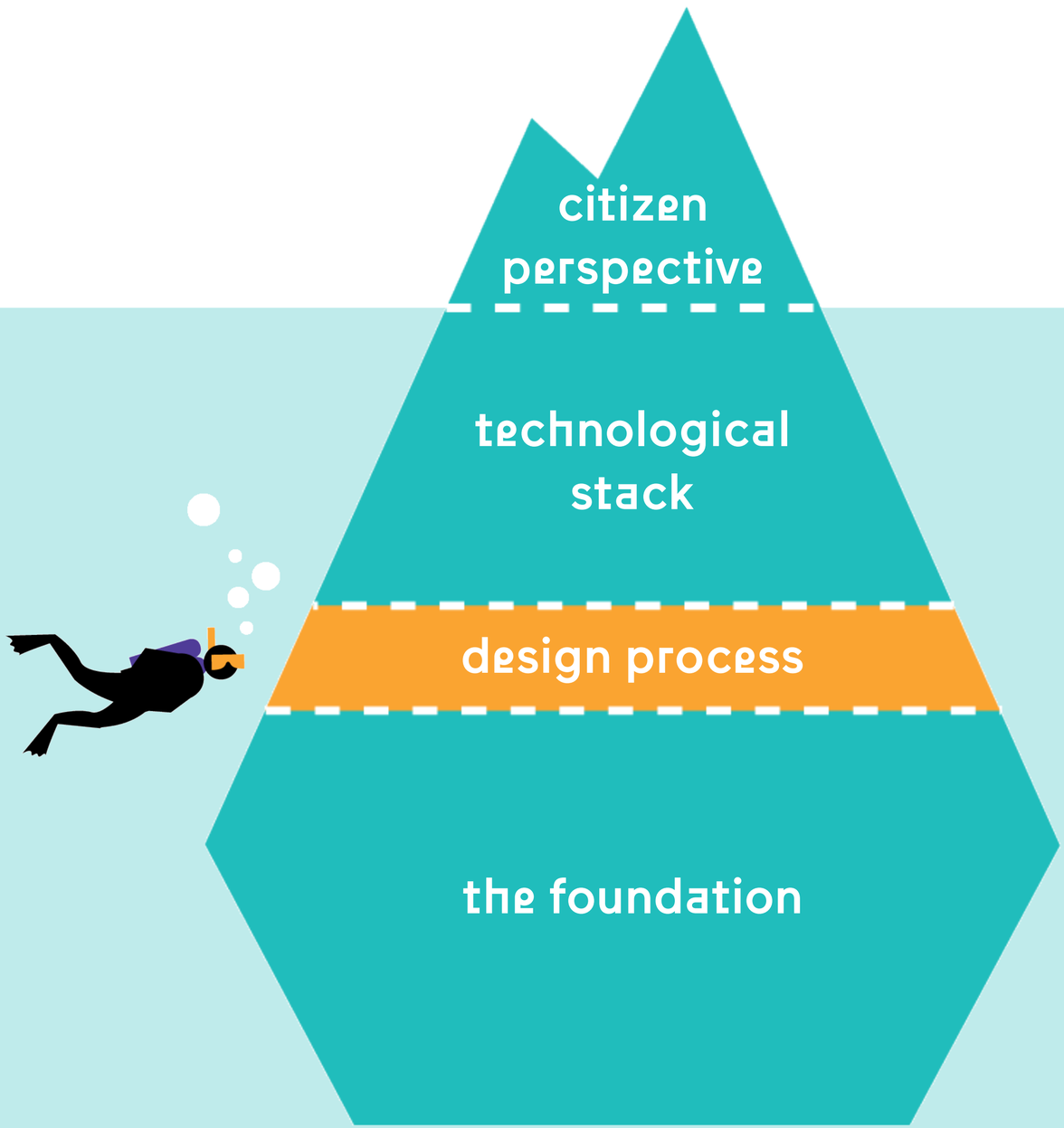
Roadmap Digital Future

ethics are in the design process

who can participate?

who defines the challenge ?

who owns the outcomes?



Roadmap Digital Future

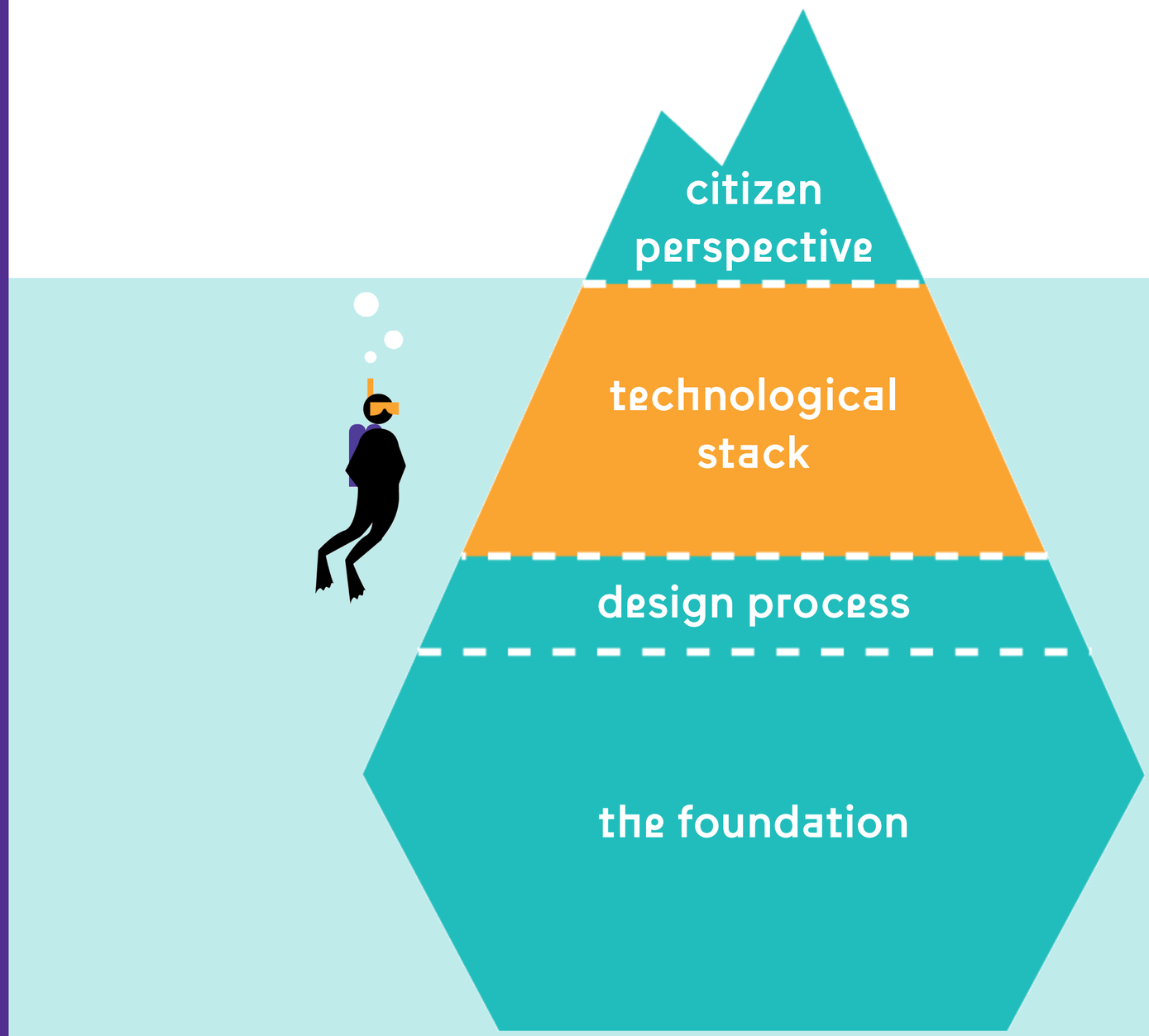
Key Enabling Methodologies

1. Vision and imagination
2. Participation and co-creation
3. Behaviour and empowerment
4. Experimental environments
5. Value creation and scaling
6. Institutional change
7. Systemic change
8. Monitoring

https://www.clicknl.nl/en/the-creative-industries/key-enabling-methodologies/

Roadmap Digital Future

the tech stack



Roadmap Digital Future

open the black box

Service

Security

Protocol and standards

Data and algorithms

- Application
- Operating system
- Firmware and drivers
- Equipment
- Infrastructure

citizen perspective

technological stack

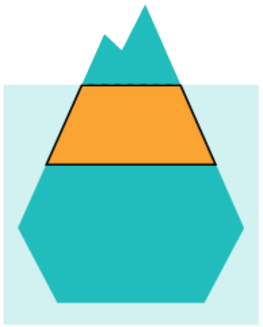
design process

the foundation

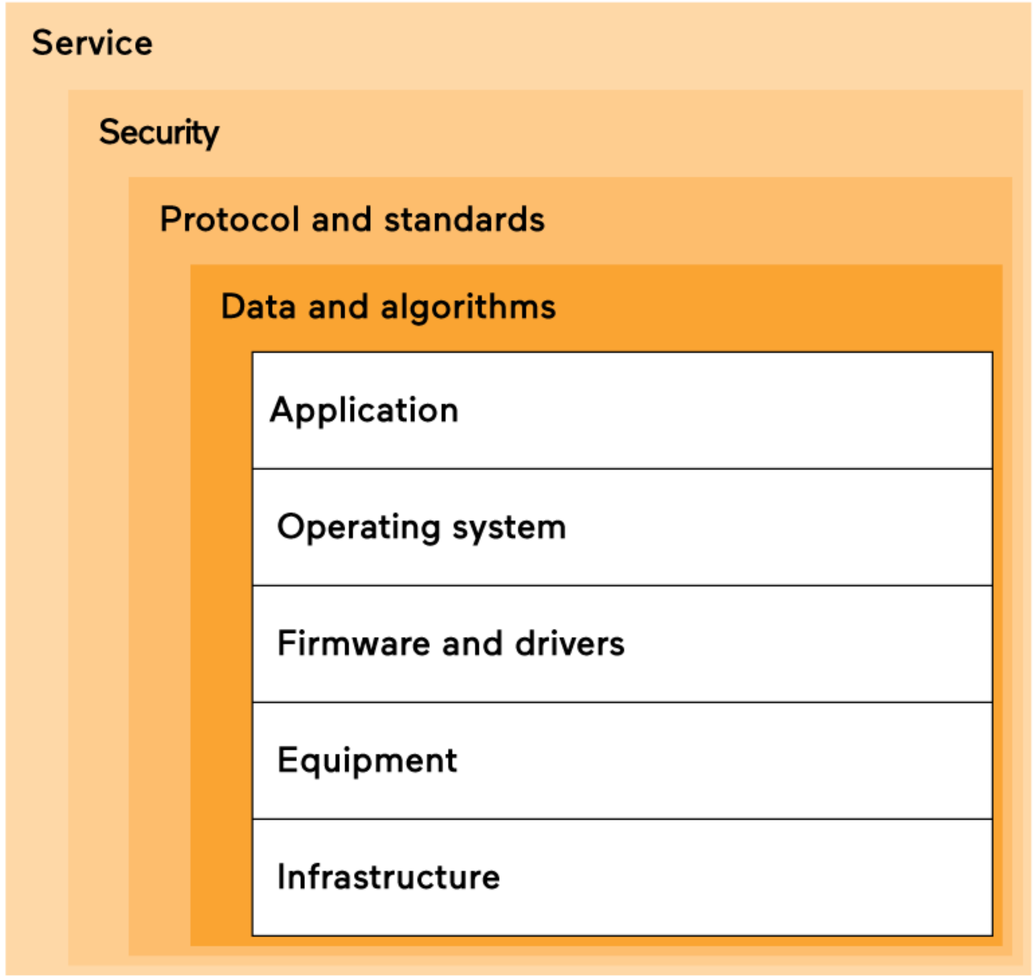
Roadmap Digital Future

waag

How can we co-design the technology we rely on?

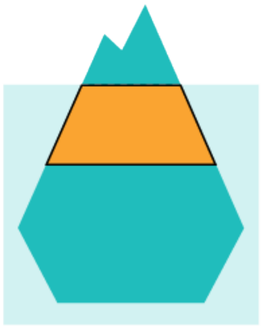


technological stack

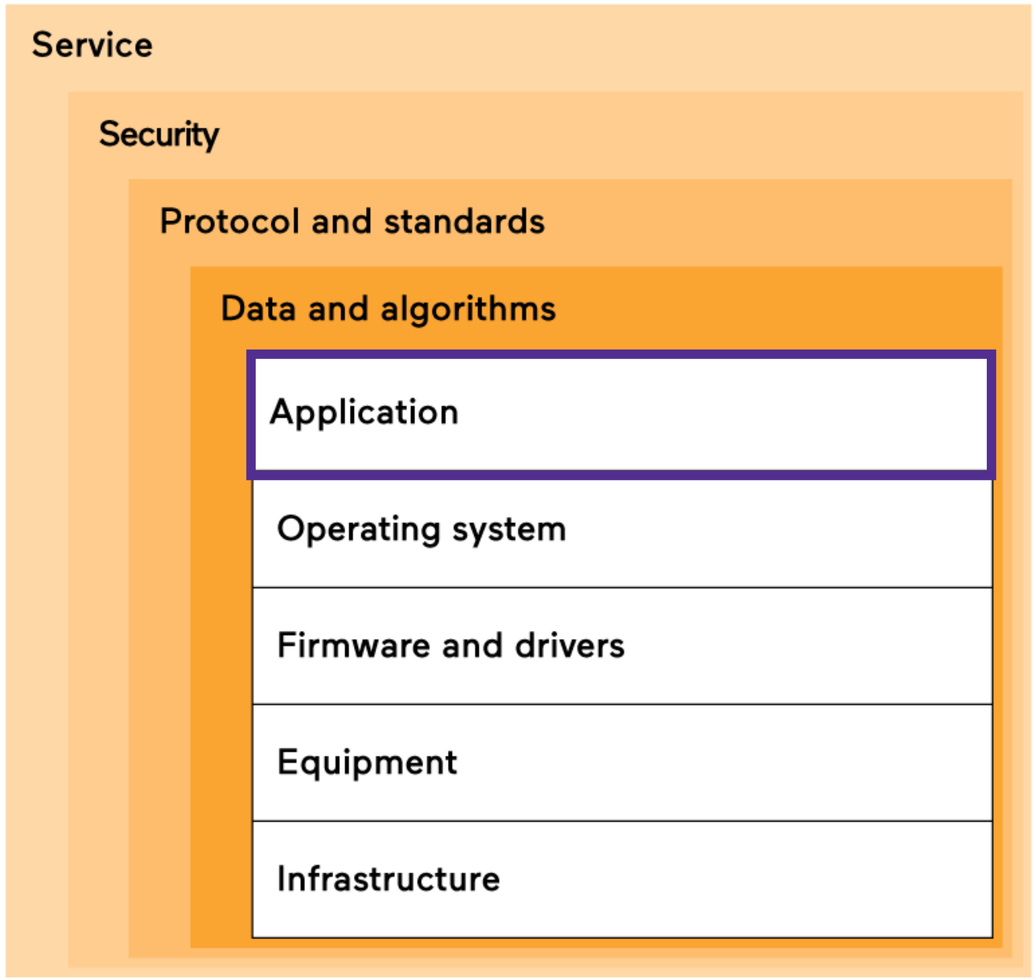


Roadmap Digital Future

"Applications that are open source can be checked and built on by anyone"

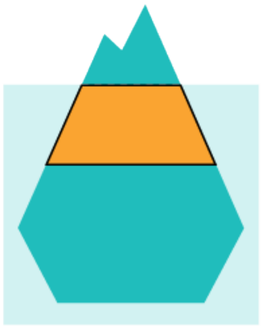


technological stack
application

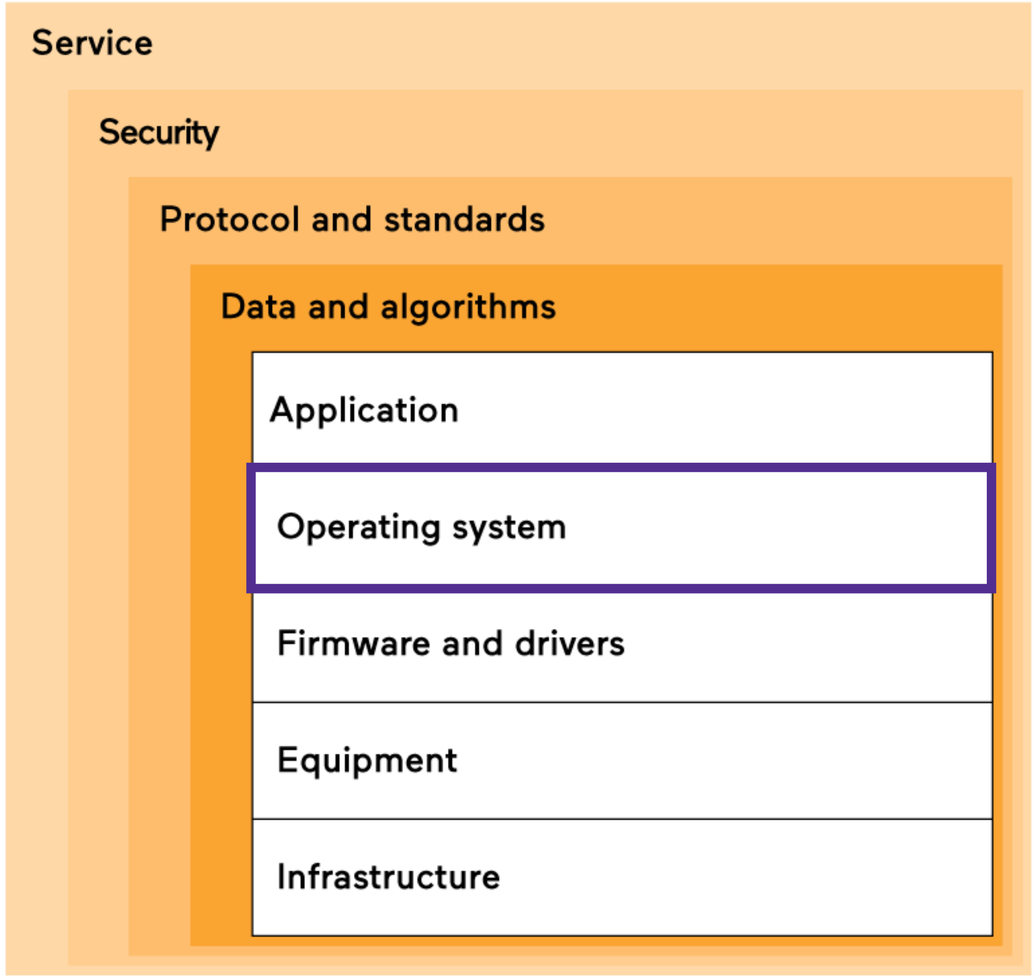


Roadmap
Digital
Future

"People should be able to control and adapt the operating systems on their devices"

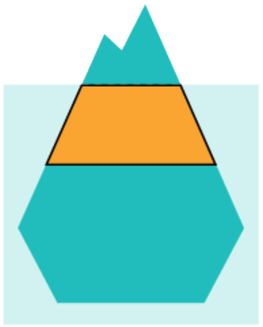


technological stack
operating system

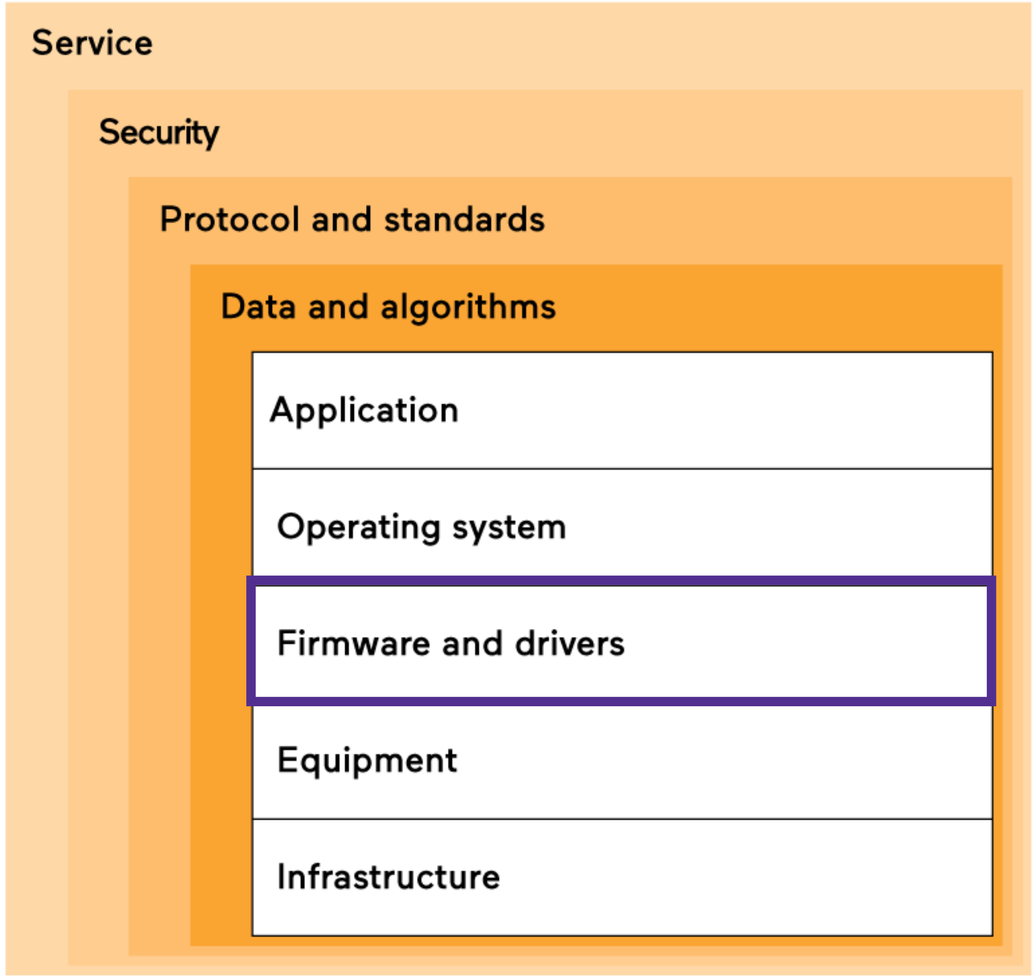


Roadmap
Digital
Future

"If you own a device you should have the right to change its firmware and drivers"

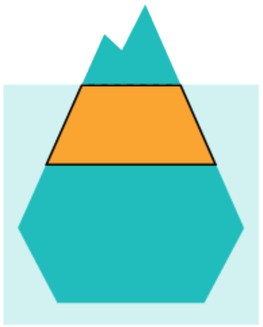


technological stack
firmware and drivers

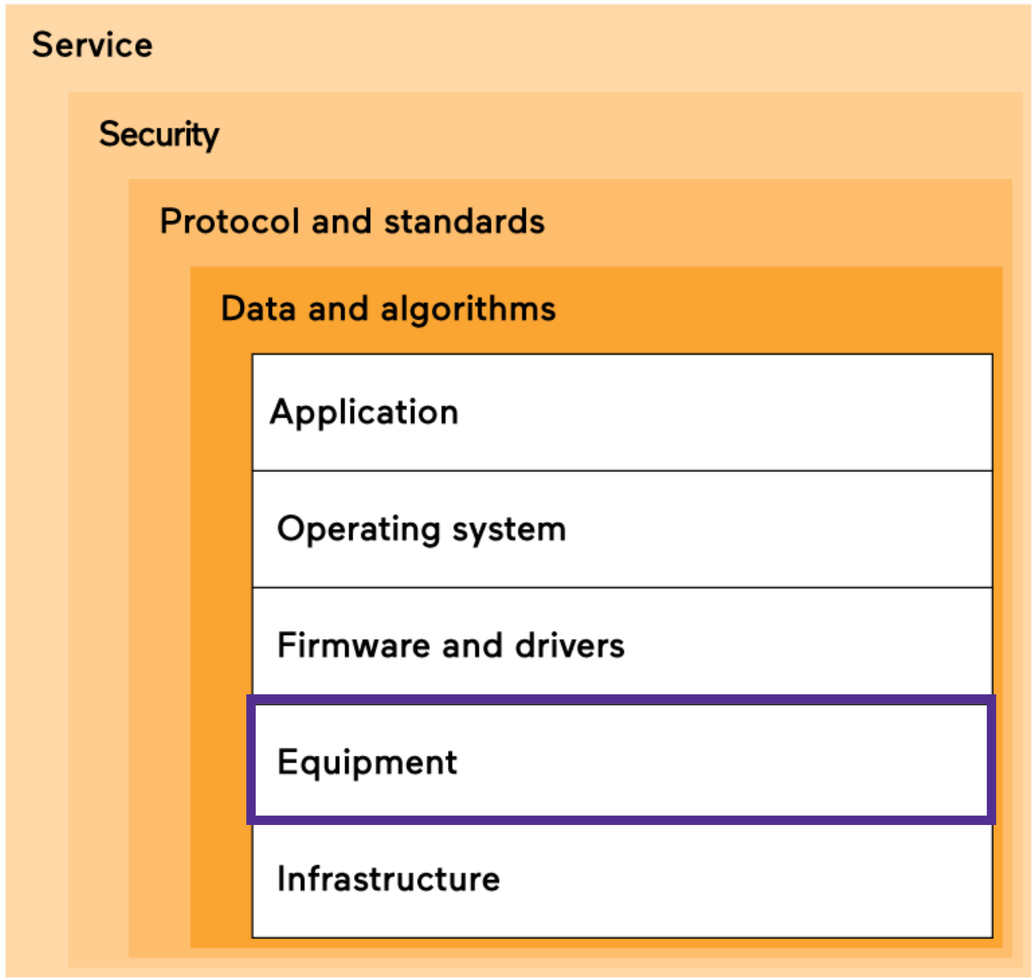


Roadmap
Digital
Future

"We should all be able to know the origins of the raw materials in our devices"

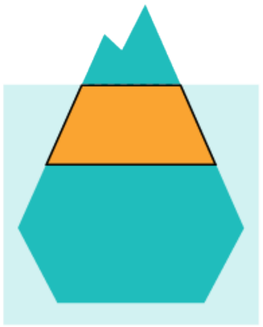


technological stack
equipment

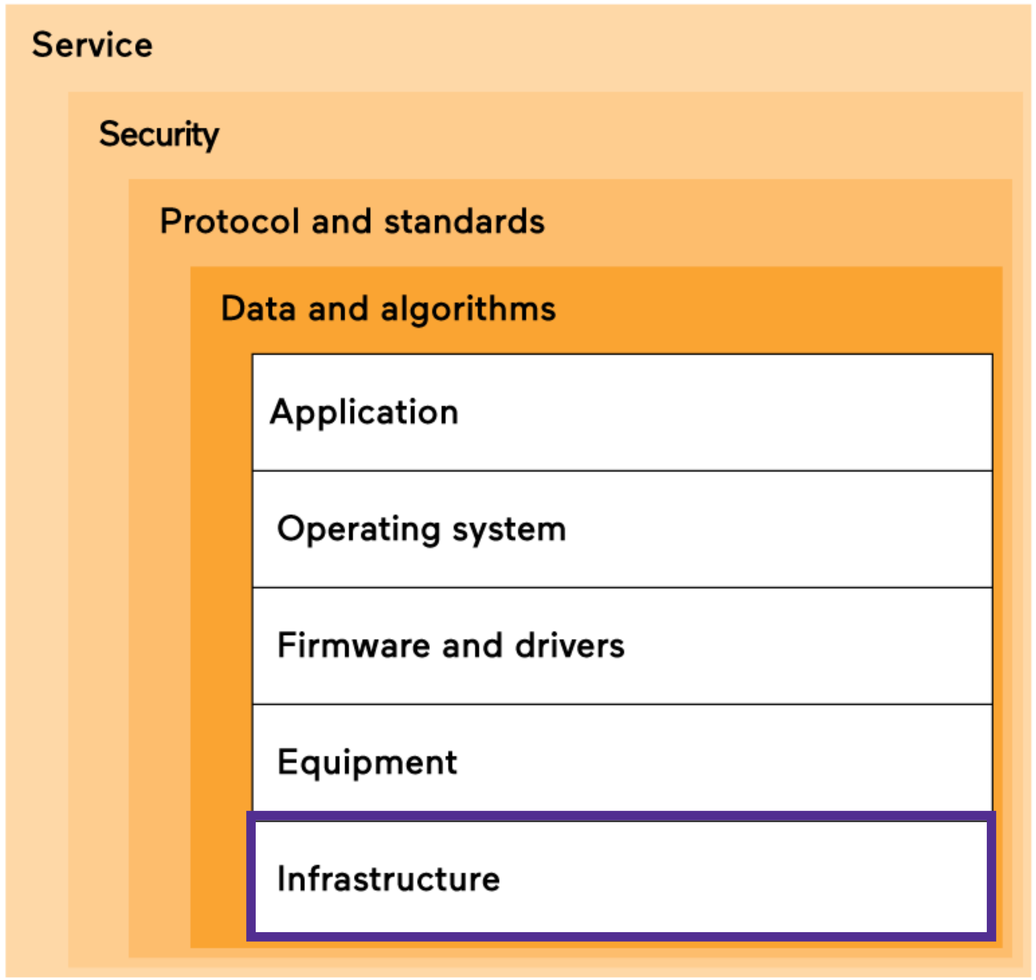


Roadmap
Digital
Future

"Internet infrastructure is a public utility and should be governed accordingly"

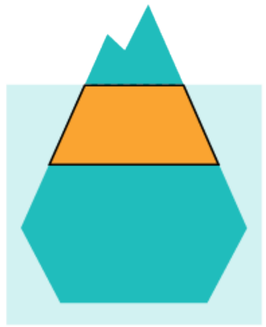


technological stack
infrastructure



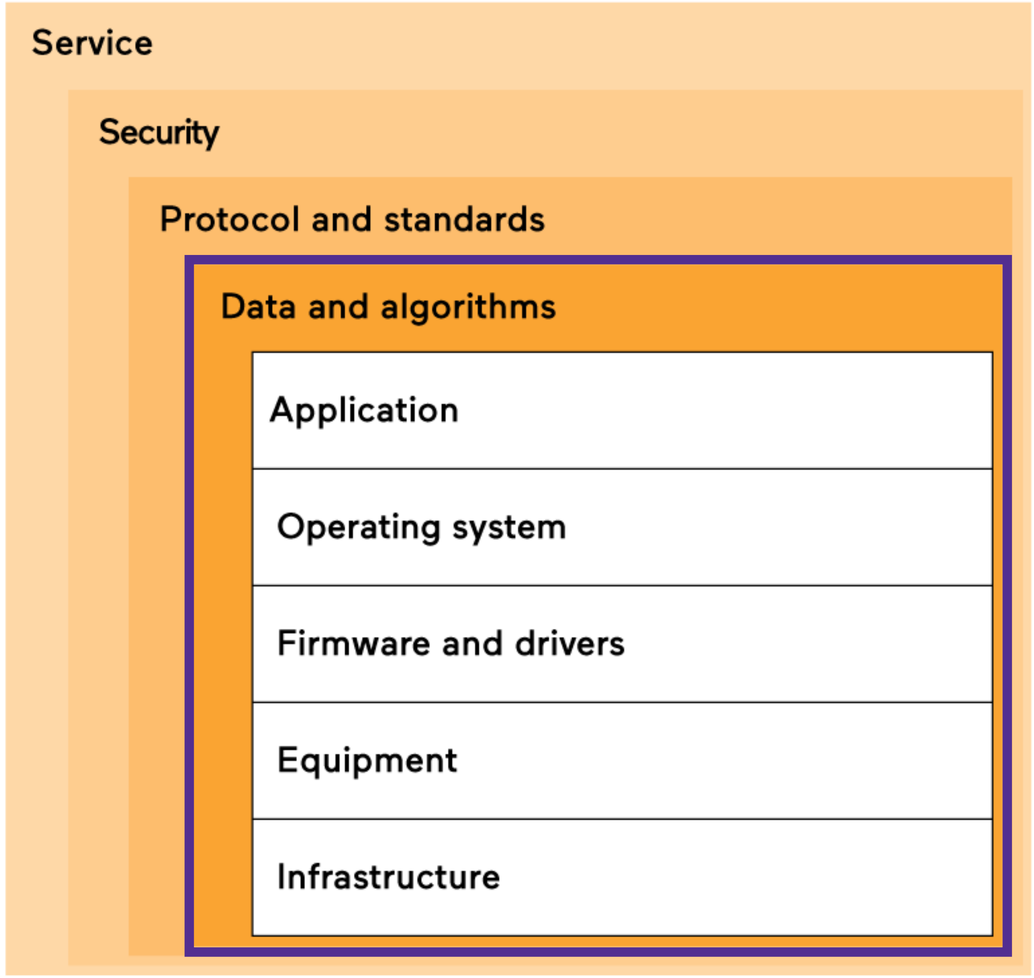
Roadmap Digital Future

"People should be in control over the data and algorithms that concerns them"



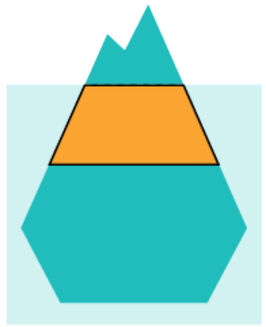
technological stack

contextual layer: data and algorithms



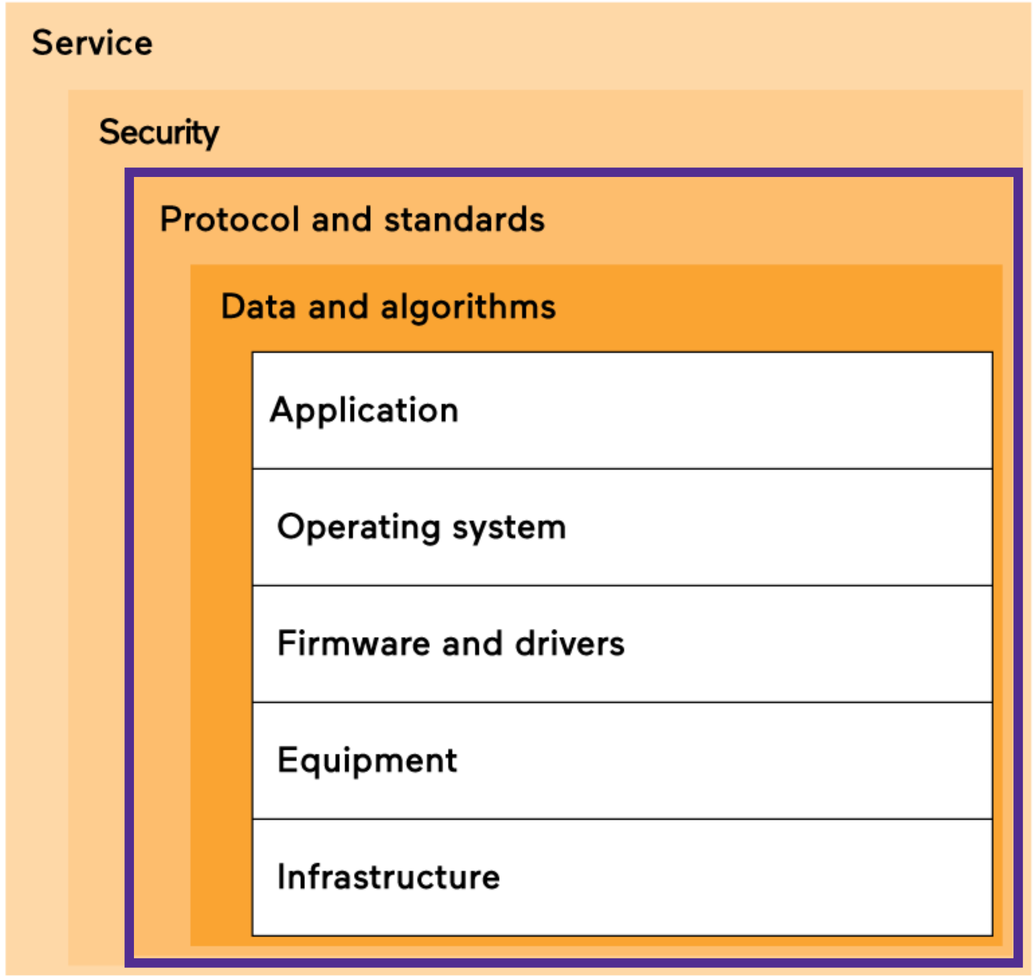
Roadmap Digital Future

"Standards should be developed openly so anyone can adopt them and guarantee open ecosystems"



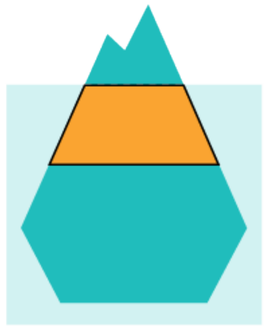
technological stack

contextual layer: protocol and standards

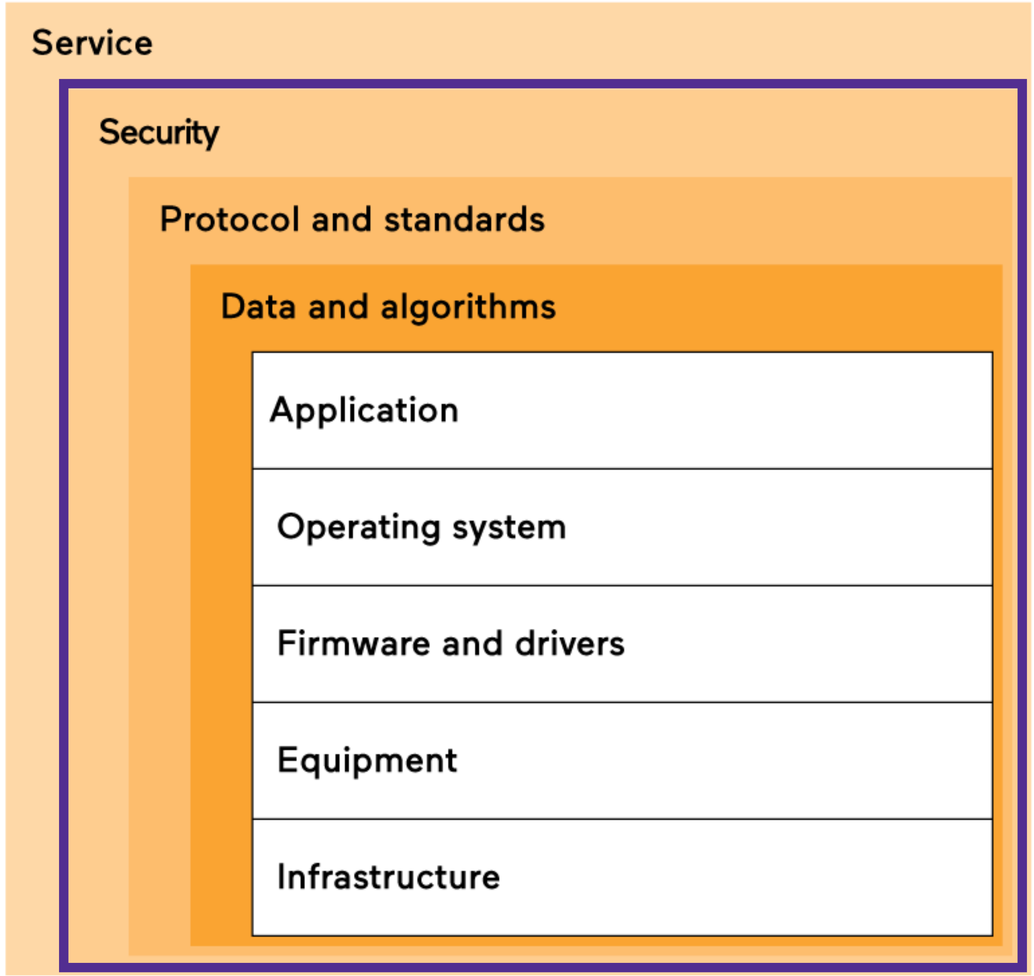


Roadmap Digital Future

“Technology should be secure so that we can rely on it safely”

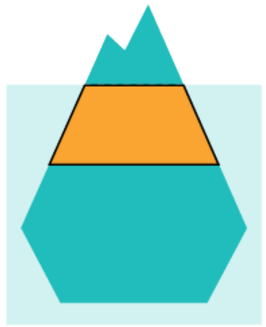


technological stack
contextual layer: security

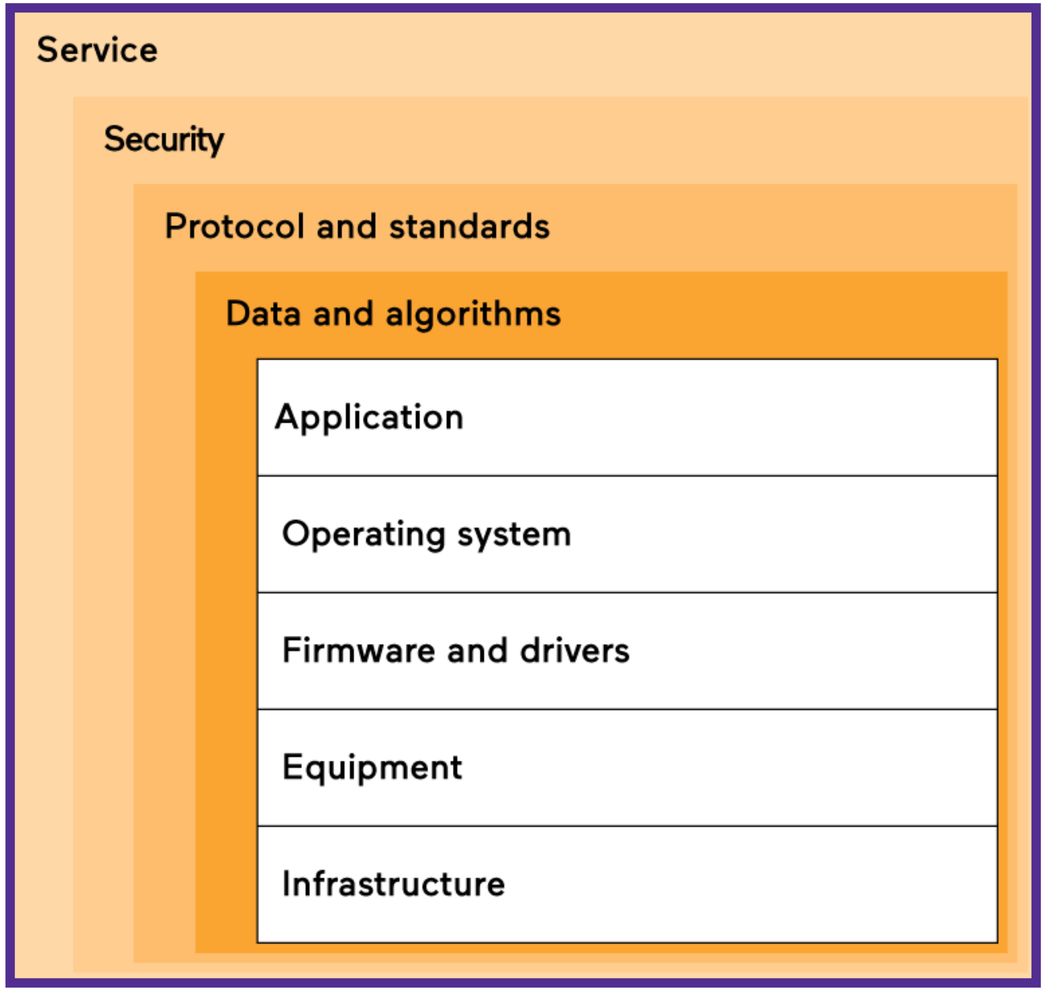


Roadmap Digital Future

"When we use a service we should be able to look inside the black box"

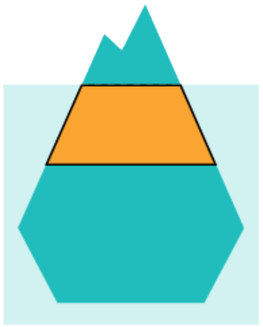


technological stack
contextual layer: service

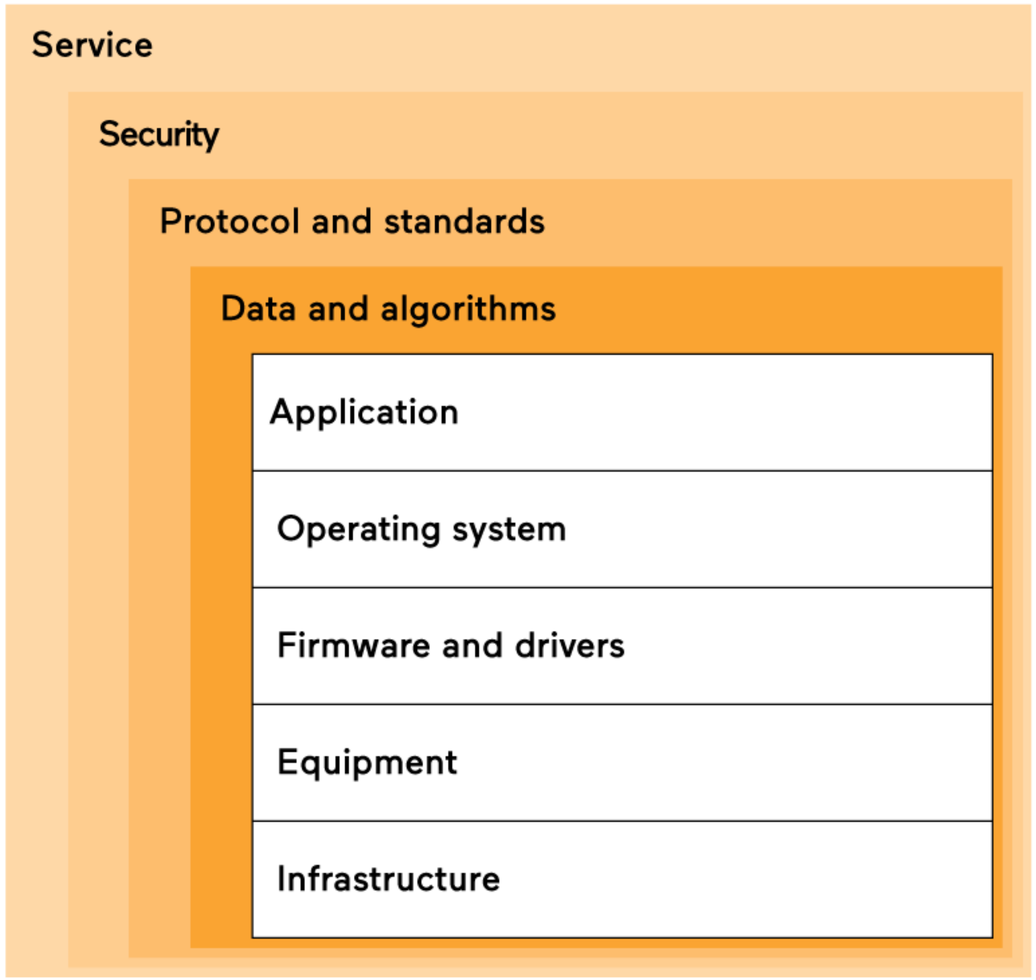


Roadmap Digital Future

public principles,
rule of law
in all layers of the
stack

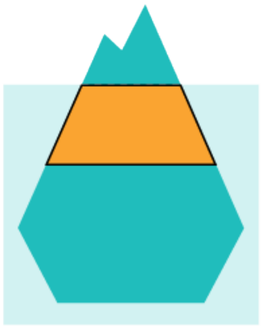


technological stack

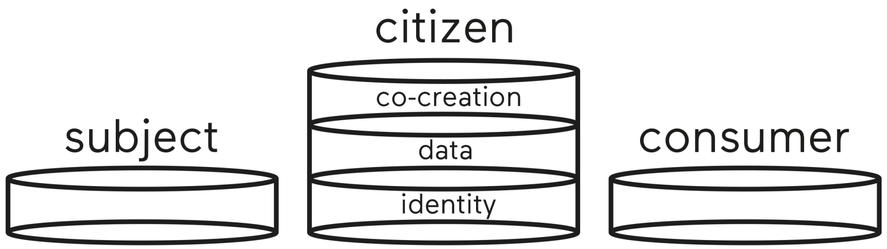


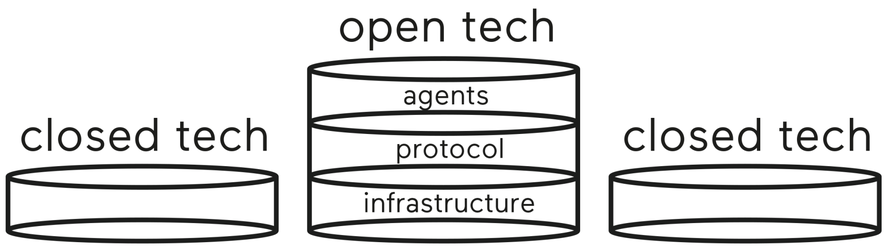
Roadmap
Digital
Future

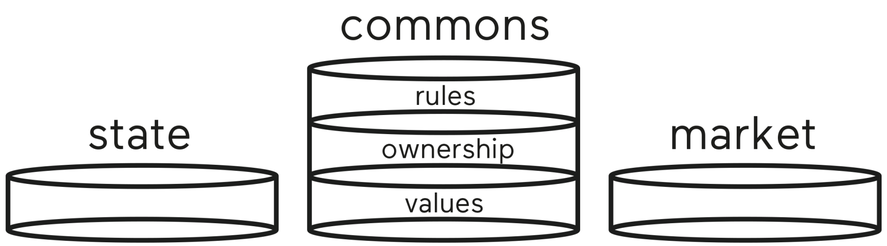
Is the stack state owned, privately owned or public ?



state stack	public stack	private stack







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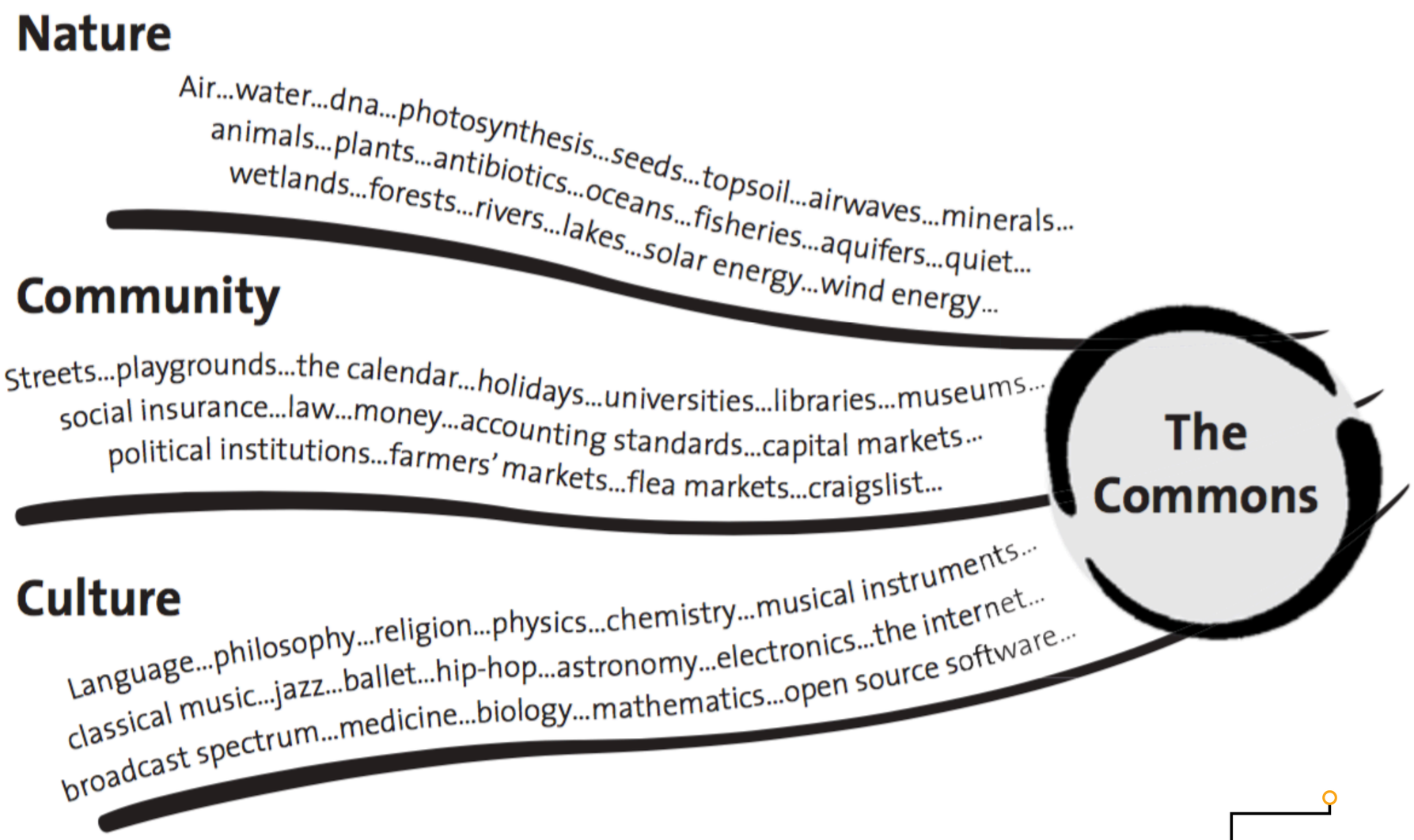
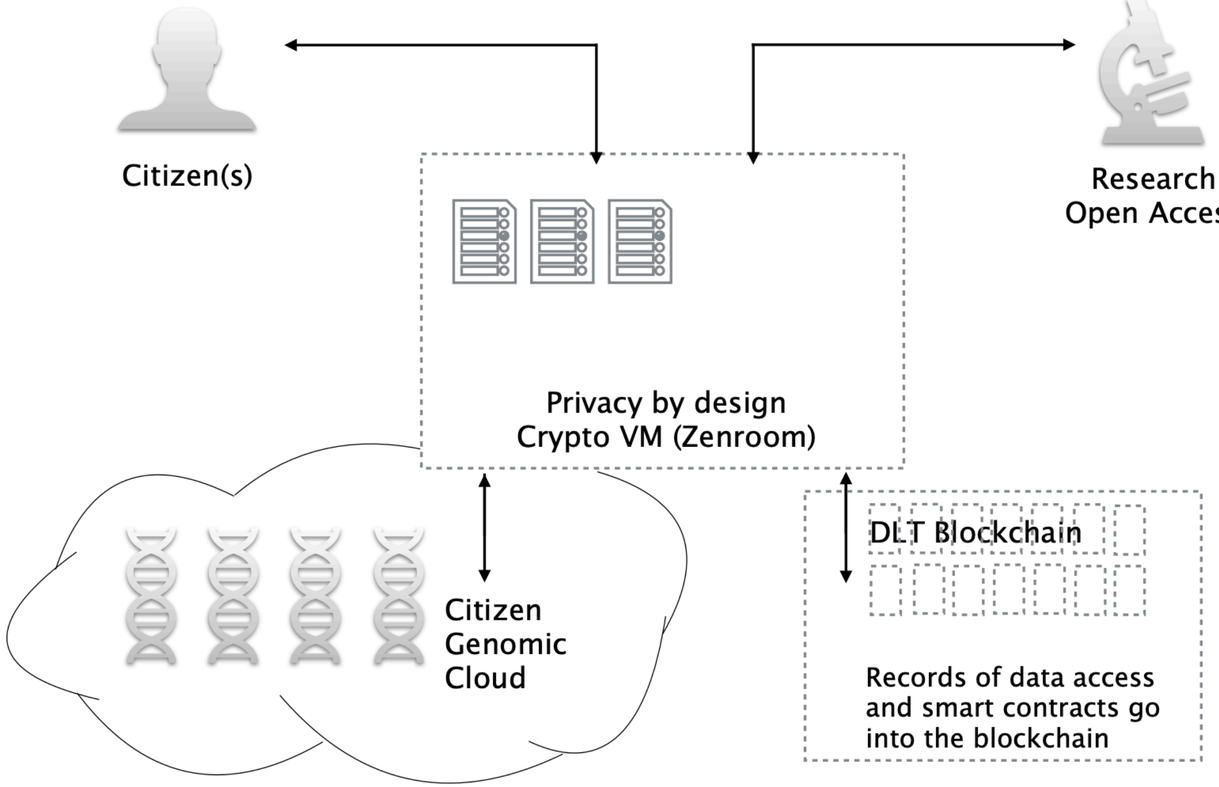
commons are shared resources, maintained and/or created by a community , organised around commonly defined shared rules



Roadmap Digital Future

data commons example:

gene coop citizen genomic data cooperative



gene coop

Lucas Evers/Dr. Stefano Bocconi Waag - Technology & Society / Open biotechnologies
Dr. Wieke Betten - Radboud University / Health data technologies & ethics
Peter Walgemoed Carelliance / Health data governance technology programming

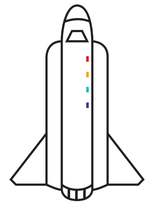
Make Health

open solutions for DIY tools

made for you

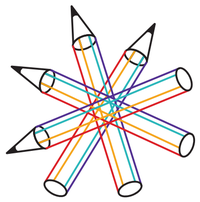
1. Present challenges
form teams,
brainstorm on solutions

3. **Finalise Concept**,
Design brief,
Start prototyping

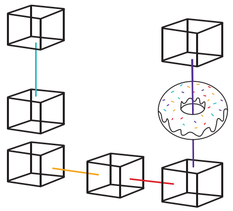


5. **Finish prototype** &
documentation

1. 2. 3. 4. 5. 6.



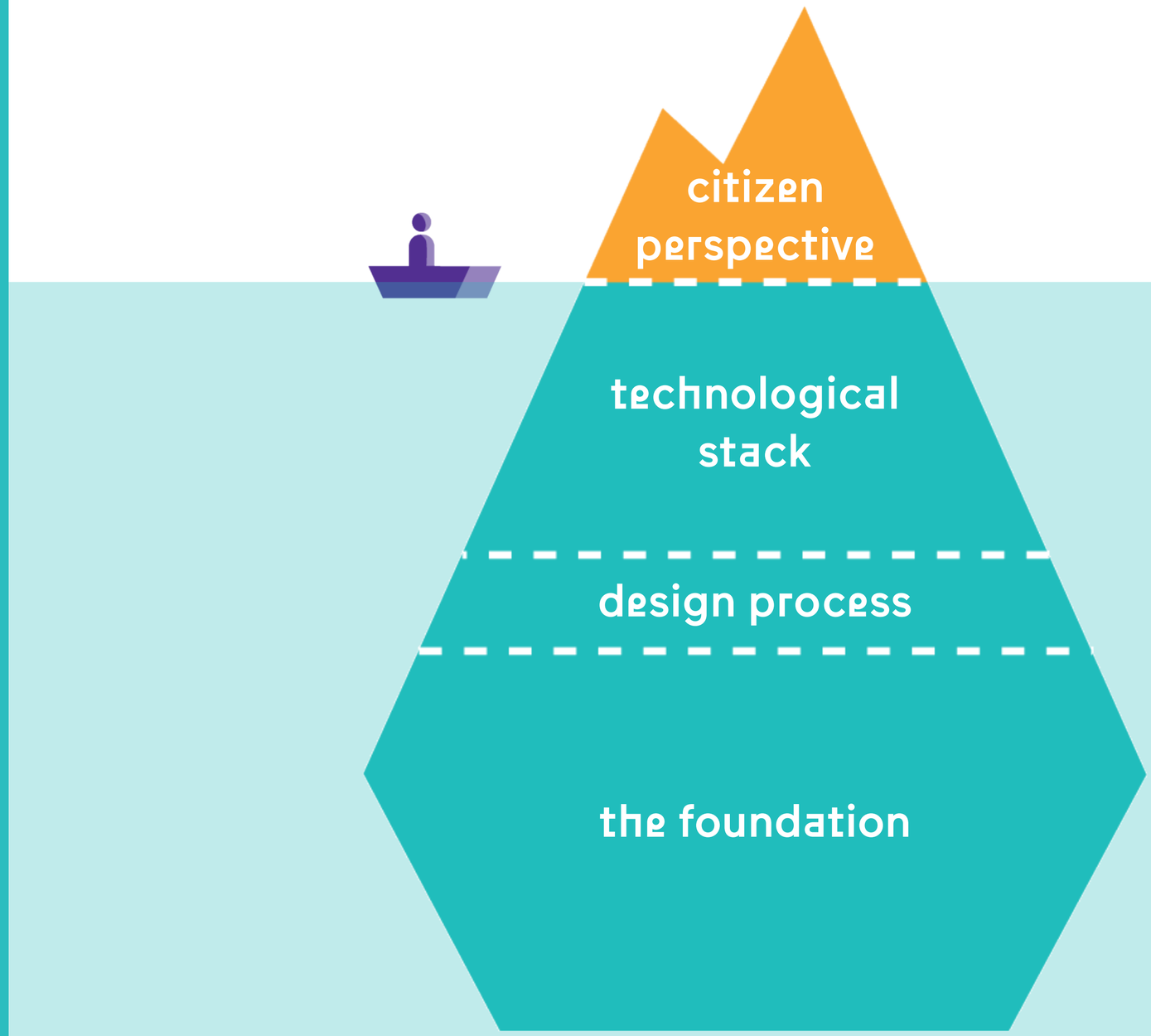
2. Research
Solutions sketching
Finetuning concept



4. **Prototyping**, experiment
with materials &
manufacturing techniques

6. **Presentation / Exposition**

save and just (digital) future



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