

From Data to Value

Thorhildur Jetzek, PhD
Director for R&D



TRANSFORMATION



BUZZFEED

USERS VIEW

159,380

PIECES OF
CONTENT

SNAPCHAT

USERS WATCH

6,944,444

VIDEOS

Netflix

SUBSCRIBERS STREAM

86,805 HOURS

OF VIDEO

GOO

RECEIVES

2,276,86

SEARCH
QUERIES

ans

4,840

ABYTES
OF WIRELESS DATA

E

HOURS

W VIDEO

Inst

2,43

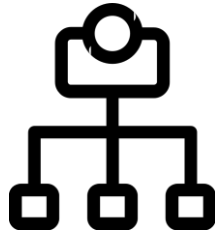
POSTS

2016

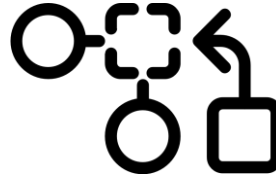
every



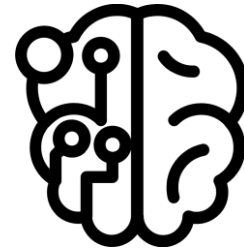
THE DRIVING FORCES (besides more data)



COMPUTATIONAL POWER

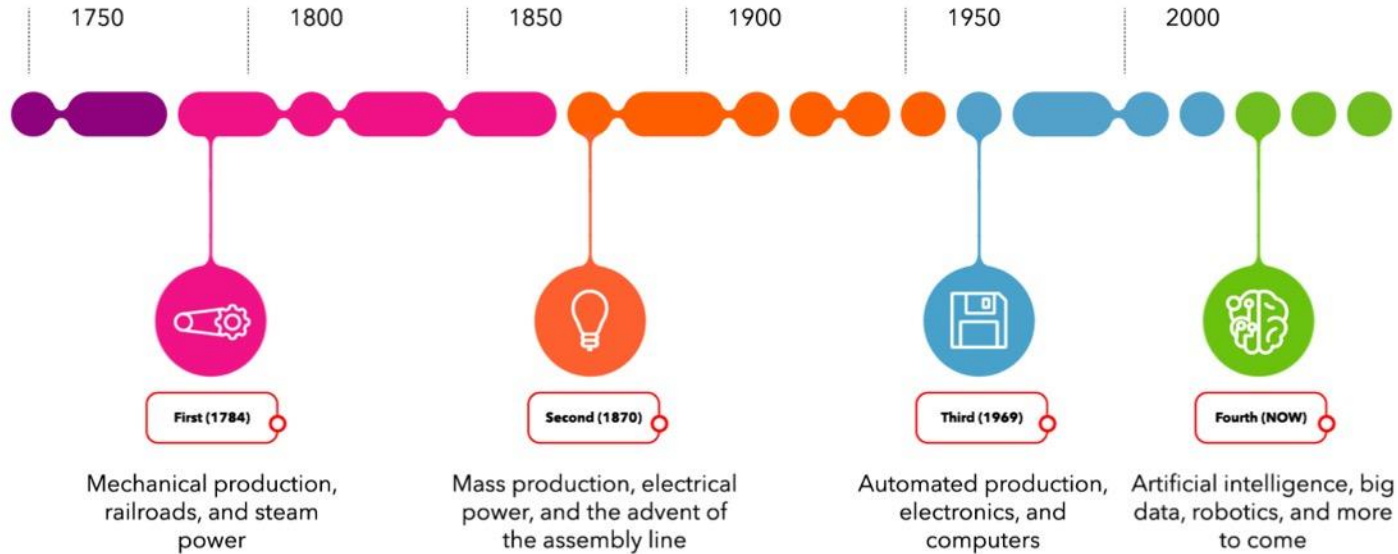


DATA STRUCTURE
INNOVATIONS

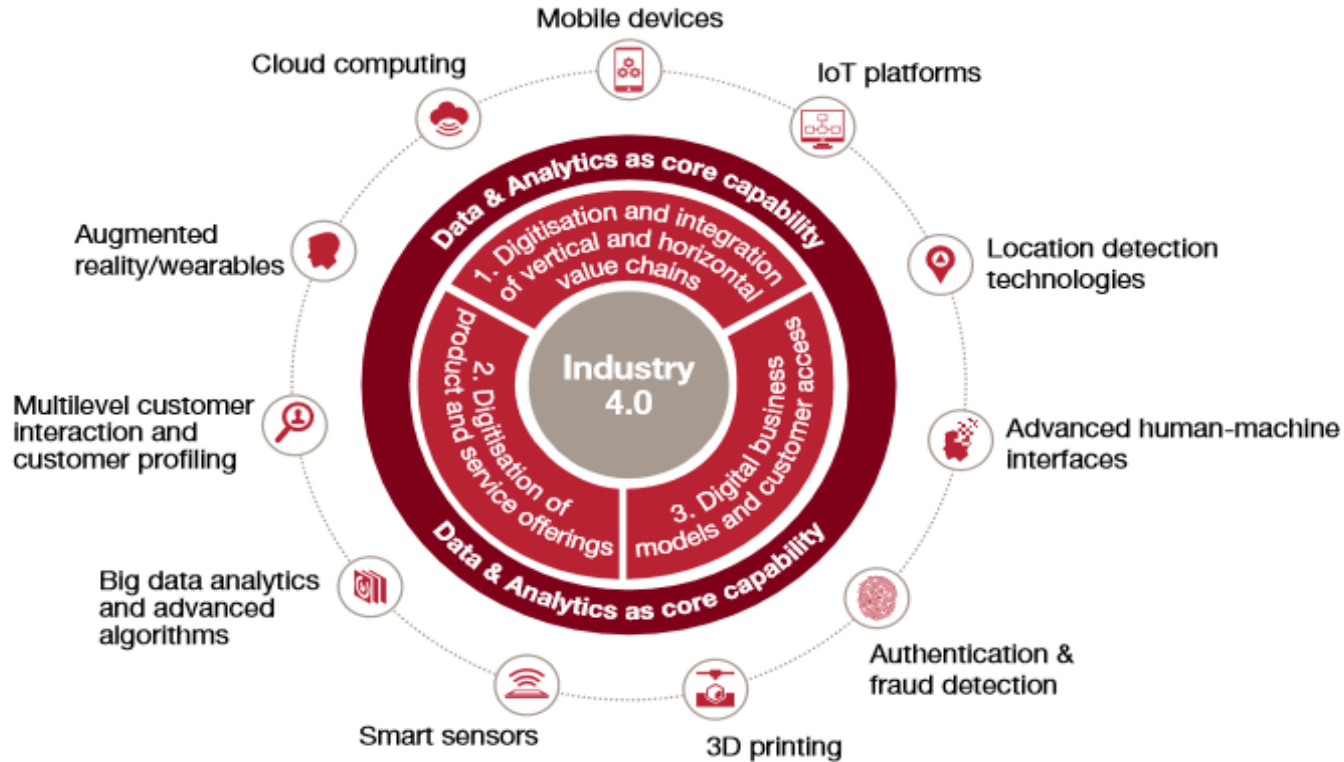


AI

The Four Industrial Revolutions



Industry 4.0 framework and contributing digital technologies



<https://www.pwc.com/gx/en/industries/industries-4.0/landing-page/industry-4.0-building-your-digital-enterprise-april-2016.pdf>

WHY Open data?

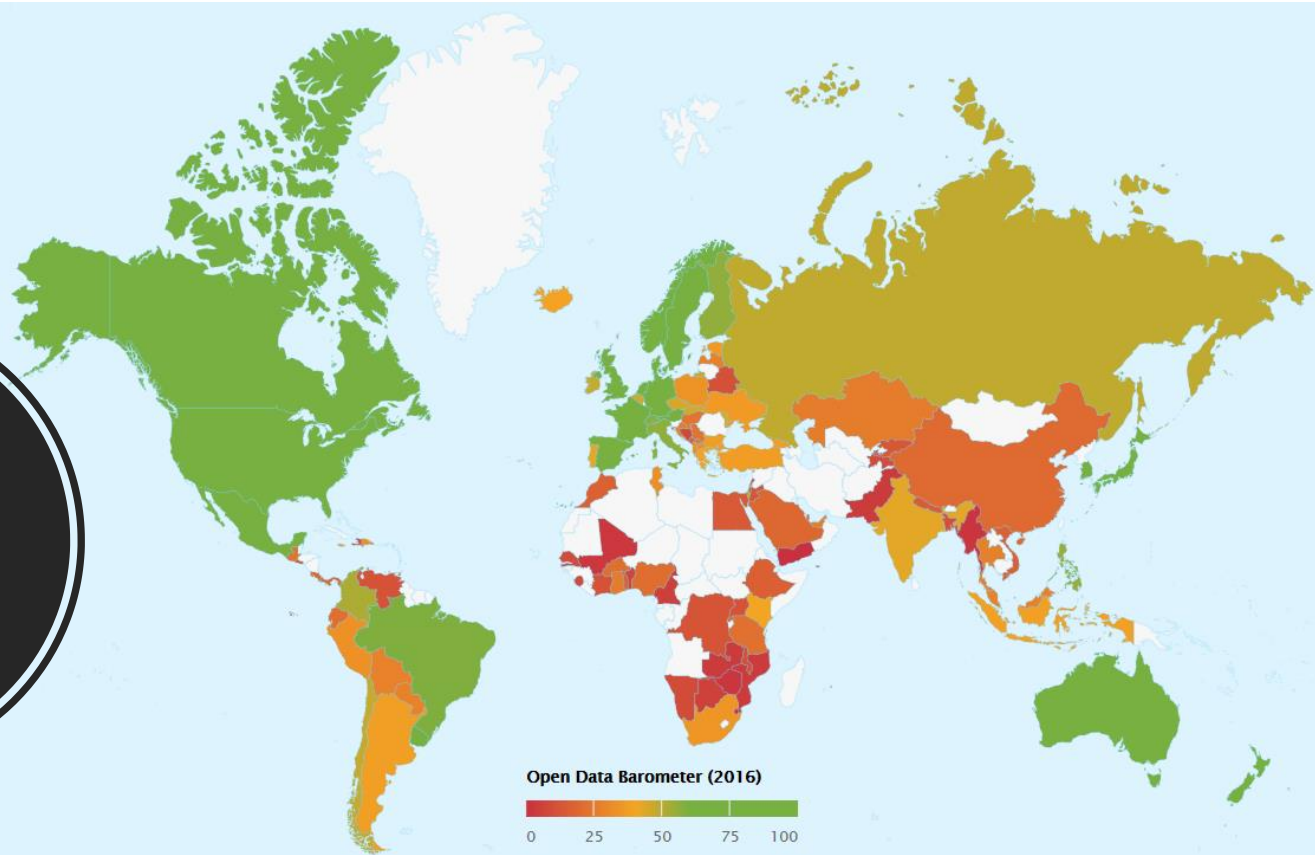


Endless appetite for data! To feed the algorithms, to create context for decision making



Government organizations can collect data that is too difficult or expensive for others to collect

WORLD OF DATA



The Open Data Barometer

A global measure of how governments are publishing and using open data for accountability, innovation and social impact.

Open definition

Data are **truly open** if they can be
*freely used, modified, and shared by
anyone for any purpose*

Open Data Barometer:

- In 2016, only 7% of the 1725 datasets from 15 sectors across 115 countries data are truly open
- Only 50% of datasets are machine readable
- Only 25% datasets have an open license
- Impact on government efficiency is low, on average estimated as 1,2 out of 10

WHY?



It is very difficult to quantify value of open data, especially at the level of individual data providers who rarely benefit directly

How important is data for the
general government?

How to create
revenue? Taxes and
redistribution? Fees
for value added
services?

How important is
data for the average
PSB?

Strategy and planning
mechanisms

Governance
mechanisms

Exploitation
mechanisms

Data infrastructure
development

Data collection

Data
dissemination

Value generation and
capture

Value
generating
mechanisms

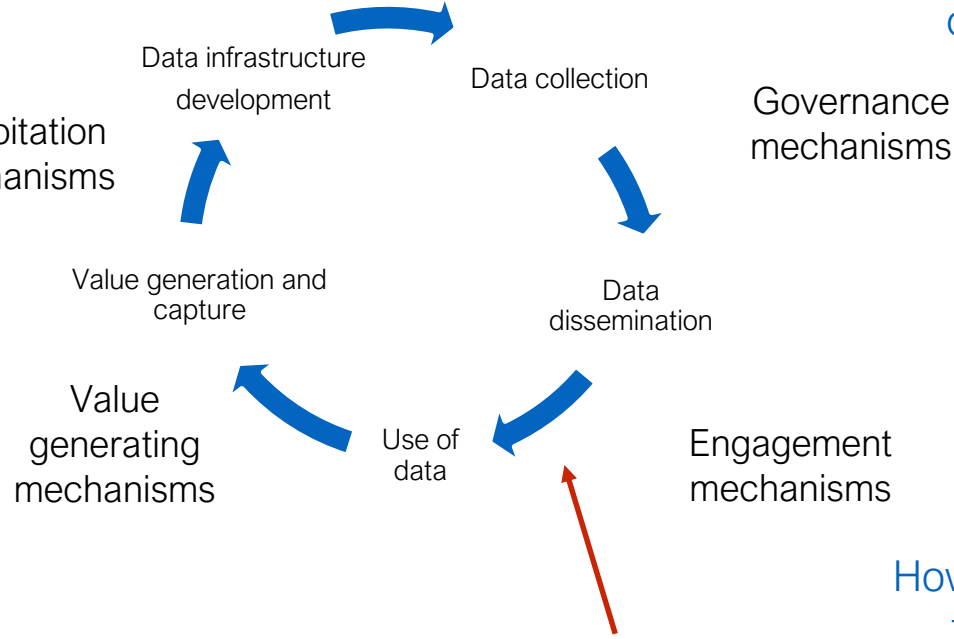
Use of
data

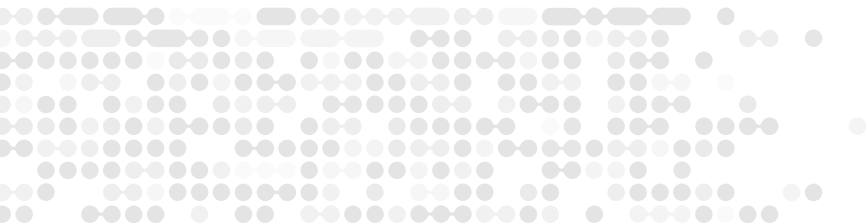
Engagement
mechanisms

What is data being
used for and how is
income generated?

How aware are PSB of
the needs of the
private sector?

This is broken





Capgemini study 2016

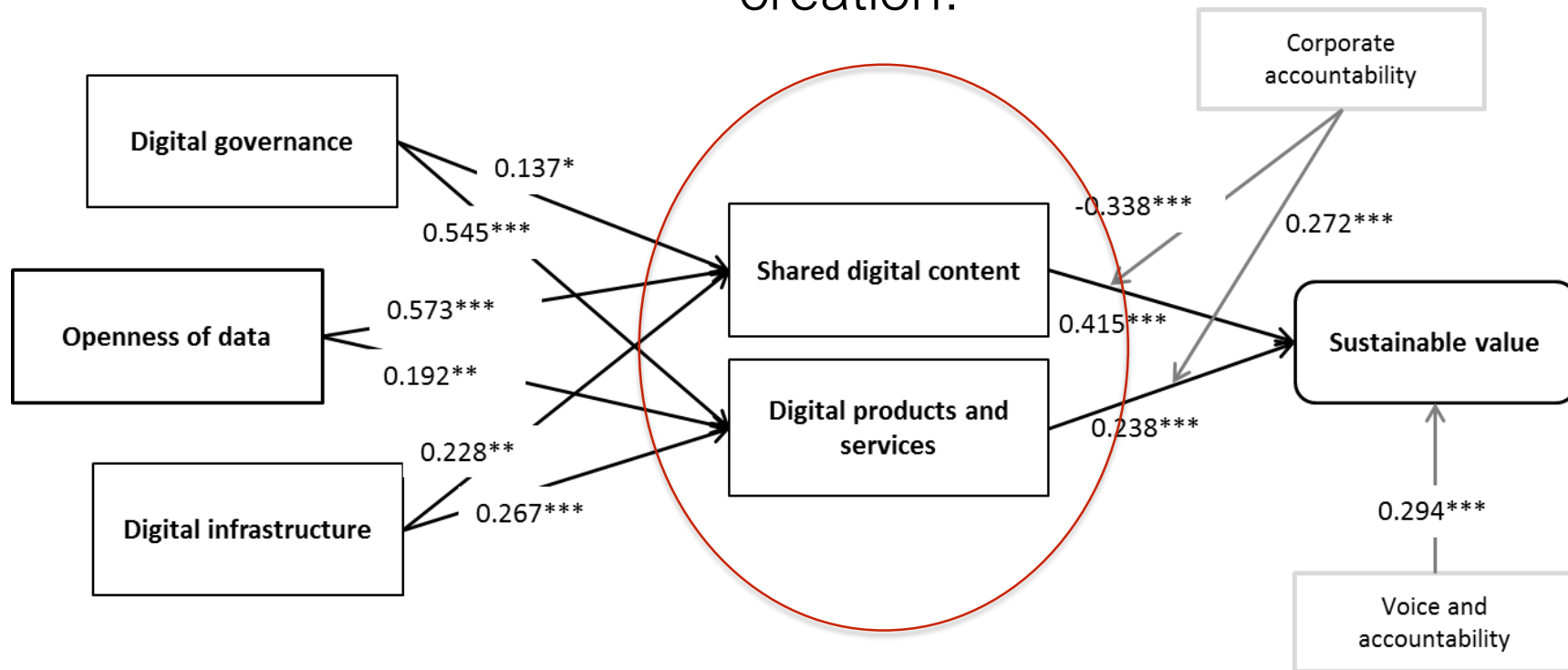
- Direct market size of Open Data is 55,3 billion EUR for 2016 and expected to grow by 36,9% by 2020 in the EU 28+

Examples of expected value creation

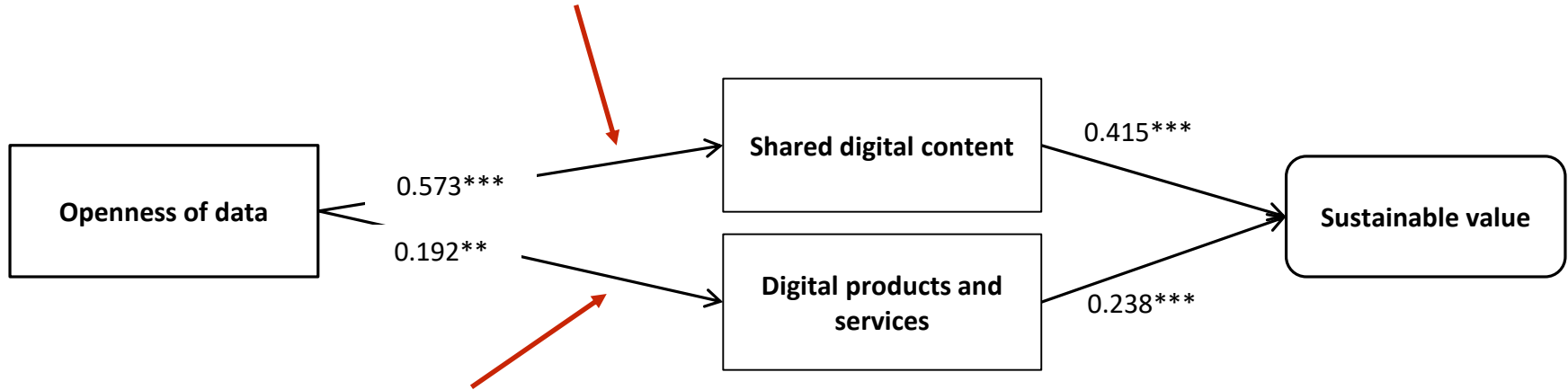
- 25.000 new Open Data related jobs
- 629 million hours saved from improved traffic flows
- 5,5% less road fatalities



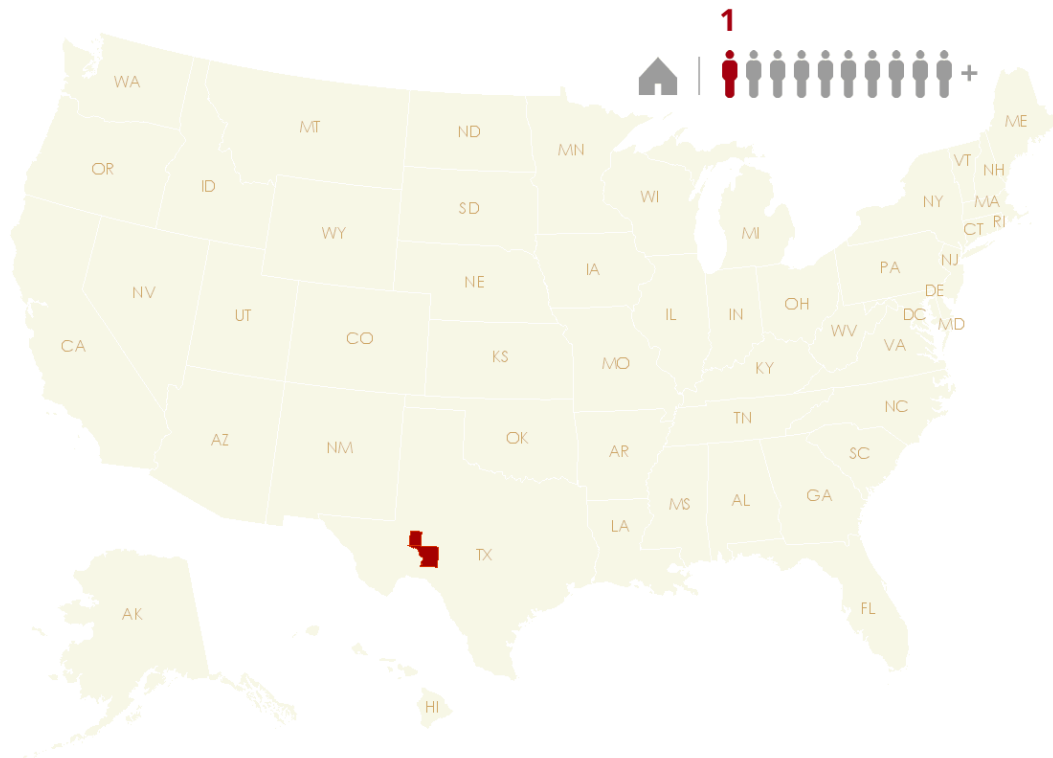
Here is the value creation!



This works, but shared digital content is mostly free



This is broken (this relationship remained barely significant through endless iterations)



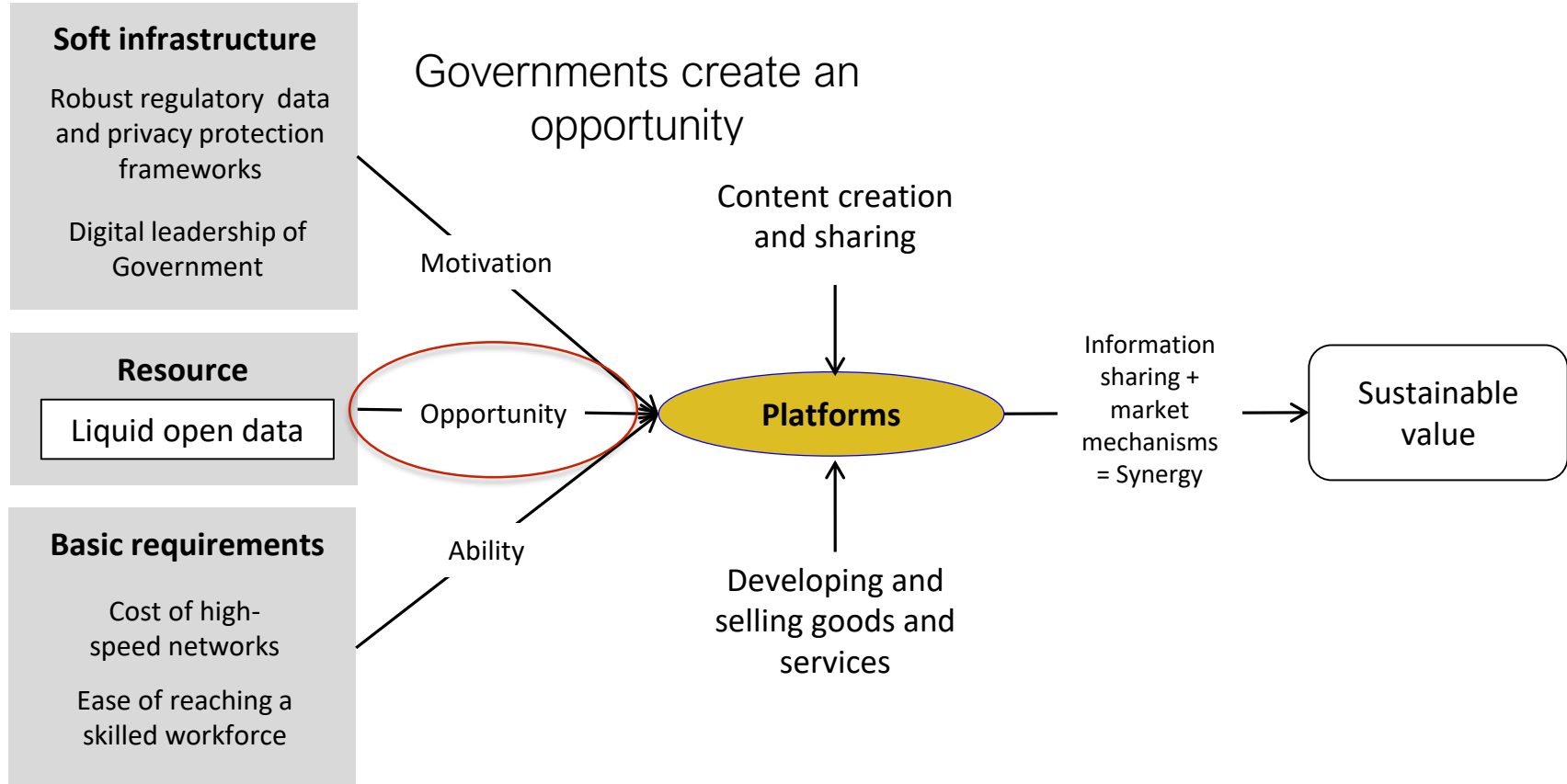
How Many Years of Life Does That House Cost?
An Overly-Simplistic Ratio of Median Home Value to Median Income

John Nelson | @john_m_nelson AdventuresInMapping.com
ESRI Demographics | doc.arcgis.com/en/esri-demographics
Living Atlas | livingatlas.arcgis.com/en
Census | www.census.gov

Societal level structures

Intermediaries

Societal level impact



WHY?



It is very difficult to quantify value of open data, especially at the level of individual data providers who rarely benefit directly



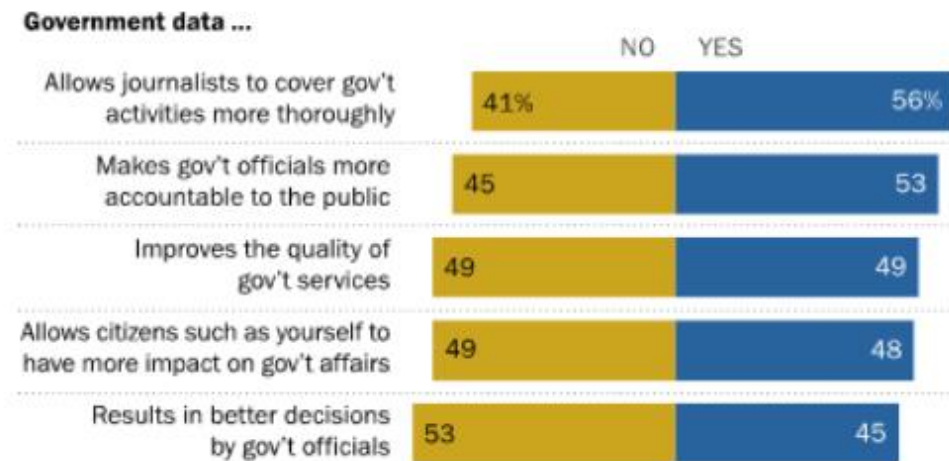
While the public wants and needs transparency, many politicians are still reluctant



People Have Mixed Hopes About Whether Open Data Will Improve Things

People Have Mixed Hopes About Whether Open Data Will Improve Things

% of adults who say these things about the possible impact of government data sharing



Source: Online survey of 3,212 adults in Pew Research's American Trends Panel, Nov. 17-Dec. 15, 2014.

PEW RESEARCH CENTER

WHY?



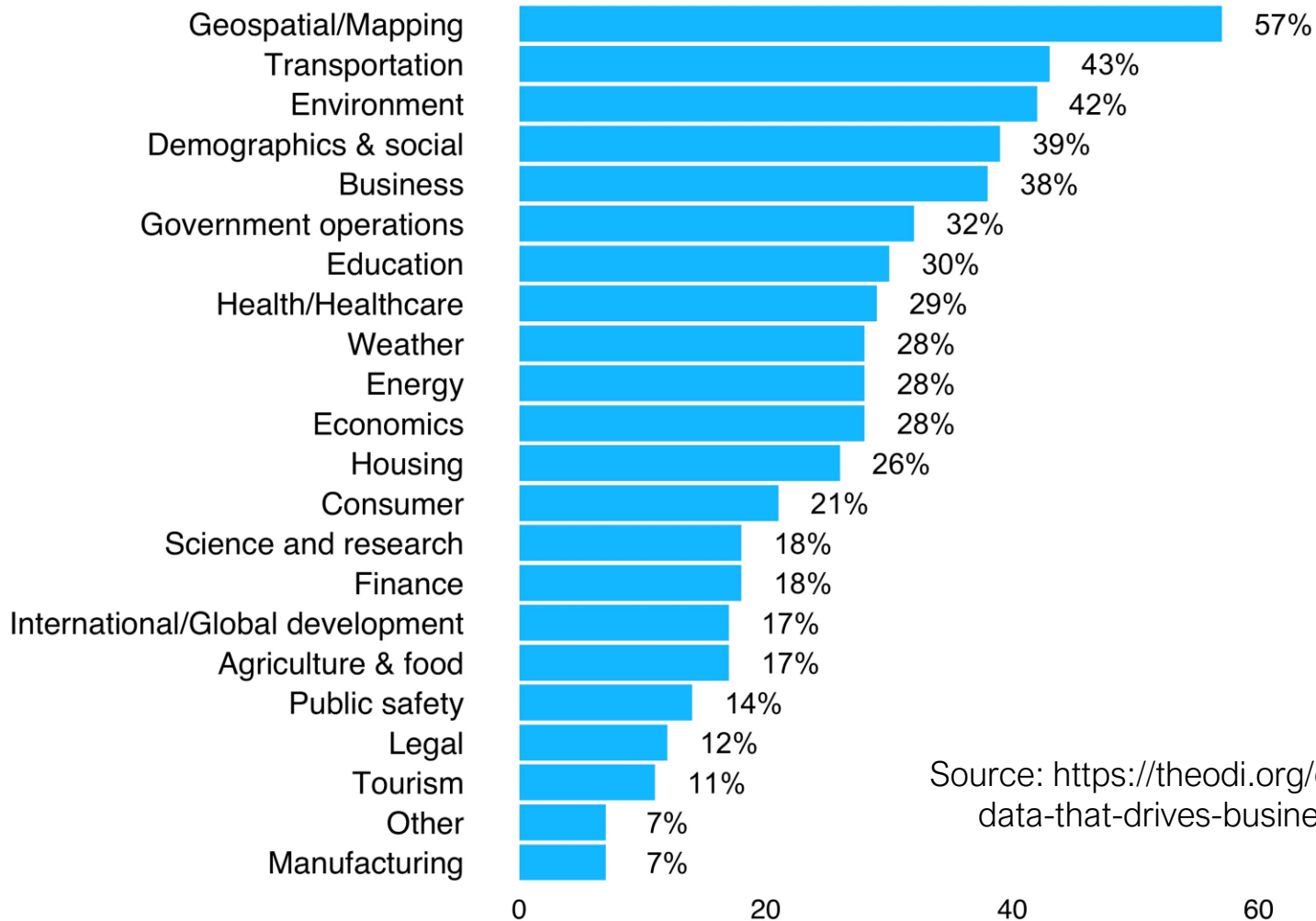
It is very difficult to quantify value of open data, especially at the level of individual data providers who rarely benefit directly



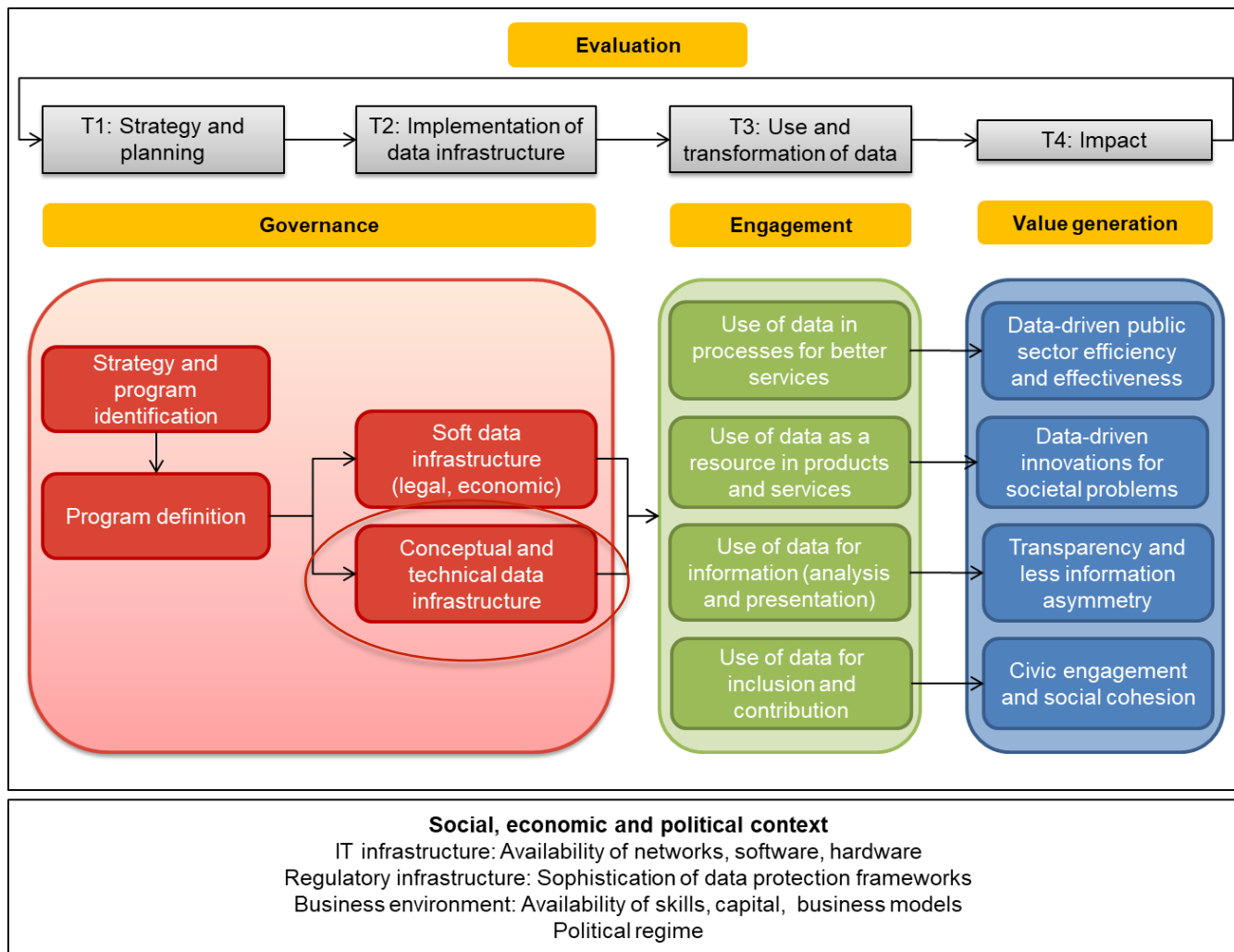
Government organizations have another primary mandate and get limited extra funding to drive open data initiatives



While the public wants and needs transparency, many politicians are still reluctant



Source: <https://theodi.org/open-data-that-drives-business>



Is this missing?

“ "The data was siloed. You couldn't search across multiple company registers, you couldn't search for directors across multiple jurisdictions and you couldn't combine the information from those registers together. We felt that the need was essentially to create a single unified interface to all of this data, allowing it to come together. **Insight generally comes from combining more than one dataset together.** As each dataset becomes available as open data, the opportunities for taking that and coming up with completely new business models, and new ideas about what's possible, are tremendous."

- **Chris Taggart, OpenCorporates** ”

PLATFORM VS. PRODUCT

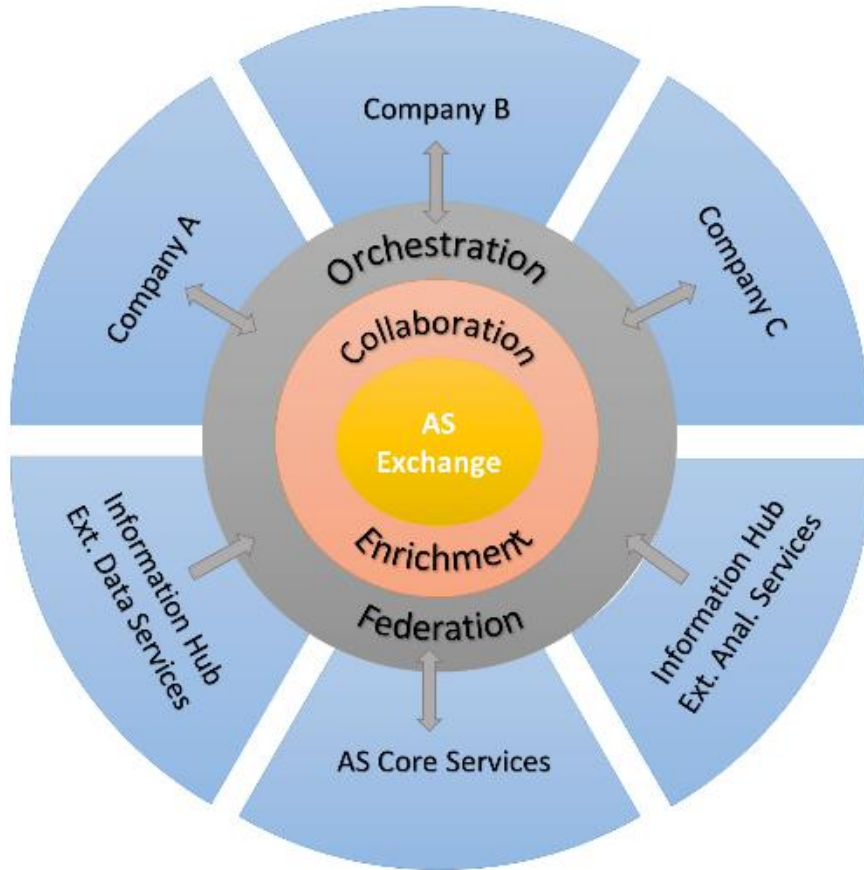
	Product	Platforms
1. Mindset	Zero-sum (winner takes all)	Win-win (share benefits)
2. Impact	Linear	Exponential
3. Business model	License	Non-linear pricing
4. Architecture	Closed + Ring fenced	Open APIs

Source: The Hive

Work WITH private sector?

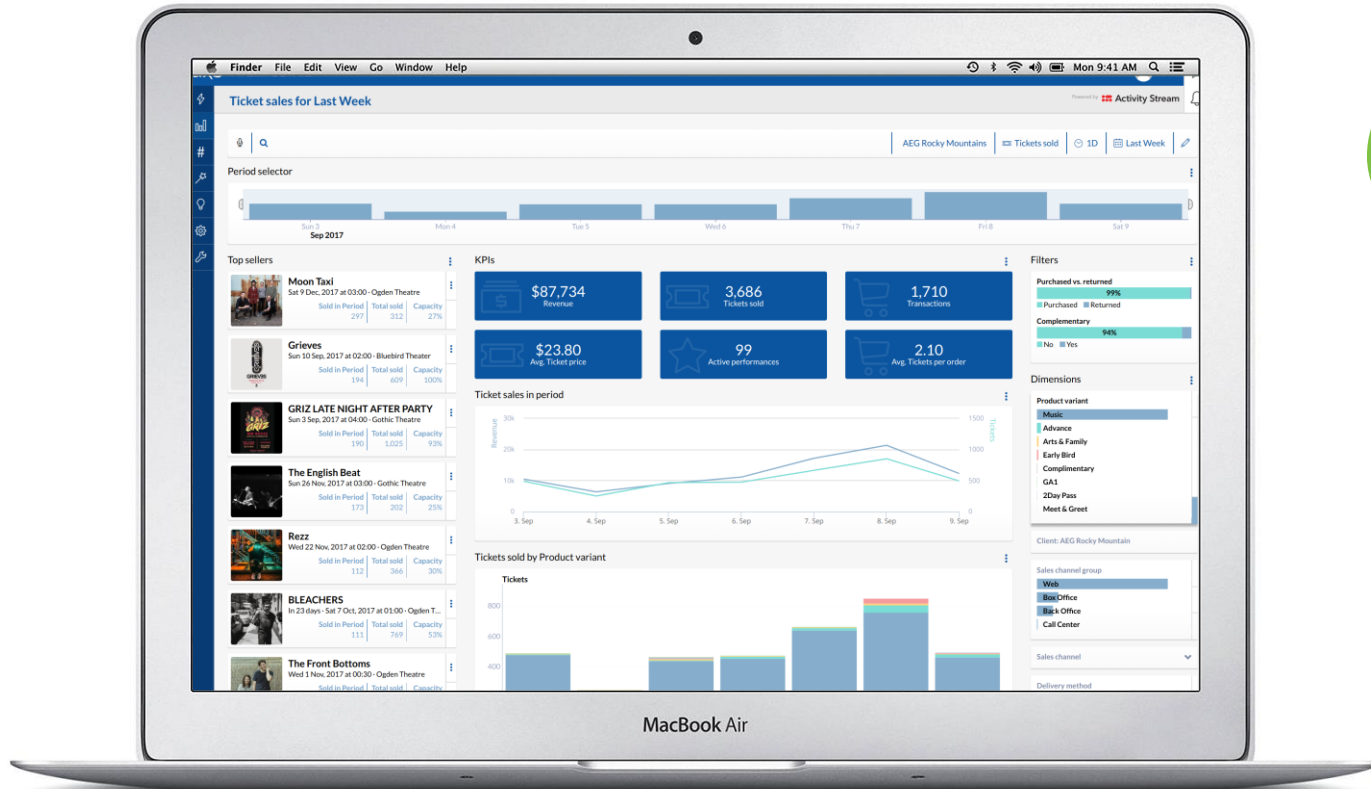


Activity Stream



- Activity Stream offers standard interfaces
- We transform the data to our own structure (graph database)
- Afterwards we can combine almost every data
- Companies can collaborate by combining data for more accurate analytics and then share benchmarking data, metadata etc.
- Or share business events
- Or buy or sell enrichment data (data services)

ANALYSING STREAMING DATA INTEGRATED FROM DIFFERENT SOURCES



BRACE YOURSELF
THE FUTURE IS COMING



Any questions?

LET'S STAY IN TOUCH!

thorhildur@activitystream.com

Twitter: @hildajetzek

LinkedIn: <https://www.linkedin.com/in/thorhildur/>

