

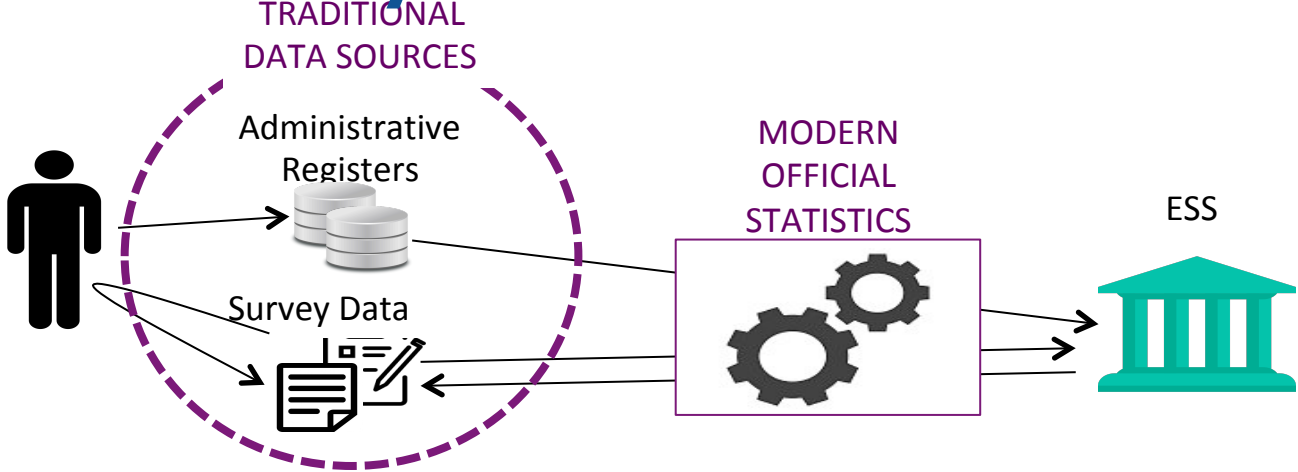
Trusted Smart Statistics: how new data and technologies will reshape official statistics

Martina Hahn

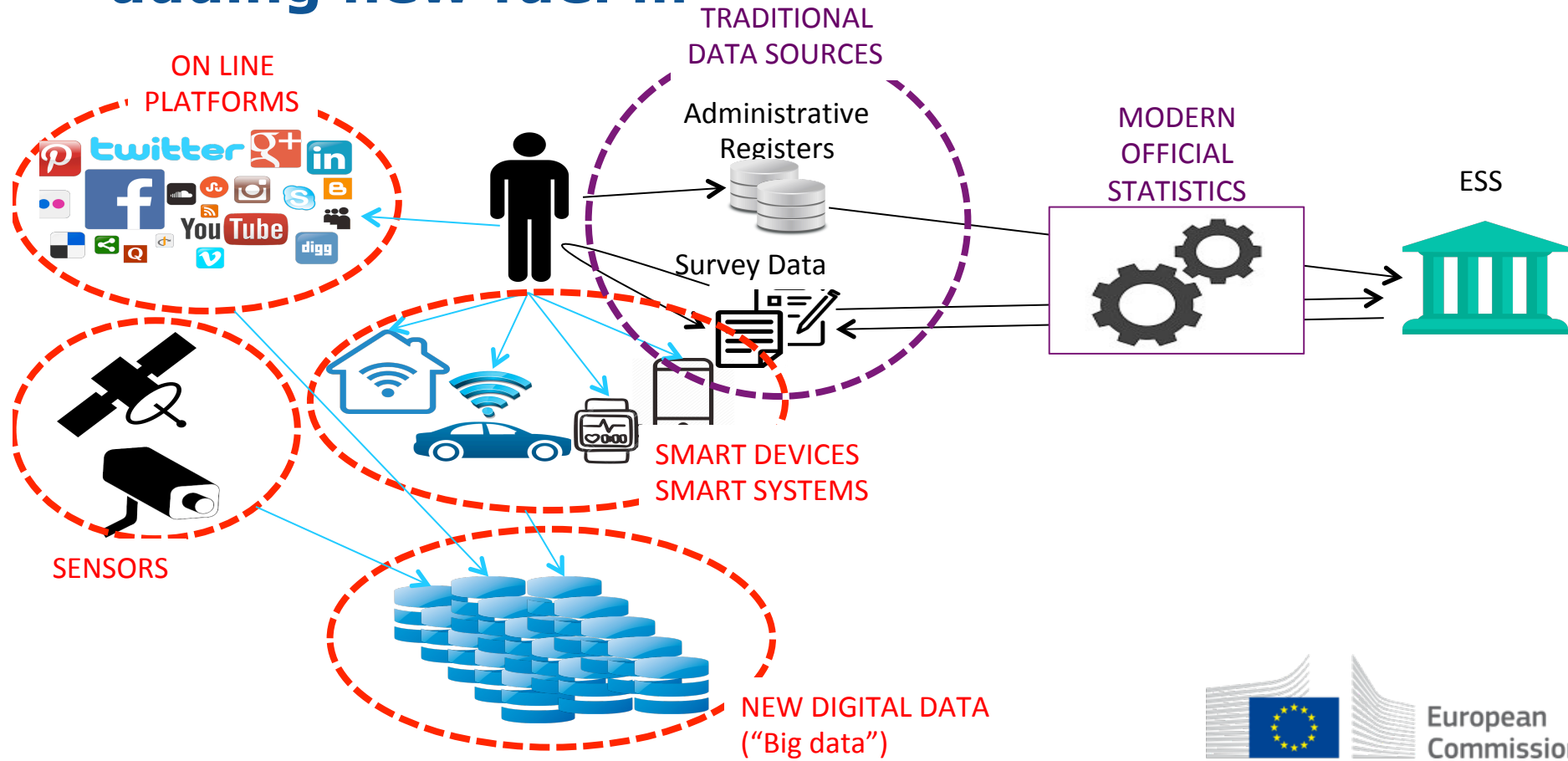
**Head of Unit B1 – Methodology; Innovation in
Official Statistics**

EUROSTAT- European Commission

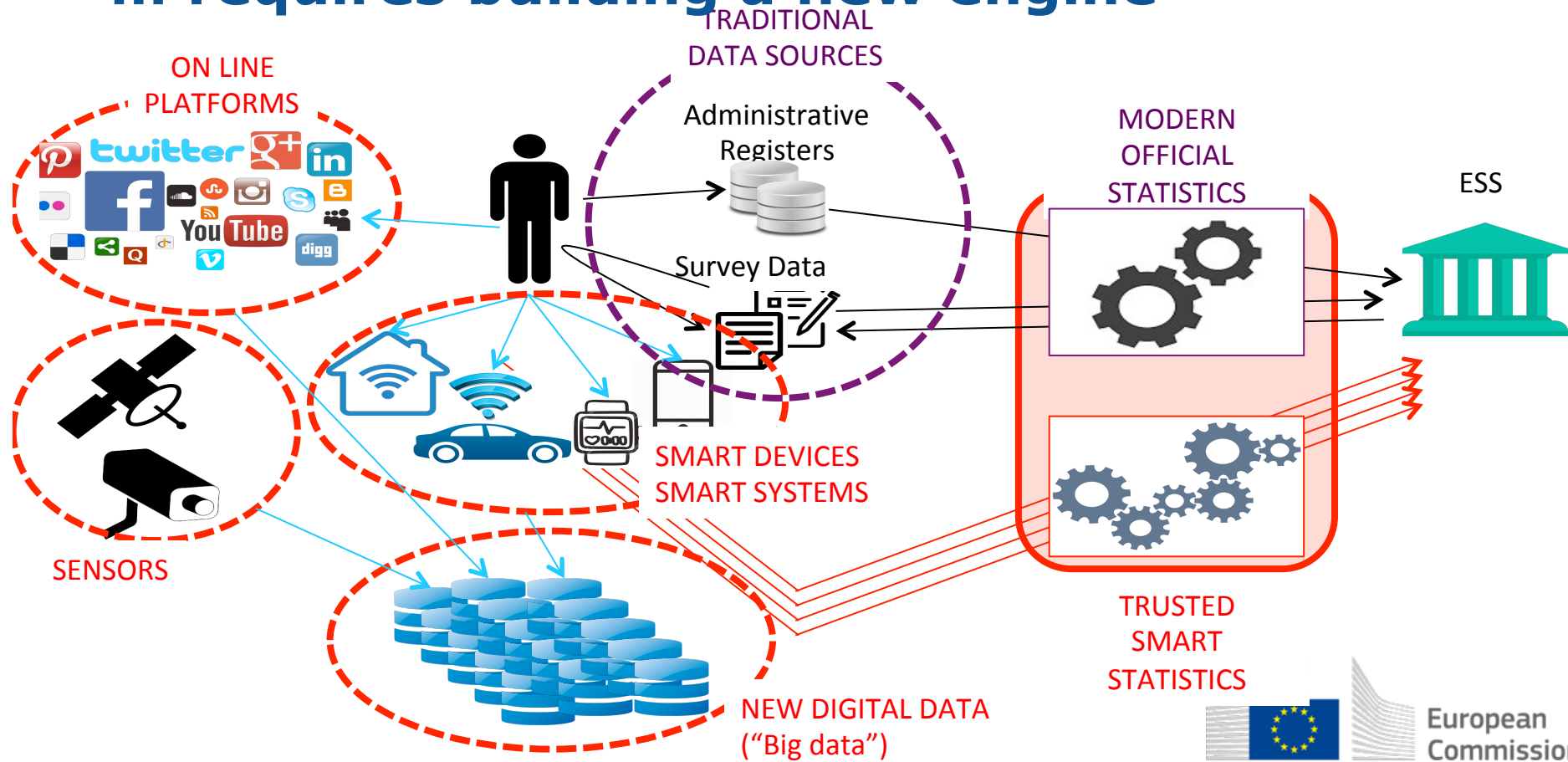
Official Statistics today



adding new fuel ...

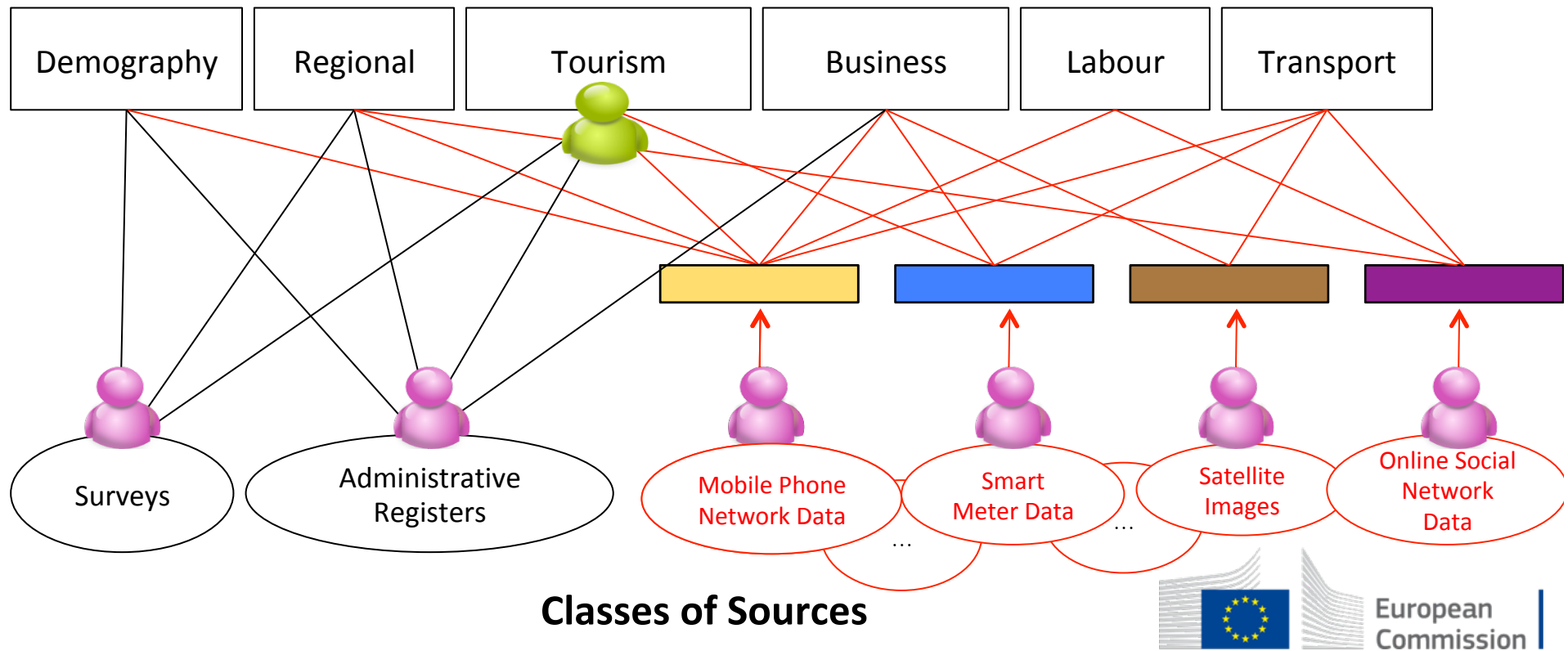


... requires building a new engine

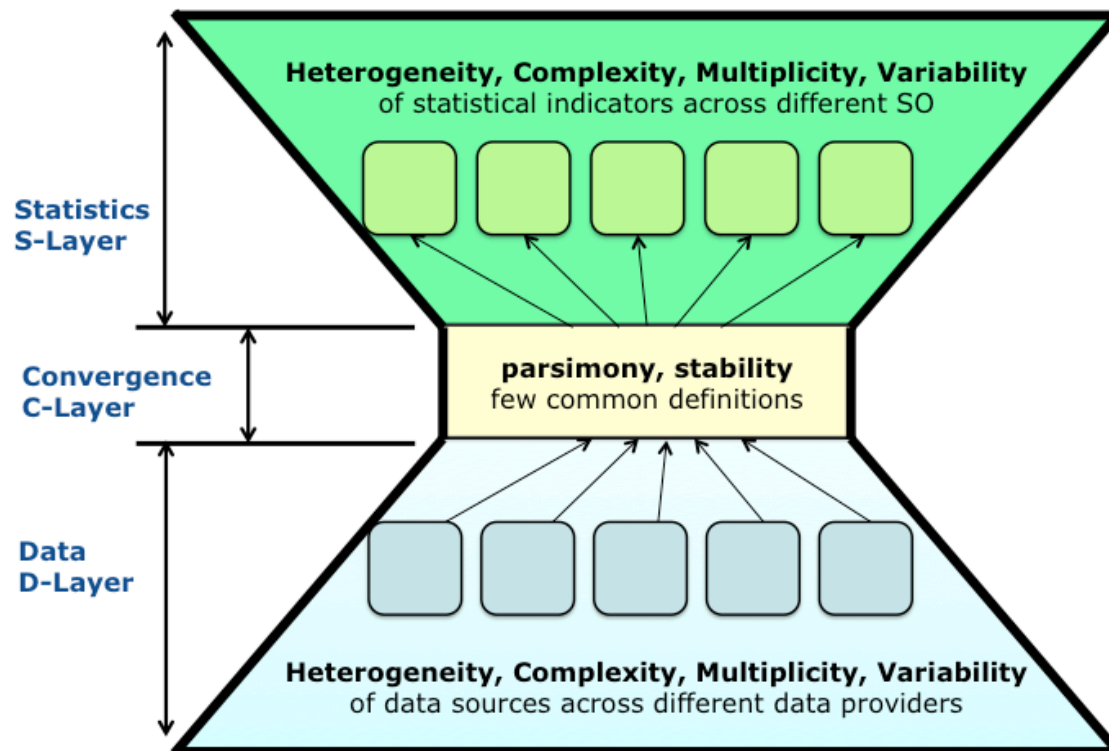


Multi-source statistics, multi-purpose data

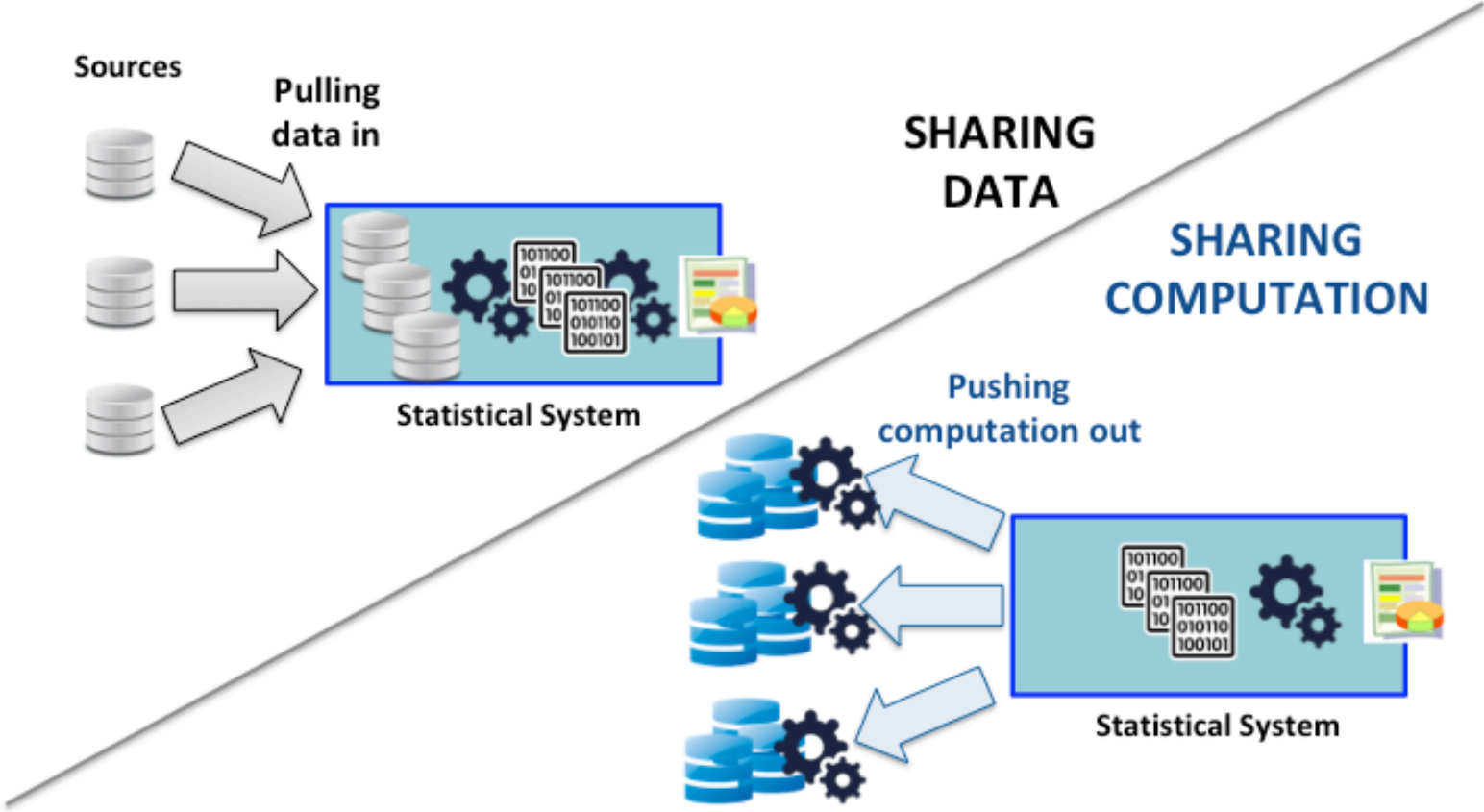
Statistical Domains



New methodological frameworks layered approach, hourglass model



Pushing computation out



Secure Private Computation and Auditability

Adopt **Secure Private Computing** technologies
→ disclosing only the desired **output information**
→ using data without sharing them

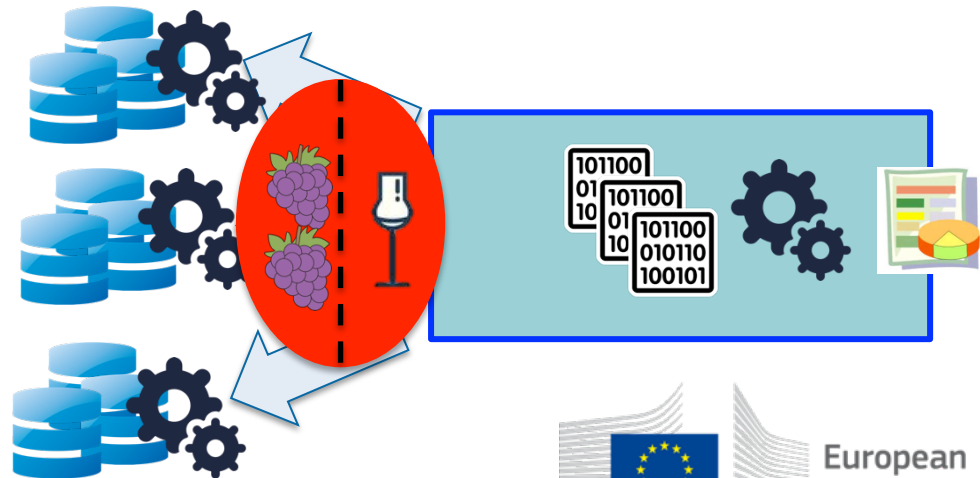


not the whole input data

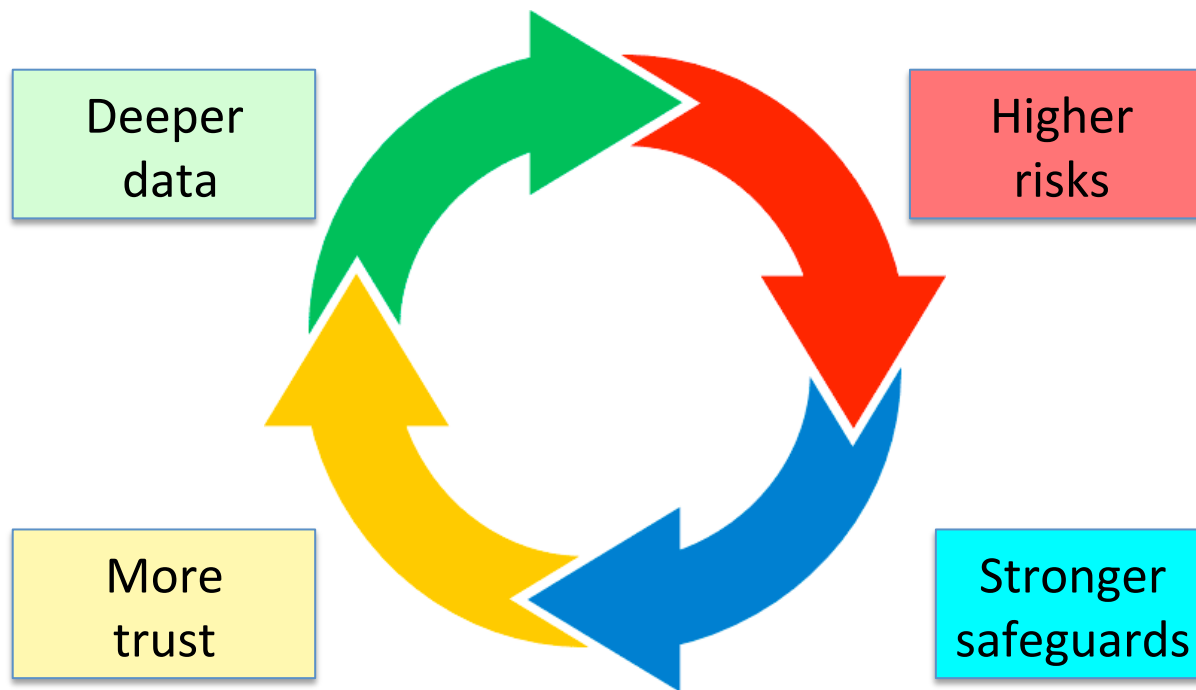


Sharing control with data holders
over computation *execution*

Maximal transparency, auditability

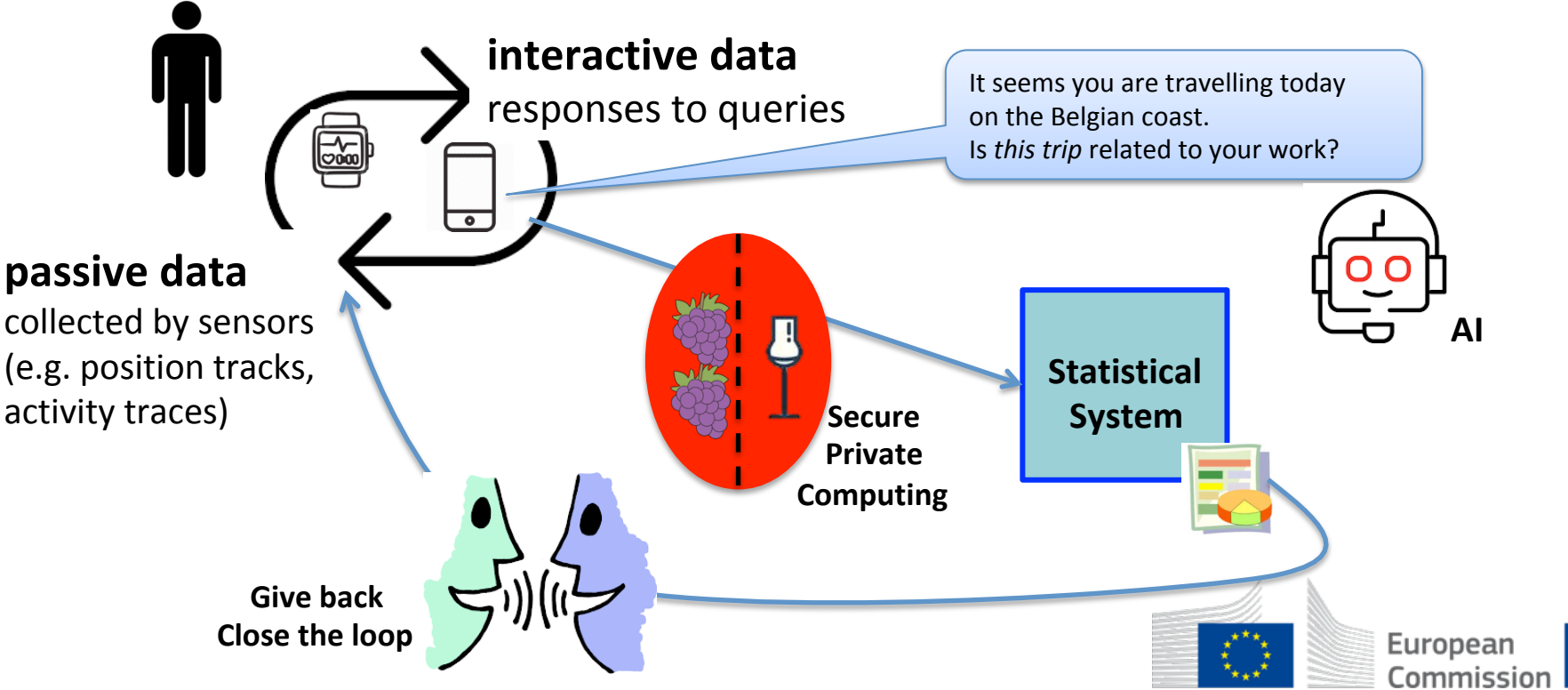


Trustworthiness → better data

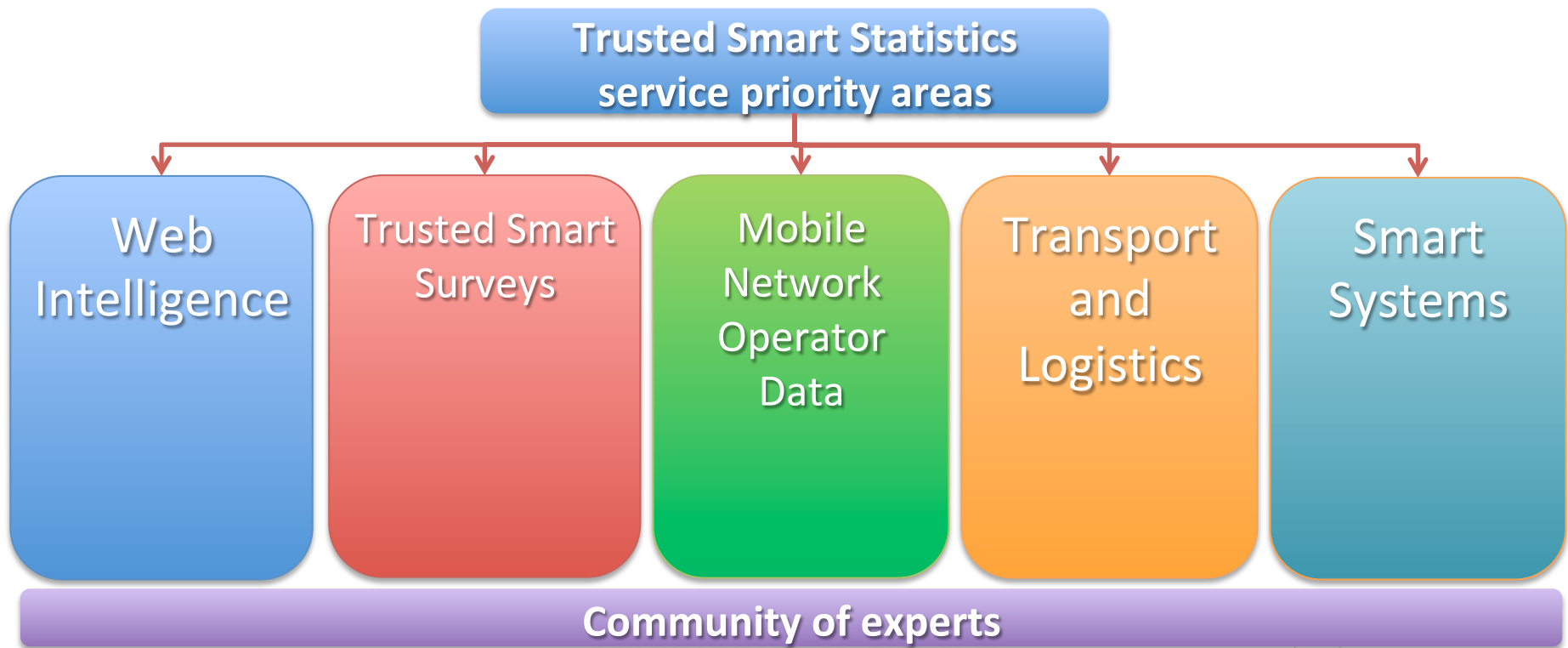


Engaging citizens, participatory statistics

Trusted Smart Surveys

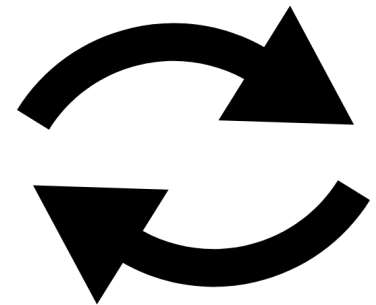


Trusted Smart Statistics Center



Access to privately held data

- Public-private partnerships can be successful, but also ephemeral.
- Ensuring ***stable and sustainable*** data access might require new legislation.
- Working out the technical, methodological and legal challenges must be done in parallel



**Data: a scarce
commodity
in the past**



**From concentrating efforts
on collecting data ...**



**... to distilling high-quality statistics
from ubiquitous sources**



Thanks for your attention

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Further reading

<https://zenodo.org/record/3066061#.XOPLUPxR10s>