GDPR strategies - A guide for survival

by Rigo Wenning (ERCIM/W3C legal counsel)

19 May 2020

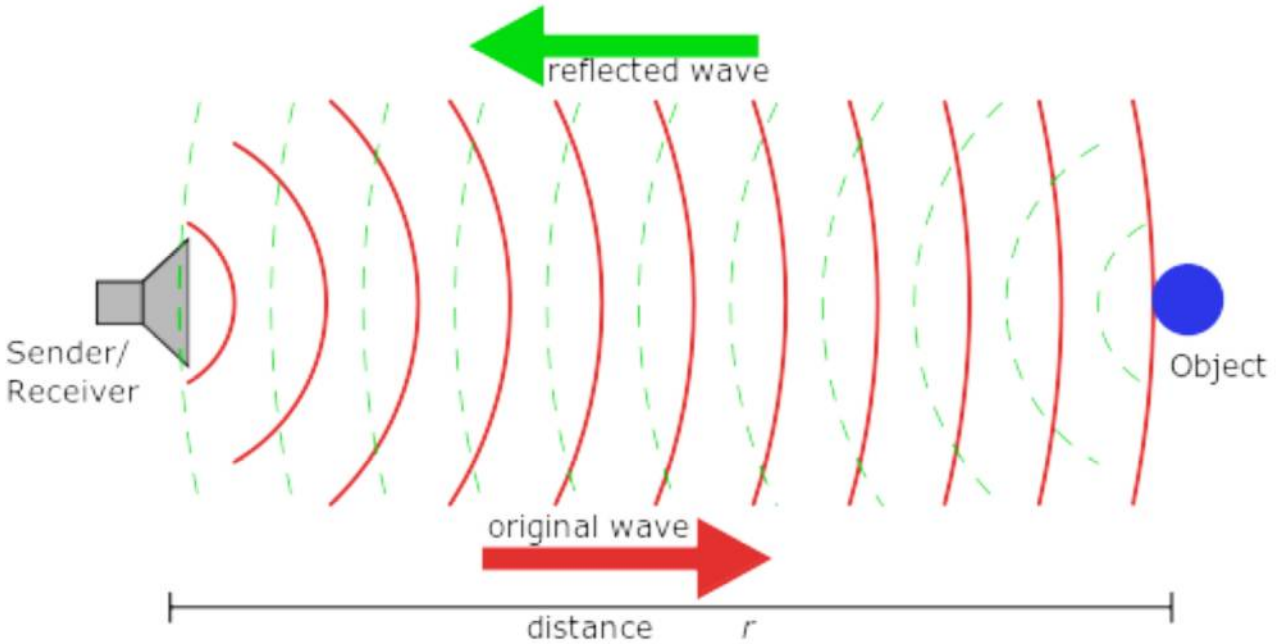
Data Market Services

Three possible strategies:

- Do nothing (flying under the radar of the DPA)
- Entering the Anonymisation – De-Anonymisation game
- Contextual consent gathering and intelligent data handling that preserves knowledge about legal grounds for processing

Data Market Services

Do nothing



Risk depends on use case

Data Market Services

Benefits

- Simplicity : Processing data without limits and filters and constraints
- New insights : Derive new knowledge from your data
- Cost : No time/money/investment in additional safeguards

Data Market Services

Caveats

- administrative fines up to **€ 20 Mio,** or in the case of an undertaking, up to **4 % of the total worldwide annual turnover** of the preceding financial year, whichever is higher
- Depending on type of service: Loss of trust & clients:
  - If Facebook-like service, trust is not really important
  - If more like banking & shopping it is a major risk
- Penal fines e.g. in France (Art. 226-16 Code pénal ss)
  - Up to five years in prison

Data Market Services

Anonymisation - De-Anonymisation

Data Market Services

Anonymization buzzwords

- K – Anonymity (Samarati 1999)
  (at least k people in a sample)
- L – Diversity
- T – Closeness

- Differential Privacy
  (Removing outliers by adding noise)

The anonymity Problem

- The amount of records is increasing every day
- Data is de-identified by removing an explicit identifier (e.g. eMail, SSN)
- Other data with identifiers can be correlated with the de-identified data for re-identification
- Identities can be linked with de-identified information => re-identification

Stolen from Pierangela Samarti 2008

Data Market Services

Issues

- The nicer the reconstruction attacks, the stronger the need for ϵ to be high
- The more noise or means to obfuscate, the less quality and entropy in the data
- Aggregation and mining risk pure whitewashing if the result is used to target/discriminate against individuals

The anonymization trap

- The better the reconstruction attack, the more data must be stripped
- Data has less and less information
- Data value is destroyed
- Data becomes meaningless

Getting to consent

- Simplicity of consent is difficult
- Contextual interfacing is key for consent
- Asking simple questions needs mastering of one's own workflow

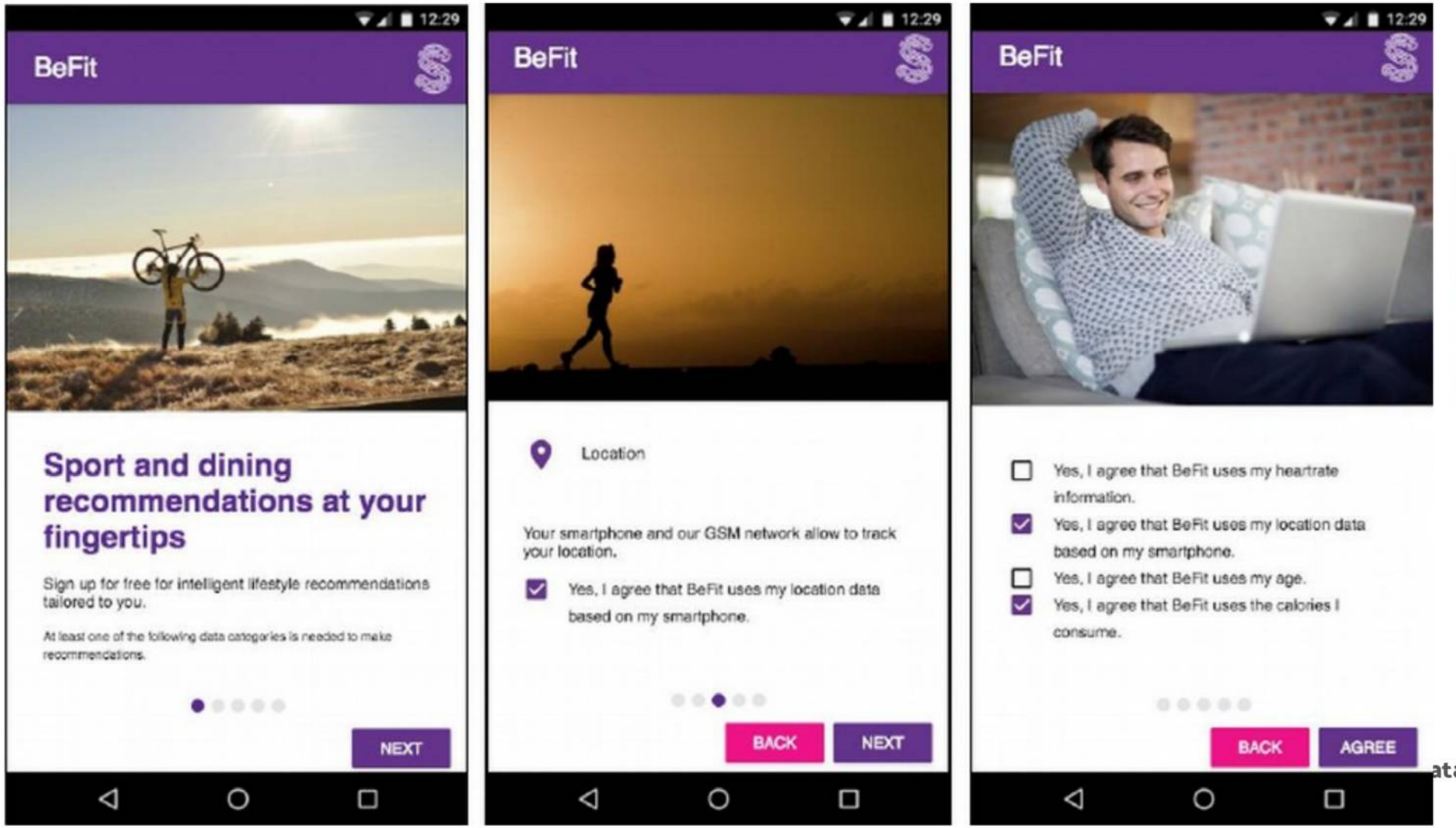
Data Market Services

Advantages

- High quality data and user involvement
- Legal compliance made easy
- Usable data lakes without liability risk
- Creation of data value chains with others while respecting policy & GDPR

Data Market Services

Screen restrictions and simple messages



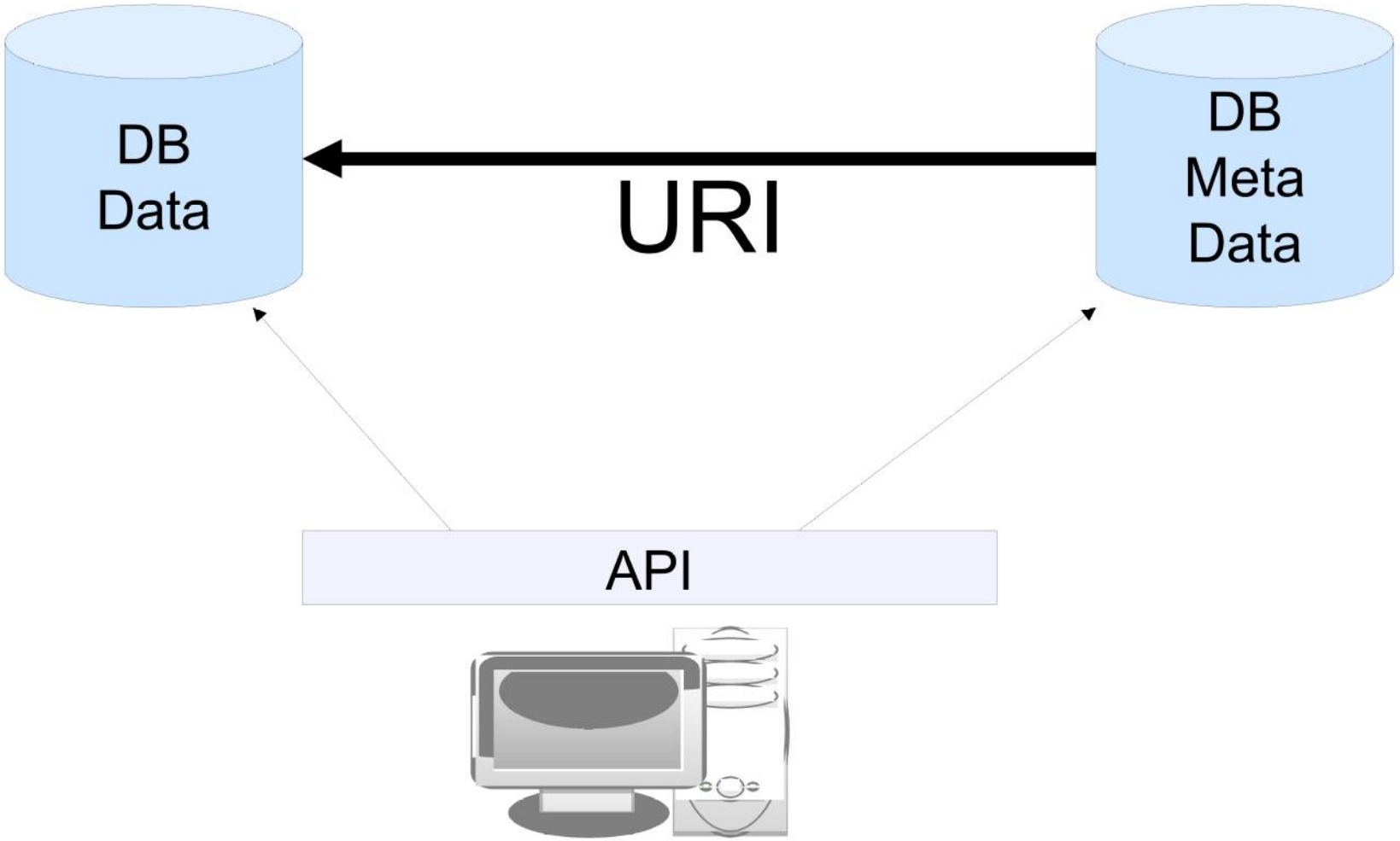
ata Market Services

Gather Metadata

- Metadata from interaction with consent interface
- Metadata from protocol chatter
- Cookies and identifiers
- Policies applicable to this particular interaction
- Environmental data (data controller, third parties involved)

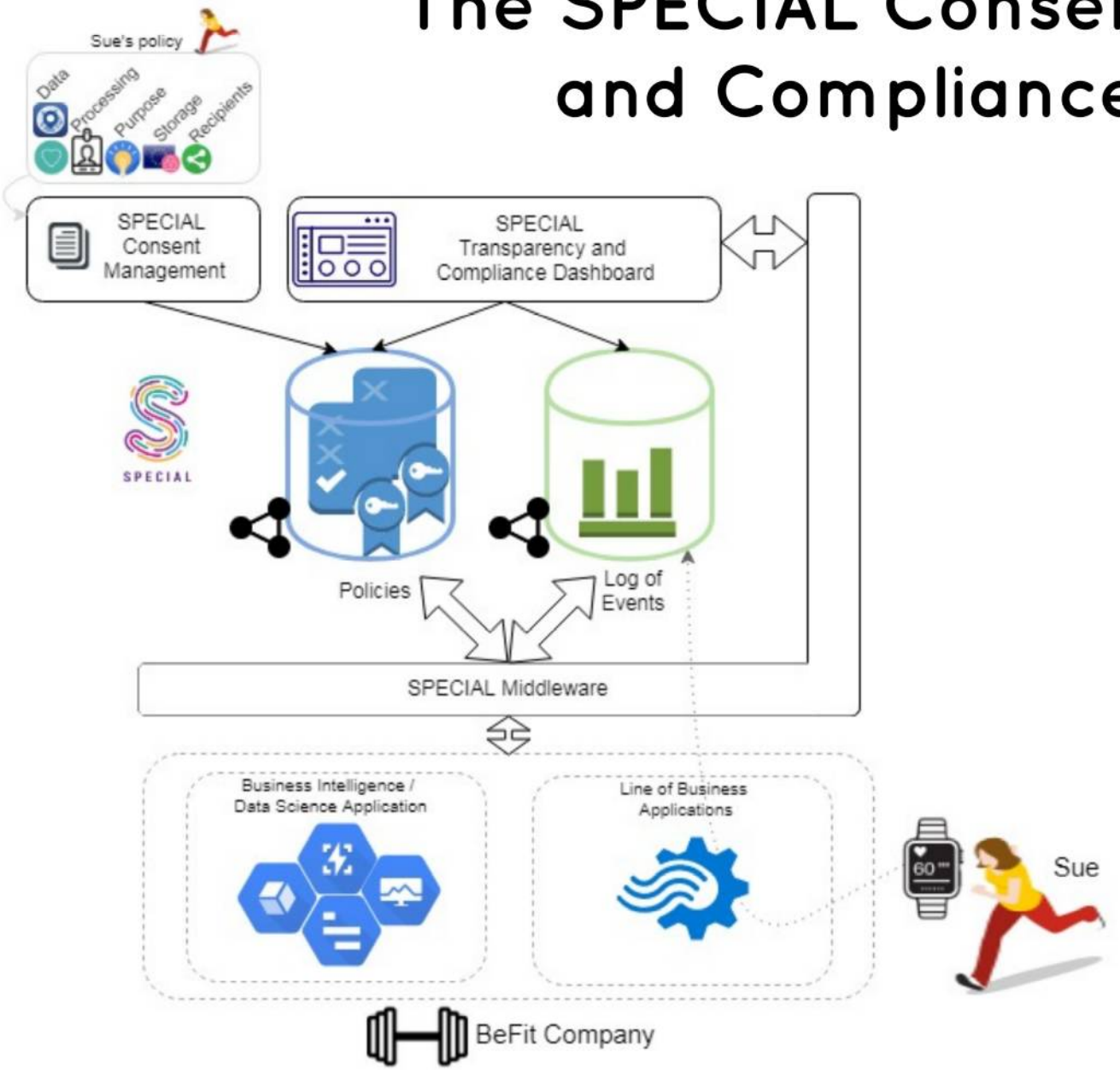
Data Market Services

Sticky policies using Linked Data



Data Market Services

The SPECIAL Consent, Transparency and Compliance framework



Data Market Services

Need for Vocabularies to express those things

eg. Existing Vocabularies

- **FOAF**, **vCard** and **schema.org** offer vocabularies to model personal data
- **DICOM** can be used for health data with lots of attributes for fitness
- **NeoGeo**, **GeoSPARQL** or **WGS84 Geo Positioning** can be used to express location data.
- **P3P** WG had developed an RDF vocabulary with purposes
- **ODRL** t has a model that allows the expression of actions, prohibitions, and obligations to describe consent semantics, use of data and access.
- **OWL Time** can express time and duration for processing and retention.
- **PROV** is a good starting point to model source and quality of data and the source of the consent needed for processing.

Data Market Services

The SPECIAL Policy Language Starting Points

Data collection

Purpose

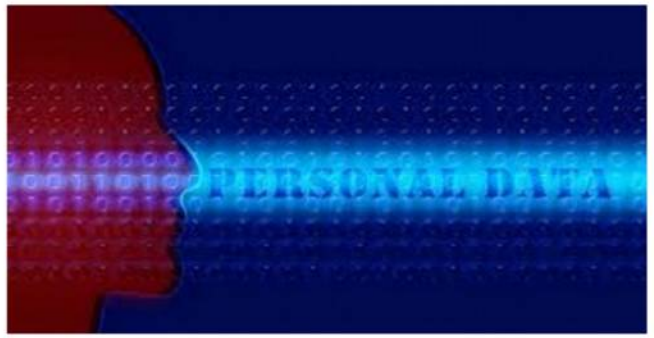
Notifications

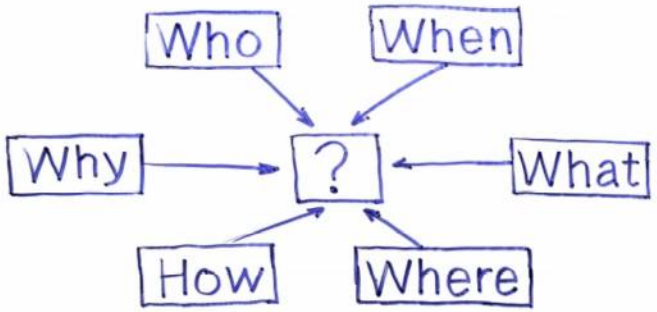
Place of storage

Data retention

Data sharing

Transparency & Compliance





ORACLE Symantec vmware amazon Microsoft SAP salesforce.com Adobe Services

Data Privacy Controls and Vocabularies

A W3C Workshop on Privacy and Linked Data

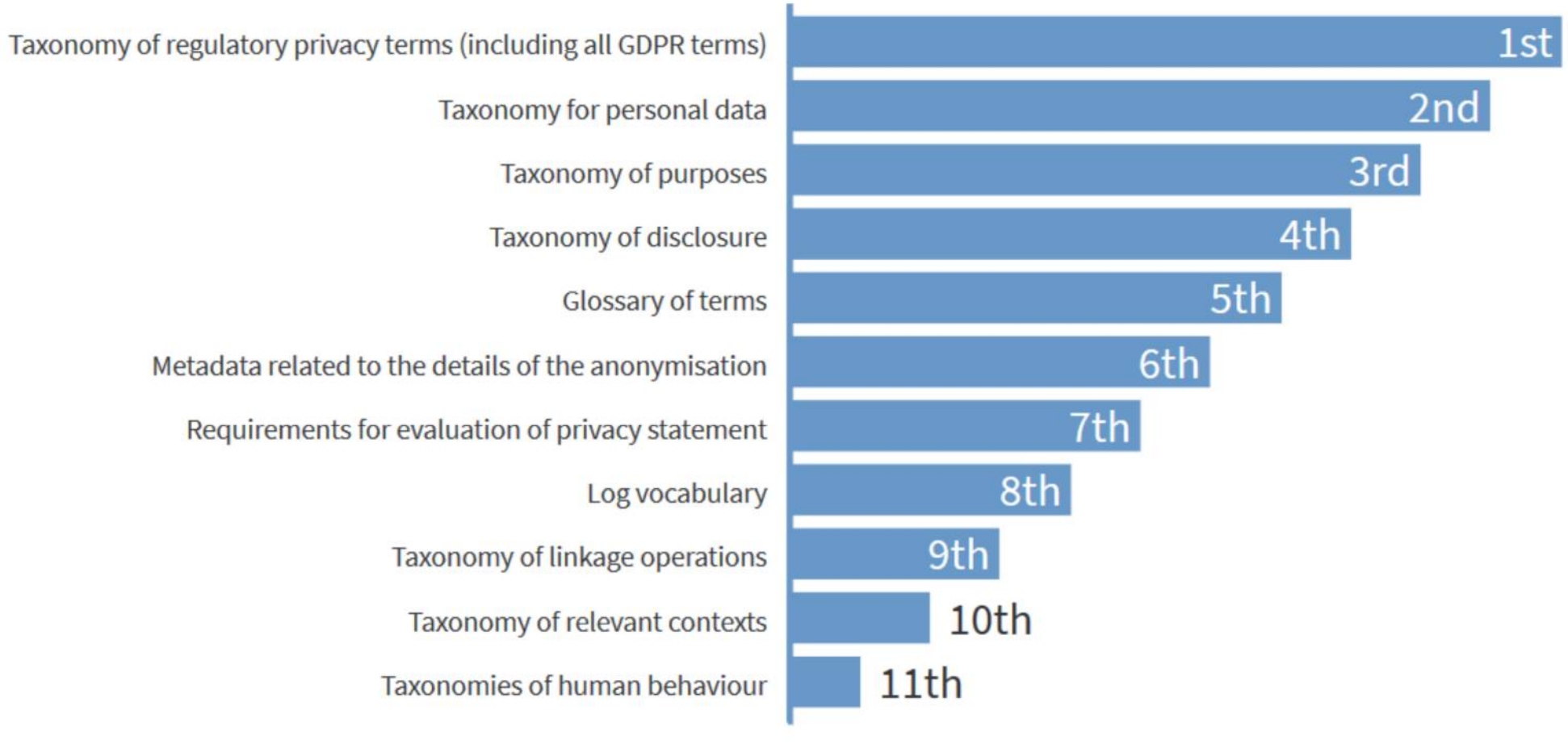
17–18 April 2018, WU Vienna, Vienna, Austria, Europe

Report	Intro	How to participate	Logistics	Program committee	People	Workshop schedule

Data Market Services

What would you like to standardise (rank in order) V2?

Respond at **PollEv.com/sabrinakirra386**



Poll Everywhere

Help

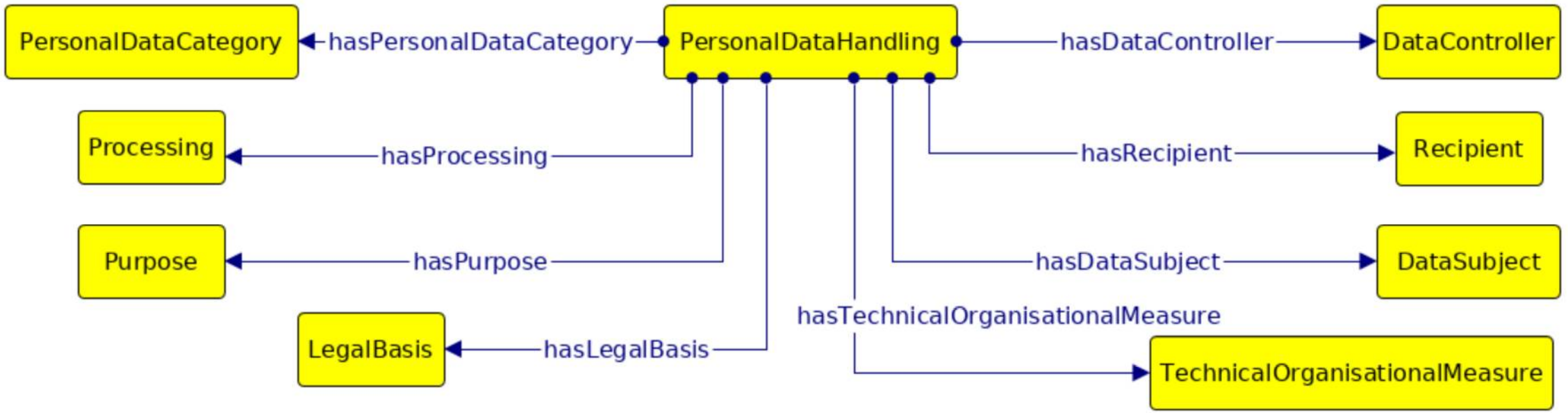
https://pollev.com/sabrinakirra386

Data Privacy Vocabularies & Controls Community Group (DPVCG)

- A Group to do coordination und harmonisation
- A platform for those interested in Privacy enabling technologies
- Development of a vocabulary for data protection & Interoperability
- https://www.w3.org/community/dpvcg/

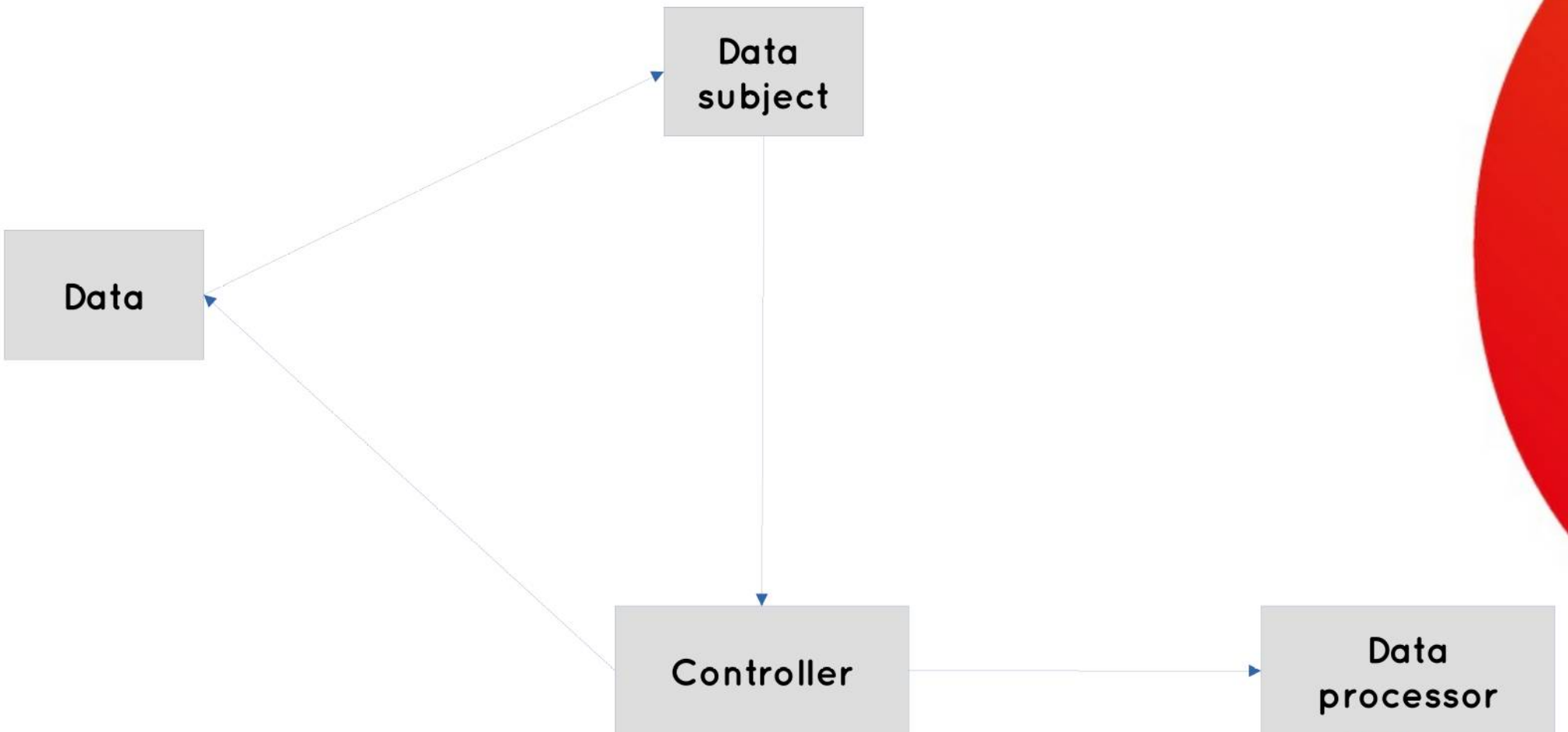
Data Market Services

Semantics centered around processing



Data Market Services

Centrered around data subject



Data Market Services

If you want to know more:

Get involved

https://www.w3.org/community/dpvcg/

Data Market Services

Attributions

- Sonar Principle by Georg Wiora (Dr. Schorsch) [CC BY-SA 3.0]
- Quadcopter by Simon Waldherr [CC BY-SA 3.0]
- Bird by Malikmak333 [CC BY-SA 4.0]
- Jail Bars by Antonu [CC BY-SA 3.0]

Data Market Services