


Telecom operators Big Data & GDPR

**Source of value
or
Disincentive for
investment?**

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TERRITORIAL SCOPE

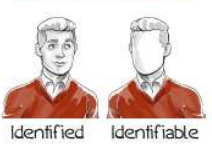


EU Establishments
Non-EU Established Organizations
Offer goods or services or engaging monitoring within the EU.

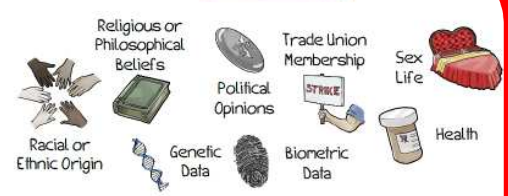
THE PLAYERS




PERSONAL DATA



SENSITIVE DATA



RESPONSIBILITIES OF DATA CONTROLLERS AND PROCESSORS




Security
Data Protection Officer (DPO)
Designate DPO if core activity involves regular monitoring or processing large quantities of personal data.
Record of Data Processing Activities
Maintain a documented register of all activities involving processing of EU personal data.
Data Protection by Design
built in starting at the beginning of the design process
Data Impact Assessment
For high risk situations

LAWFUL PROCESSING

Collection and processing of personal data must be for "specified, explicit and legitimate purposes"
-with consent of data subject or necessary for

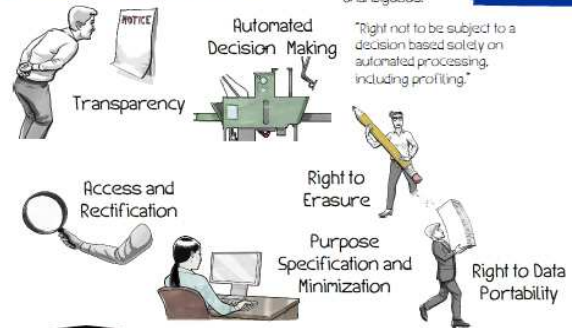
- performance of a contract
- compliance with a legal obligation
- to protect a person's vital interests
- task in the public interest
- legitimate interests

CONSENT




Consent must be freely given, specific, informed, and unambiguous.

RIGHTS OF DATA SUBJECTS




Transparency
Automated Decision Making
"Right not to be subject to a decision based solely on automated processing, including profiling."
Access and Rectification
Right to Erasure
Purpose Specification and Minimization
Right to Data Portability

ENFORCEMENT




Fines
Up to 20 million euros or 4% of total annual worldwide turnover. Less serious violations: up to 10 million euros or 2% of total annual worldwide turnover.
Effective Judicial Remedies:
compensation for material and non-material harm.

DATA BREACH NOTIFICATION




A *personal data breach* is "a breach of security leading to the accidental or unlawful destruction, loss, alteration, unauthorized disclosure of, or access to, personal data transmitted, stored or otherwise processed."
If likely to result in a high privacy risk → notify data subjects
Notify supervisory authorities no later than 72 hours after discovery.

INTERNATIONAL DATA TRANSFER



Adequate Level of Data Protection
Binding Corporate Rules (BCRs)
Privacy Shield
Model Contractual Clauses

GDPR


www.teachprivacy.com

A broaden definition of personal data

identify **directly**
or **indirectly**
a person

What is personal data?

TELCOS

- Name
- Address
- Localisation
- Online Identifier
- Health information
- Income
- Cultural profile
- and more

**COLLECT
STORE
USE
DATA?**

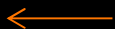
You have to abide by the rules.

Process data for other companies?
This is for you too.

IP adress,
cookies, RFID



genetic,
biometric,
social identity,
cultural...



pseudonymisation is encouraged by GDPR

Previously... (15 years ago)

- ✓ the "Framework" Directive (2002/21/EC)
- ✓ the "Access" Directive (2002/19/EC)
- ✓ the "Authorisation" Directive (2002/20/EC)
- ✓ the "Universal Service" Directive (2002/22/EC)
- ✓ the "E-Privacy" Directive (2002/58/EC)



With National implementations and fully monitored by National Agencies

The perfect dream: telecom operators data (CDR)

But forget it!

- ✓ Available for billing purposes
- ✓ Available for legal requirements
- ✓ Internal experiments under legal agreements with French authorities (CNIL, Privacy)
- ✓ Models are built on anonymized profiles then applied for marketing purposes (e.g. Churn)

What we could do...

✓ Improve network monitoring

- 👍 Networks indicators are not related to personal data
- 👍 SDN/NFV multiplies by 10 or 100 the number of indicators
- 👍 Fraud detection

✓ Improve Quality of Service

- 👍 Dynamic alerting (fault detection, external patterns)
- 👍 Edge & Core networks (reallocation of resources)

✓ Improve Quality of Experience

- 👉 Prediction of required latency and bandwidth (e.g. 5G, autonomous vehicles, content distribution)

✓ Design new services

- 👉 Integration of new features in boxes, IoT, new content for TV

And now?

- ✓ Growth of uncertainty: e-Privacy...
- ✓ Focus on security and privacy tools?
 - Homomorphic cryptography
 - Differential Privacy
- ✓ We are far of Big Data promises (after 5 years)
 - Cross fertilization of data
 - New value delivered to customers
 - New business

Thanks

