



# **Are tracking and surveillance unavoidable in the Internet of Things?**

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**Head of Sector IT Policy**  
**EDPS**  
**ISACA Valencia 28 October 2016**



# Outline

1. Who we are
2. The Problem
3. The Law
4. The Challenge

# The EDPS

**The EU's  
independent  
data protection  
authority**



EDPS

EUROPEAN DATA PROTECTION SUPERVISOR

# **The work of the EDPS: Who we are, what we do and how we do it...**



# What is “personal data”?

- any information relating to an identified or **identifiable** natural person (*data subject*);
- **an identifiable person** is one who can be identified, directly or indirectly, in particular by reference to an identification number or to one or more factors specific to his or her physical, physiological, mental, economic, cultural or social identity.





# The EDPS

**The European Data  
Protection Supervisor:**  
an independent institution  
responsible for ensuring  
the protection of personal  
data by the EU institutions  
and bodies



Giovanni Buttarelli  
EDPS



Wojciech Wiewiórowski  
Assistant EDPS



# The EDPS



1. **Supervise** data processing done by EU institutions and bodies;
2. **Advise** the EU legislator and appear before the EU courts;
3. **Monitor** new technologies with an impact on privacy;
4. **Cooperate** with other supervisory data protection authorities.



# Example: Video-surveillance

**Appendix 2 of the Guidelines contains a sample on-the-spot data protection notice:**

[Insert your video-surveillance pictogram: you may consider, for example, the ISO pictogram or the pictogram customarily used where you are located.]

For your safety and security, this building and its immediate vicinity is under video-surveillance. No images are recorded.

[Alternative: The recordings are retained for 48 hours.]

For further information, please consult [www.domainnameofyourinstitution/cctv](http://www.domainnameofyourinstitution/cctv) or contact the Agency's security unit at [telephone number and email address].

[Include multiple language versions when applicable.]



## On-the-spot notices video-surveillance



# Technology & law in the EU



**amazon.com<sup>®</sup>**

1995

1990 Directive 95/46

1981 UK Computer Misuse Act

1978 Council of Europe:  
Convention 108  
France:

1<sup>st</sup> EU Member State to have data  
protection law + DPA

1970

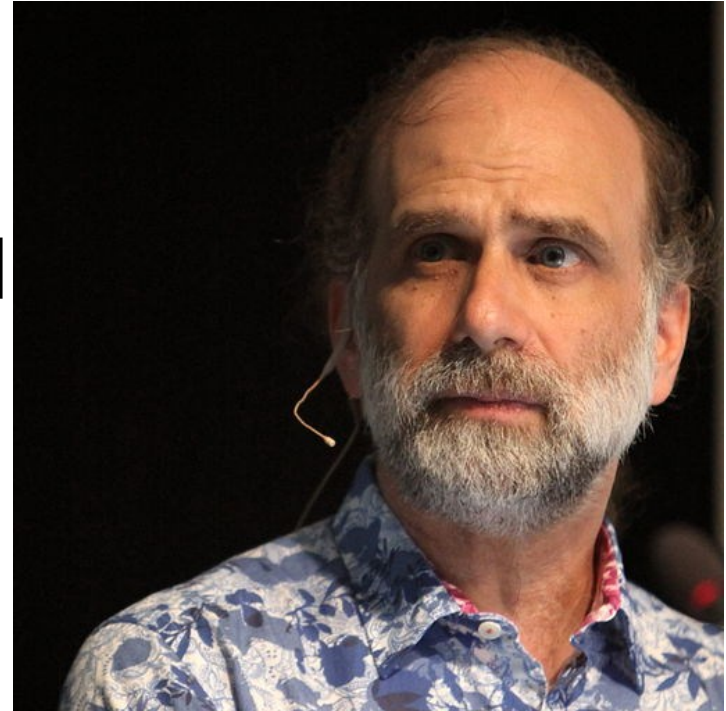
Hessen (Germany)  
1<sup>st</sup> data protection law in Europe

# The Problem

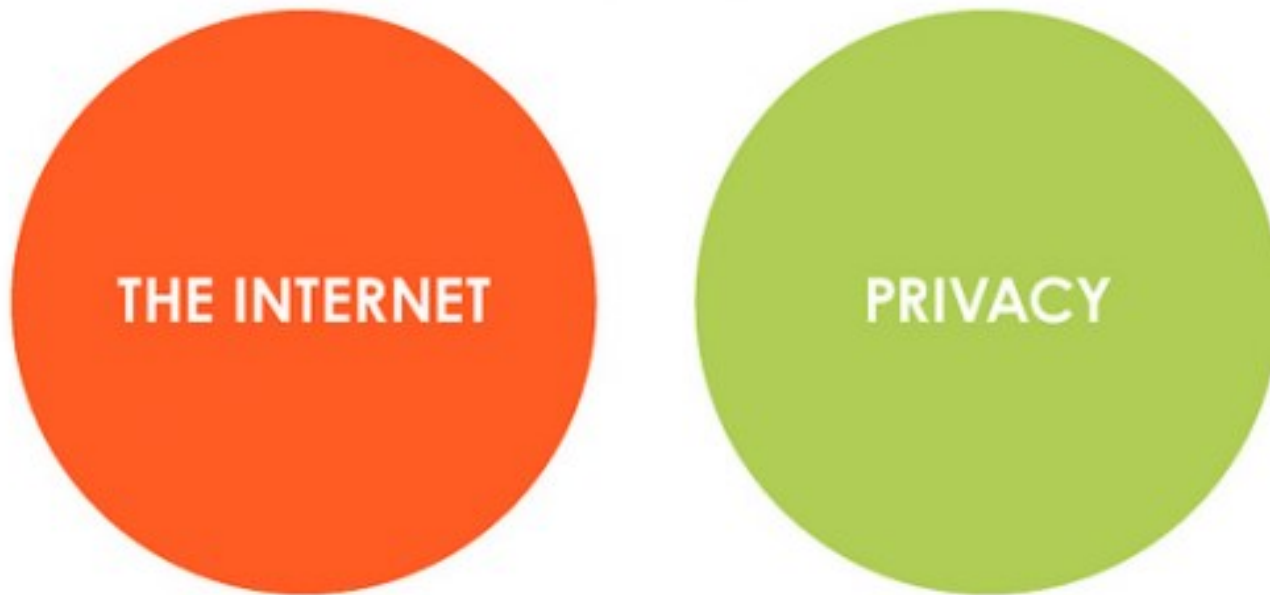


# Bruce Schneier

"Surveillance is the business model of the Internet. We build systems that spy on people in exchange for services. Corporations call it marketing."



# Challenges to Privacy



**A HELPFUL VENN DIAGRAM**



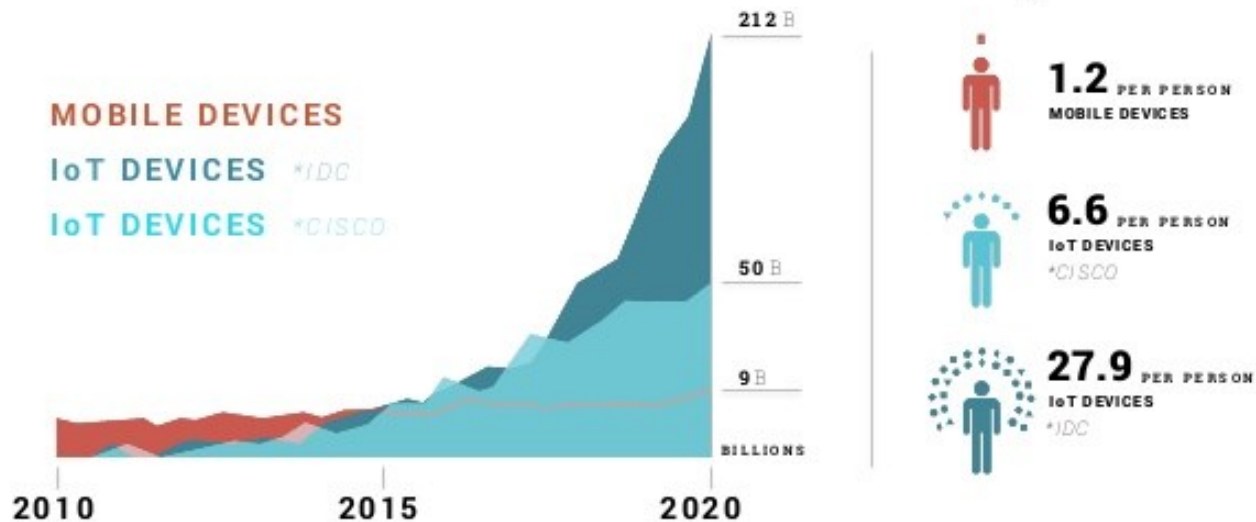
# The next DDOS attack

...

# The 'S' in 'IoT' is for Security

# Growth expectations

## 212BB Connected Devices by 2020





# Sensitive data collection



# The Law



# General Data Protection Regulation (GDPR)

## Article 25

Data protection by Design and by Default  
(...) the controller shall (...) implement appropriate technical and organisational measures (...), which are designed to implement data-protection principles (...) in order to meet the requirements of this Regulation and protect the rights of data subjects.



# GDPR Recital 78:

... the controller should adopt **internal policies and implement measures** which meet ... the principles of data protection by design and ... by default. (examples) ... producers of the products, services and applications should be encouraged to take into account the right to data protection .... The principles ... should also be taken into consideration in the context of public tenders.

# The Challenge

# Data Protection Authorities

- **Article 29 WP Opinion 02/2013 on apps on smart devices - WP 202**
- **Article 29 WP Opinion 8/2014 on the Recent Developments on the Internet of Things - WP223**
- **EDPS Opinion of 21 May 2015 on Mobile Health - Reconciling technological innovation with data protection**
- **EDPS Opinion on Personal Information Management Systems, 20 October 2016**



# Data Protection Authorities



## Tracking in Public Spaces

The use of tracking technologies in public spaces is on the rise. This has adverse consequences for the right to privacy and may in some cases be unlawful.

<https://www.datatilsynet.no/English/Publications/tracking-in-public-spaces/>

# Data Protection Authorities



**Privacy information falls short in mobile health devices**

**(Published: 19.10.2016)**

**The Norwegian Data Protection Authority has checked how six different devices that helps you measure your health vitals communicate privacy related matters to their customers.**

<https://www.datatilsynet.no/English/Publications/privacy-in-mobile-health-devices/>

# The Challenge

**In real-life development, existing building blocks are used and reused as they are available, often designed without privacy in mind. Developers do not have time and resources to re-develop existing tools, and poor privacy propagates into new applications. Even new mistakes may be added due to lack of detailed knowledge of the tools.**

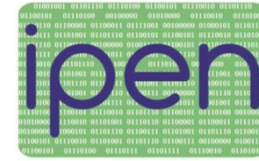
# Internet Privacy Engineering Network

**Privacy and security must become design goals for IoT (and other) devices at all levels:**

- Protocols
- Operating systems
- HW
- User interfaces
- Applications



# IPEN Action Points



- Developers' cookbook
- Funding for privacy
- Bridge between lawyers and techies
- Resource list
- Local IPEN groups



# Thank you!

For more information

[www.edps.europa.eu](http://www.edps.europa.eu)

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