



# Data Protection: The Enabler for Innovative Information Technologies

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[www.edri.org](http://www.edri.org)

# European Digital Rights - EDRI

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- Association of European Digital Rights Associations
  - founded in 2002
  - 32 Member Organisations
  - 20 CoE Countries
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- A map of Europe showing various countries colored in red and blue. Yellow dots are scattered across the map, primarily in Western and Central Europe, representing member organizations or CoE countries.
- bi-weekly newsletter EDRI-gram since 2003
  - German edition since 2006 at [www.unwatched.org](http://www.unwatched.org)

# IT Trends

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- Cloud computing
- "Intelligent" objects
- Sensor networks
- Smart grids
- Intelligent transport systems
- Internet of things
- Big data
- ...

# IT Trends

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- Vast amounts of (personal) data
  - collected, processed, stored, transferred, analysed, combined, aggregated, ...
- Increasing amounts of data controllers
  - interacting with each other
  - dynamically interconnecting their systems
- Decreasing size of computing devices & integration into objects
  - "The most profound technologies are those that disappear" (Mark Weiser, 1991)

# IT Trends

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- Ever cheaper data storage
  - enough storage to identify the location of each of one million people to 5-meter accuracy at 5-minute intervals, 24 hours a day for a full year  
→ comes at 50 USD
  - storage of one year's worth of phone conversations of 15 million people costs about 2.5 million USD  
→ in 2016, this will drop to 250,000 USD

# Data protection

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- Data protection, privacy and associated free speech rights are protected by the Charter on Fundamental Rights of the European Union
- The Charter is *the* promise made by the EU to it's citizens
- Improper data protection
  - will not be a policy failure
  - but a crack in the foundations of trust of citizens in the Union
  - and a crack in the trust of consumers in businesses

# Data protection

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- Lack of trust
  - hinders the advancement of the market
- Lack of data protection enforcement
  - creates unequal market conditions for EU and 3rd country businesses
  - hinders innovation (data protection by design)
  - damages the society
    - it should not be optional to comply with the law

# What needs to be achieved?

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- Trust
  - In information technologies
  - In innovative (online) services
  - In "intelligent" products / environments / ...
- Innovation
  - From massive data exploitation to data minimisation
- Fundamental rights protection
  - At a high qualitative level, everywhere in the EU
  - In all sectors (including law enforcement / governments / ...)



# How to achieve?

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- Clear definition of personal data
  - online behaviour as a rule leaves personal identifiable traces
  - Unique identifiers in most cases need to be considered as personal data
- Consistent enforcement
  - across all member states
  - by sufficiently equipped and empowered DPAs

# How to achieve?

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- Sound legal basis for processing
  - "legitimate interests" need to be made transparent
  - "informed consent" needs to be truly informed and involve a "clear affirmative action" of the data subject
- Transfers to 3rd countries
  - clear enforceable rules
  - "Safe Harbour" clearly is not safe
  - Access to personal data by 3rd countries LEAs
  - How to enforce binding corporate rules?

# How to achieve?

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- Reduce fragmentation of data protection law
  - All processings subject to EU law should be subject to one set of overarching data protection rules
  - The regulation is perfectly suitable to that end
- Put data protection by design into practice
  - Data protection officers
  - Data protection as requirement for IT design
  - Documentation requirements for all data controllers
  - Data protection impact assessments
  - Education

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# We have the choice.

# Without proper data protection

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- Data might be the oil of the 21st century.



Picture: Greenpeace

# With proper data protection

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Picture: CC-BY: janie.hernandez55 on Flickr

Information Technologies  
will be the powering wind  
of the 21st century.

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# Choose wisely!



**Thank you for  
your attention!**

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