

Security as a key element of Privacy and Data Protection

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In brief

- ★ About ENISA
- ★ Challenges for the EU in the area of Privacy
- ★ ENISA's response & contribution

500 Million people in 27 Countries



23 languages



ENISA

Heraklion, Crete

ENISA Overview

- ★ The European Network & Information Security Agency (ENISA) was formed in 2004, employs around 65 experts.
- ★ Develop a culture of network and information security for the benefit of the citizens, consumers, enterprises and public sector organisations of the European Union, thus contributing to the smooth functioning of the internal market.
- ★ The Agency is a *Centre of Expertise* that supports the Commission and the EU Member States in the area of information security.
- ★ We facilitate the exchange of information between EU institutions, the public sector and the privatesector.

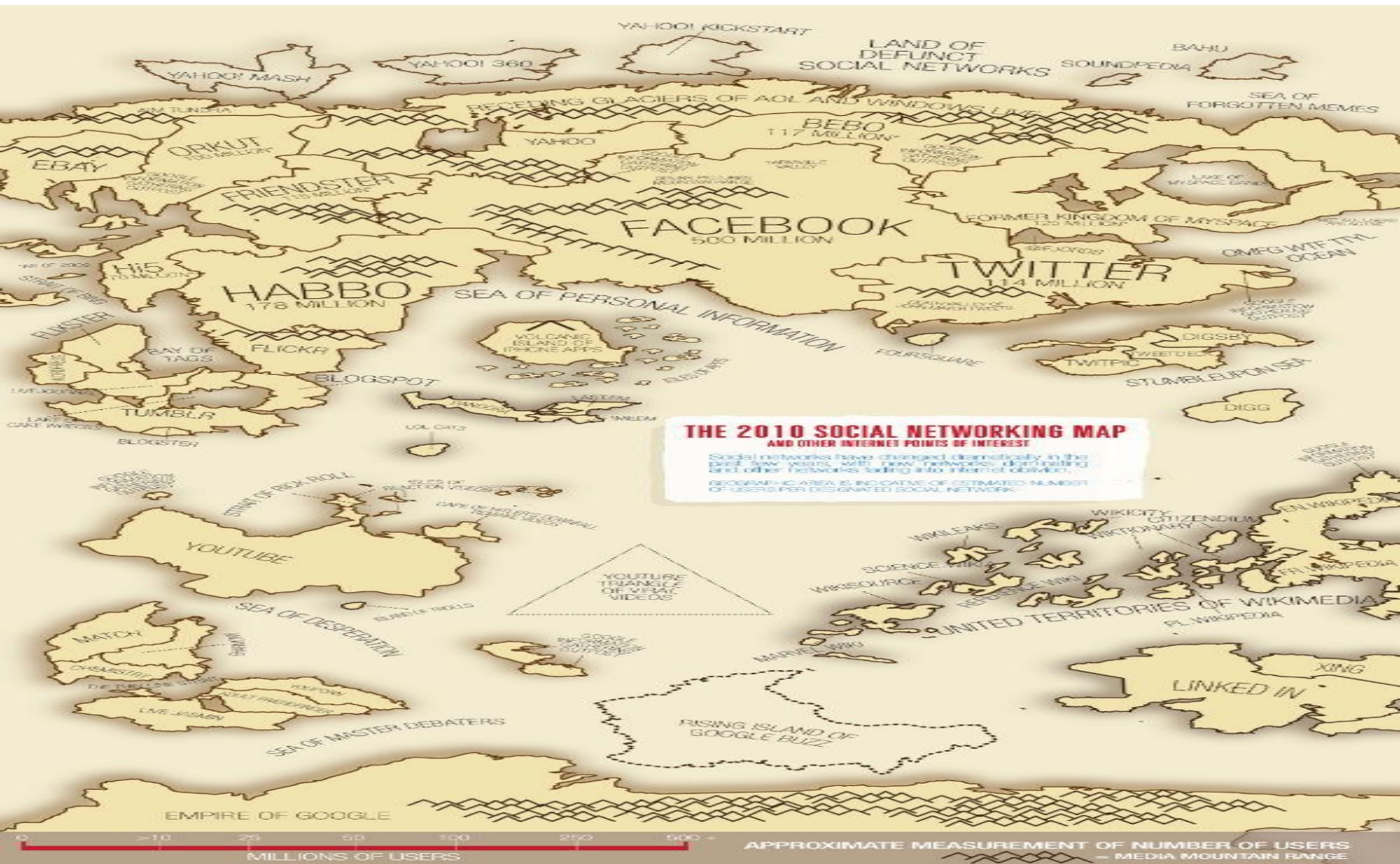
Activities

- ★ The Agency's principal activities are as follows:
 - ★ **Advising** and assisting the Commission and the Member States on information security.
 - ★ **Collecting and analysing** data on security practices in Europe and emerging risks.
 - ★ **Promoting** risk assessment and risk management methods.
 - ★ **Awareness-raising and co-operation** between different actors in the information security field.

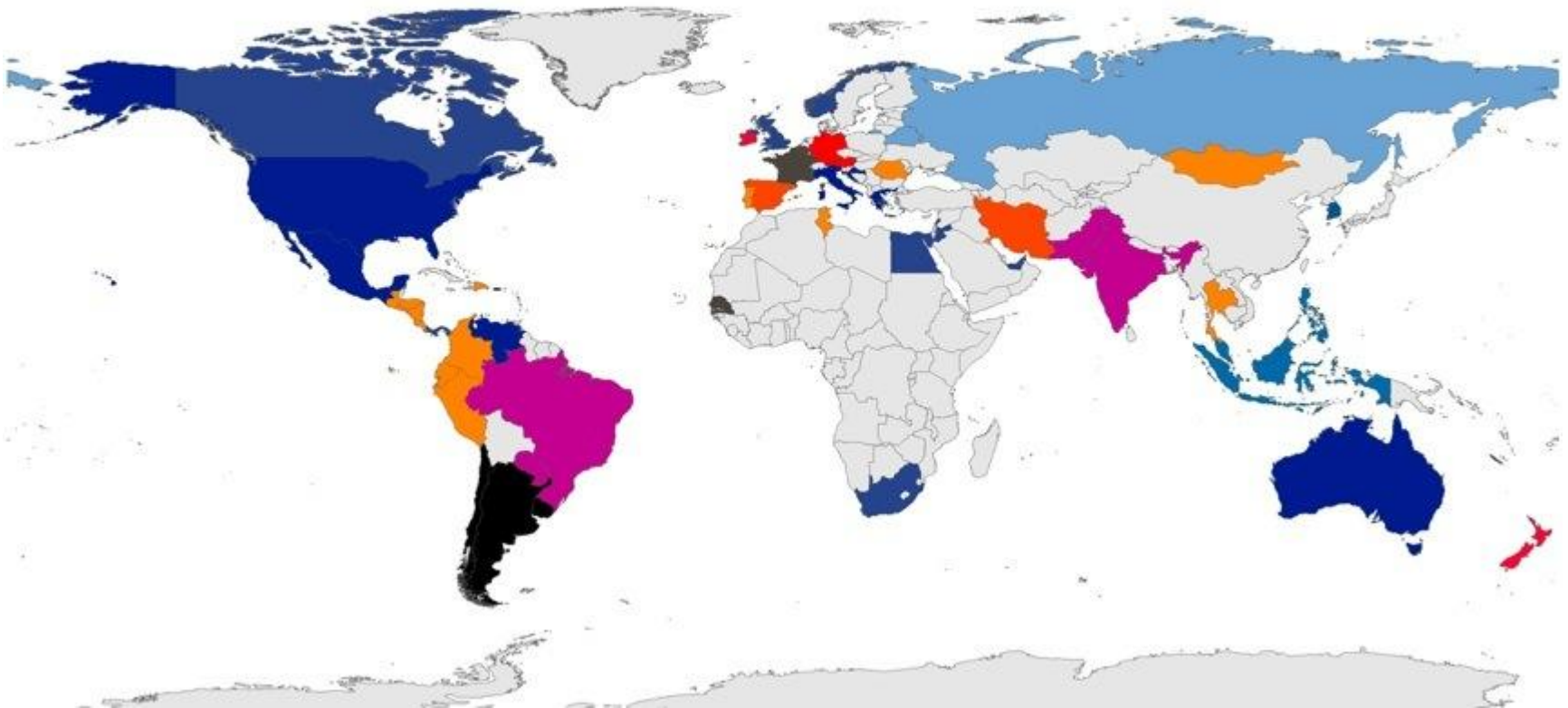
- ★ recent published papers:
 - ★ Priorities for Research on Current and Emerging Network Trends
 - ★ Mobile Identity Management
 - ★ Enabling automated air travel ...
 - ★ Business Continuity for SMEs
 - ★ Web 2.0 Security and Privacy
 - ★ Cloud Computing

The world map of social networking for 2010 in millions of users

(Copyright, Ethan Bloch, Flowtown, 2010)



Popularity of social networking websites in different countries



The problem(??)

- ★ Internet is open and distributed without authoritative control;
- ★ In terms of privacy two challenges are mainly posed:
 1. Data ‘pollution’
 - Data are disseminated without control and
 - **Replicated** on multiple servers and Peers;
 2. Contrary to humans, data lives forever
 - Examples in the WWW: emails (not only web mail), social networking sites, online collaborative spaces (e.g. Google docs);
 - Retroactive disclosure of data has become commonplace (hackers, legal actions,...).



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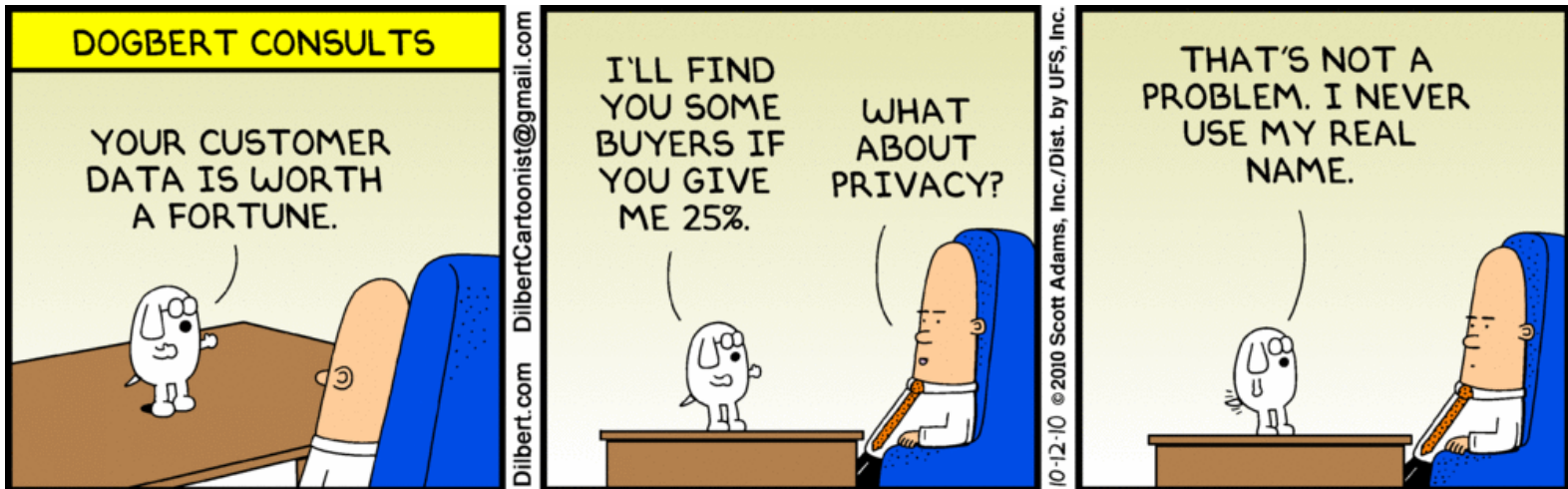
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ENISA's strategy

- ★ On-line services, applications and transactions can assure benefits and competitive advantage for citizens and EU economy;
- ★ This cannot be achieved without
 - ★ safeguarding the integrity of the information,
 - ★ Protecting the source of information,
 - ★ the genuine authentication (of entities or data, where required),
 - ★ establishment of trust (with persons, as well as objects and actuators) and
 - ★ protecting the personal data and securing the privacy of the individuals.
- ★ The EU requires
 - ★ Advocating and fostering a Pan-European approach to privacy;
 - ★ Proposing new models for trust-establishment;
 - ★ Developing of guidelines for regulatory review and interpretation.

Areas of (possible) intervention

- ★ Information/Education
 - ★ People have to be aware and educated!
- ★ Policy maker
 - ★ Order to remove contents;
 - ★ Promote availability of subscription based services in addition to free;
 - ★ Avoid online service providers lock-in by fostering user profile portability;
- ★ Technology
 - ★ Limit data pollution – Limiting the amount of data in exchange limits the potential for leakage (e.g. minimal disclosure);
 - ★ Limit content's lifetime;
 - ★ Limit data leakage by design (privacy by design) by introducing more traceability;
- ★ Some examples follow...



Monetising Privacy (“Privacy Economics”)

- ★ Until today most online service offers are offered for free with their business model being based on targeted advertising.
- ★ In the Future Internet it is important to establish confidence and trust between the EU citizens, businesses and the services offered.
- ★ This will be achieved through:
 - ★ sharing of revenues among all actors of the business chain and
 - ★ ensuring that users maintain full control over the ownership of their data within networked systems.
- ★ Assessing what is a *fair price* of a user’s profile and how this may vary if considered as part of a group (‘bargaining power of individual’) are important elements supporting this work as well as of policy makers in this area.
- ★ ENISA aims to put forward for the consideration of EU policy makers the use of alternative (subscription free) service models for online services.

EU policy background & International R&D agenda

- ★ European Commission strategy for a European Digital Agenda aiming to
 - ★ maximise the potential of Information and Communications Technologies (ICTs)
 - ★ Drive job creation, sustainability and social inclusion, and
 - ★ contribute to the overall goals of the Europe 2020 strategy
- ★ The Future Internet (FI) Assembly (FIA) and Private Public Partnership (FI PPP);
- ★ The Research & Innovation on Security, Privacy and Trustworthiness in the Information Society (RISEPTIS) report, notably the conclusions of the Conference on 'Trust in the Information Society', February 2010;
More info: <http://www.think-trust.eu/riseptis.html>
- ★ Directive 2002/58 on Privacy and Electronic Communications (ePrivacy Directive);
- ★ The EU Telecoms Package Reform;

Challenges for the policy maker

- ★ Today's regulatory model is more reactive than proactive;
 - ★ It addresses the eComms Sector (i.e. the “Telco model”) ignoring the latest developments;
 - ★ Need to avoid regulating the past;
- ★ Policy maker needs to evaluate the fraction of “functionality/privacy”;
- ★ Most of the possible initiatives in the area of Privacy and Trust (e.g. regulatory mandates for subscription based services, user profile portability) require first an evaluation of the underlying Privacy Economics

2011 Work Programme

Work Streams

- ★ WS1 ENISA as a facilitator for enhanced cooperation
- ★ WS2 ENISA as a competence centre for securing current & future technology
- ★ WS3 ENISA as a promoter of privacy, trust and awareness

Implementation through a number of Work Packages (WPKs)



2011 Work Programme

Activities with main focus on Privacy

- ★ WPK 2.1: Security & Privacy of Future Internet Technologies
 - ★ Security and privacy in the 'Internet of Things'
- ★ WPK 3.2: Deploying privacy & trust in operational environments
 - ★ Ensuring that privacy, identity and trust are correctly integrated into new services.
- ★ WPK 3.3: Supporting the implementation of article 4 of the ePrivacy Directive (2002/58/EC).

WPK 2.1: Security & Privacy of Future Internet Technologies

- ★ Security and privacy in the 'Internet of Things'
 - ★ From the Information Security and Privacy point of view, *assist the EC* in identifying appropriate policy options towards developing a policy framework for IoT.
 - ★ *contribute to the discussions* of information security and privacy requirements that could then be used by stakeholders as input in an IoT governance model.
 - ★ In view of the above, ENISA will *participate in the Expert Group* on the Internet of Things where ENISA will concentrate on the security and privacy considerations.

WPK 3.2: Deploying privacy & trust in operational environments

- ★ Goal: Assess and evaluate current developments in protecting the privacy of individuals and in enhancing the level of trust in network, through:
 - ★ Promoting a pan-European approach to privacy and trust-establishment models
 - ★ Supporting the EC Action Plan on e-signatures and e-identification
 - ★ Monetising privacy

WPK 3.3: Supporting the implementation of the ePrivacy Directive

- ★ Study with recommendations on the implementation of the obligation of notifications about data breaches (Q4/2011)
- ★ Workshop on data Breach Notification (24 Jan 2011)
 - ★ Registration to the Workshop: <https://www.enisa.europa.eu/act/it/data-breach-notification/>
 - ★ Panel session at the CDPD 2011 conference on 25/01/2011.
<http://www.enisa.europa.eu/act/it/ann/enisa-panel-at-cdpd2011>

Visit our website for More information on ENISA activities in the area of Privacy!

<http://www.enisa.europa.eu/act/it>

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