Privacy and Identity Management as Business Enablers

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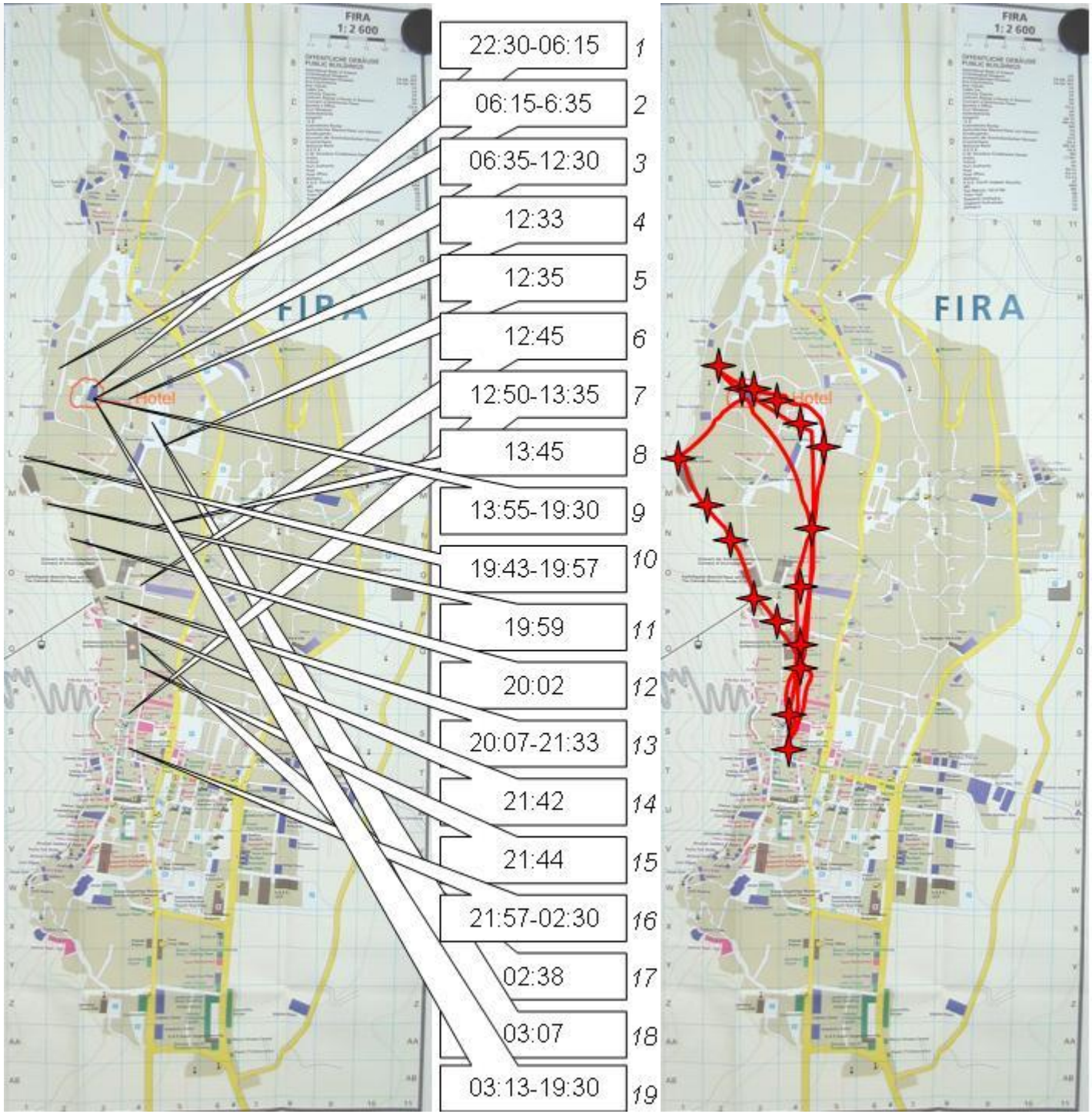
www.fidis.net
www.whatismobile.de

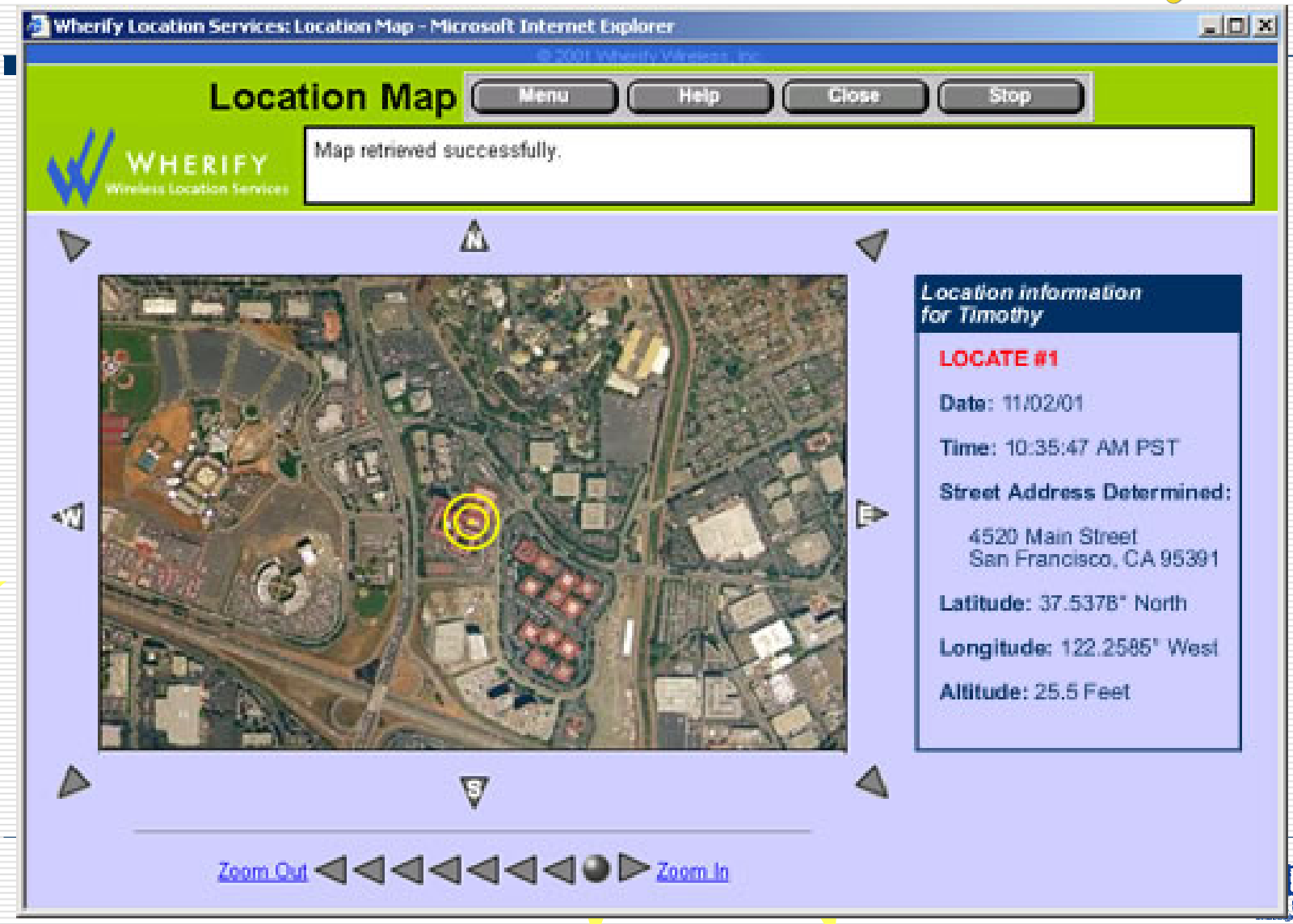
Enabling business ...

- … in ICT application domains
  - ICT applications in general get ever closer to people, e.g. Location Based Services
  - Not acceptance without user trust
  - No user trust without privacy and identity management
- … within privacy and identity management
  - Privacy and Identity Management can become a service themselves

- Tracking of whereabouts
- Deducing social environment & behaviour
- Deducing acquaintances
- Control over position data collection & processing & data mining
- Logs of how many years of life?



An example for Location Based Services – Child Watch



Watch the Child Watch Watch

Built-in Pager
Receives and stores up to 10 numeric pages.

Atomic Clock Synchronized
The watch sets itself accurately, no matter what time zone you're in.

Kid-tested. Kid-tough
Rugged, lightweight and adjustable locator is water-resistant and cut-resistant.

Request 911
Wearer presses two outer buttons for 3 seconds to initiate a 911 emergency response; Subscriber may deactivate this feature.

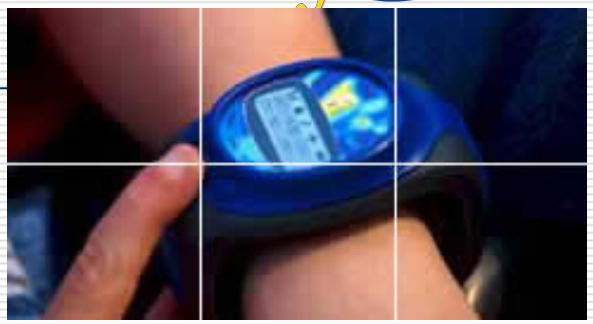
Key Fob
Manually locks and unlocks locator.

Lock Button
Press to automatically lock locator.

GPS Technology
Integrated GPS and digital wireless technologies pinpoint the wearer's location.

Patented SafetyLock™
Prevents unwanted removal; activate manually or remotely.

The business model



- Children have GSM-***GPS*** system on wrist.
- Price: US$ 199,99 (399,99)
- Example Service Plan: „Liberty“
  - US$ 19,95 (25) /Month
  - 4 free 911 alert calls, any further call US$ 15
  - 20 free localisations, any more US$ 0,95

www.wherifywireless.com

Life in Chile

PRIME LBS Application Prototype

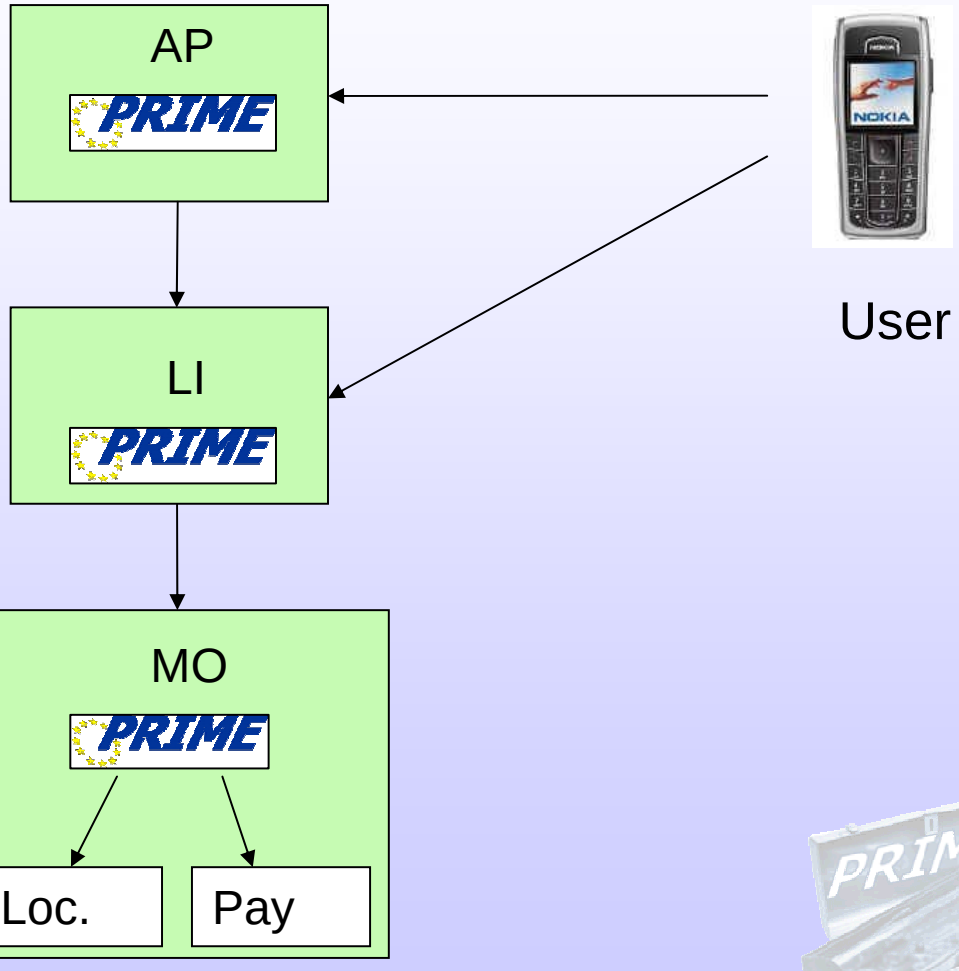
- **Enhance privacy situation for typical “pull location based service”: Pharmacy Search**
- **Address wide user range by requiring only little from the existing infrastructure (in V1 simple WAP mobile phone)**
- **Using many PRIME features**
- **Consider B2B scenarios in the value chain**
- **T-Mobile, Goethe University Frankfurt**

Pharmacy Search Architecture

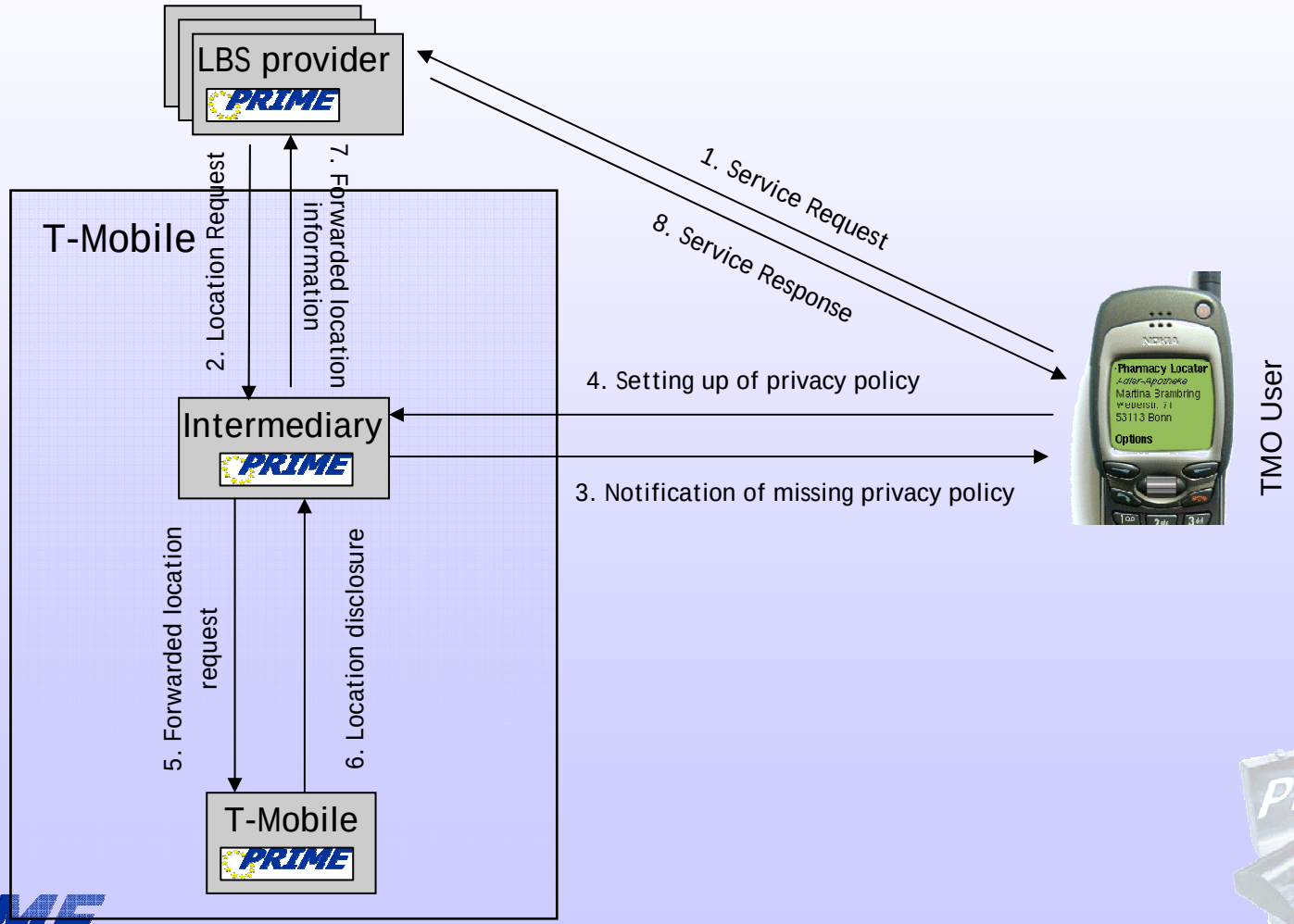
Application Provider
- Pharmacy Search -

Location Intermediary

Mobile Operator



PRIME TMO LBS Prototype



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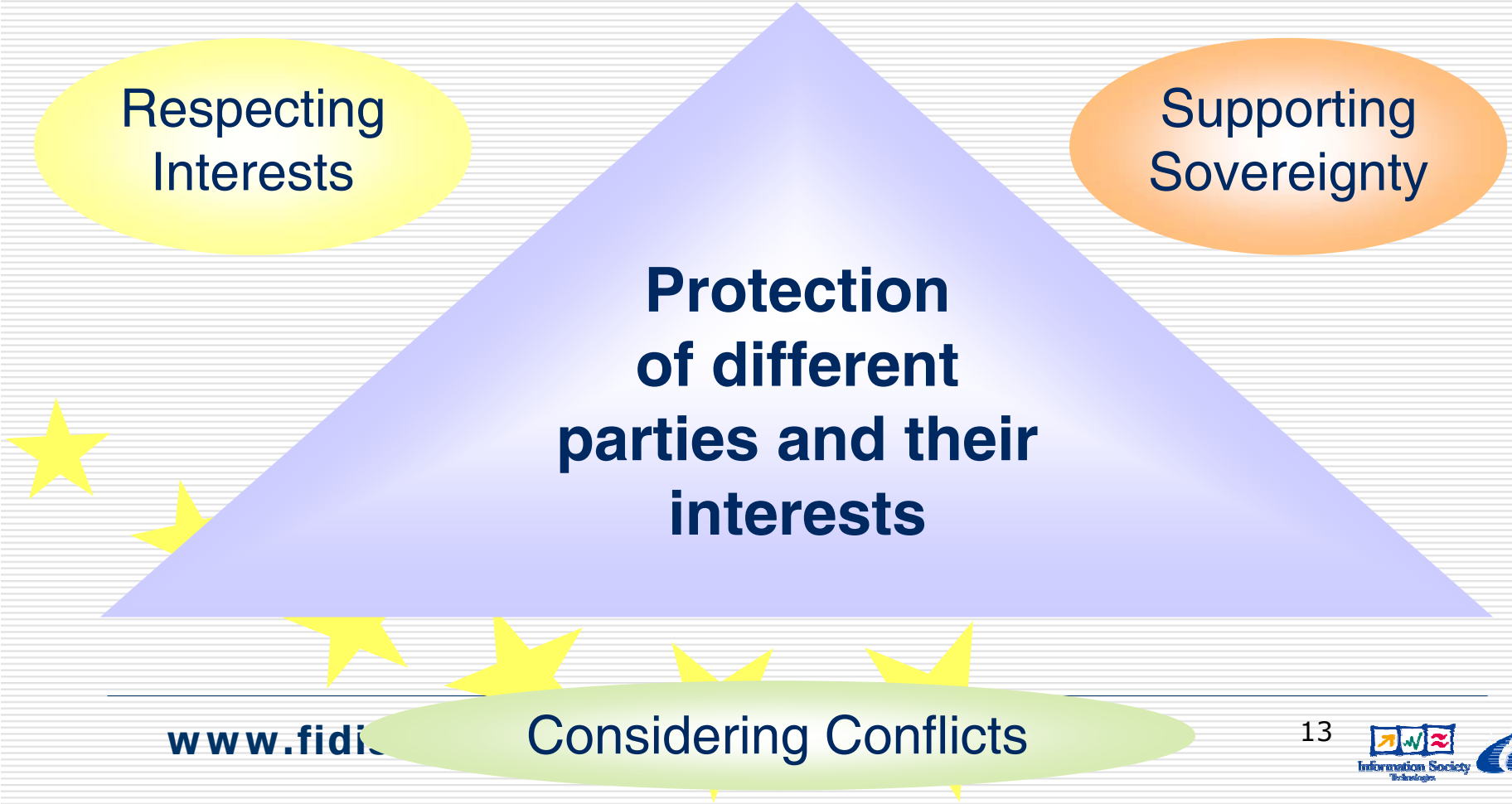
Trends in **Security** & **Privacy**
3 (overlapping) Phases

1. **IT & IT Security** only available to **large** (government) **organisations**
   - Technology
   - Know-How
2. **Users get** IT and IT Security into their **own hands**:
   - PCs and PC security tools
3. **Users** are **fed up** with dealing with security
   - Delegation of protection or parts of it
   - Intermediaries
   - Liability

1. **Organisations collect** and **store** user data
   - (Hopefully) protect it
   - Some oversight by e.g. privacy commissioners
2. **Users take protection** into their **own hands** and **keep** data/information to **themselves**:
   - E.g. PGP
3. **Users trade their data** and **negotiate** about the respective **terms** with **partners**
   - Infrastructure provider
   - Service provider
   - 3rd parties (Intermediaries)

Multilateral Security



What is needed

- Technology enabling users, that users can actually use
  - User controlled Identity Management
  - Usability and Transparency
- „Playgrounds“ in which users can try out their sovereignty
  - Helping to find a balance between self protection and delegation
  - Not all users are the same, not all want the same
- Trusted Partners to which users can delegate
  - Service providers
  - Intermediaries
- Standardisation of functionalities, business practices and interfaces
  - ISO/IEC JTC 1/SC 27/WG 5 “Identity Management and Privacy Technologies”

Background Slides

Future of Identity in the Information Society (FIDIS)

- An international interdisciplinary **N**etwork **o**f **E**xcellence (2004-04-01 – 2009-03-31)
- ***Vision:*** Europe will develop **a deeper understanding** of how **appropriate identification and ID management** can progress the way to a **fairer European information society**.
- **24 partners** from
  - Research / academia
  - Industry / business
  - Government / administration

Example activities

- Multilateral Security for Identity Management
  - ISO WD 24760 in ISO/IEC JTC1/SC27/WG5
- (Privacy friendly ?) HighTech IDs
  - Analysis of HighTech travel documents
- Interoperability of identity and identification concepts
- Identity fraud
  - Legal and Technology analysis
- Profiling and
  - Forensic implications
  - Implications on society at large
- Mobility and Identity

The initial challenge: "Identity" is changing

- IT puts more HighTech on ID cards
  - Biometrics to bind them closer to a human being
  - Chips to add services (such as a PKI)
- Profiles may make the „traditional" ID concept obsolete
  - People are represented not by numbers or ID keys any more but by data sets.
  - Identities become "a fuzzy thing".
- New IDs and ID management systems are coming up
  - Mobile communication (GSM) has introduced a globally interoperable „ID token": the Subscriber Identity Module
  - eBay lets people trade using Pseudonyms.
- Europe (the EU) consider joint IDs and ID management systems
  - European countries have different traditions on identity card use.
  - Compatibility of ID systems is not trivial.

FIDIS Participants

- *Goethe University Frankfurt, D*
- AXSionics AG, CH
- BUTE-UNESCO Information Society Research Institute, H
- Europäisches Microsoft Innovations Center GmbH, D
- European Institute of Business Administration, F
- Institut de recherche criminelle de la gendarmerie nationale, F
- Institute for Prospective Technological Studies, E
- International Business Machines Corporation, CH
- Karlstad University, S
- Katholieke Universiteit Leuven, B
- London School of Economics & Political Science, GB
- Masarykova universita v Brne, CZ
- National TU of Athens, GR
- Netherlands Forensic Institute, NL
- SIRRIX Security Technologies, D
- TU Berlin, D
- TU Dresden, D
- Tilburg University, NL
- Unabhängiges Landes-zentrum für Datenschutz, D
- University of Freiburg, D
- University of Reading, GB
- VaF, Bratislava, SK
- Virtual Identity and Privacy Research Center, CH
- Vrije Universiteit Brussels, B