



# Privacy and Identity Management for Community Services (PICOS)



IFM-GEOMAR



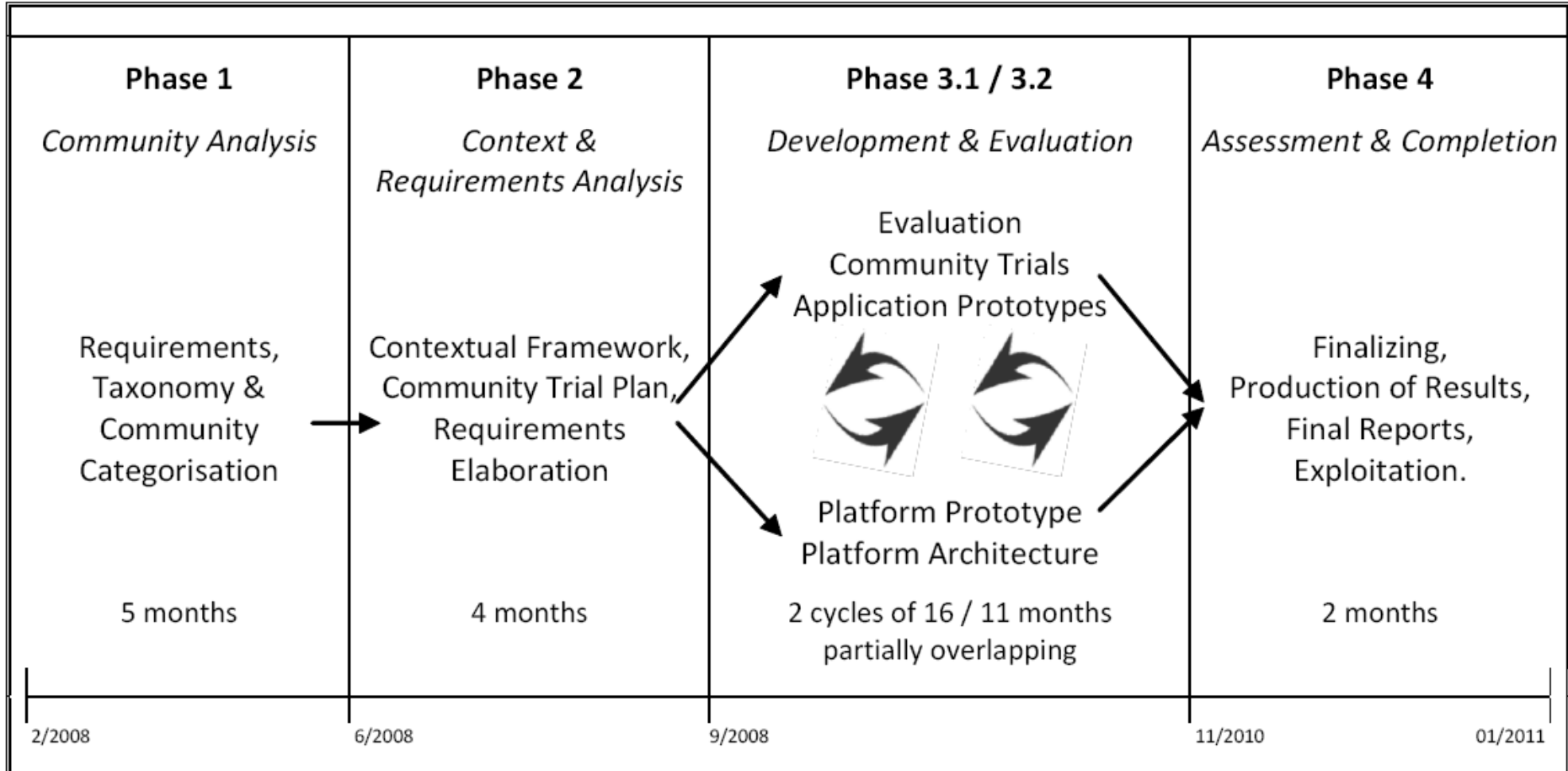
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- Research on **mobile communities**
- How to improve **trust and privacy** in such communities?
- Exemplary Communities:
  - Anglers
  - Online Gamers
  - Taxi Drivers

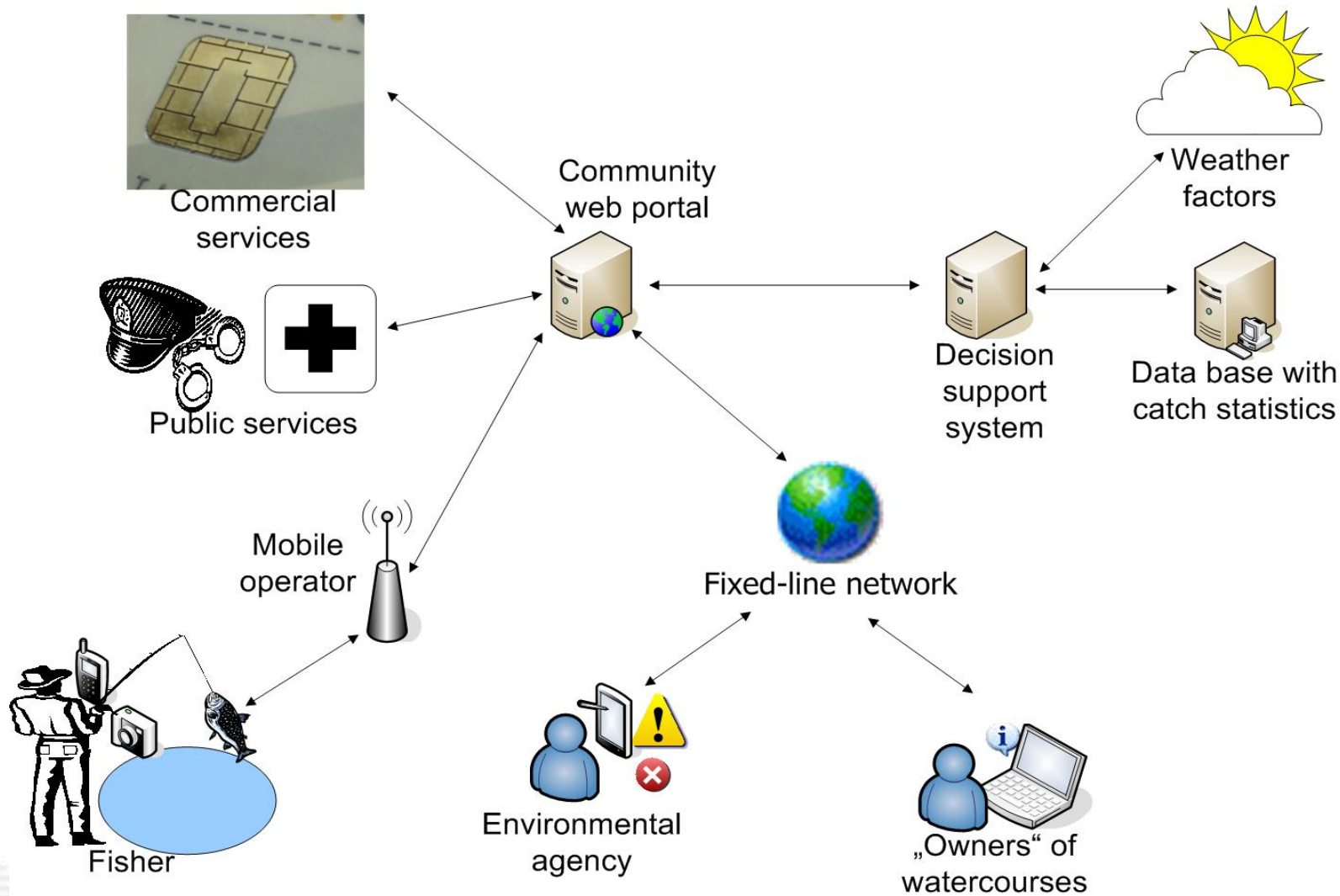
- What are the **Trust, Privacy and Identity** issues in new context-rich mobile communication services, especially **community-supporting services**?
- How can information flows and **privacy requirements** be balanced in complex distributed service architectures (e.g. mash-ups)?
- How can these issues be solved in an acceptable, trustworthy, open, scalable, manner?
- Which **supporting services and infrastructures** do the stakeholders need?

- A set of interdisciplinary **requirements** for trustworthy, privacy-friendly community transactions.
- A **platform prototype** that demonstrates the provision of state-of-the-art privacy and trust technology to community applications.
- Community Applications Prototypes to demonstrate the use of PICOS concepts in practice
- User-centric **trials** that validate the applicability of the concepts.

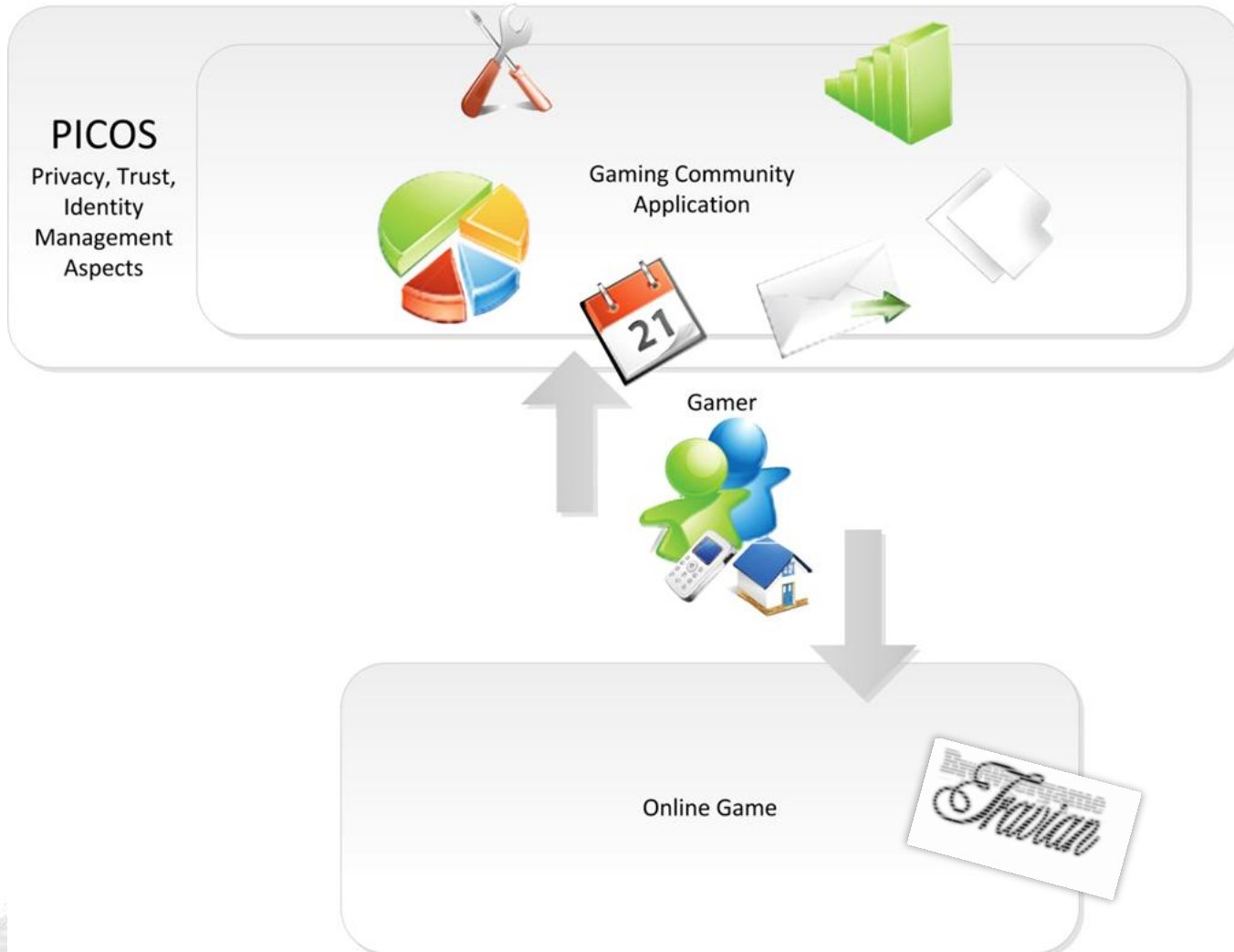


- Gathering **requirements** of mobile communities
- Developing a **community platform**, including innovative concepts to support trust, privacy and identity management
- Implementing prototypical mobile **community applications**
- **Test** the community applications with users to **evaluate** feasibility of concepts

# Community Example 1: Anglers Community



# Community Example 2: Gaming Community - Overview

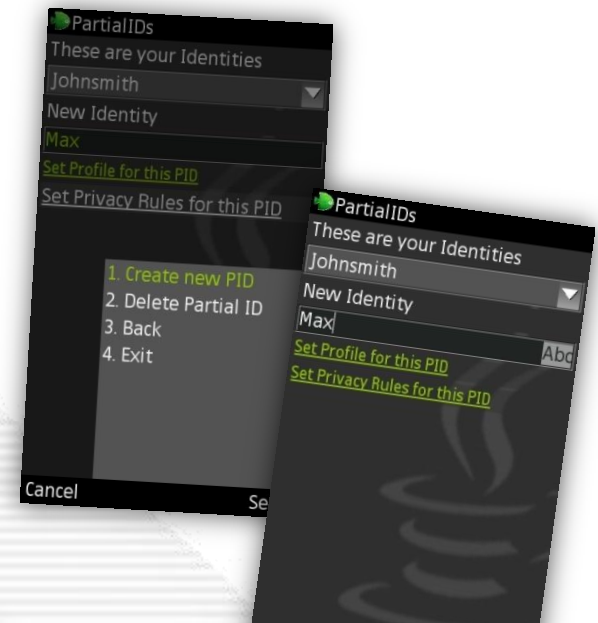




# Community Example 2: Gaming Community - Scope

- Gaming Community Application
  - Social Community for gamers (example game *Star Wars*)
  - Supporting the existing community of a game to...
    - ...keep contact with other players (outside of the game)
    - ...organise real world meetings
    - ...discuss about games (news, strategies, etc.)
    - ...find new partners for in-game collaboration
  - PICOS focus:
    - Ensuring privacy respecting communication and content sharing among community members
    - Allowing exchange of sensitive, game related information
    - Improving mechanisms for trust and reputation in the community
    - From web and mobile devices
  - Prototype of this application will be developed in PICOS...
  - ...and evaluated in User Trials

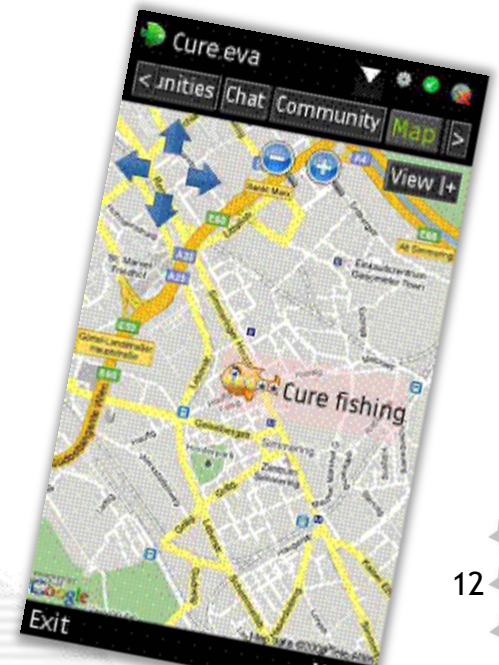
- Different Partial Identities for different usage contexts
  - e.g. for usage in different sub-communities to reflect various roles of users
- Limited set of personal information disclosed for each Partial Identity



- A personal area for each user
- Content may be transferred to other users (e.g. data, pictures, contacts).
- Enables users to selectively allow other users to access one's own restricted private resources
- Enhances privacy in communities



- Blurring of location data
  - Location is obfuscated on a map to
    - hide one's own (exact) position
    - allow only selected people to view the exact position
  - Different levels of blurring
    - to control degree of obfuscation



- Smaller communities of like-minded users (e.g. fly-fishers, members of local angling club)
- Allow topic related exchange of content
- May be private or public
- Private Sub-Communities are only accessible for a limited group of users



- Provides privacy related guidance to users (e.g. regarding disclosure/sharing of regarding location info)
- Based on the user's current behaviour and context
- To create awareness of privacy related aspects within mobile communities

- Privacy in mobile communities is possible if...
  - Stakeholders are considered
  - Adequate tools for privacy and identity management are provided
  - Awareness for privacy related aspects is increased

- Start: 01-Feb-2008
- Duration: 3 years
- Balanced mixture of industrial and academic partners



- Coordinator: Goethe University Frankfurt
- Receives funding from European Commission 7<sup>th</sup> Framework Programme



- PICOS Deliverables, e.g.:
  - Community Requirements (D2.4)
  - PICOS Architecture (D4.1)
  - PICOS Platform Prototype (D5.1)
  - PICOS Community Application Prototype (D6.1)

...and more information available on:

[www.picos-project.eu](http://www.picos-project.eu)

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