di.me

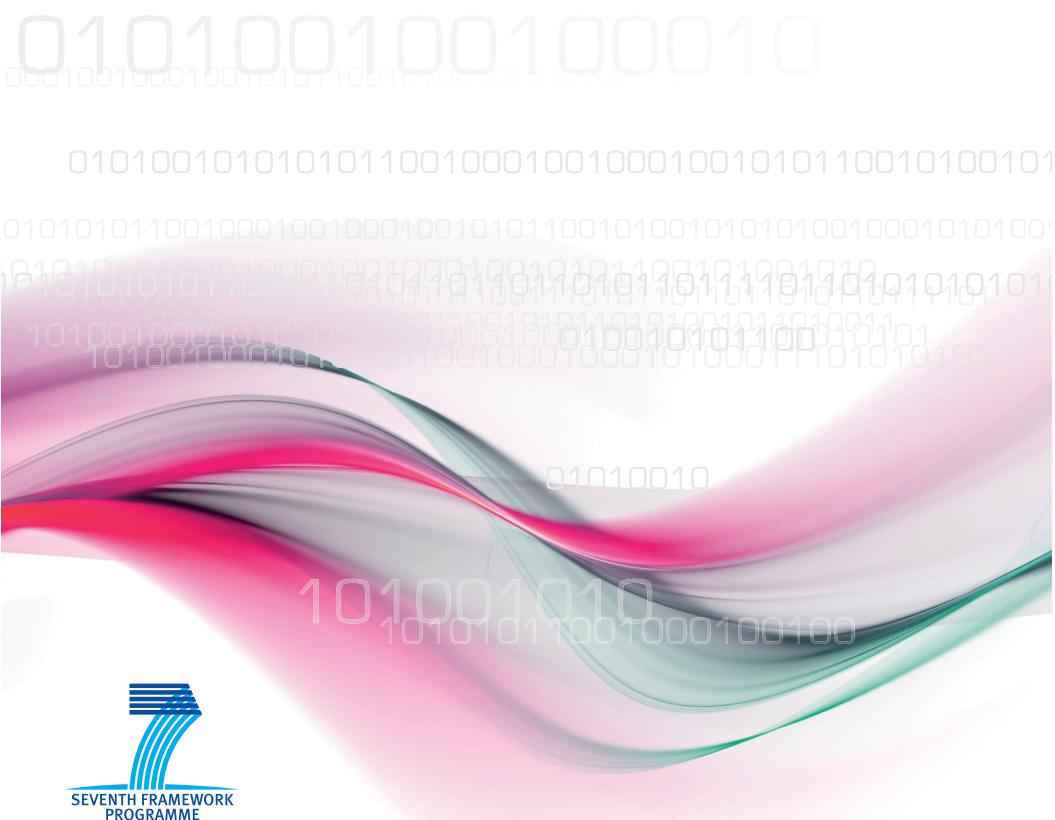## INTEGRATED DIGITAL.ME USERWARE

FOR THE INTELLIGENT, INTUITIVE, AND TRUST-ENHANCING MANAGEMENT OF THE USER'S PERSONAL INFORMATION SPHERE IN DIGITAL AND SOCIAL ENVIRONMENTS

SEVENTH FRAMEWORK PROGRAMME

BACKGROUND

The use and disclosure of personal information for private and business life is a major trend in Informational society. Users publish information to network and stay in touch with friends, family, and business contacts, to exchange data for collaboration, or to use services from commercial providers in diverse sectors. These values for the users, like enhancing social contacts or personalising services and products, compromise with privacy risks arising from the user's loss of control over their personal data and digital footprints.

OBJECTIVES

di.me researches technology that enables the user to use personal data in a controlled, trustworthy, and intelligent way. The project develops a **di.me platform** that incorporates user-control deeply in design: a personal userware serves as central node in a decentralized network, connecting with clearly distinct digital identities to external services, e.g. social networking platforms. Based on this platform, a **demonstration solution** will offer intelligent features to guide users e.g. by context-aware advice on trust and privacy, or how to organise personal social information. This aims to be used in scenarios like social networking in smart business events or for business customer relationship management. Thus, di.me **aims at providing a technology that can be used for diverse social, privacy-preserving services.**

CONCEPT
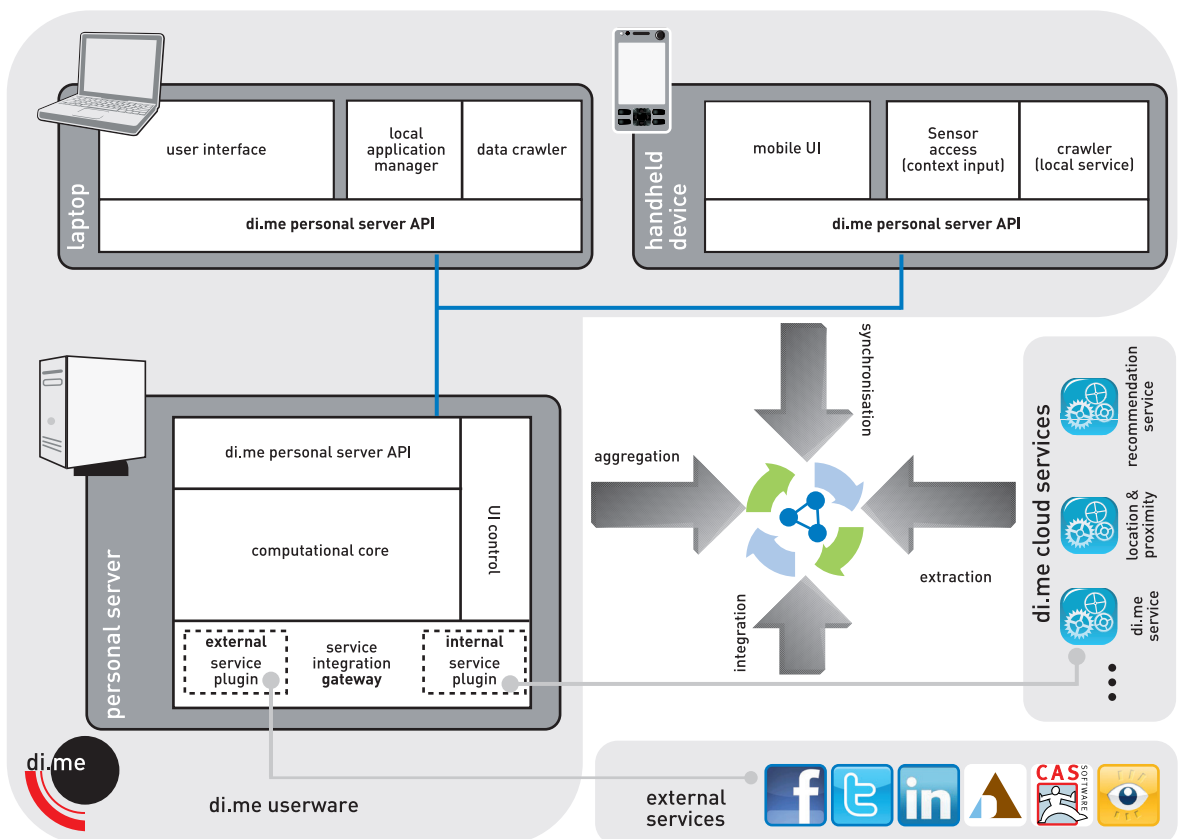
TECHNOLOGY DEVELOPMENT

The **di.me platform** is conceptualized as a technology for secure, trust-worthy, and privacy-ensuring communication. Core is a user-controlled personal service: the **"di.me userware"**. It serves the user as a central node for organizing and managing the communication and data. While the di.me userware can be hosted in the cloud as well as on user-devices, personal data access and communication are controlled by the end-user. By connecting di.me userwares directly to each other, a **decentralized communication network** is produced for exchanging such things as user profiles, messages, files, etc., without the need of a centralized, hosted platform. di.me is targeted to integrate with external services, like social web systems, by a framework for **Service Gateways**. Communication to services or di.me users is based on distinct **Service Accounts** that allow for separating identities and communication channels and avoiding unintended linkability of communications. The di.me platform is based on **a semantic core** that provides information models of the relevant concepts in the personal and social information sphere, including decentral communication, digital identities, trust of communication partners, privacy of data, context of communication situations. Semantic mapping and reasoning will support the intelligent management of personal data. A common interface (API) standardises the communication between personal services and clients on mobile devices or in the web.

The di.me demonstration solution will leverage the platform technology for an intelligent support of personal information and communication management. Demonstrations here will focus on:

- **recommendations and automation of personal information management**, e.g. the organisation of personal profiles across services, or tips how to use knowledge in the information sphere e.g. whom to meet on an event
- **guidance on possible risks to the user**, e.g. linkability as result of information disclosure or disclosure of sensitive information to possibly untrusted parties.
- **intelligent browser-based and mobile user interfaces** promoting the intuitive usage of powerful semantic and privacy-aware technologies that will enable the user to more effectively monitor, control, and interpret personal data.
- **context-aware adaptation** of the personal-information-sphere, like recognition of situations based on user-device sensor data and using them to organise groups of contacts, for example.

VALIDATION SCENARIOS

- **"di.me on Business Conferences and Smart Events"** will investigate the intelligent features for networking, communication, and personal ad-hoc-organisation on conferences and events
- **"di.me for Private Users"** will provide di.me for end-users to organise their personal, social information sphere
- **"di.me for Enterprise Customer Relationship Management"** will provide di.me for CRM and PR users as personal middleware between social media used for private and business contacts, and CRM tools

EXPECTED IMPACT

di.me will **develop an advanced platform** for user-controlled and privacy-ensuring communication and data management. It includes the **"di.me userware"**, a user-controlled personal service, communication and interoperability infrastructure, mobile and desktop clients. This platform will be technology widely usable for **social end-user and business services**. Demonstrations by the business partners in the consortium include the use for private and business users, e.g. on smart events or business areas like customer-relationship and public relations management.

di.me targets an unique approach leveraging semantic technologies and open data exchange for personal identity and information management and decentral communication networks. It's intelligent user guidance will **strengthen EU applied research on advanced digital identity and information management for business and private users.**

di.me aims at contributing to the **creation of a more user-friendly environment for user-controlled, decentralised, and smarter networking and information exchange** for different communities. This will also foster adoption of similar solutions by professionals from outside the ICT sector.

ABOUT DI.ME

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Type of funding scheme: Collaborative Project (CP) - Small of medium-scale focused research project (STREP)

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