



ALADDIN project

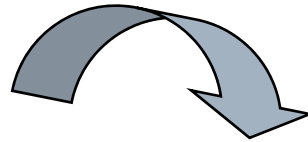
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Systems

ALADDIN at a glance

Title	A technology pLatform for the Assisted living of Dementia eLDerly INdividuals and their carers
Project reference	aal-2008-1-061
Duration	27 months
Partners	8
Countries	5 EU member states
Budget	€ 1.980.756,97
Funding	€ 1.480.021,00

What is dementia?

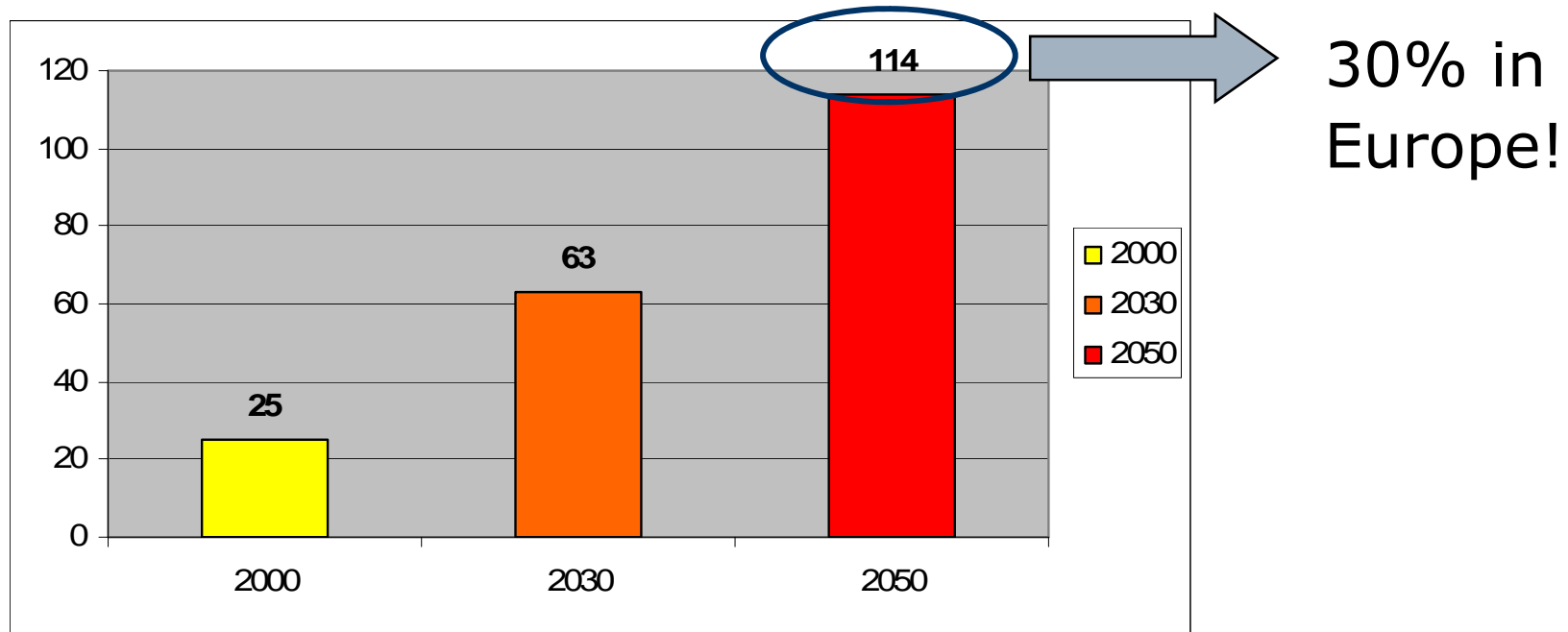
[...] a loss of memory plus impairment in at least one other cognitive function, such as aphasia, apraxia, agnosia and disturbance in executive function [...]



It is clinically manifested in 3 main symptomatic domains:

- Activities – inability to perform activities of daily life
- Behaviours – psychiatric symptoms/behavioural disturbances
- Cognition – neuropsychological impairments

Dementia epidemiology



- Alzheimer's disease 50-60%
- Vascular dementia 30-40% (including about 20% where dual pathology exists)

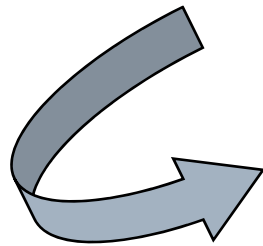
Socioeconomic aspects

40% reside in special care settings

⇒ Increased cost of care

60% live in the community

⇒ Inducing a significant burden to their informal caregivers



- Absenteeism from work
- Stress, over-work, depression
- Physical illness
- Cost

What is required?

Novel healthcare provision mechanisms allowing for

- ↪ Delayed institutionalisation of the patients AND
- ↪ Relief of distress to the caregivers



ALADDIN overall objective

To utilise state-of-the-art in ICT in order to develop an integrated solution for the self-management of dementia, supporting both patients and informal caregivers in this procedure



Patient generated records

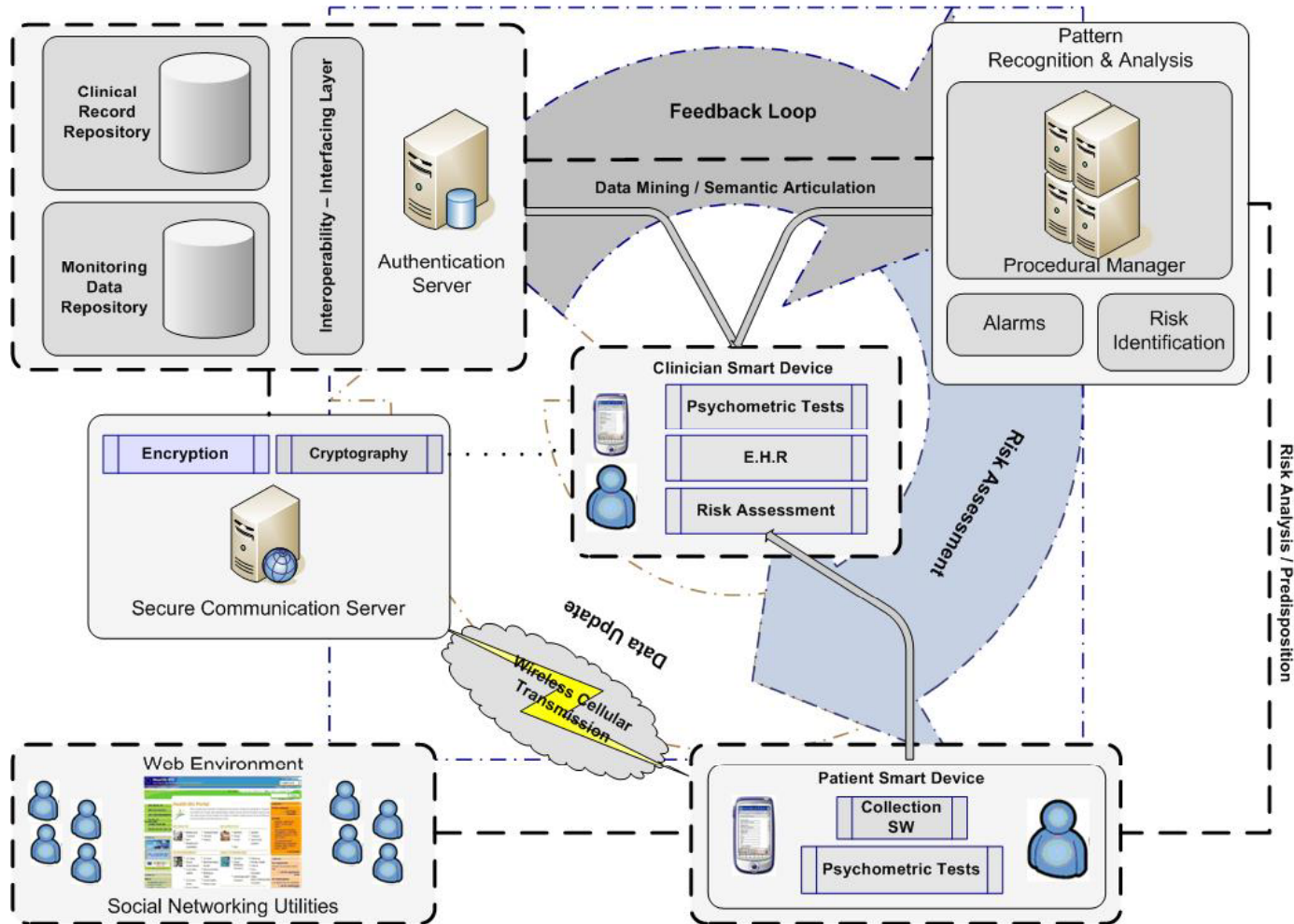
- Monitoring parameters (blood pressure, weight, ECG, activity levels, sleep features)
- Cognitive, behavioural & daily living assessment (neuropsychological tests like MMSE, NPI, ADL Basic ..., questionnaires)
- Medication follow-up and drug adverse events

+Caregiver monitoring

System components & core functions

- Data Monitoring
 - Collect Monitoring Parameters
 - Propagate Alarms
- Data Repository
 - Data Storage
 - Data replication
- Risk Assessment
 - Adverse event detection / prediction
 - Risk Profile creation
 - Notifications
- Information aggregation
 - Data representation
 - Decision Support
- Social Networking Utilities
- Interfaces to existing systems (EHR, HIS... etc)
- Security Features

ALADDIN architecture



Visionary results

- Efficient patient follow-up
- Timely detection of decline symptoms
- Adaptive care / personalised intervention
- Networking / socialisation / education / cognitive stimulation
- Distress relief / prevention to the carer
- Decision support tools to the therapist

ALADDIN consortium



Institute of Communication & Computer Systems, Greece



Fraunhofer-Institute for Open Communication Systems, Germany



Alma Mater Studiorum-Universita di Bologna, Italy



Psychiatric Hospital Of Attica, Greece



The National Hospital for Neurology & Neurosurgery, United Kingdom



Badalona Serveis Assistencials, Spain



ATOS Origin, Spain



Aethia Srl, Italy

ALADDIN competences 1/2



ALADDIN

R&D Providers

research institutions with complementary expertise on e-health, biomedical engineering, clinical psychiatry and ICT

Technology Providers

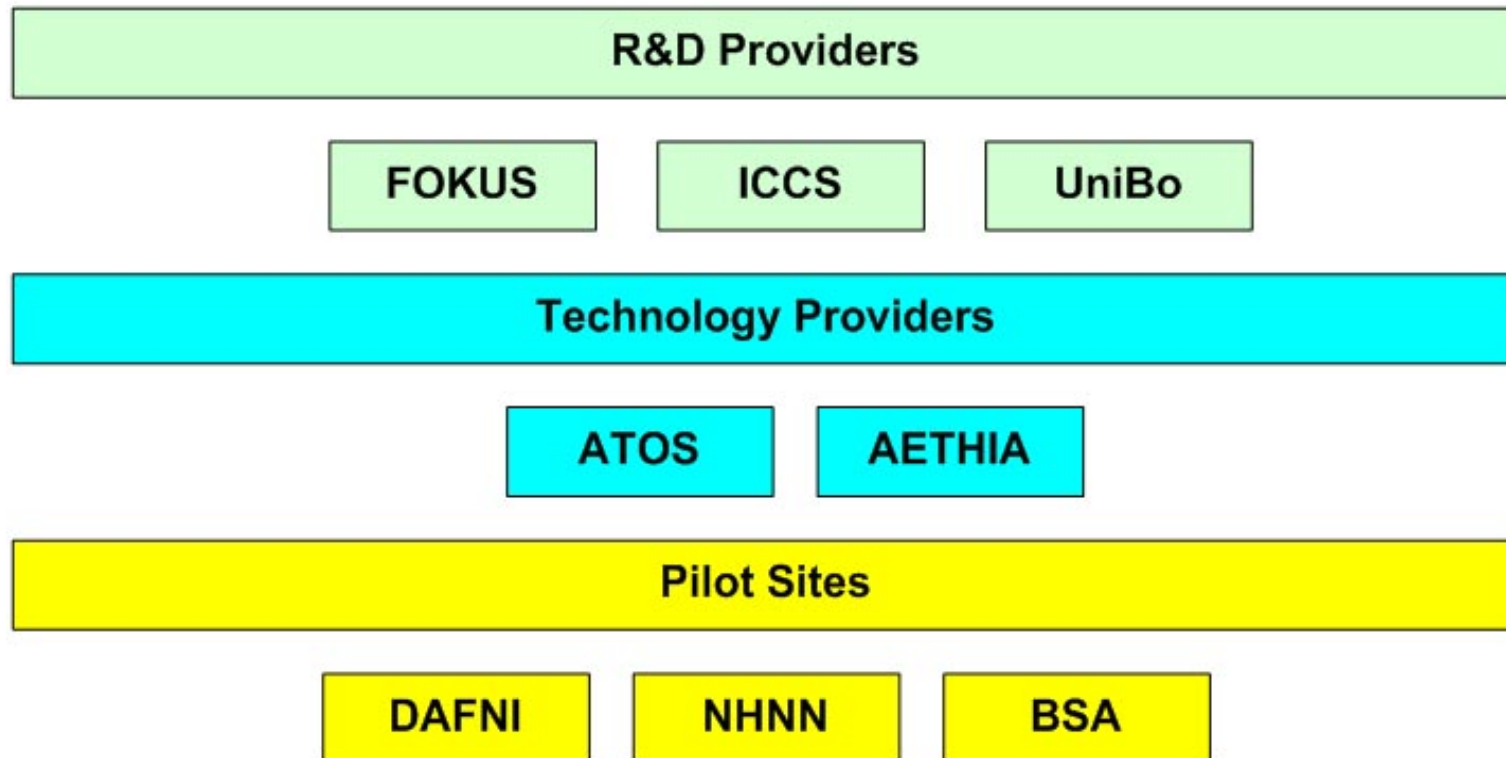
commercial companies providing the necessary technologies in the project, i.e. semantic & services eng., open source & S/W eng., information management, security, e-health platforms

Pilot Sites

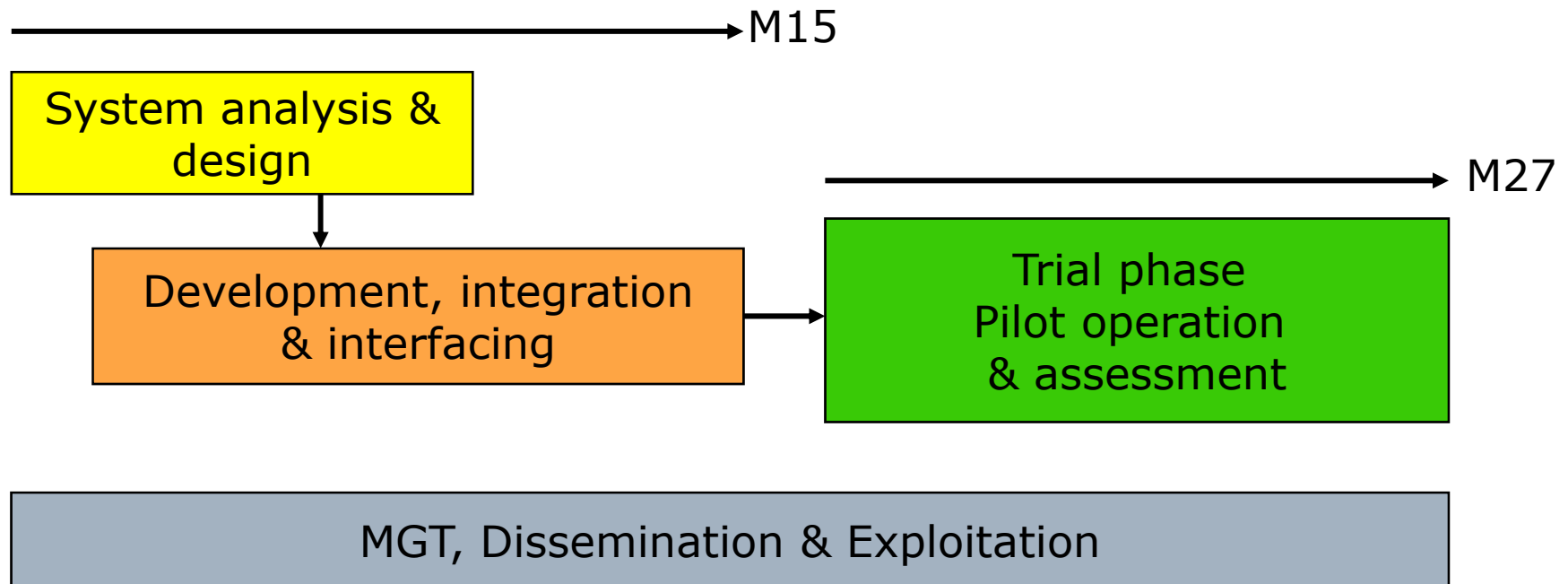
psychiatric / neurological hospitals and elderly-care structures experienced in dementia diagnosis and follow-up, with awareness in EU policies and regulations, involvement in regional and European projects, appropriate IT infrastructure and ICT expertise



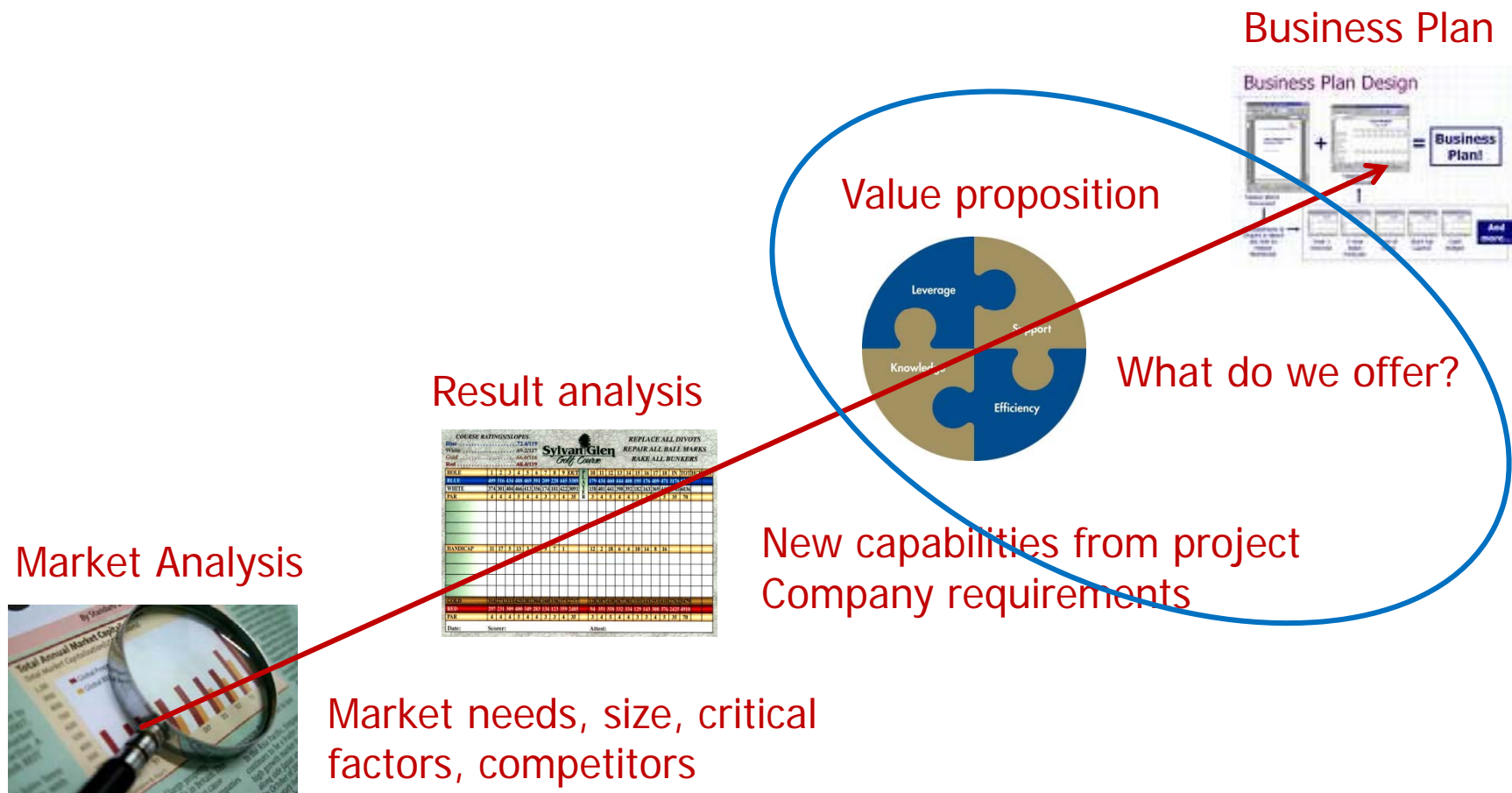
ALADDIN competences 2/2



Work planning



Exploitation



thank you!