IS4ALL (IST-1999-14101) Information Society for all

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Outline

- Project overview
- Universal access
  - in general and
  - in health telematics
- Electronic Patient Records in IS4ALL
  - issues relevant for IS4ALL
  - progress to date

IS4ALL (IST-1999-14101)

What it is…

- A Thematic Network (Working Group) establishing a wide, interdisciplinary and closely collaborating network of experts to provide the European Health Telematics industry with a comprehensive code of practice on how to appropriate the benefits of universal design
- Not an RTD project

Information Society for All

Main concepts in IS4ALL

- Universal access
  - The right of all citizens to obtain and maintain access to a society-wide pool of information resources in different contexts of use
- Universal design
  - The conscious and systematic effort to proactively apply principles and methods and employ appropriate tools in order to develop products and services which are accessible and usable by all citizens
- Focus on Health Telematics
  - Interaction with Electronic Patient Records
  - Diversity in users, interaction platforms and contexts of use

International Scientific Forum (ISF)

- An international network of experts for
  - discussion
  - exchange of experience & practice
  - collaboration

- Overall objective
  - promote the establishment of a favourable environment for the creation of an Information Society acceptable to all citizens

ISF (Cont.)

- Three meetings
  - San Fransisco, USA, 1997 (1st meeting)
  - Crete, Greece, 1998 (2nd meeting)
  - Munich, Germany, 1999 (3rd meeting)
- Two white papers
  - Common vocabulary
  - Research agenda
  - Contribution to the EC IST Programme (CPAs)
- Foundation for IS4ALL

IS4ALL

- The proposal was prepared and finalized during the 3rd ISF meeting
- Project kick-off meeting on 1/10/2001
- Project duration is 3 years
- Long term view is to sustain the network beyond IS4ALL lifecycle and extend it with new members

IS4ALL focus

- Universal access in Health Telematics
  - Electronic Patient Records
- New and emerging technologies
  - Desktop
  - Mobile devices
  - Network attachable terminals
- Novel contexts of use
  - The hospital
  - The ward
  - The home

Specific emphasis

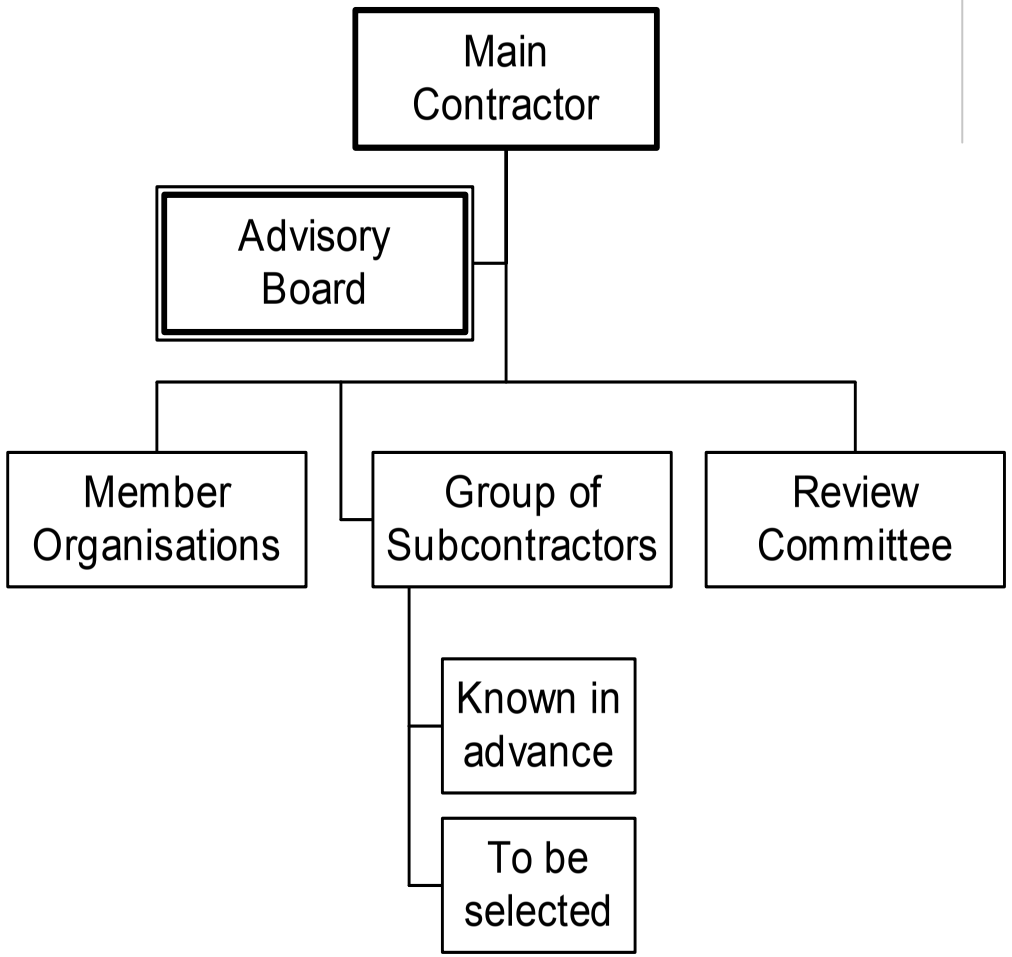
- Universal access as a quality attribute with functional and non-functional implications
- IS4ALL focuses on non-functional aspects:
  - interaction design
  - the processes involved

Aims and objectives of IS4ALL

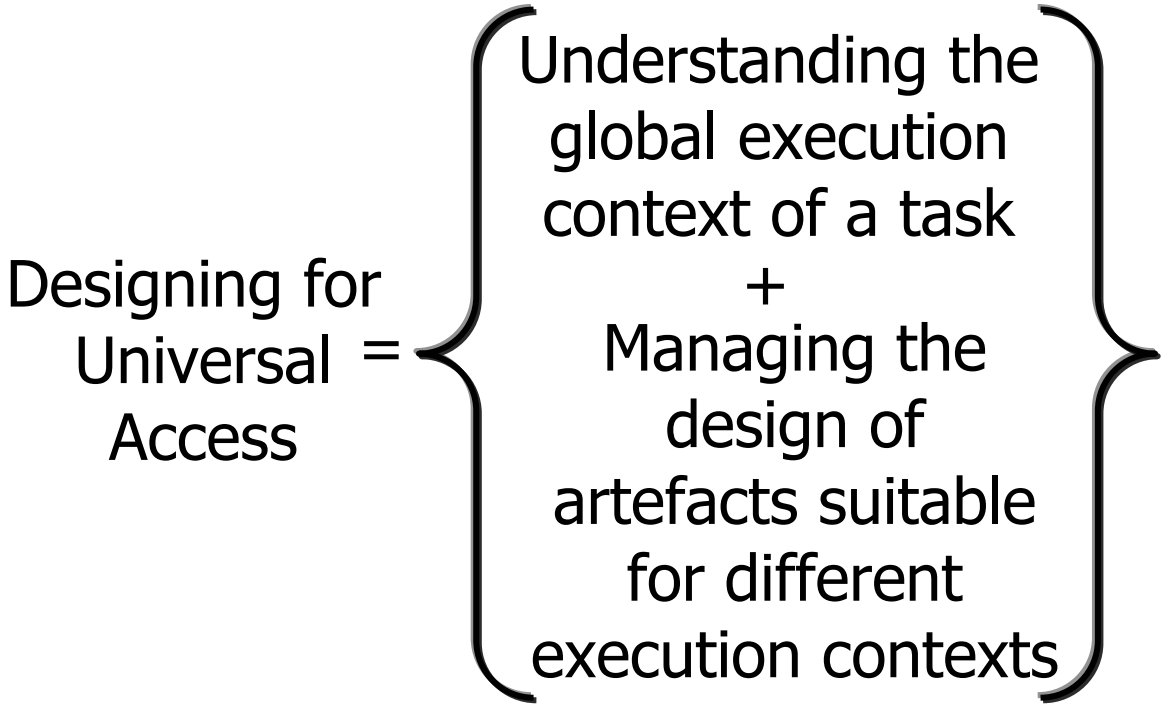
- Four main objectives:
  - **Consolidate** existing knowledge on Universal Access in the context of IST into a comprehensive code of design practice
  - **Translate** the consolidated wisdom to concrete recommendations for Health Telematics
  - **Demonstrate** the validity and applicability of the recommendations (through implementation of concrete scenarios)
  - **Promote** the Universal Access principles and practice in Health Telematics

Consortium

- Single contractor
  - FORTH-ICS, Greece
- Membership
  - CNR-IROE, Italy
  - FhG-FIT (formerly GMD), Germany
  - INRIA, France
  - FhG-IAO, Germany
  - EHTEL Association, Belgium
  - MS-HUGe, Belgium



Designing for universal access



- Designers need support to
  - gain insight of a task's global execution context
  - design alternative styles
  - manage the variety of styles

Data being collected

- Data collection focus
  - Universal design methods and techniques developed and validated in various disciplines
    - Human Computer Interaction
    - Architecture
    - Industrial engineering
  - Health Telematics requirements for universal access
    - Electronic Health Records
    - Usage scenarios

Data collection approach

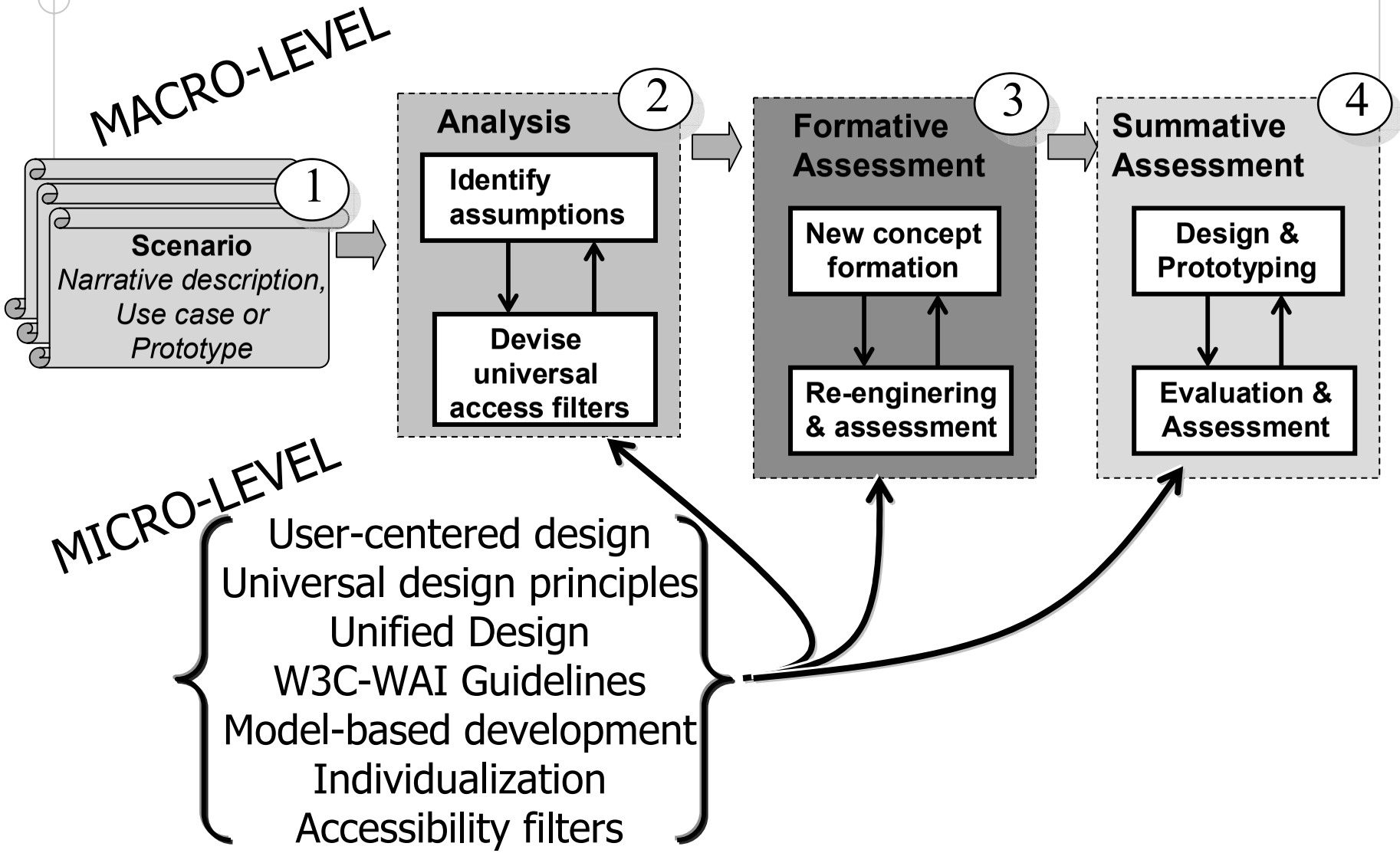
	Sub-contract	Literature Review	Interview template	Focused meetings	Short visits	Scenario
User-centred design		✓	✓			
Unified design		✓	✓			HYGEIAnet
Accessibility filters		✓	✓			WARDINHAND
Universal design principles		✓	✓			
Model-based development	UniLINZ	✓	✓			Austria
Participatory approaches	EMPIRICA	✓	✓			
USERfit		✓	✓			
Cognitive models		✓	✓			
User modelling		✓	✓			
Usability evaluation		✓	✓			
Standards		✓	✓	ISO, CEN/ISSS		
Guidelines	Pisa, UCL	✓	✓			Italy

Problem being addressed	
Device (technique, tool or representation) used to address the challenge	
Procedure for using the device	
Outcomes	
Underlying assumptions	
Practical example (I.e. an interface mock up or a process outline)	

Health Telematics data collection

- Scenarios as instruments for data collection
  - A scenario refers to a description of a possible set of events that might reasonably take place in a Health Telematics context
- A complete scenario should:
  - aim at a purpose, i.e., universal access
  - be a expressed in a form, e.g., narrative, (semi) formal notation
  - it should provide content to describe
    - the context of use of an activity and where / how it is carried out
    - the platforms in place (or the artifact)
    - the target users

Tentative process model

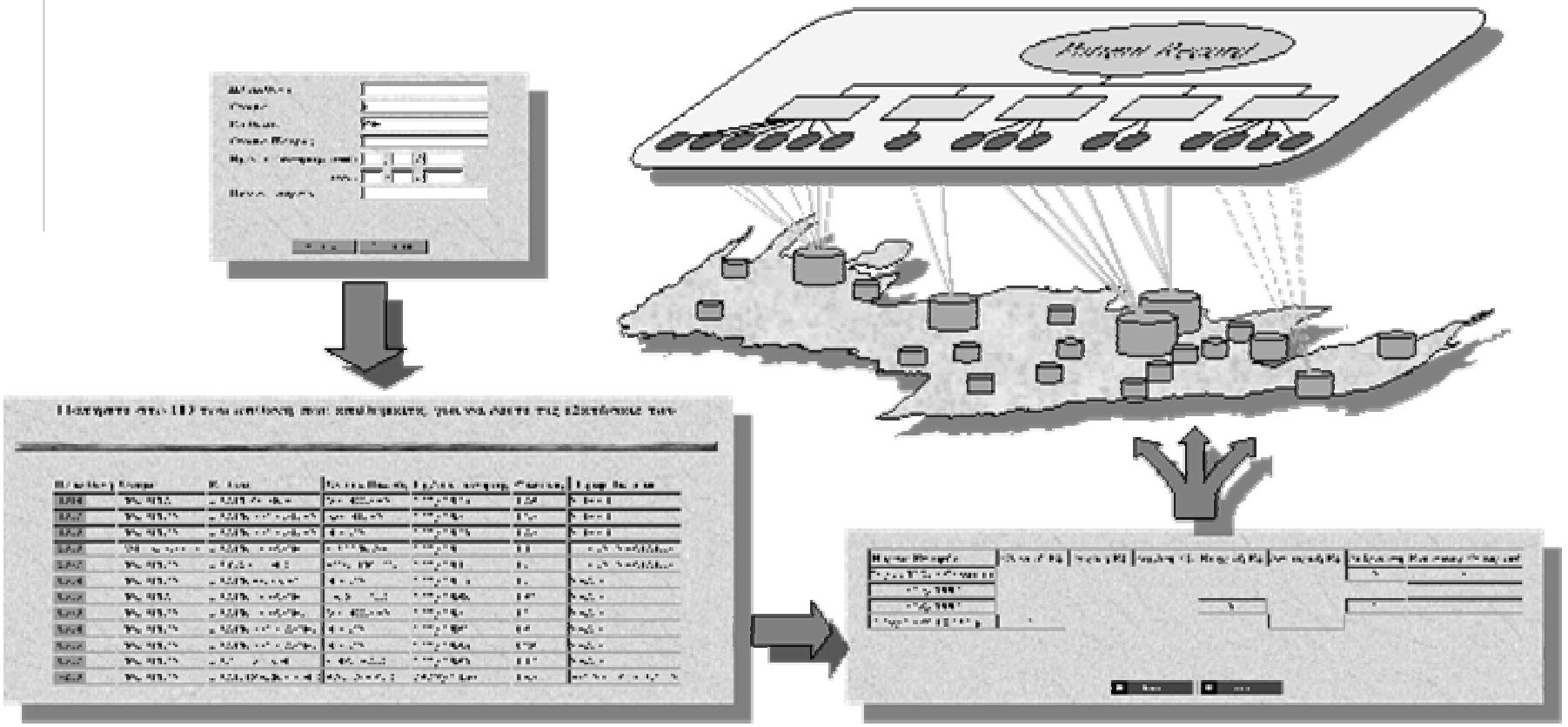


Progress to date

- Three main scenarios
  - HYGEIAnet
  - WARD-IN-HAND
  - MediBRIDGE/C-CARE
- Additional scenarios are being negotiated in the context of subcontracting activities

HYGEIAnet

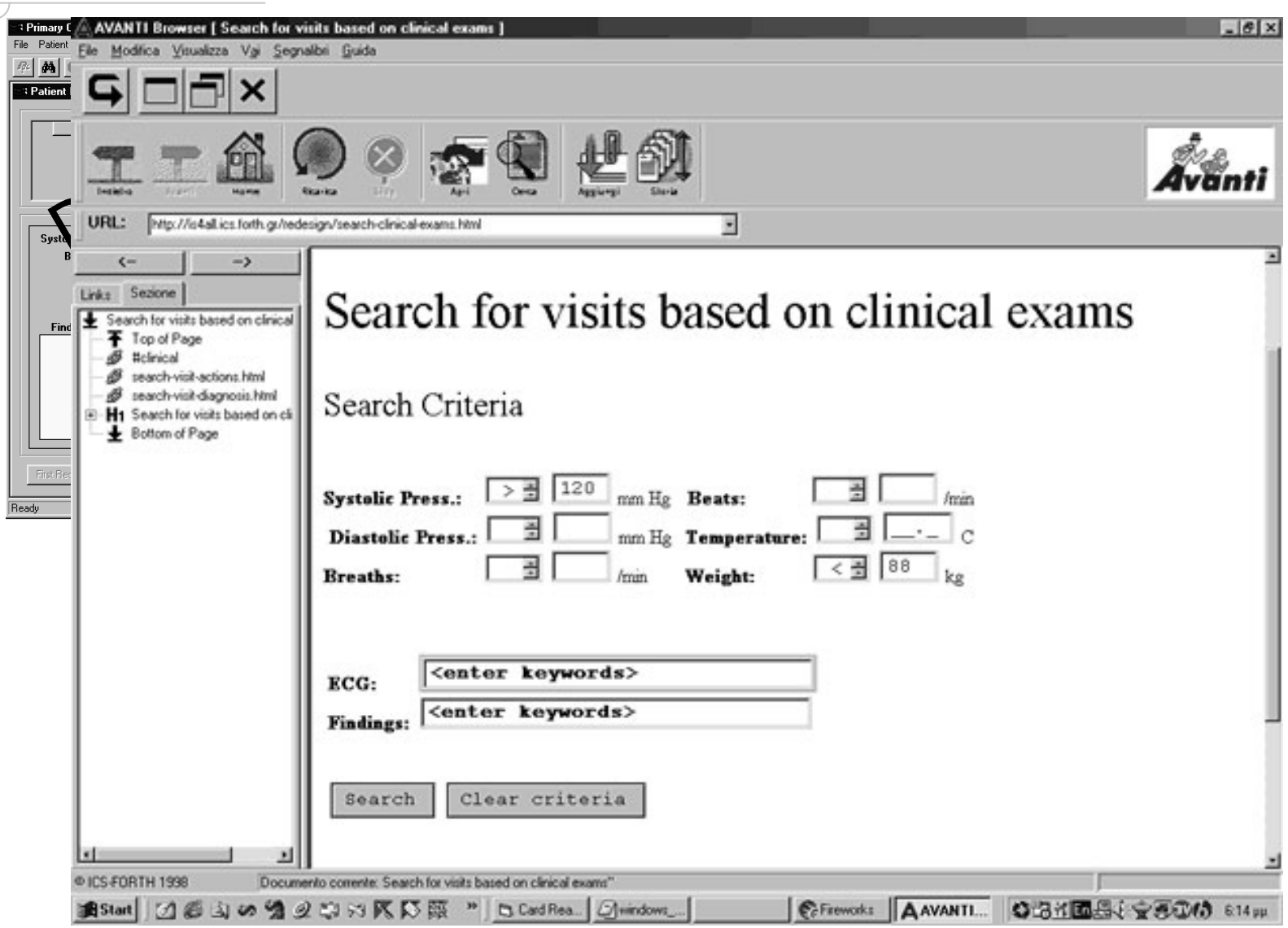
- Regional Health Telematics Network



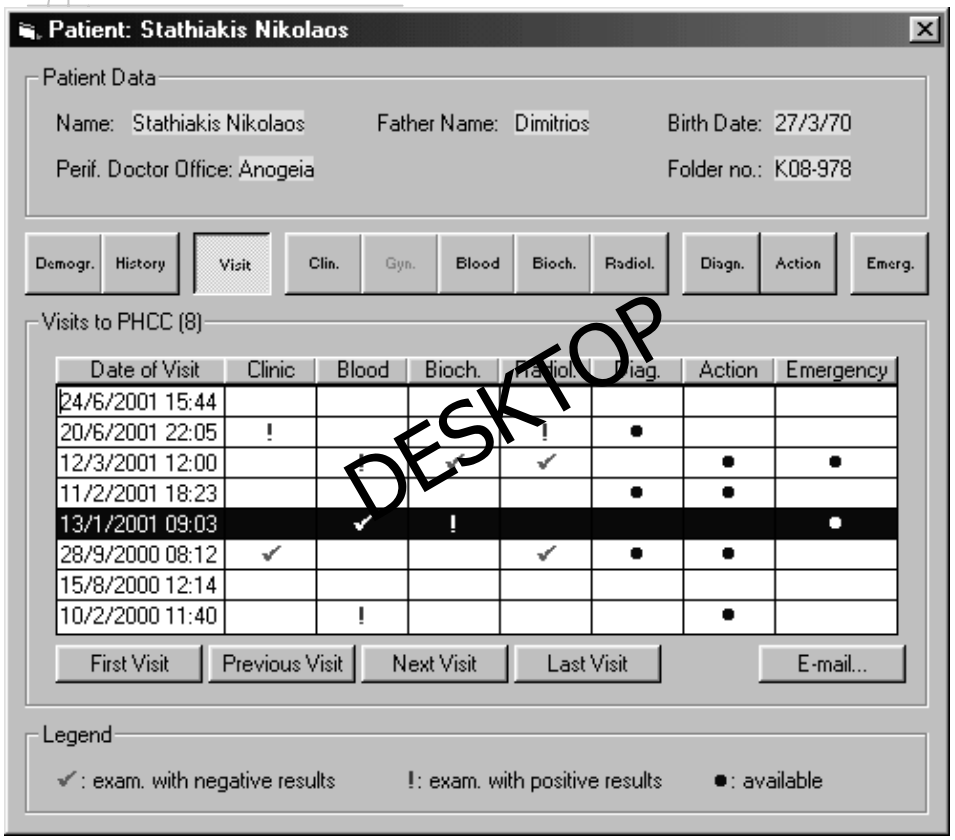
HYGEIAnet

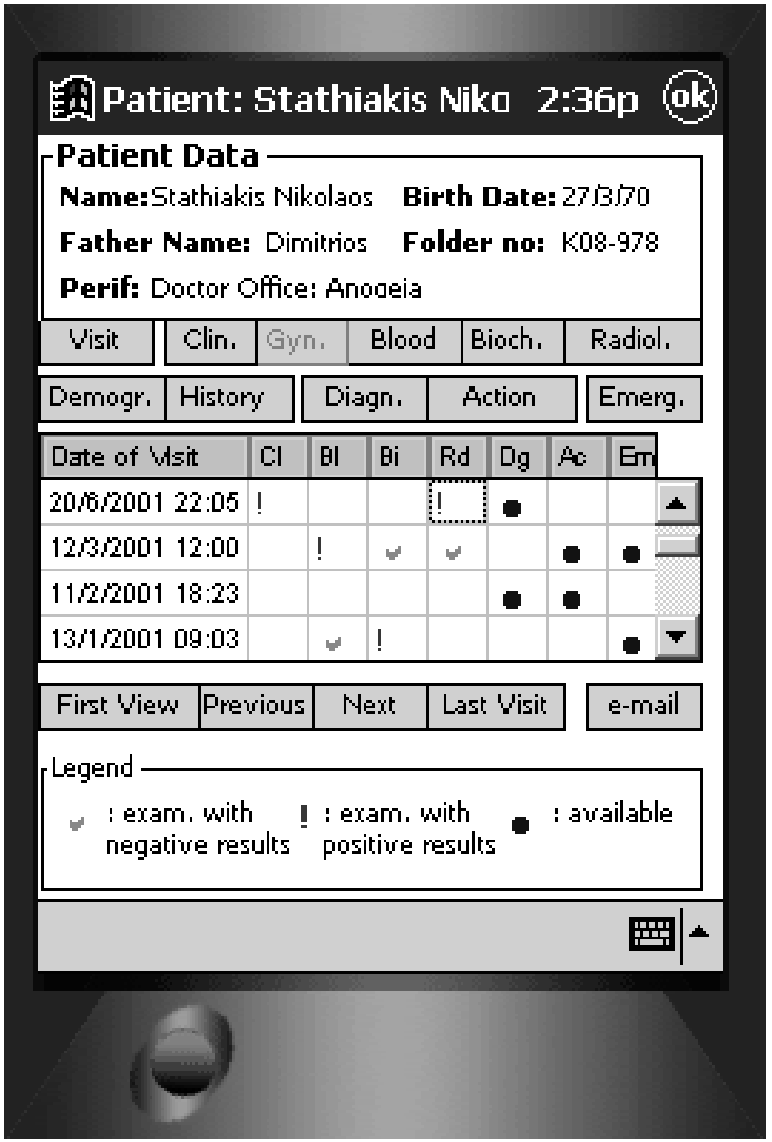
- The HYGEIAnet Virtual Electronic Patient Record on
  - … the desktop
  - … the WWW
  - … the iPAQ
  - … the WAP phone

Examples – Searching the EPR

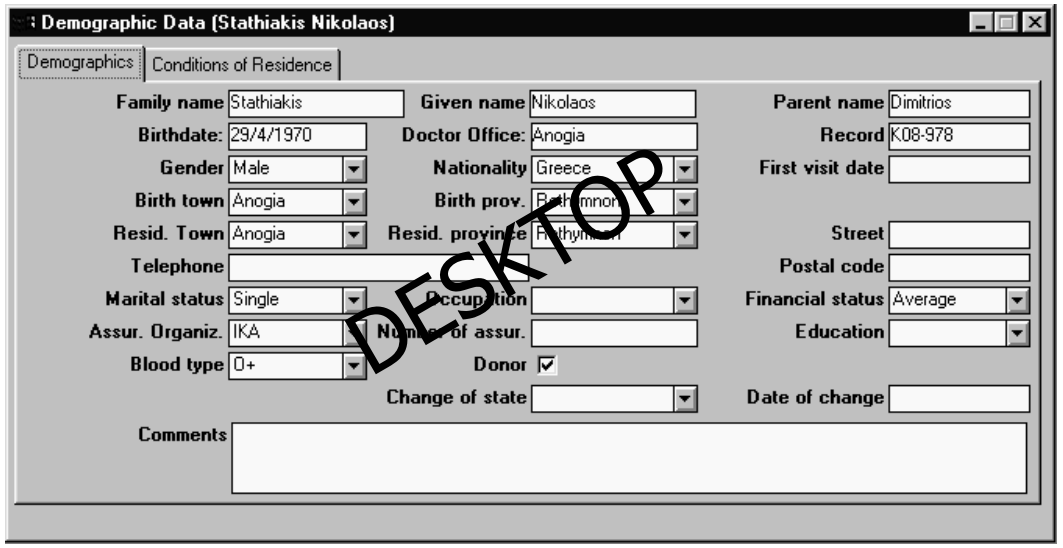


Examples – Review history





Example - Review demographics



Expected outcomes

- Process-oriented guidance on universal access in Health Telematics (macro-level)
  - High level principles
  - Focus on understanding the global execution context of a task
- Design techniques and methods (micro-level)
  - How to approach specific design targets i.e., requirements analysis, user interface design, evaluation, etc.

Concluding remarks

- IS4ALL gained international visibility and recognition
  - Wide interest from various projects, organizations, etc.
- The project's tangible impact is beginning to show
- The next twelve months will concentrate on reaching specific target communities in Health Telematics through a series of seminars, workshops and a variety of outreach activities
- More information available from

  http://is4all.ics.forth.gr/