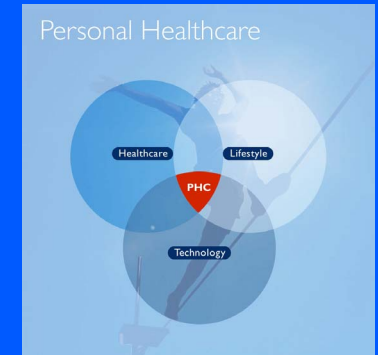


# PHILIPS



## MyHeart – Fighting Cardiovascular Diseases by Prevention and Early Diagnosis

Jörg Habetha

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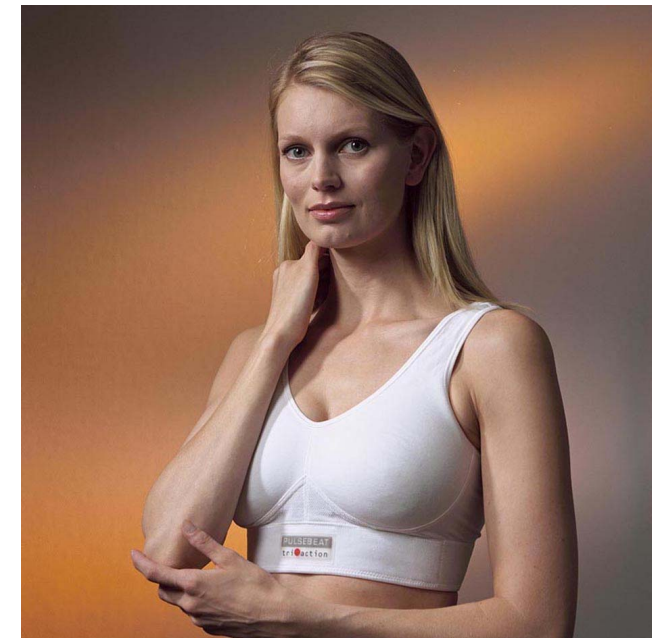
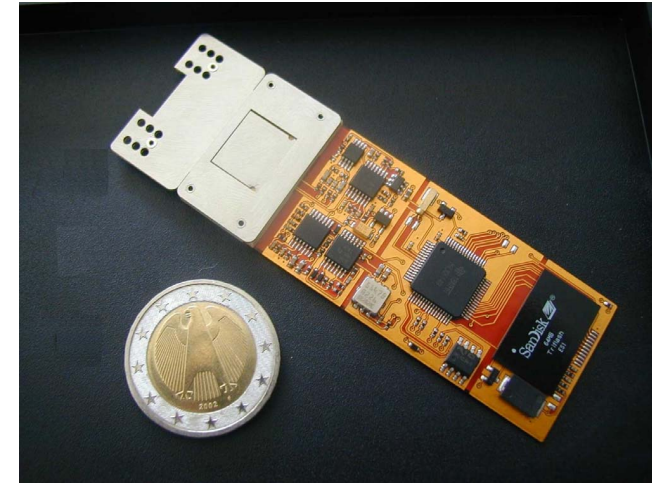
## MyHeart



Fighting cardiovascular disease  
by preventive lifestyle & early diagnosis

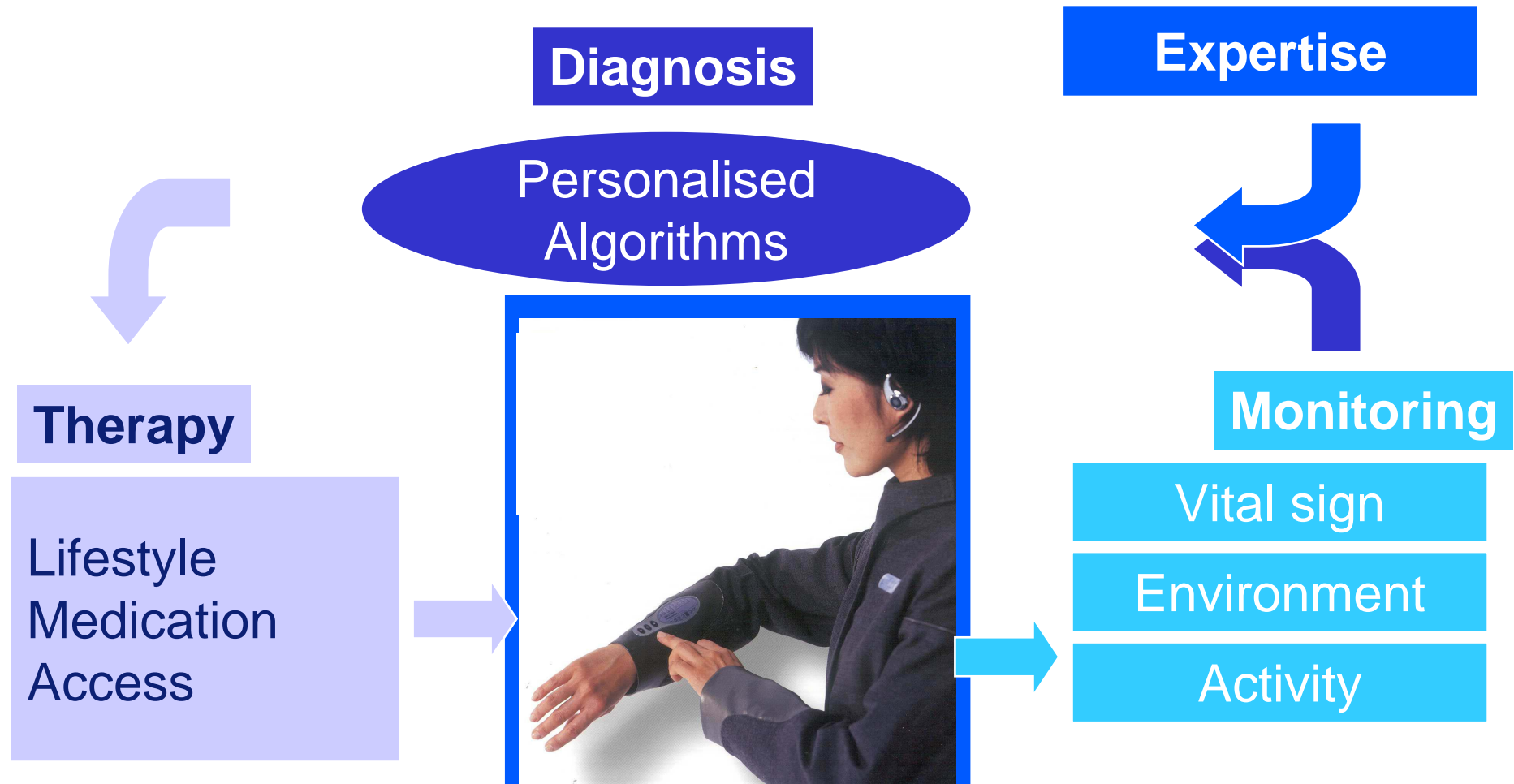
EU IST E-health (6<sup>th</sup> framework)

- Start: 31.12.2003
- Duration: 45 months
- Partners: 33 (10 countries)
- Total manpower: 75
- Total budget: 33 M€
- EC-funding: 16 M€  
(+ Swiss funding)



# MyHeart System

‘Clinical Excellence in hands of citizen’



# How to define and exploit your applications

- „The famous 5 MyHeart questions“
  - **What** is the added value
    - For the user/patient in terms of medical or other benefit
    - For the customer (healthcare stakeholders) in terms of business
  - **Who** is the
    - User/patient
    - Customer
  - **How** to realize it technically
  - **Why** to believe in your solution
    - Validation by field tests!
    - Ask the users, physicians and other stakeholders on their opinion!
  - **Where** is the business
    - Elaborate addressable market, stakeholder maps, values for

# Start as broad as possible and focus as much as possible during the project!

**Phase 1: Concept****Jan/04-June/05 (18 months)**

- Filling the application segmentation matrix
- building early demonstrators and mock-ups
- assessing customer/stakeholder reaction
- selecting the most attractive concepts + business prop.

**16 ideas****16 concepts****Phase 2: Implementation July/05-June/06 (12 months)**

- realising the most attractive concepts
- defining reference architecture for prevention
- clinical/medical panel testing

**4 product concepts****Phase 3: Validation****July/06-Sep/07 (15 months)**

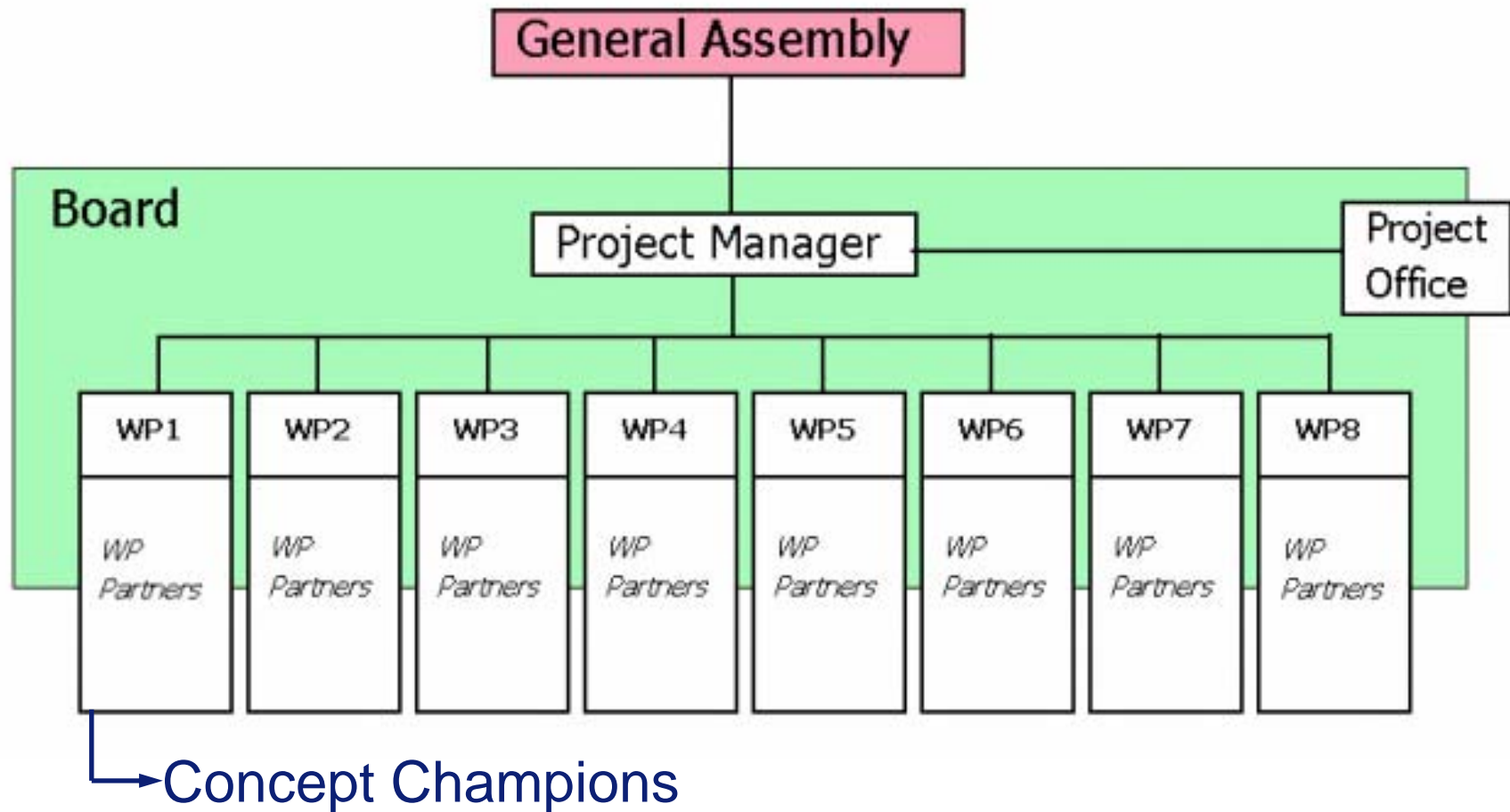
- Demonstrating technical/medical feasibility (trials & panels)
- Building partnerships for business exploitation
- Dissemination

**1-4 field-tests****•Sum:****45 months**

# Technical challenges

- Contact-based textile electrodes prone to movement artifacts
  - ➔ Work on contact-less sensors required
- How to connect fiber with connector
- Small and robust connector to electronics
- Integration of electronics into garment (Size, washability)
- Power consumption and charging of electronics
- Decentralized sensing and data processing (body area networking)
- Sensor fusion
- Expert systems for diagnosis and therapy

# Hierarchical communication structure



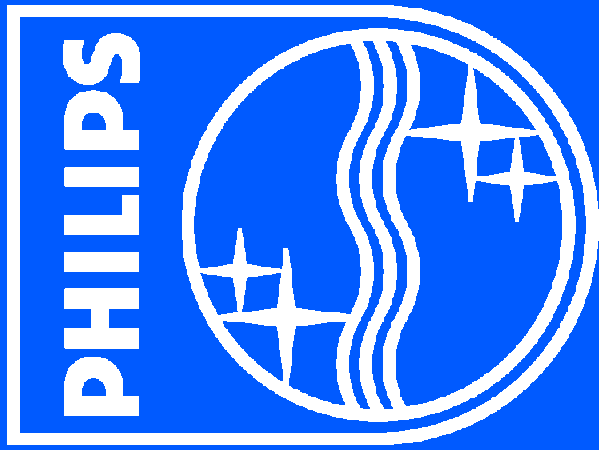
Board is key discussion and decision premium and has regular meetin



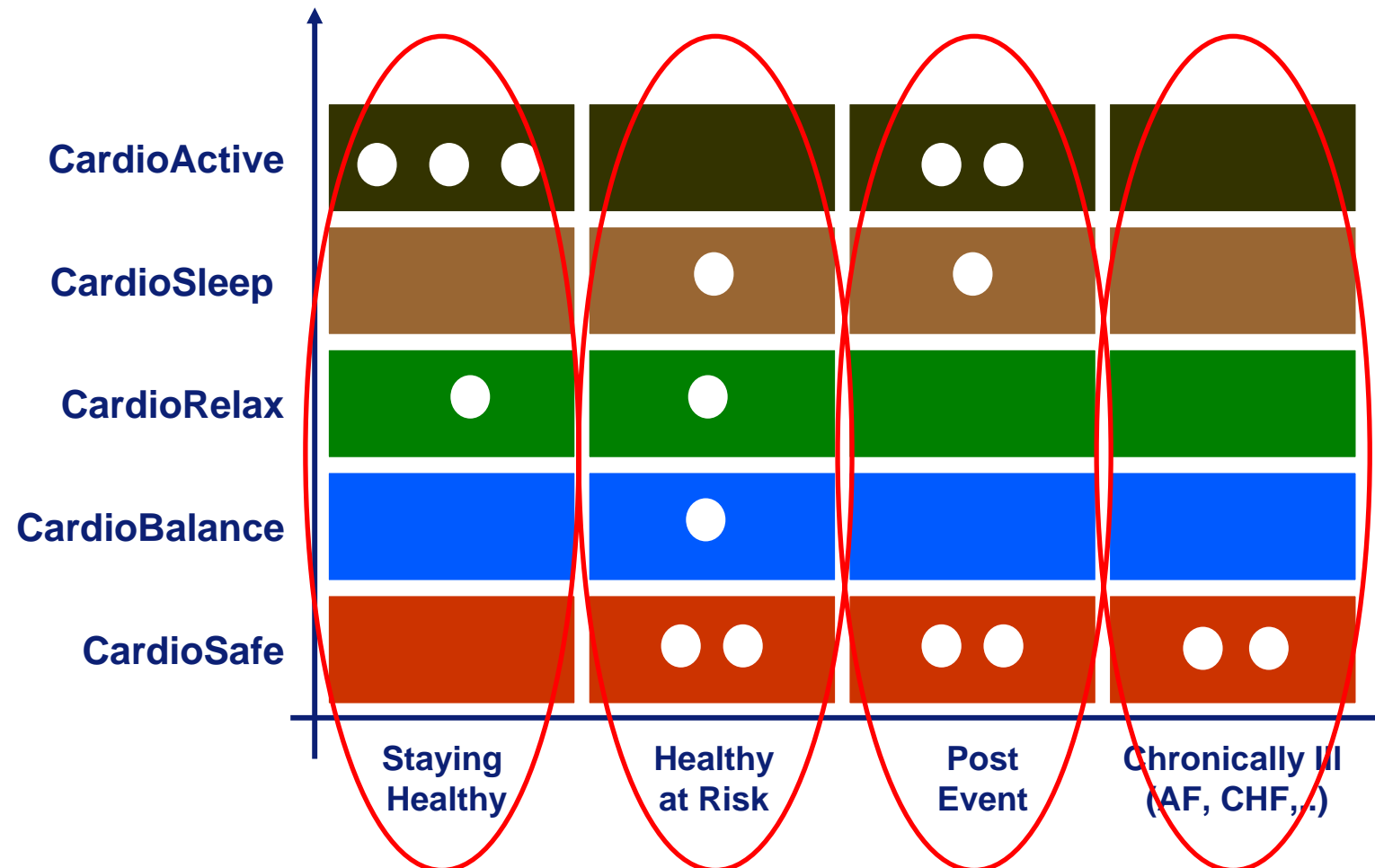
# Administrative Challenges and Tips

- As consortium leader take as much responsibility as possible from the Commission
  - Gives you more freedom in specific cases
- Don't expect the administrative EC departments to be as flexible as the officers would want them to be
  - Rules can of course not be bended
  - Everything takes time
- Hire a financial person to handle all financial issues
- Do not announce uncertain facts to the consortium and do not fix things unnecessarily (the partners will take this as a given, even if it was designated as provisional)
- Split technical and budgetary discussions (MyHeart selection was very successfully completed in that way)
- Think of including additional partners during the project if you recognize a gap in the consortium or you encounter new challenges, do also not hesitate to stop a partner participation





# MyHeart Scope: Application Matrix



➔ Product concepts as integral solutions for a specific user group