

# After Warsaw

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# Warsaw?

## BIOMEDEA

- Eindhoven December 2004
  - Warsaw March 2005
- Stuttgart September 2005

# Biomedea

Biomedical Engineering

Preparing for the European Higher  
Education Area

# Biomedea

- Input = Discussion paper  
“Criteria for Accreditation of Biomedical Engineering Programs in Europe”
- Output = Improved and more generally agreed Criteria

# Criteria

- Guidelines as a guide for the perplexed
- **Not** tramlines producing a single route and destination

# Warsaw

Dealt with:

- Purpose and nature of Guidelines
- Competencies – Core & Specialised
  - Guidelines for Curricula
- Clinical Engineering training

# Purpose and nature of Guidelines

- Harmonisation **not** standardisation
- Current engineering guidelines do not recognise the specific needs of BME
- **But** Current engineering guidelines are a starting point
- There are two different orientations of educational programmes

Research or Professional

# Competencies – Core & Specialised

**CAVEAT** There is a wide range of, and differences between, BME programmes. There were 3 working groups in Warsaw and they produced significantly different suggestions.



# Competencies – Core & Specialised

## Biomedical ENGINEERING Core Competencies

- Engineering
  - Physical Sciences
  - Biological Sciences
- Biomedical Engineering/Sciences
  - Generic skills

# Core Competencies

Nature of the core competences agreed  
**BUT** little agreement on the depth or detail  
required

# Specialised Competencies

- There was a very wide range of subject areas suggested
- There was little agreement on what were BIOMEDICAL Engineering core competences
- Specialised competencies should be based on strengths of the Educational Establishments

# Clinical Engineering Training

“Protocol for the Training of Clinical Engineers in Europe”

Document was generally welcomed

**But** concern about :

Detailed content, how training schemes and training centres are to be set up and managed

AND National Diversity

# Clinical Engineering Training

More general discussion on:

- The nature and duration of education and training
  - The structure of Clinical Engineering careers

# Certification and Continuing Professional Development

Important and to be addressed