An Evaluation to Locate Main Issues and Activity Fields of Healthcare Engineering in Europe

C. Hartung, ECCHE, Hemmingen, Germany

Underlying questionnaire

ECCHE mailed a questionnaire to all national European Societies, which are Members of IFHE, asking them to rank 18 pre-selected topics by considering circumstances as follows:

- Rank, whether your present professional concern is more likely to be strongly or to be weakly linked with the listed item.
- Rank, whether the listed item appears to be very important or rather unimportant for healthcare engineering on a European level.
- If applicable, indicate of item(s) which could cause overlapping.

11 questionnaires were returned. Results thus must be ranked as averaged societies' individual assessments.

Table 1 Questionnaire with pre-selected items

No.	Item
1	**Re-organisation of internal processes and workflow:** hospital engineering, medical engineering
2	**Engineering operations:** identification of curative and technical processes, purchase- and service level, core and outside competence, outsourcing vs. out-tasking,
3	**Co-operation forms of hospital engineering and system servicing:** assignment, make & buy, placing, contracting, service associations, public-private-partnership
4	**Building processes:** guiding, reporting, monitoring, computer assisted control and control systems
5	**Facilities' data based organisation:** CAFM
6	**Information systems applied to:** operation, safety, security, communication, documentation, maintenance
7	**Planning hospitals:** national programs, curative processes, determination of demand, migration, realisation
8	**Asset management:** buildings, engineering, infrastructure
9	**Plant engineering:** supply media – costs and reduction, heating, cold, air-conditioning, electrical engineering, plumbing
10	**Hygiene and technology :** standards – particular European level related to supply, segregation, disposal, functional areas, re-processing, devices and instruments
11	**Medical products:** maintenance, instructions, controls, testing, purchase, replacing, documentation, budget, European legislation
12	**Engineered hygiene:** sterilisation, disinfection, cleaning, re-processing **Medical Engineering:** instrumentation, devices, products for diagnosis and therapy
13	**E-commerce:** sales, logistics, material flow, technical pathways, realisations
14	**Ecological concerns:** products discharge, their disposal, avoidance and reduction
15	**Infrastructural engineering of buildings:** conveyor systems, elevators, air tubes, processing supply goods
16	**Personnel promotion:** selection, assignment, development, guidance, qualification, certification, motivation, training, coaching
17	**Financial business:** costs of engineering, invest planning, structure of compensation, national and European experiences
18	**Commercial business:** disposition of personnel, budget, controlling, contract management

Evaluation

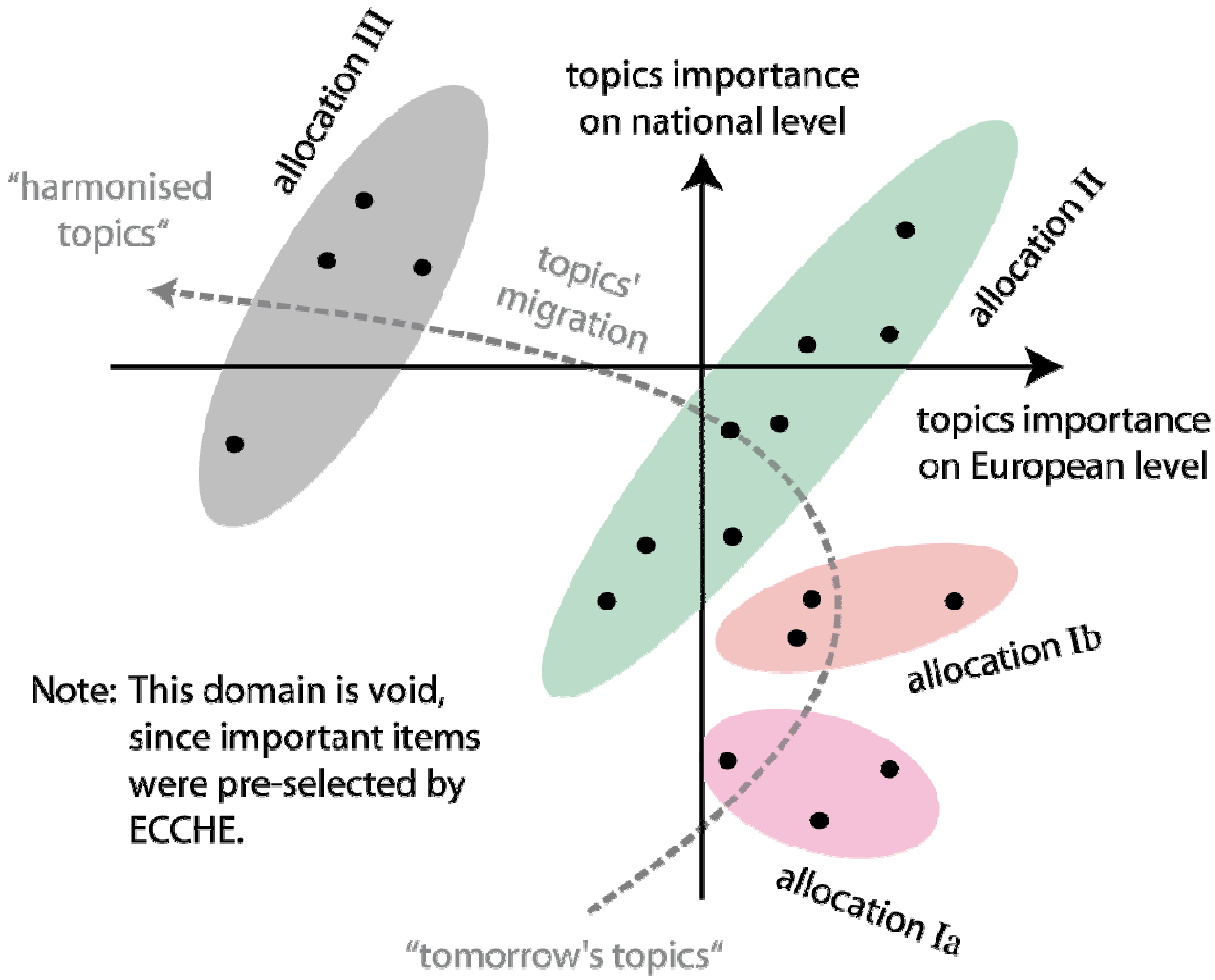

Fig. 1 Topics' allocation and professional importance – national vs. European level
(Dashed arrow indicates topics' migration from European to national level. Categorial presentation, however scale)

Topics expected to settle in national levels' professional domains

Allocation Ia: Topics considered to be important on European level but presently considered less important on national level

- Ecological concerns
- Hygiene and technology
- Commercial business

Allocation Ib: Topics considered important on European level and close to be considered on national level

- Financial business
- Engineering operations
- Building processes

Topic's considered important both on European and national levels

Allocation II: Topics identified to be important both on European and national professional levels in ranked order

- Re-organisation
- Plant engineering
- Co-operation forms
- Personnel promotion
- Information systems
- Medical products
- Planning hospitals
- Engineered hygiene

Topics considered less important on European level but presently important on national level

Allocation III:

- E-commerce
- Facilities' data based organisation
- Asset management
- Infrastructural engineering of buildings

Overlapping in content was identified among the following topics

- Hygiene and technology ⇔ Engineered hygiene
- Financial business ⇔ Asset management

Conclusions

The following research and activity fields of healthcare engineering in Europe were identified and assigned

- Topics of European concern (allocation Ia and Ib) are assessed to become topics of national concern. ("potential to be harmonized")
- Topics of national concern (allocation III) are presently assessed to become the topics of tomorrow in Europe. ("potential to be communicated from national to European level")
- Topics with proportional importance are equally assessed both on national and European level. ("no urgent need to be communicated")

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Author's address

European Competence Center of Healthcare Engineering (ECCHE)
Prof. Dr.-Ing. C. Hartung

Im Klampfeld 12
D – 30966 Hemmingen
info(at)ecche.com