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## A Competence-Based Curriculum for Environmental Health

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# One Road.....Many Paths!

**A Competence-based Curriculum for Environmental Health**

**Maurice Brennan;** Birmingham University, UK

**Tony Lewis;** Chartered Institute of Environmental Health, UK

**Steve Konkell;** Dublin Institute of Technology, Dublin, Eire



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# The Problem

- In a fast changing world, qualifications that base themselves on the attainment of knowledge:
  - Have a limited 'half-life' - c.18 months
  - Tend to be parochial i.e. country-focussed
  - May be perceived as the keys to an 'exclusive' club



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# Question

- Is there an approach that addresses this problem and focuses on what Environmental Health Practitioners can actually do?



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# Solution?

“Competence.....not qualifications”

UK Cabinet Office 2007



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# The key definitions - Competence

- A cluster of related knowledge, skills and attitudes that affect a major part of one's job (role or responsibilities), that can be measured against some sort of occupational standards and can be improved by training and development

(Parry 1996)



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# More than just knowledge, because.....

- Knowledge without experience is merely information

Albert Einstein



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# The key definitions - Capability

- Describes an individual's potential to develop and is to do with future competence

Chartered Society of Physiotherapists (2005)





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# The key definitions - Competencies

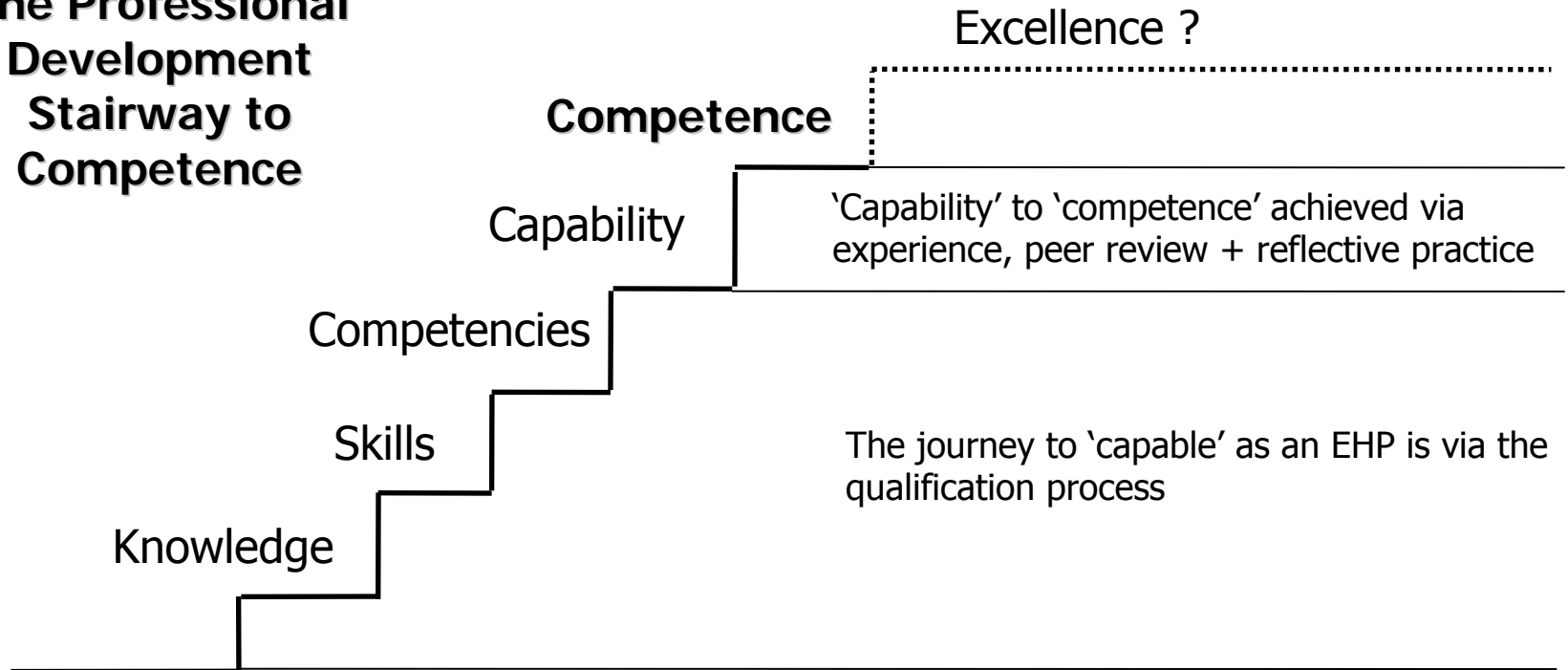
- A range of applied abilities and skills that relate to capability

Chartered Society of Physiotherapists (2005)



# Competence - how do I develop it ?

## The Professional Development Stairway to Competence





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# Competence – the key questions

- Why is it important ?
- How do I develop it ?
- How do I (or others) measure it ?
- What if I'm not ?



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# Competence - why is it important ?

To me:

- Personal satisfaction
- Career development
- Recognition by colleagues
- Recognition by employers/customers



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# Competence - why is it important ?

To the Environmental Health Profession:

- Professional standing (legal, political, inter-professional, international)



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# Competence - why is it important ?

To the wider Community:

- Confidence in us to deliver to the appropriate standard ('fit for purpose')
- Our decisions are accepted and trusted



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# Competence - the bigger picture

- International Perspective
  - Global market
  - Transferability of qualifications
  - Irrespective of where we practice there is a common core to that activity



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# Competence - how do I develop it ?

- Begins with:
  - Course of study
  - Practice and reflection upon it via learning portfolios
  - Professional assessments





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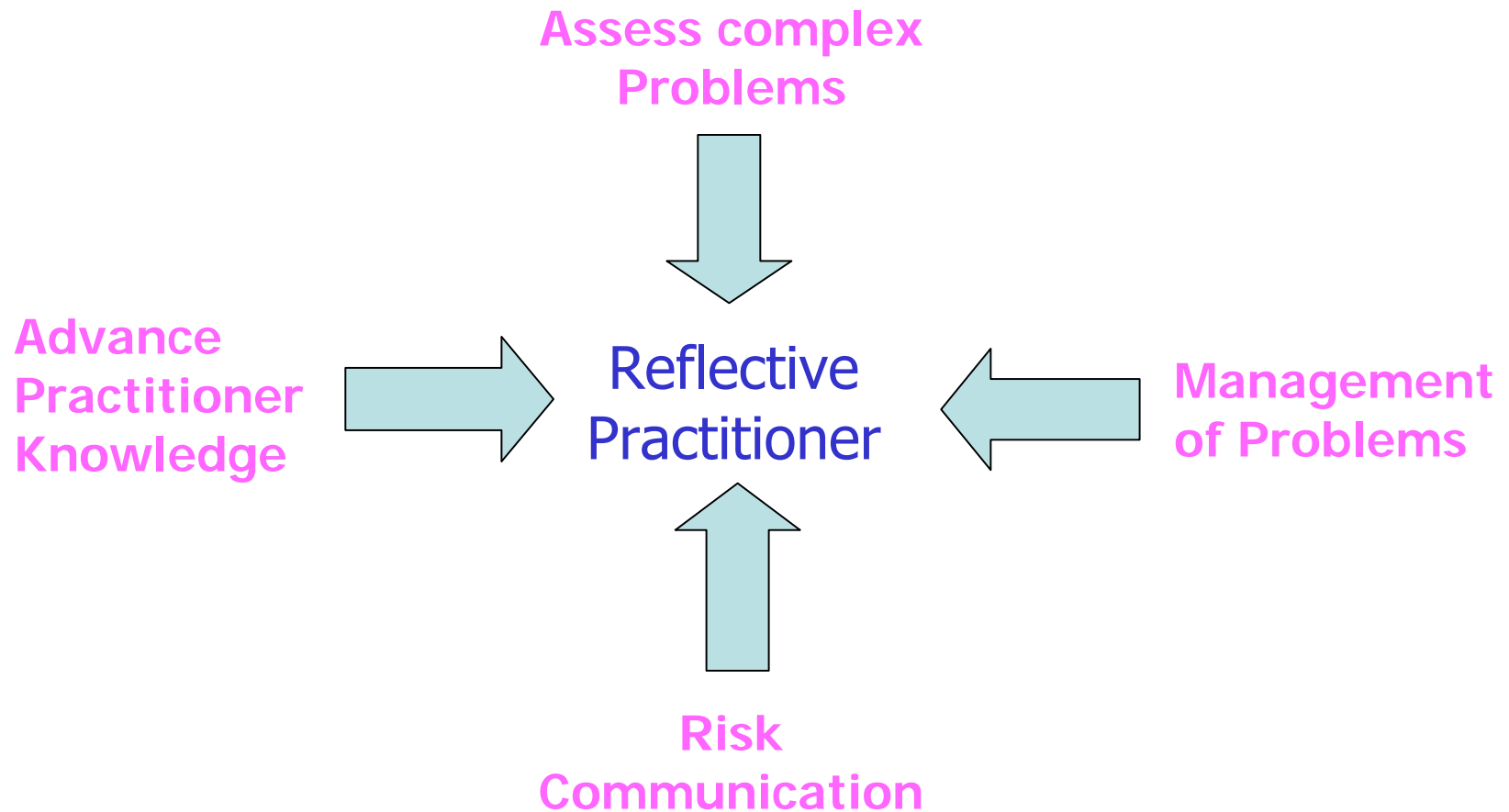


# Continues with life long learning.....

- Vocational PG courses
- CPD courses.
- Conferences, seminars etc
- Work-based learning



# Focuses on the reflective practitioner





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# International recognition question

- Whilst competence might deal with the knowledge and exclusivity issues, how does it solve the international recognition question?



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## International recognition question (2)

- It can do so IF we can construct a framework of competencies that encapsulates the essence of who and what we are!



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# IFEH involvement

- In 2000 (Sweden) IFEH tasked the academic community to develop an international environmental health framework for curricula



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**10<sup>TH</sup> WORLD CONGRESS ON ENVIRONMENTAL HEALTH**

**International Faculty Forum**

**Griffith University**

**May 11, 2008**



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# Sunday 11<sup>th</sup> May 2008

- Discussion facilitated by Steve Konkell
- Consideration of previously circulated document, “Environmental Health Qualifications (Draft 1) Dec. 2007 Draft” by Barbara Delaney, DIT, Dublin
- Essential to involve both Internal and External Stakeholders of IFEH
- Conclusions by consensus



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# Benefits

- Mobility / Useful “shield”
- Recruitment of EHOs and EHPs
- Retention of EHOs and EHPs
- “International Visibility” & Image
- Attracting Students to the Field
  - Mobility
  - Placement
  - Research opportunity





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# Challenges

- Representative of all countries
- Applicable to all countries
- Uniformity in application
- Problems with international transposition of terms and terminology



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# Understanding the Key Competency Base

- Transferable skills are most highly valued
- Problem solving and critical thinking skills are key to resolving pressing Environmental Health issues
- Examples of key words:
  - 'identify'
  - 'articulate'
  - 'integrate'
- Additional articulation can be found in the work of Maurice Brennan and Tony Lewis



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# IFF outcomes

- Essential to develop a common framework for environmental health practice
- Use a competency-based approach
- Benefits greatly outweigh the downside
- Seek wide consultation of the IFEH Membership
- Before final decisions:
  - Instruct participants to fully represent their values in developing country-specific requirements
- Foster efforts to represent all countries



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2008

- IFF agrees that 'EHness' should be the basis of such a framework for curricula



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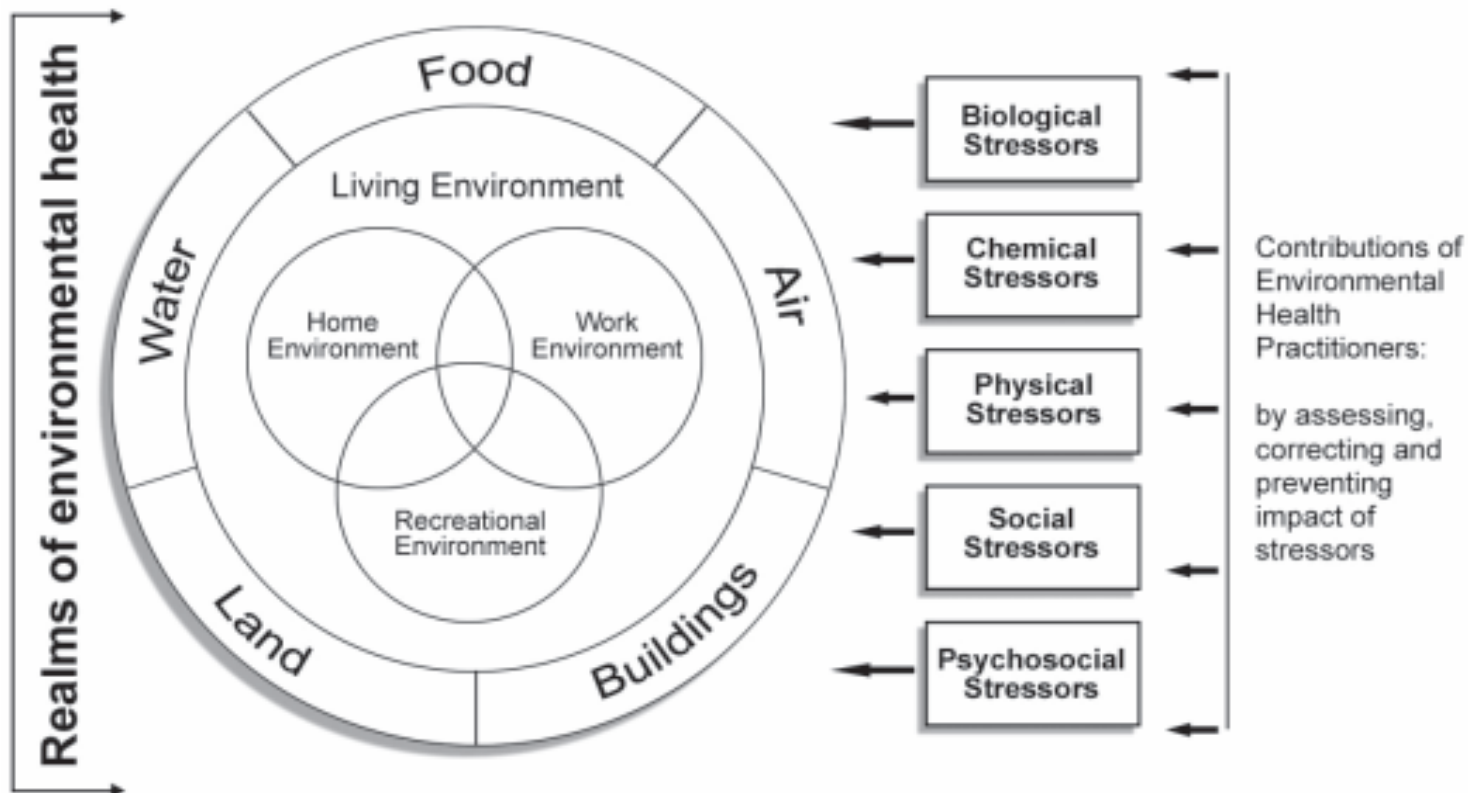
'EHness' is what EHPs have and others do not !!!

- It's an ability to identify, assess and manage risks to (public) health that arise from the impact of a range of stressors on our world



# Environmental Health 2012 - A key partner in delivering the public health agenda

*Sue Burke, Ian Gray, Karen Paterson and Dr Jane Meyrick; Health Development Agency, UK 2002*





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# There are three dimensions to 'EHness'

- Knowledge
- Skills
- Method



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# The knowledge

- Anatomy physiology and basic toxicology
- Social, physical and natural sciences
- Communicable and non-communicable diseases – vectors and control mechanisms (surveillance and control)
- Research methods
- Basic principles of risk assessment and management
- Principles of pest control and management





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## The knowledge (2)

- The built environment
- The principles of pollution prevention and control
- Health protection measures and methods
- Inequalities in health
- Principles of sustainable development
- Legal principles and processes



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# The Skills

- Determine and articulate the nature of a hazard and quantify the level of risk associated with that hazard
- Plan and execute statistically reliable sampling programmes, analyse and interpret data
- Plan and execute inspections, investigations and audits
- Obtain admissible evidence and apply due legal processes
- Design, implement and evaluate a research protocol



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## The Skills (2)

- Determining appropriate courses of action
- Organise self and work within organisations
- Effective communications
- Reflective practice
- Working with and within communities



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# The Method

- Identify and articulate the range of actual and potential biological, chemical, physical, social and psychosocial stressors that may act upon and within the physical, social and human worlds
- Identify and articulate the points of possible impact of the stressors on and within the worlds
- Identify and articulate the mechanism of impact of the stressors on and within the worlds
- Identify and articulate the potential and actual public health implications that (may) arise from the impact of stressors on and within the worlds
- Identify and articulate the points at which EHPs may intervene to prevent, control or mitigate the impact of stressors on and within the worlds

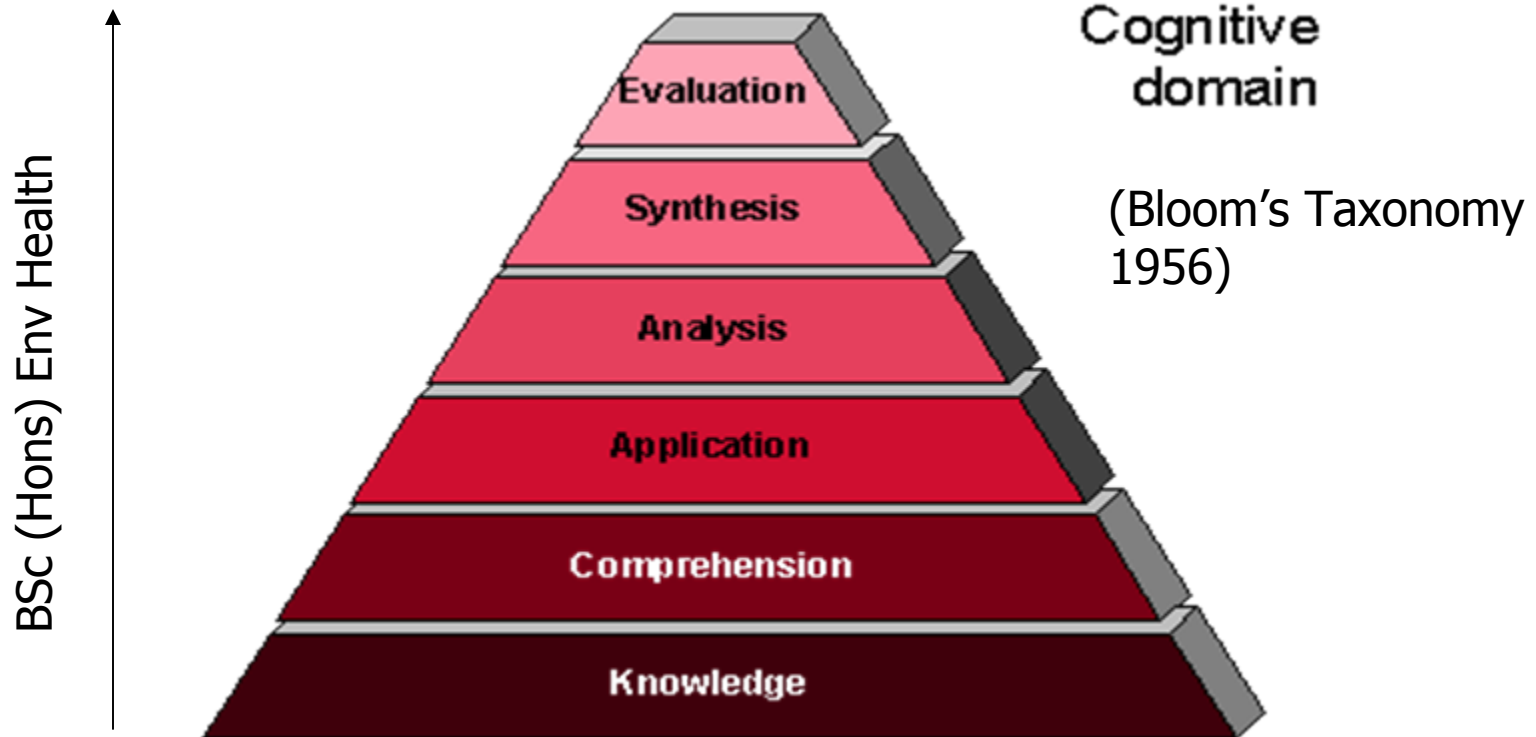


# The Method (2)

- Identify, communicate and engage with partner organisations, agencies, fellow professionals and others with whom appropriate intervention strategies might need to be formulated
- Identify and articulate the most appropriate intervention to exercise, having regard to the factors, be they political, financial and technological that are likely to influence the decision making process
- Design and implement appropriate intervention strategies in collaboration with others
- Monitor and review the effectiveness of the intervention strategy; altering or adapting it, where necessary, according to the actual or predicted outcome



# The Level

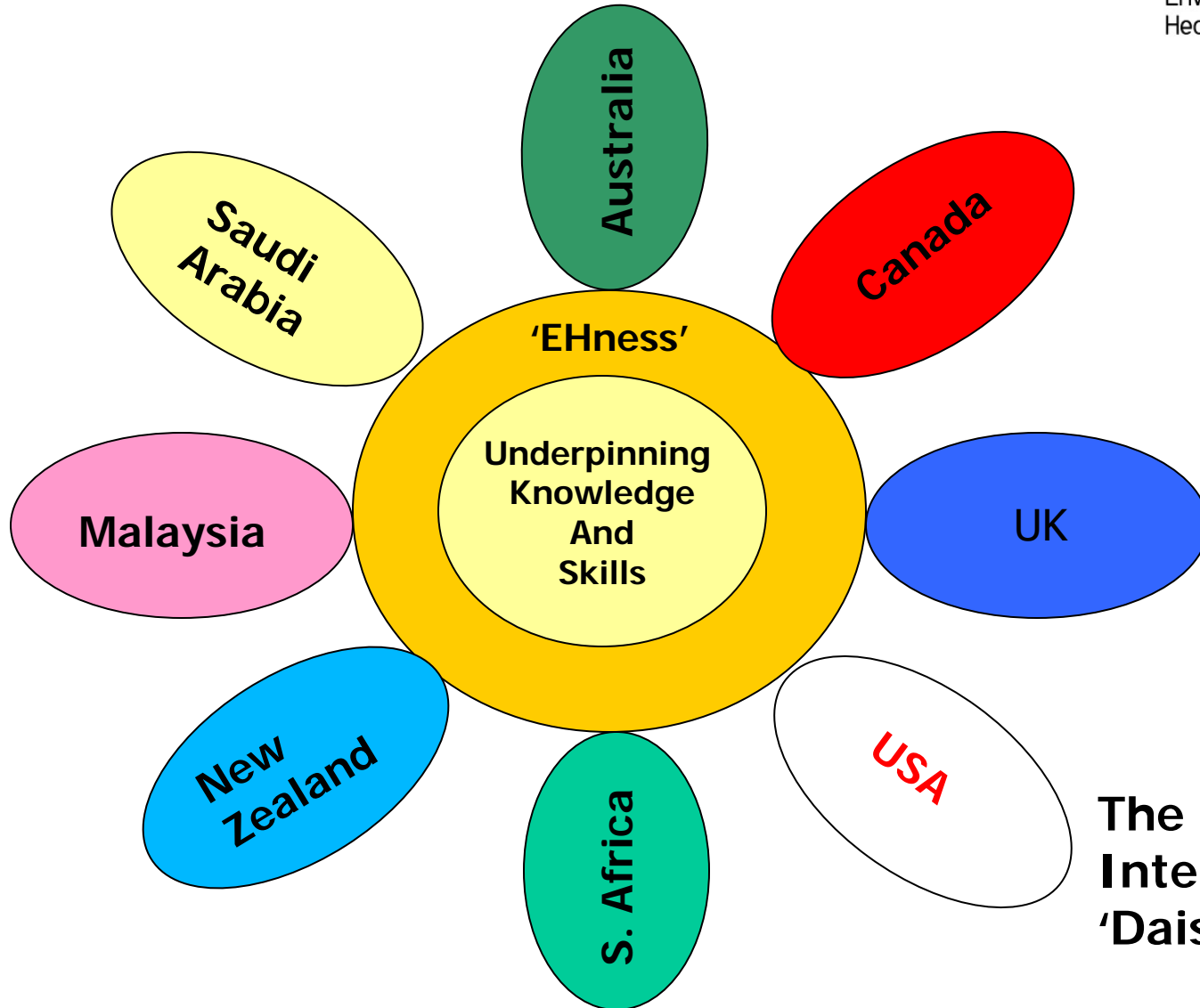




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The  
International  
'Daisy'



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# Conclusions

- The world is small
- Environmental health practice throughout the world has a common base of knowledge, skills and competencies
- If we focus on these rather than qualifications then issues of mutual recognition will fade
- The concept of 'EHness' offers an international solution





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# Your Views

# What do you think!



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# Send your comments to

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