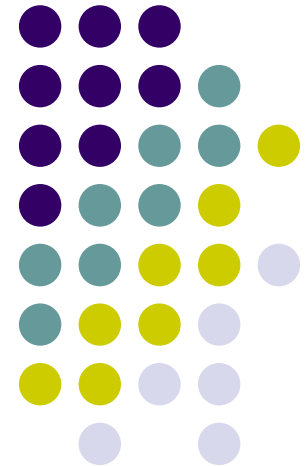


# Development of International Training Modules for Occupational Hygiene

IOHA, Taipei,  
19 February 2008

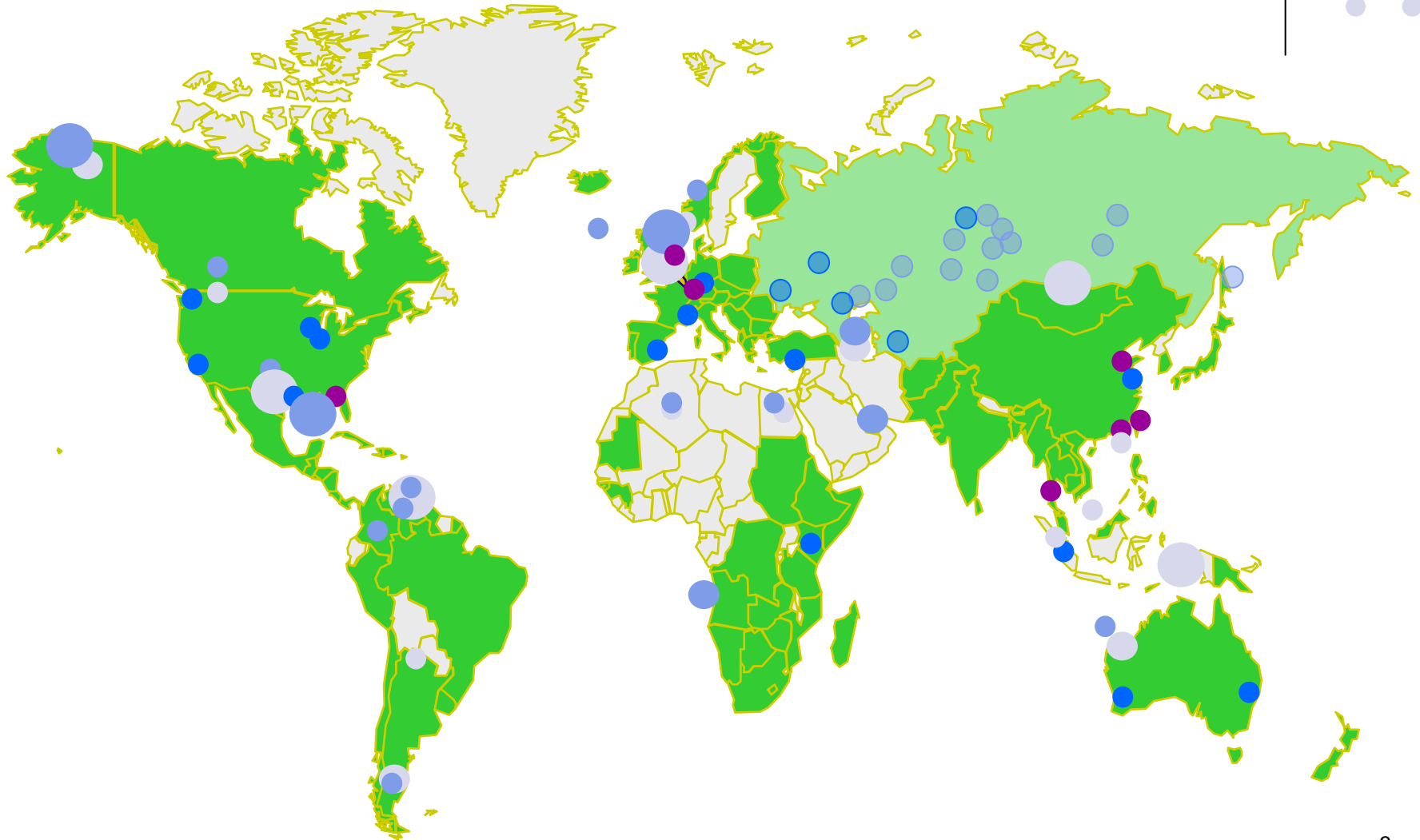


# Outline



- 1. Background**
- 2. Global demand and availability**
- 3. Development of training solutions**
- 4. The technical level gap**
- 5. Next Steps**

# The impact of globalisation



# IOHA Member organisations



Source IOHA 2007



# 1. Background

- **Informal discussions between hygienists in global businesses, including**
  - initially BP, GlaxoSmithKline, AstraZeneca, ExxonMobil, Shell, BayerCropScience
- **Experiencing limited availability of trained Occupational Hygienists and training opportunities in much of the world**
- **Seeking to encourage a sustainable supply of competent Occupational Hygiene resources and training**

# The Challenge



- **There is a time-limited opportunity to drive long term improvements and build capability**
  - organizations already working to meet operational needs
  - shortage of talent leading to de-skilling
- **“Supply” should be tuned to market and customer-focussed deliverables**
- **Stakeholder participation essential to success**
- **Paper prepared October 2006 promoting discussion among potential employers, professional associations, certification bodies, and training providers**





## 2. Global demand and availability

- **During 2007 the consultancy firm Deloitte undertook a survey of many international companies:-**

Amarada Hess Corp	E.I duPont de Nemours & Co	Methanex
BHP Billiton	ENI/Saipen	Rio Tinto Group
BP	Ford Motor Co	Royal Dutch Shell Group
BT Group	IBM	Schlumberger Limited
British American Tobacco	Intel Corp	Suncor
Chevron Corporation	Kinder Morgan Inc	Tata Group
ConocoPhilips	Marathon Oil Corp	Total

- **They looked at**
  - demand for Occupational Hygiene across the world
  - the factors affecting Occupational Hygiene recruiting

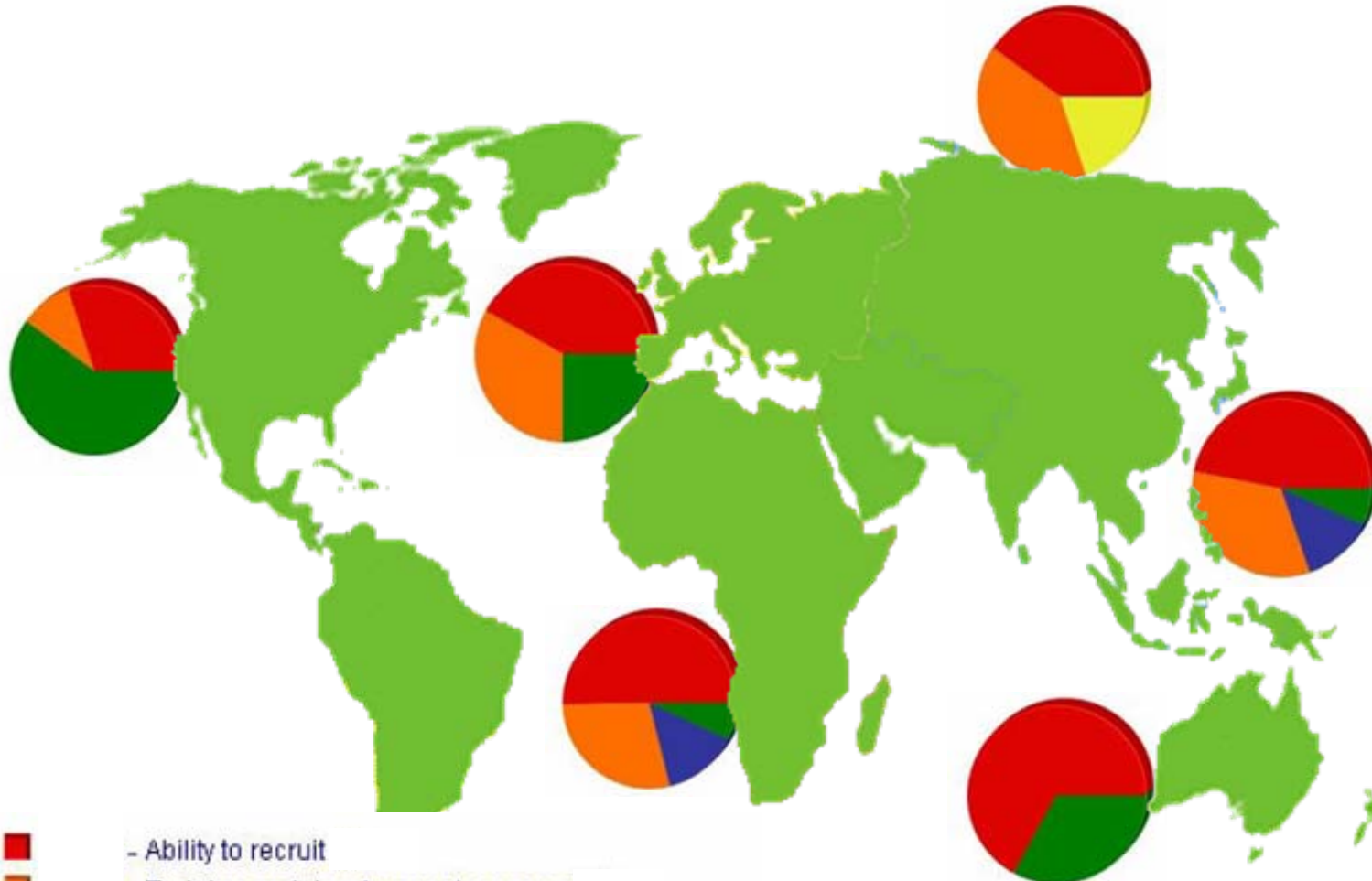
# Demand for Occupational Hygienists



Data from Deloitte 2007



# Factors affecting OH resourcing



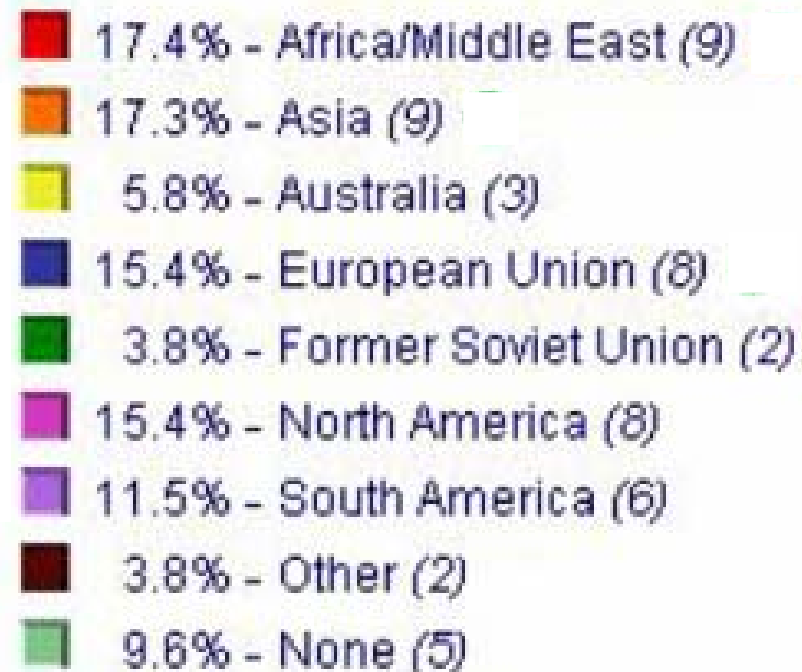
- Ability to recruit
- Training and development courses
- Availability of equipment
- Availability of accredited analytical laboratories
- Other

Data from Deloitte 2007



# Regional needs

**For which of the following regions do you have a need to hire IH's?**  
This chart shows the distribution of all responses to this question.



Source Deloitte 2007



# Key Conclusions

- **The ability to recruit suitably trained occupational hygiene staff is a global issue for most of the respondents**
- **The lack of availability of training courses & development opportunities is a major barrier**

*...technician level 'practical' training confirmed as priority for short term focus*

# Broad stakeholder involvement



- **Discussion broadened to other key stakeholders**
- **Workshops**
  - AIOH - December 2006
  - BOHS - April 2007
  - AIHCe - June 2007
  - AIOH - Melbourne, November 2007
  - IOHA - Taipei, February 2008
- **Professional bodies**
  - AIHA board - January 2007
  - ABIH board - March 2007
  - IOHA board - June 2007
- **Forward plans**
  - OHSI – Limerick, February 2008
  - ICOH – Glasgow, April 2008
  - BOHS – Bristol, May 2008
  - AIHce – Minneapolis, June 2008



# 3. Training Solutions

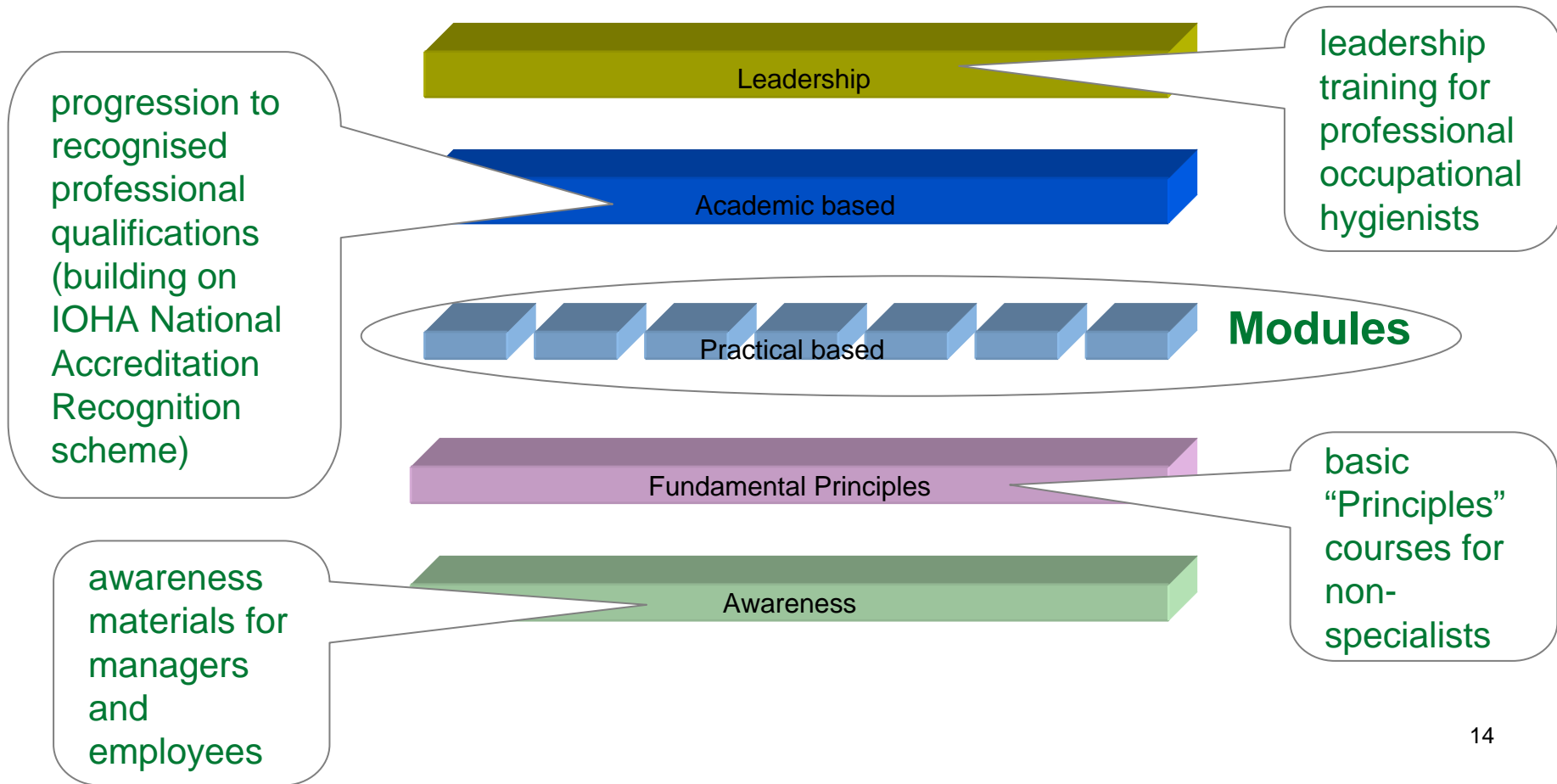
**Initial goals for technical training:**

- **to develop quality, peer reviewed teaching materials**
- **to make them readily accessible free of charge to *bona fide* course providers**
- **to create sustainable business models for course provision**
- **to provide “stepping stones” for career development**



# 4. The technical level gap

- Education building blocks for occupational hygiene



# Specification



- **Training**

- up to date syllabi covering modern industry issues
- focus on practical application of occupational hygiene
- consistent quality of teaching materials
- flexible delivery to suit customer needs
- international syllabus suitable for delivery anywhere

- **Competence assessment**

- assessable by independent body
- leading to recognised qualifications at technician level
- internationally transferable
- without duplicating existing systems



# Outputs so far

- **Practical-based one-week modules**
  - initially 6 key areas for completion by mid 2008
- **Module development**
  - by specialist authors
  - peer reviewed
  - piloted prior to publication
- **Agreed syllabus/exam process**
  - developed by BOHS in consultation with AIOH
  - international syllabus does not involve national legislation
  - online examination post-course

- **W501 – Hazardous Substances Measurement including risk assessment (Australia)**
- **W502 –Thermal Environment (Australia)**
- **W503 –Noise (USA)**
- **W504 –Asbestos (UK)**
- **W505 –Control (Australia, due mid 2008)**
- **W506 –Ergonomics (Australia, due mid 2008)**





# Teaching materials

- Student pre-reading
- Student manual
- PowerPoint presentations
- Student exercises
- Practical workshops
- Case studies
- Teaching guide
- Mock exam





# Pilot courses

- Courses have been trialled in Wollongong, Baku and Shanghai
- Approved course providers used
- Language issues
  - Wording of slides and manuals needs to be very basic in structure
  - Materials are being translated as required for pilots (e.g.. Chinese, Spanish, German)
  - Case studies are a very effective approach
- Trial courses are fundamental to a good product outcome



# Still to be Addressed...



- **A process for updating & assuring the quality of the training materials needs to be established**
- **Process for ensuring teaching by persons with appropriate skills & experience**
- **Means of assessing competence**
- **The role of these courses in an individual's professional development needs to be defined and accepted internationally**

# Next Steps –



- **Group of users/key stakeholders to:**
  - define future management of course material
  - process for assessment and quality assurance
- **Promote the business case to employers**
  - share materials on how businesses can benefit from occupational hygiene
  - provide examples of senior management presentations (cf. AIHA's Value of the Profession study)
- **Encourage ongoing support for professional development**
  - develop career pathways that draw people into the field
  - sponsor regional meetings to build networking and mentoring
  - support studentships, placements and projects for students
  - offer mentoring and career development opportunities

# Thank you



industrial hygiene



no harm to people

With acknowledgment to all who have contributed so far