‘Four Pillars of Plumbing Forum’
Participation: Training requirements for Plumbing Industries

‘UK Plumbing Framework and Training Requirements’

George Thomson
Chairman of BPEC
WPC Four Pillars of Plumbing Forum

Introduction to Mr George Thomson (second generation plumber)
Introduction to the UK Plumbing Industry – UK – Four Nations

Country Population (m) - 65,648,100

England - 55,268,100
Northern Ireland - 1,862,100
Scotland - 5,404,700
Wales - 3,113,200
Introduction to the UK Plumbing Industry

- Approx. 80,000 plumbers working across the UK
- Majority of businesses are SMEs
- Require 3,000 plumbers qualified per year
- Scope of work (what’s covered / what’s not)
Regulatory requirements

- No actual industry ‘licence to practice’ in place
- Lots of Health and Safety legislation
- Extensive Building, Water and Gas regulations
- Professional Trade Associations and Professional Bodies
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Mr Kevin Wellman (CEO of CIPHE)
Entry and Training Pathways

• Employer-led Apprenticeships

• Day-release at College to provide off-the-job training

• 4 years the norm to get fully qualified

• Require 3,000 qualified plumbers a year

• Scope of work (what’s covered / what’s not)
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CAREER PATHWAYS FOR PLUMBING ENGINEERS

- Chartered Engineer CEng
  - MSc, MEng, Bachelor’s degree, NVQ Level 6
- Incorporated Engineer IEng
  - Honours degree NVQ Level 5
- Trainee Graduate Engineer
  - NVQ Level 4 (HNC/HND)

- Technician EngTech

- Usually office based
- BEng(Hons), MEng
- Usually site based
  - Specialist in Teaching or Related Plumbing Services
  - Master Plumber
  - Fully Qualified Plumber EngTech
  - NVQ Level 3
  - Intermediate Plumber
  - NVQ Level 2
  - Apprenticeship Plumber
  - 4 GCSE’s A–D level

Director or senior manager of team of engineers designing and managing plumbing and public health engineering systems for large projects.

Senior engineer designing, supervising and managing public health engineering systems for large and small projects. May be senior manager of director level.

Graduate or trainee plumbing engineer designing plumbing and public health engineering systems for various projects and undergoing further training.

Highly experienced and qualified crafts person – recognised for their skill and expertise.

Experienced craftsman installing and managing plumbing systems for various projects and training plumbers.

Site based intermediate plumber working under the supervision of a fully qualified plumber.

School leaver or career change trainee working with an experienced plumber on site with day release or evening at college.

CIPHE

THE WORSHIPFUL COMPANY OF PLUMBERS
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Training and Assessment

- UK wide employer derived National Occupational Standards
- Core knowledge and skills requirements
- Additional skills and knowledge requirements
- Work based evidence
- New Trailblazer Apprenticeship – End Point Assessment
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Continuing Professional Development

• Updating on new regulations, standards and procedures

• Technological advancements, e.g. for Renewable energy

• New product training via manufacturers

• Enhancing skills in other trade areas, e.g. electrical etc.

• Training and assessment in non-traditional fuel options, e.g. biomass boilers etc.
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Current challenges and industry wide solutions

Complex skills infrastructure / Lack of investment in training
Current challenges and industry wide solutions

- DIY culture / lack of licence to practice
- The erosion of content and duration of apprenticeships
- Disparity between academic and vocational career options
- Inconsistencies across the four nations within the UK
- The Plumbing and Heating Skills Partnership (PHSP)
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Charitable role in raising knowledge and skills overseas

BPEC life award and legacy funded projects
- South America (Nicaragua)
- Africa (Malawi, Uganda, Johannesburg and The Gambia)
- Eastern Europe (Moldova)

Key lessons and observations
- Big divide between academic and vocational occupations
- Different approach to teaching and learning
Charitable role overseas (key lessons and observations cont.);
- Ikea style of learning works well
- Appropriate and sustainable methods work the best
Summary and conclusions

• Supportive of the four pillars of plumbing initiative

• One size fits all approach will definitely not work

• Appropriate support to under developed countries is essential

• Tapping into other international standards (WorldSkills)
Any Questions?
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