

STBA | SPAB Conference,
Retrofit Standards and Skills
8 October 2020

Dr Peter Rickaby

BSI Retrofit Standards Task Group
UK Centre for Moisture in Buildings, UCL

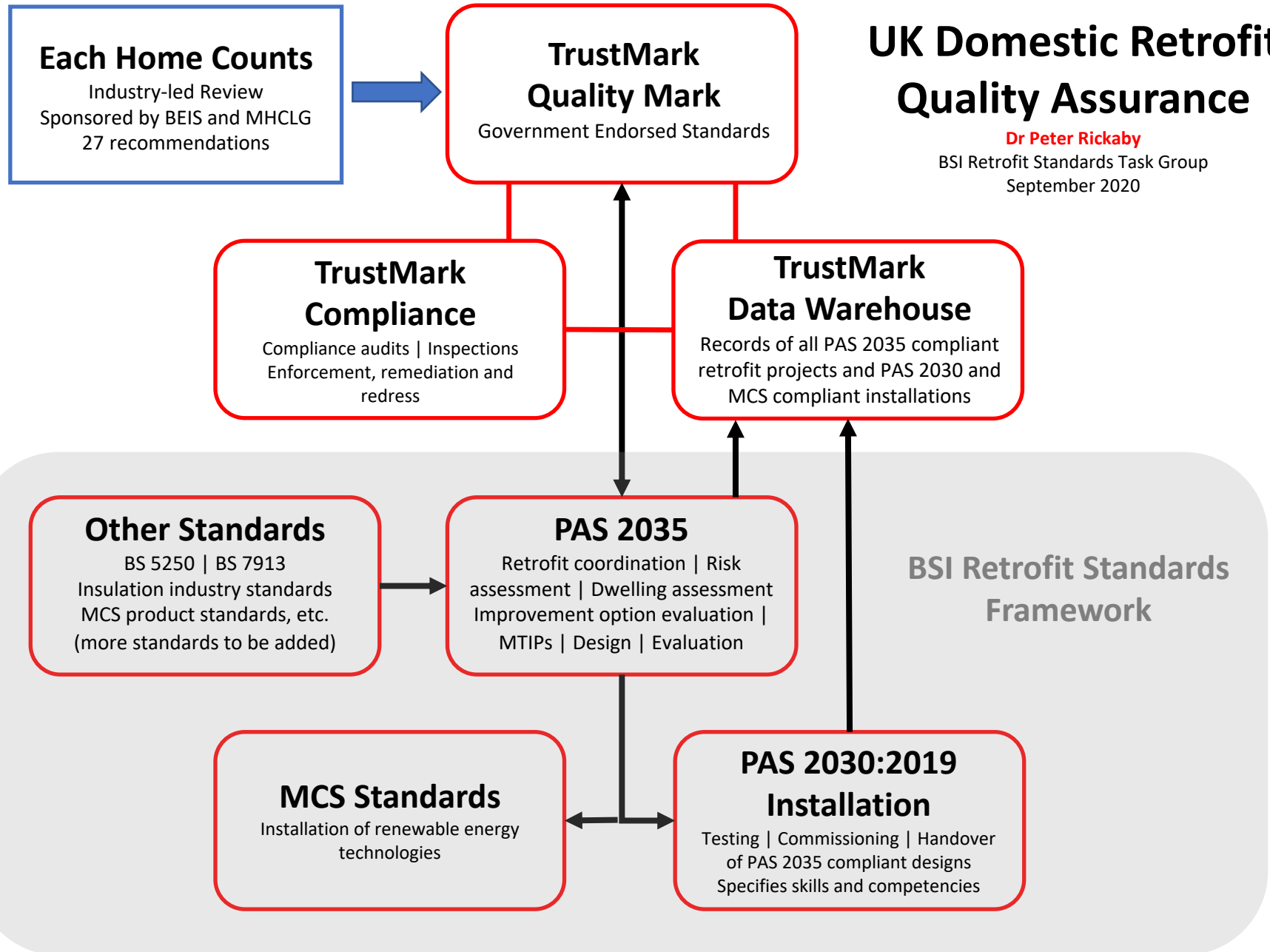
- Update on quality assurance in domestic retrofit
 - What the QA system looks like
 - Provisions for traditional and protected buildings
- Skills and training for domestic retrofit
 - Qualifications for traditional and protected buildings
 - Retrofit Coordinator training
 - PAS into Practice Programme
- Preview of PAS 2038
 - Forthcoming non-domestic retrofit standard
 - Provisions for traditional and protected buildings
 - Qualifications for traditional and protected buildings

UK Domestic Retrofit Quality Assurance

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September 2020



PAS 2035 Key Requirements

- All buildings
 - Retrofit Coordinator
 - Whole-dwelling assessment
 - Context, condition, occupancy, energy performance, ventilation
 - Repair before retrofit
 - Moisture management
- Traditionally constructed and protected buildings
 - Simplified BS 7913 significance assessments
 - Significance taken into account during design
 - More onerous requirements than for other buildings

PAS 2035 Skills and Training

- Retrofit Coordinator
 - Diploma in Retrofit Coordination and Risk Management
 - Intensive training during transition period
 - Retrofit Academy Centre of Excellence
 - PAS 2035 Implementation software, templates, CPD
 - PAS into Practice mentoring programme
 - BEIS-funded via the Retrofit Academy CoE
 - Aims to deliver 75 expert Retrofit Coordinators by 11/20
- Traditionally constructed and protected buildings
 - Level 3 qualification for Retrofit Assessors
 - Intensive training during transition period
 - Conservation qualifications for Retrofit Designers
 - Some access difficulties for non-professionals?

Non-Domestic Buildings

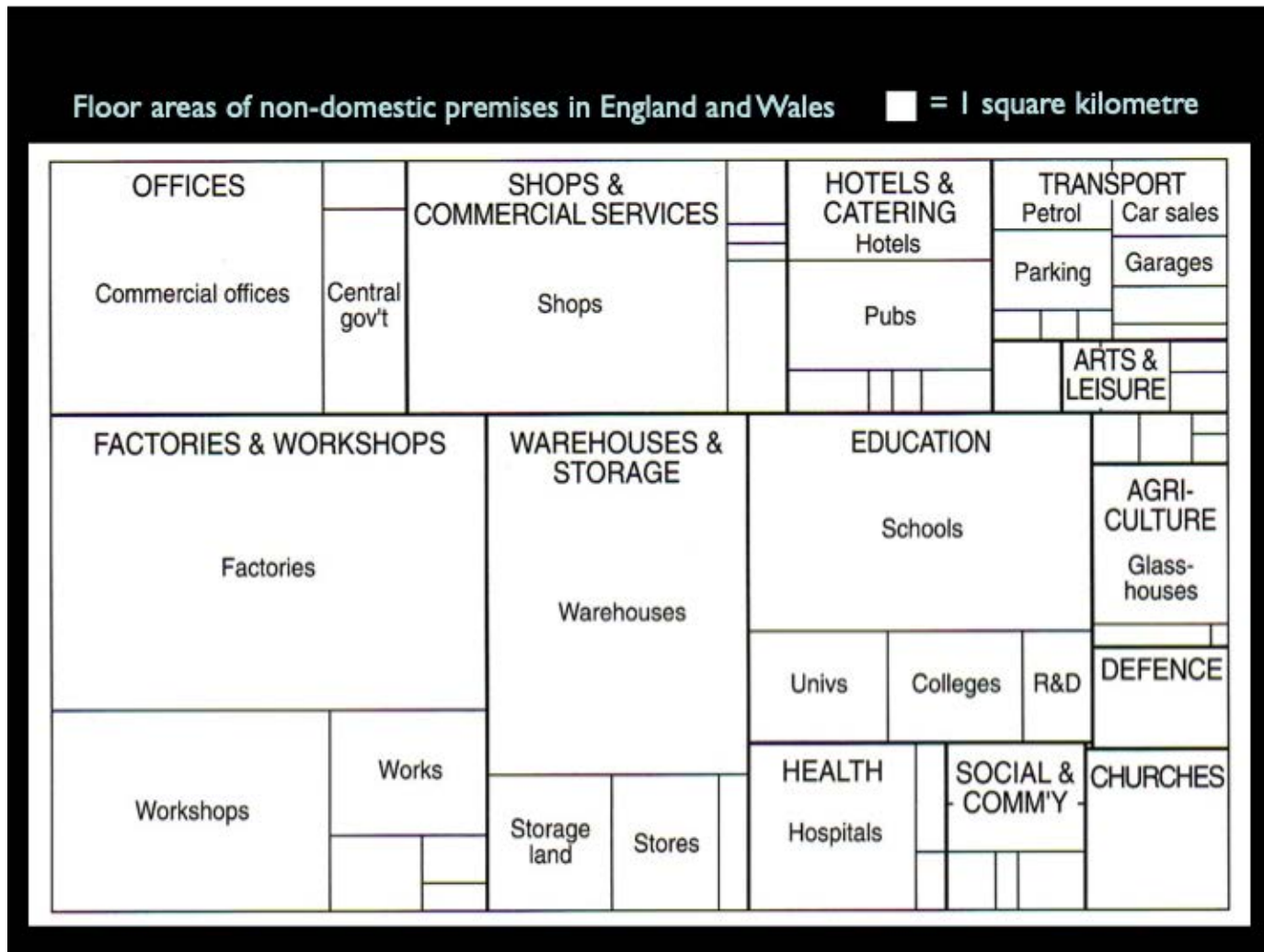


Diagram courtesy of University College London Energy Institute (Non-Domestic Building Stock Project)

Non-Domestic Buildings

- Two million premises
 - Everything from corner shops to The Shard
 - Three 'bulk classes': offices, shops, industrial buildings
 - Relatively few very large buildings use most energy
 - Multiple tenants in some 'base buildings' (offices, shops)
 - Multiple buildings or tenancies in some stocks
 - Many big sheds in the industrial sector (some chilled)
- Non-domestic retrofit
 - Most often combined with refurbishment or refitting
 - 'Base buildings' often separate from tenants' spaces
 - More professional involvement than domestic sector

PAS 2038 Non-Domestic Retrofit

Process

- Covers all non-domestic buildings
 - Irrespective of scale or complexity
- Similar to PAS 2035 but no risk paths, more generic
 - Assessment
 - Improvement option evaluation
 - Medium-term improvement plan
 - Design
 - Installation
 - Commissioning, testing and handover
 - Fine-tuning of energy performance
 - Evaluation
- Embraces Design for Performance, Soft Landings

PAS 2038 Non-Domestic Retrofit

- Qualifications - only building professionals
 - Level 5 CEA, ARB, CIAT, CIOB, CIBSE, RICS, MRTPI
 - Retrofit Lead Professional (responsible for compliance)
 - Lead assessors, lead designers
- Traditionally constructed and protected buildings
 - Level 3 qualification for lead assessors
 - Conservation qualifications for lead designers
 - Considers architectural, cultural and historic context,
 - Designs consistent with BS 7913 and EN 16883
 - Repair before retrofit (all buildings)
 - Moisture management (all buildings)

Questions?

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