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**3M** Science.  
Applied to Life.™

Implementing an effective tight-fitting respirator fit testing programme in European countries where fit testing is not mandatory



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- Originally from Grassington, North Yorkshire, England
- BSc Chemistry
- Studying for CIH
- 19 years at 3M, 9 years in PSD
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# Introduction

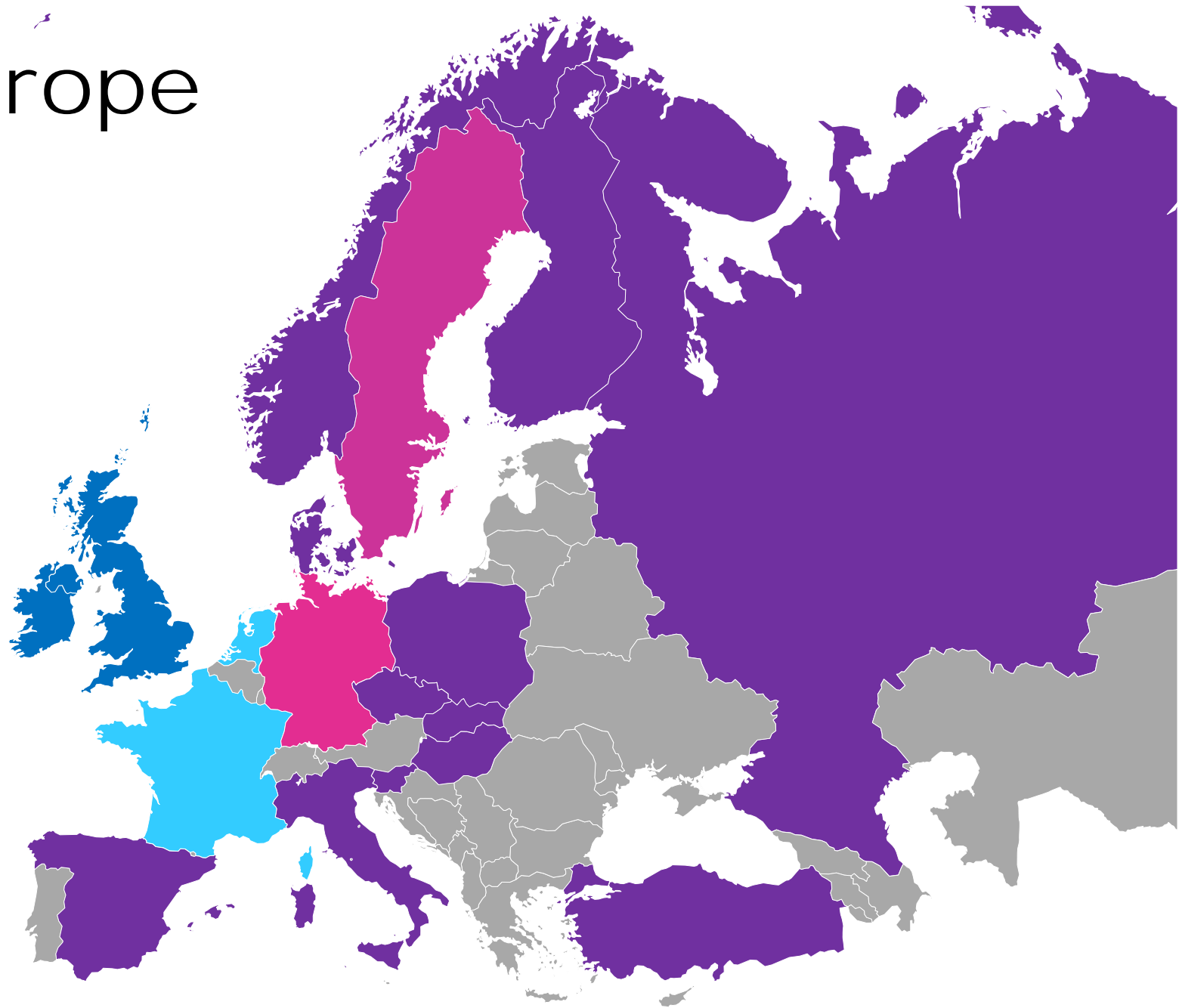
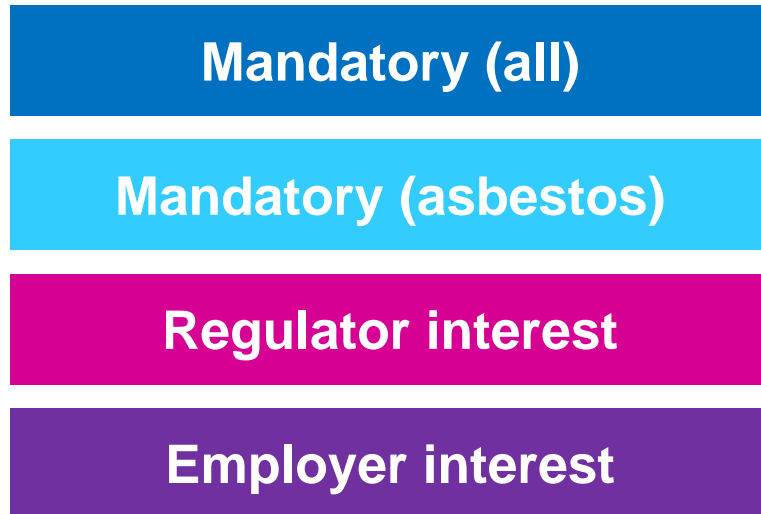
These slides were presented at the **BOHS Annual Occupational Hygiene Conference**, 27 April 2017, Harrogate, UK .

The content was valid as of the date of presentation.

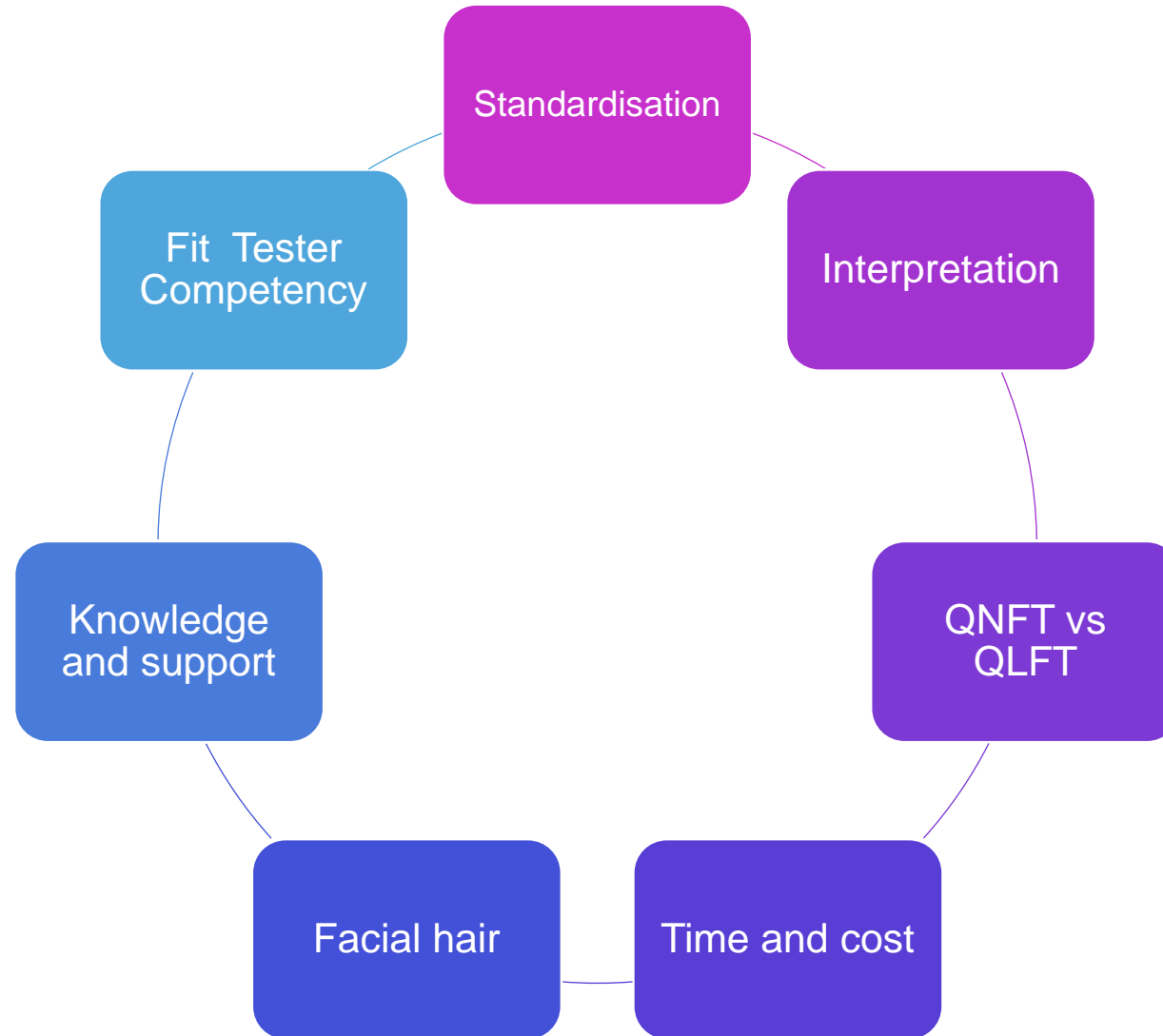
The content of these slides was accompanied by significant and often clarifying verbal discussion. If you have questions or desire further explanation, please contact Stewart Ayrey (sayrey@mmm.com).

Thank you

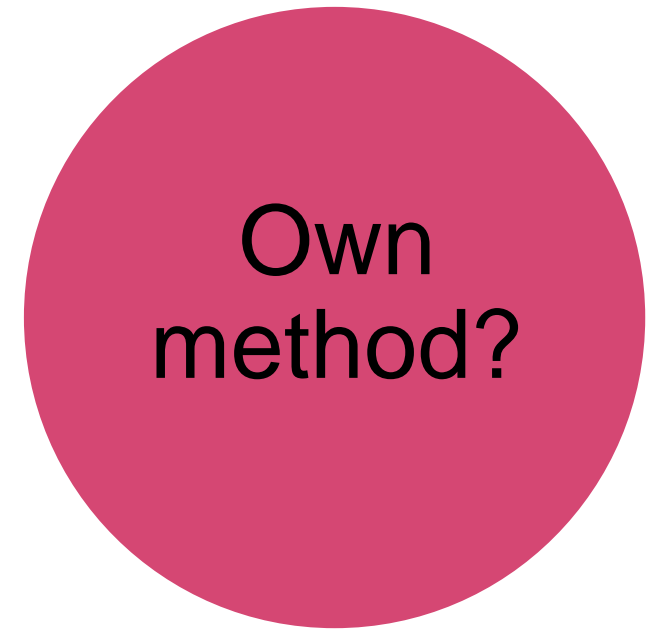
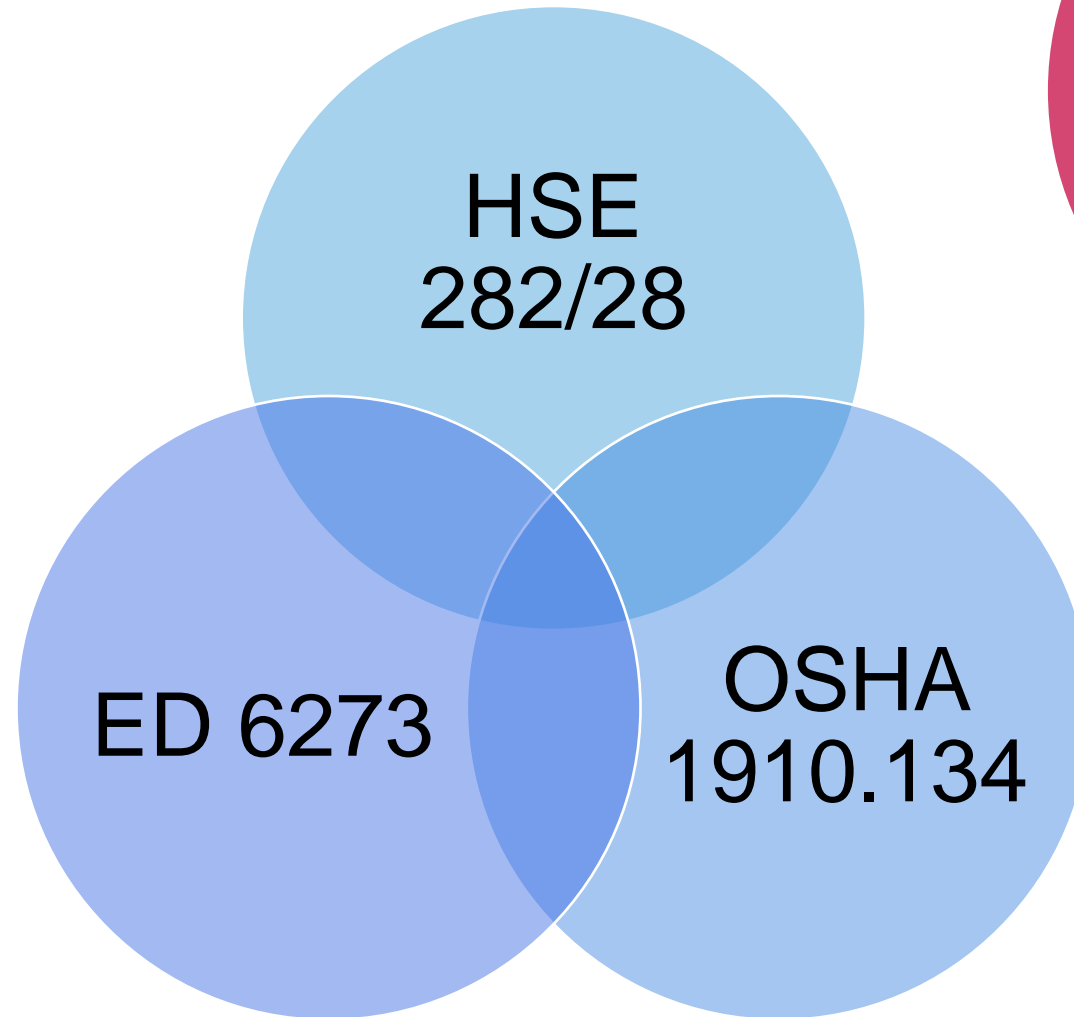
# Fit testing in Europe



# Concerns



# Standardisation



# Interpretation - QNFT

Fit Factors  
vs  
Protection Factor

- Confusion

Respirator A  
vs  
Respirator B

- Over-interpretation

# QLFT vs. QNFT

Qualitative	Quantitative
Cheap	Investment
Simple	Perceived as complicated
Perceived as old-fashioned and crude	Perceived as modern
Pass / Fail	Numerical response
NOT WELL LIKED	PREFERRED BY MANY



# Time & Cost

“Fit testing is too slow”

“Production time is lost”

“Fit testing services are expensive”

“Equipment is too expensive”

“What do I do with workers who fail the test?”

# Facial Hair



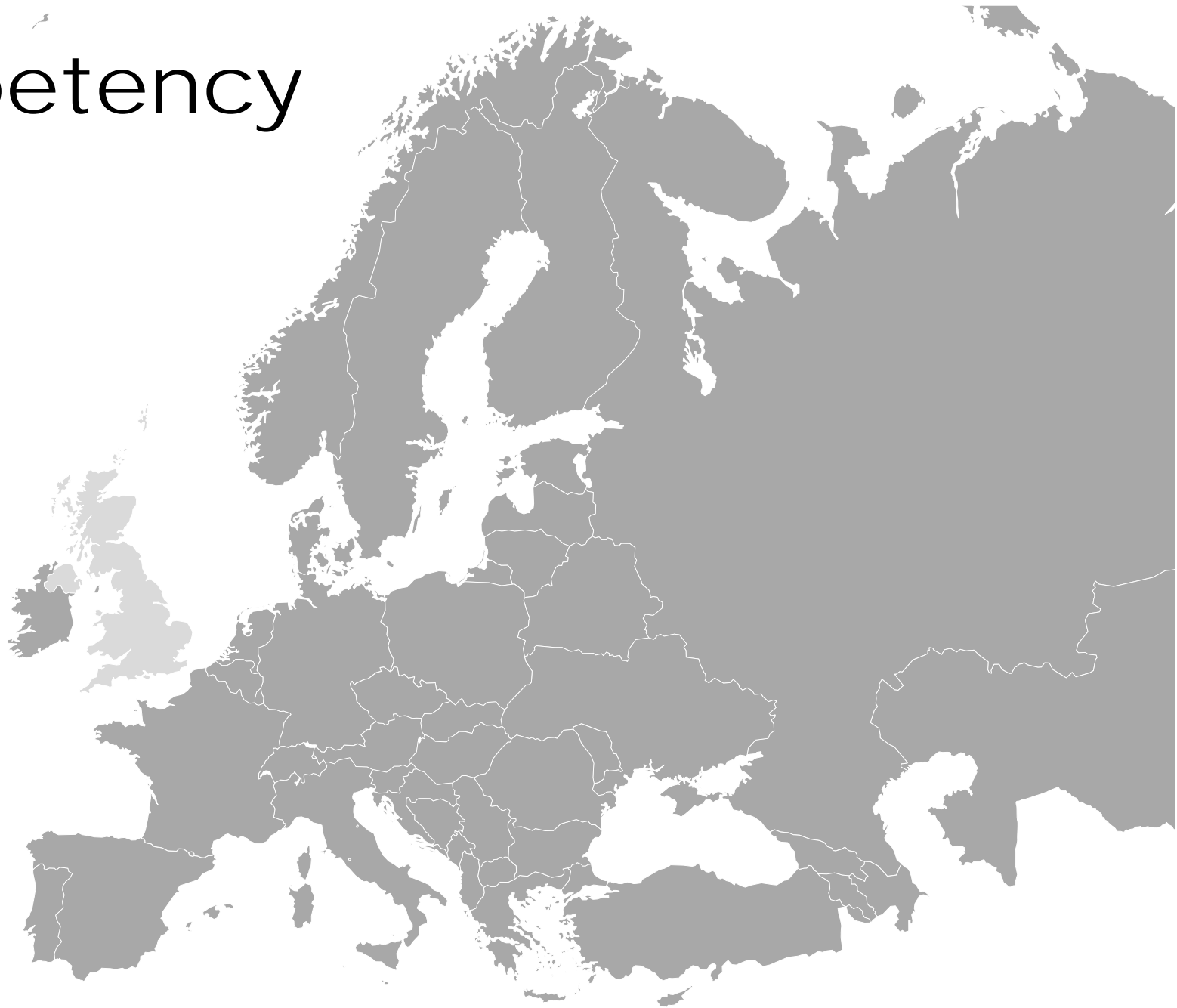
Frost, S and Harding, A-H., The effect of wearer stubble on the protection given by Filtering Facepieces Class 3 (FFP3) and Half Masks (RR1025 HSE)



# Knowledge, Support & Services



# Fit Tester Competency



# Example - Fit Testing at a Mine



# What can we do?

- Lead by example
  - BOHS Breathe Freely Campaign
- Support our colleagues in other countries
- Advocate for standardisation of fit testing methods: ISO / CEN?
- Fit2Fit expansion across Europe?
- Support the work of ISRP and others in promoting fit testing
  - Document our successes / failures - short-cut to success



# References / Further Reading

1. HSE 282/28 - Fit testing of respiratory protective equipment facepieces. 2012.
2. 29 CFR 1910.134 - OSHA Respiratory Protection Standard.
3. ED 6273 Protection respiratoire. Réaliser des essais d'ajustement - Aide-mémoire technique: <http://www.inrs.fr/dms/inrs/CataloguePapier/ED/TI-ED-6273/ed6273.pdf>
4. PPE Directive 89/686/EEC
5. BS EN 529:2005 Respiratory protective devices. Recommendations for selection, use, care and maintenance. Guidance document
6. Fit2Fit RPE Fit Test Providers Accreditation Scheme: [www.fit2fit.org/](http://www.fit2fit.org/)
7. The effect of wearer stubble on the protection given by Filtering Facepieces Class 3 (FFP3) and Half Masks: [www.hse.gov.uk/research/rrhtm/rr1052.htm](http://www.hse.gov.uk/research/rrhtm/rr1052.htm)
8. Respiratory protective equipment at work: A practical guide: [www.hse.gov.uk/pubns/books/hsg53.htm](http://www.hse.gov.uk/pubns/books/hsg53.htm)
9. BOHS Breathe Freely campaign: <http://www.breathefreely.org.uk/index.html>

Thank you