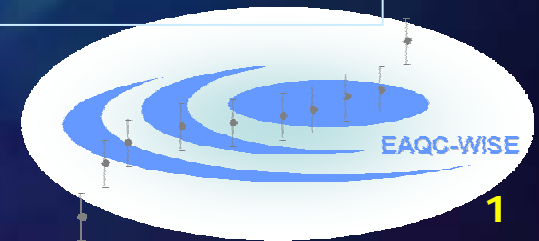


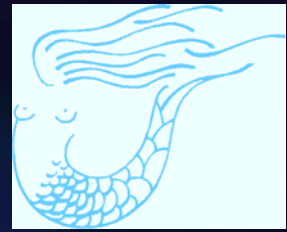
WP4 Questionnaire QA/QC Training in Europe

Kees J.M. Kramer
MERMAYDE
P.O. Box 109, 1860 AC Bergen
Netherlands
www.Mermayde.nl

EAQC-WISE Project Meeting 15 November 2006, Paris

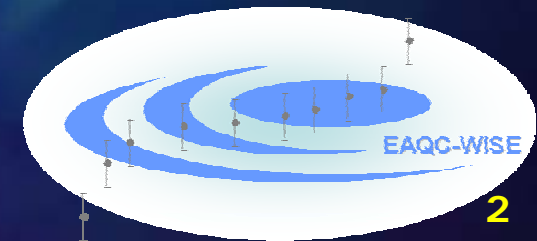
EC FP6 funded project - Contract N°022603 (STREP)

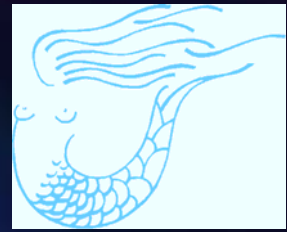




Outline

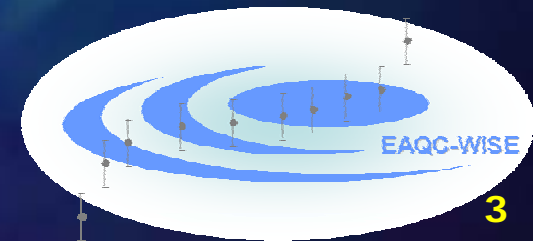
- Target: all involved in 'QA/QC training'
- National Contacts sought in all Europe
- Questionnaire:
 - A: details of respondent
 - B: training **provided**
 - C: ,, **tools used**
 - D: ,, **products offered**
 - E: ,, **needs**

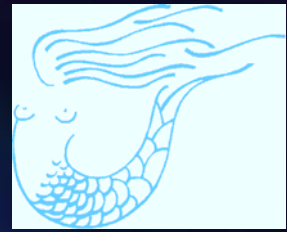




Countries involved

- Partners: AT, IE, NL, PL, SI, SK, SE, UK, EU
 - Sub-contr. BG, CZ, FI, FR, DE, HU, IT, ES, CH & LI
 - No SC: BE & LU, DK, EE, GR, LV, LT, NO, PT, RO
 - Network: BY, HR, CY, IS, MD, MT, UA
-
- Replies from 23 out of 34 countries



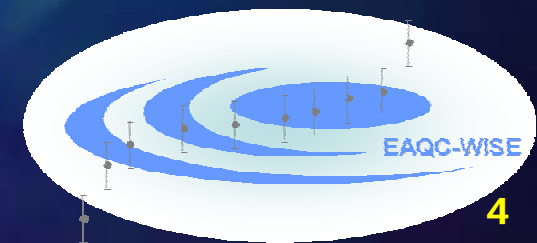


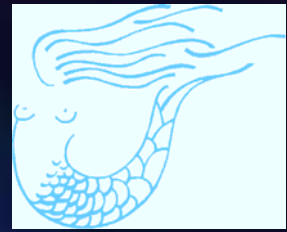
Response

- Requests sent out >2050
- Q's received 249
- Suitable 229
- Average reply rate 20-25%

- 1 : 1 : 1 = Educational : QA related, Public : Private

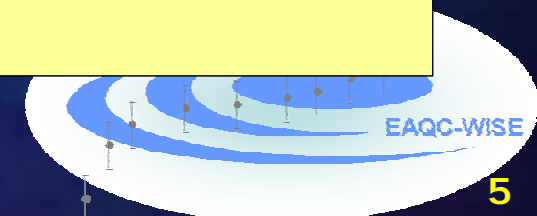
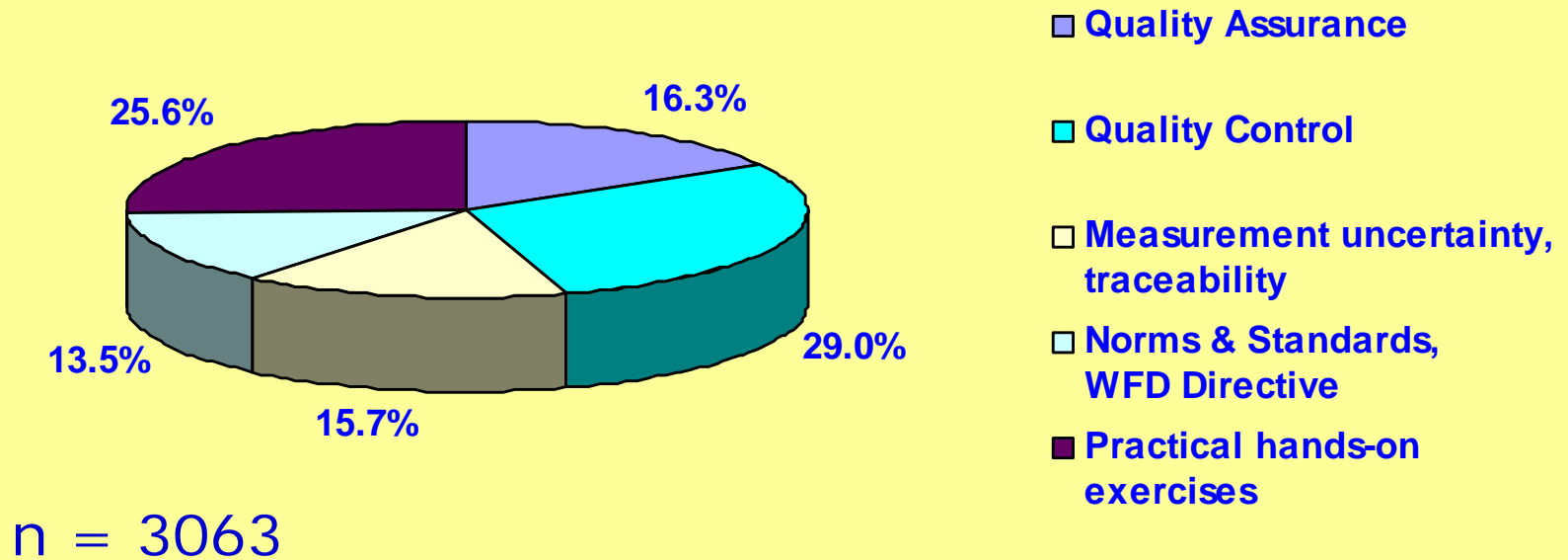
- Training providers 149

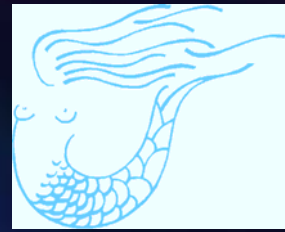




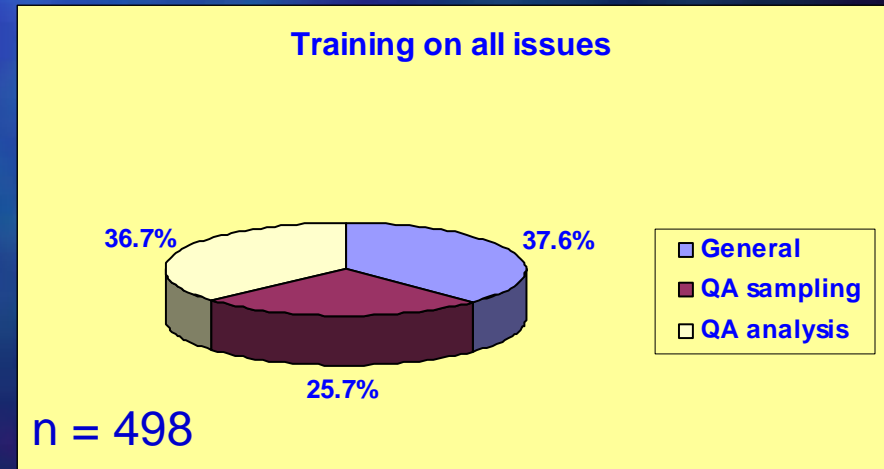
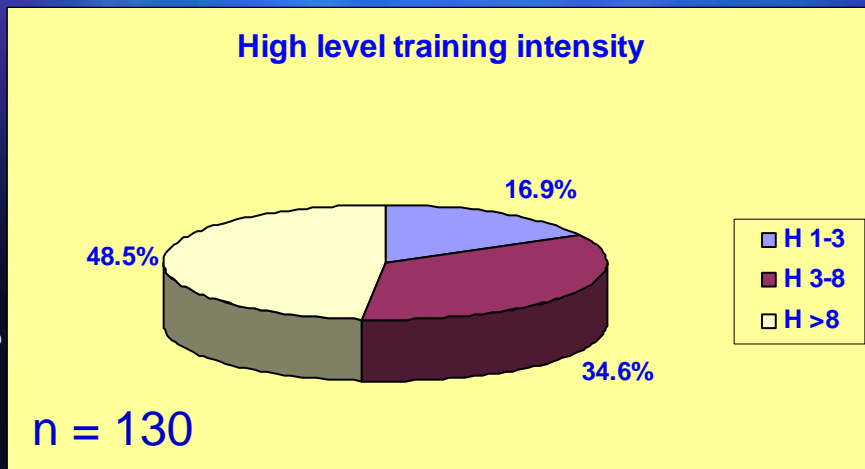
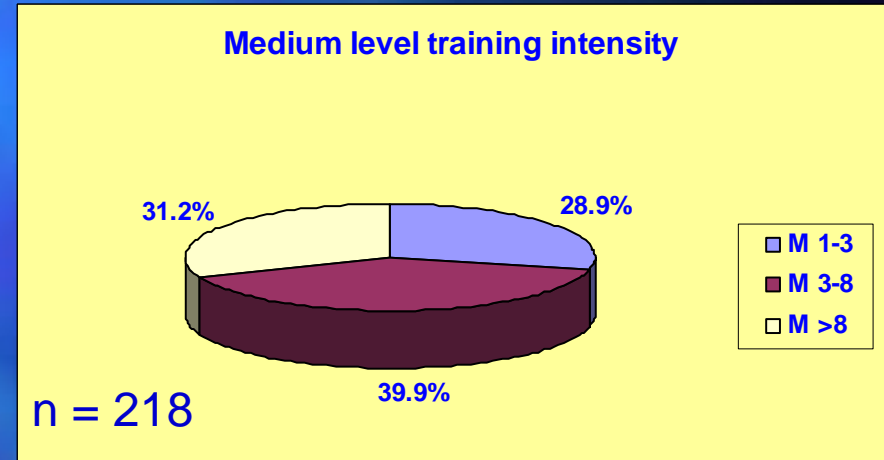
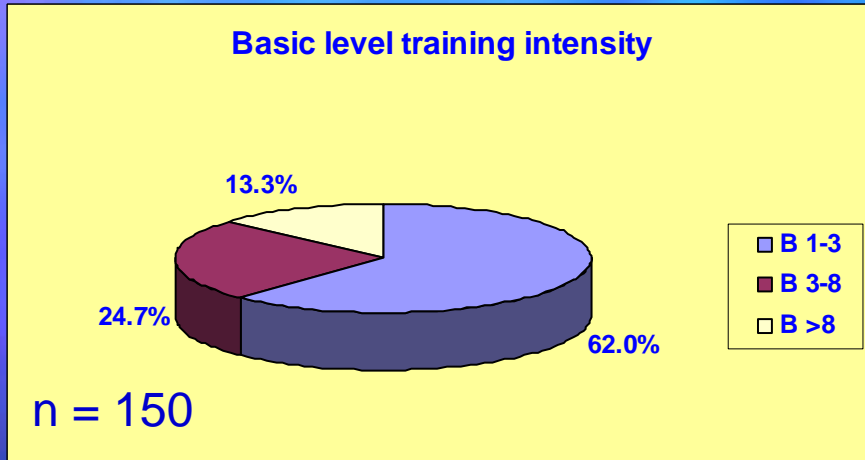
Results: Training provided

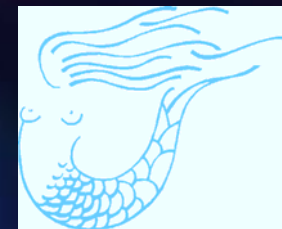
Distribution of AQA/AQC training issues in Europe





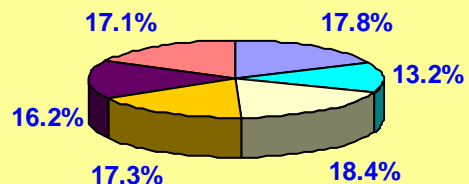
Training provided on QA, level & intensity



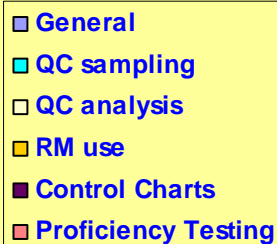


Training provided

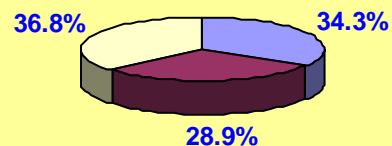
Quality Control



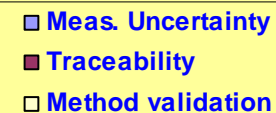
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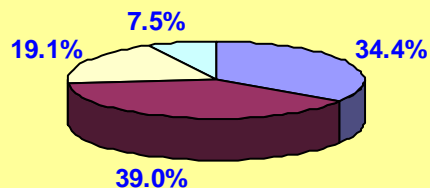
Measurement uncertainty / Traceability



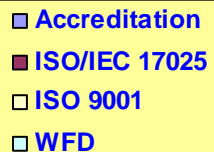
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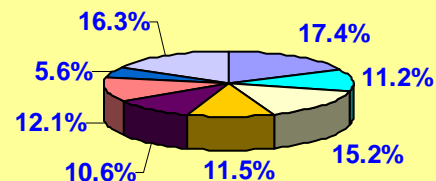
Norms, Standards, WFD Directive



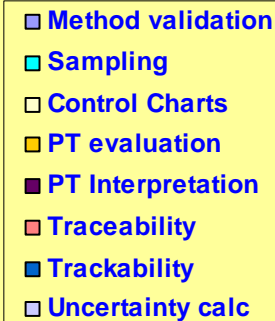
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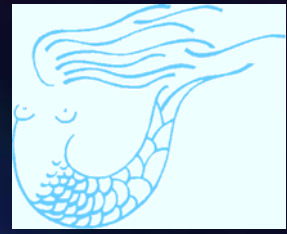


Practical hands-on exercises



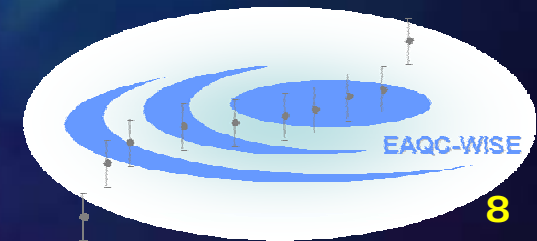
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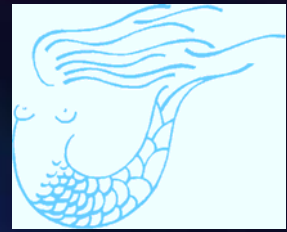




Training tools Used

■ Respondents	229
■ Use training tools	83
■ Lecture notes	42
■ Guidance Docs	61
■ Manuals	21
■ Books	32
■ e-Learning	3
■ Software	18
■ Other	14
– articles, national legislation, ...	

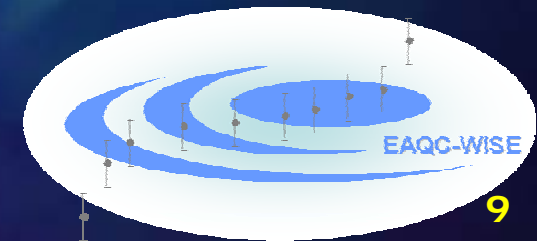


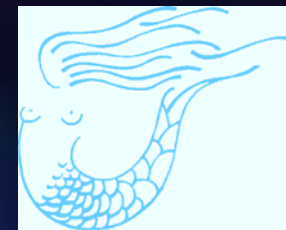


Training tools Offered

■ Course & Workshops	53
■ Lectures & Lecture notes	6
■ Guidance documents, manuals	11
■ Book & Brochures	23
■ E-learning, Software	14
sum	107

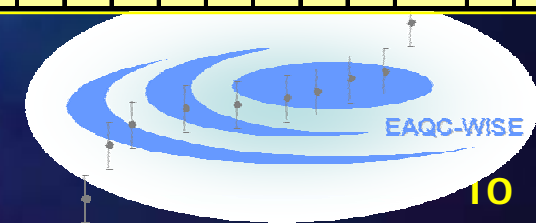
- 'Shopping list' of QA/QC training tools

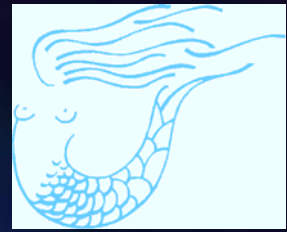




Training tools Offered, language

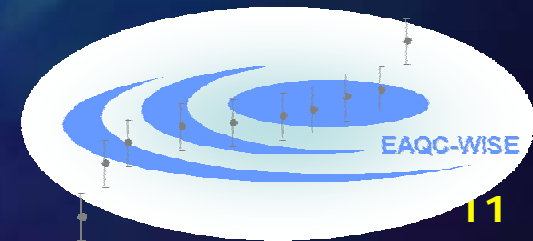
Training Products offered	Language																										
	Bulgarian	Catalan	Croatian	Czech	Danish	Dutch	English	Estonian	Finnish	French	German	Greek	Hungarian	Italian	Latvian	Lithuanian	Maltese	Norwegian	Polish	Portuguese	Romanian	Russian	Slovak	Slovenian	Spanish	Swedish	Turkish
					*			*				*			*	*		*		*	*	*					*
Course & Workshops	2	3	5	3	0	6	23	1	0	3	9	1	2	3	1	1	1	0	3	1	2	2	2	2	6	1	0
Lectures & Lecture notes	2	0	0	1	0	0	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Guidance docs, manuals	0	0	0	1	0	0	5	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0
Book & Brochures	0	0	0	1	2	0	15	0	3	1	1	4	0	1	0	0	0	1	1	0	0	0	0	0	1	3	1
E-learning, Software	1	0	0	1	0	0	10	1	0	1	5	1	1	1	1	1	1	0	1	1	1	1	1	1	2	0	0
sum	5	3	5	7	2	6	55	2	3	6	16	6	3	5	2	2	2	1	5	2	3	3	3	3	11	7	1

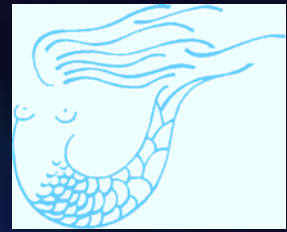




Training Needs

- Method validation 17
 - Uncertainty calculation 17
 - QA of sampling 10
 - Legal issues 7
 - Understanding ISO 17025 7
 - Traceability 5
-
- Training = much is too theoretical
Practical exercises, please!





Conclusion

- Most training requested = is provided
- Language? Cost?
- A true **Need = Practical exercises**
- Possible problem = where to get?
- **Report might help to bridge**

"The views expressed are purely those of the writer and may not in any circumstances be regarded as stating an official position of the European Commission"

