

# EMPOWER *IVD* ● GLOBE

## 10 December workshop

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# EMPOWER IVD ● GLOBE

## Agenda

- ✂ **Welcome and introduction – L. Thienpont – 10h – 10h20**
- ✂ **Coffee: 10h20 – 10h40**
- ✂ **Master Comparisons 2014 and Future – K. Goossens – 10h40  
(*presentation time 20'*)**
- ✂ **Experiences with Patient Percentile Monitoring – T. Ghys – 11h30  
(*presentation time 20'*)**
- ✂ **If time: Case study ALT – L. Thienpont (*presentation time 10'*)**
- ✂ **Lunch: 12h15 – 13h15**
- ✂ **Presentation of Patient Percentiler Application – D. Stöckl – 13h15  
(*presentation time 30'*)**
- ✂ **Coffee: 14h – 14h20**
- ✂ **Final discussion: 14h20 – 15h**

# Master Comparison 2014 and Future

Dec 10<sup>th</sup> 2014 Gent

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# Overview

**Overall Status**

**Master Comparison 2014: Assay Comparability**

**Next Survey**

**Comparison with Percentiler**

**Conclusion**

# Master Comparisons Overview

**Master Comparison 1: 2011 – 5 peer groups**

→ **Albumin, Total Protein, Calcium, Magnesium**

**Master Comparison 2: 2012 – 6 peer groups**

→ **Cholesterol, Creatinine, HDL-Chol, Glucose,  
Uric acid, Phosphate, LDL-Chol, Triglyceride**

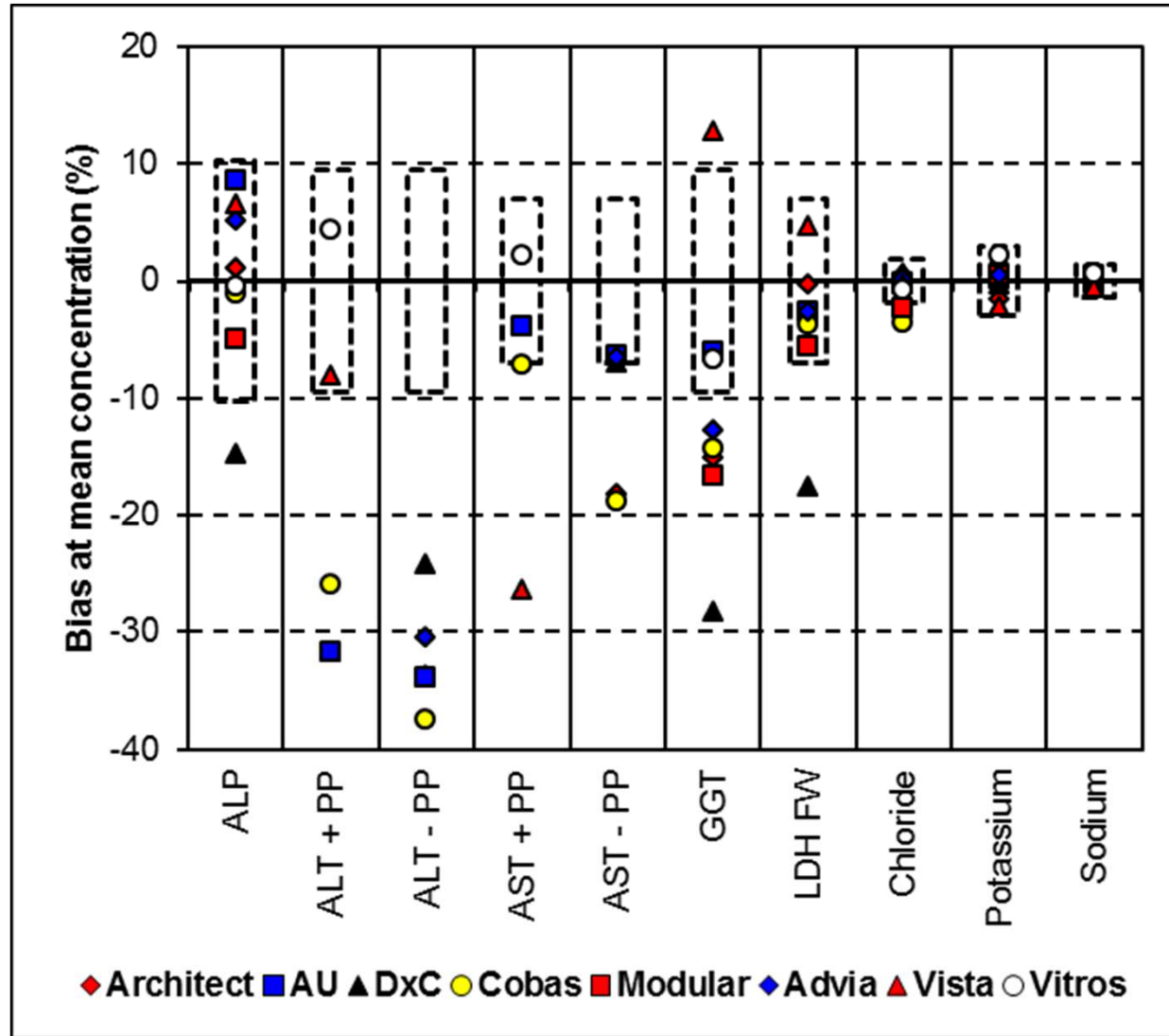
**Master Comparison 3: 2014 – 8 peer groups**

→ **ALP, ALT, AST, GGT, LDH,  
Sodium, Potassium, Chloride**

# Survey 2014 - Distribution



# Assay Comparability



	State-of-the-art	Biological variation
ALP	10,2	11,9
ALT	9,5	13,5
AST	7	8,5
GGT	9,5	13,1
LDHfw	7	6,3
Cl	1,9	0,9
K	3	2,8
Na	1,4	0,6

# Future Survey

## Potential peer groups:

**Abbott/Architect, Beckman/AU & DxC, Ortho/Vitros,  
Roche/Cobas & Modular, Siemens/Advia & Vista**

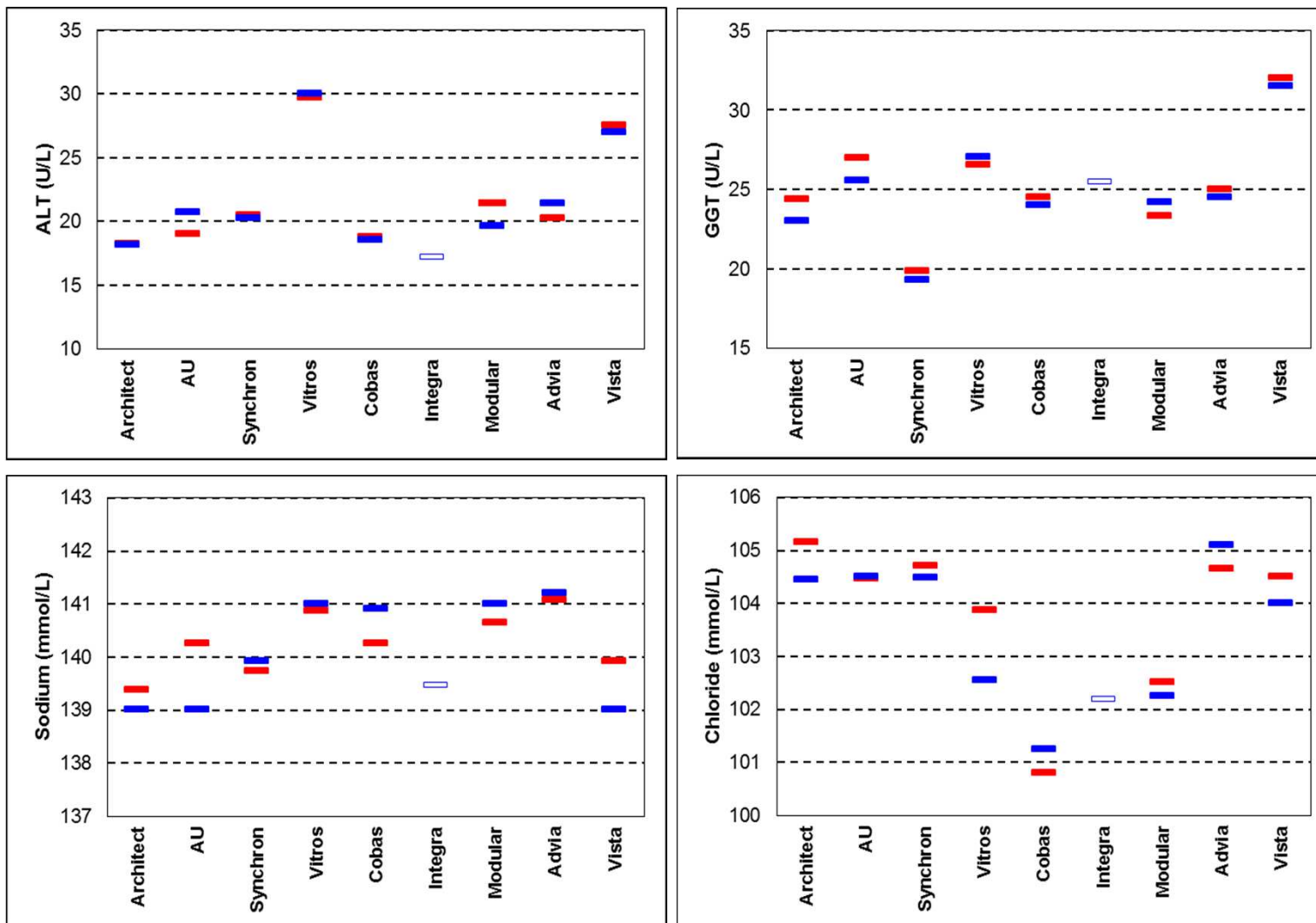
## Potential analytes to be covered:

**Acid Phosphatase, Ammonia, Amylase, Bicarbonate,  
Total Bilirubin, Iron, Lipase and Urea**



# MC and Percentile Monitoring

MC peer group means (red) & outpatients medians (blue)



## **MC and Percentile Monitoring**

**The relative comparability between the peer groups was very similar in the Percentiler and MC2014 data.**

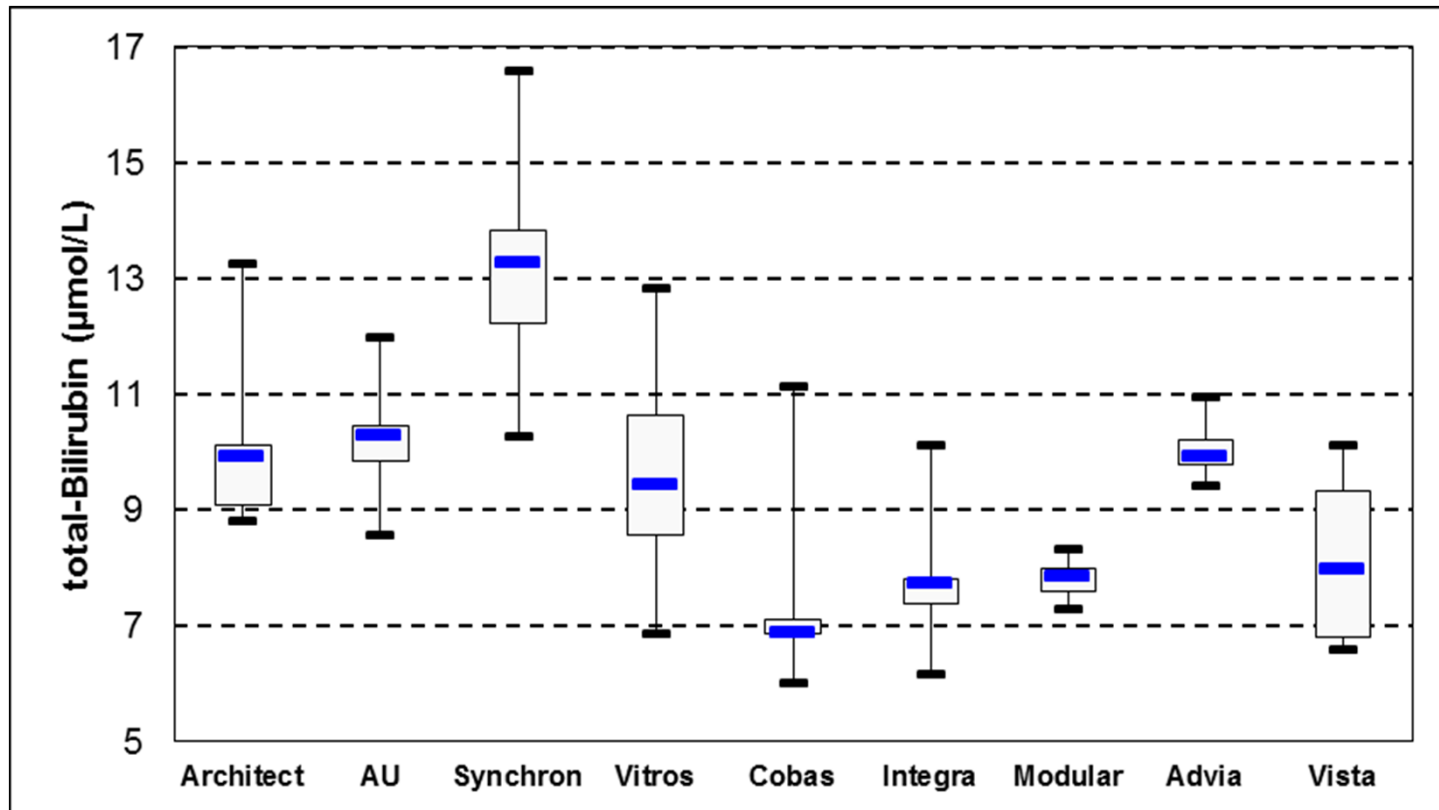
**→ Potential of the Percentiler to study relative assay biases at median concentrations.**

**Need for adaptation of the MC2014 data to the PPM data may indicate that assessment of “absolute” bias is more challenging.**

**→ May require a more stringent outpatient stratification or a selection of laboratories that mainly serve the general population.**

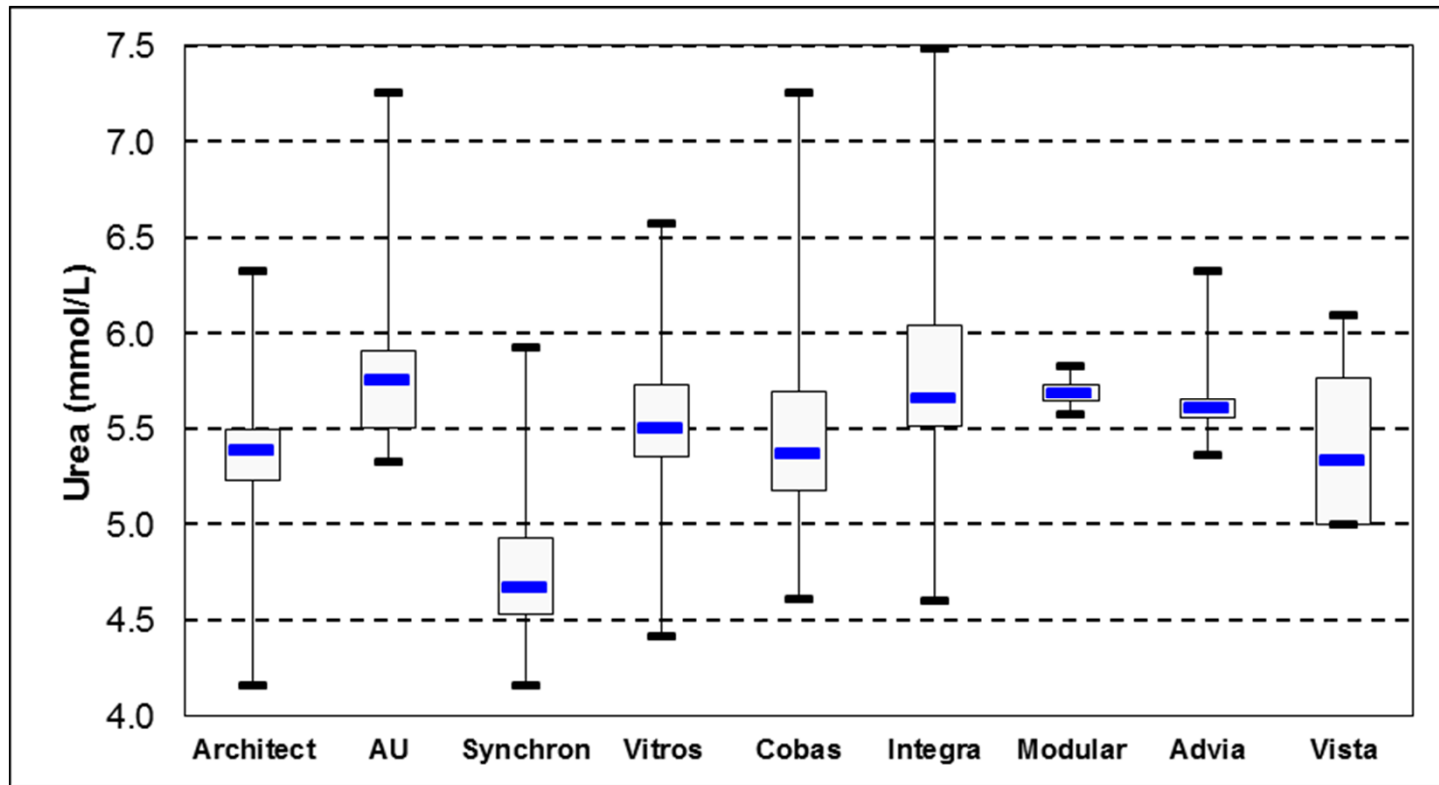
# Percentile Monitoring: Total Bilirubin

	Abbott	Beckman		Ortho	Roche			Siemens	
Statistic	Architect	AU	Synchron	Vitros	Cobas	Integra	Modular	Advia	Vista
q1	9.1	9.8	12.2	8.6	6.8	7.4	7.6	9.8	6.8
min	8.8	8.6	10.3	6.8	6.0	6.2	7.3	9.4	6.6
median	9.9	10.3	13.3	9.4	6.8	7.7	7.8	9.9	8.0
max	13.3	12.0	16.6	12.8	11.1	10.1	8.3	10.9	10.1
q3	10.1	10.4	13.8	10.6	7.1	7.8	8.0	10.2	9.3
Count	16	9	8	27	212	5	6	6	4



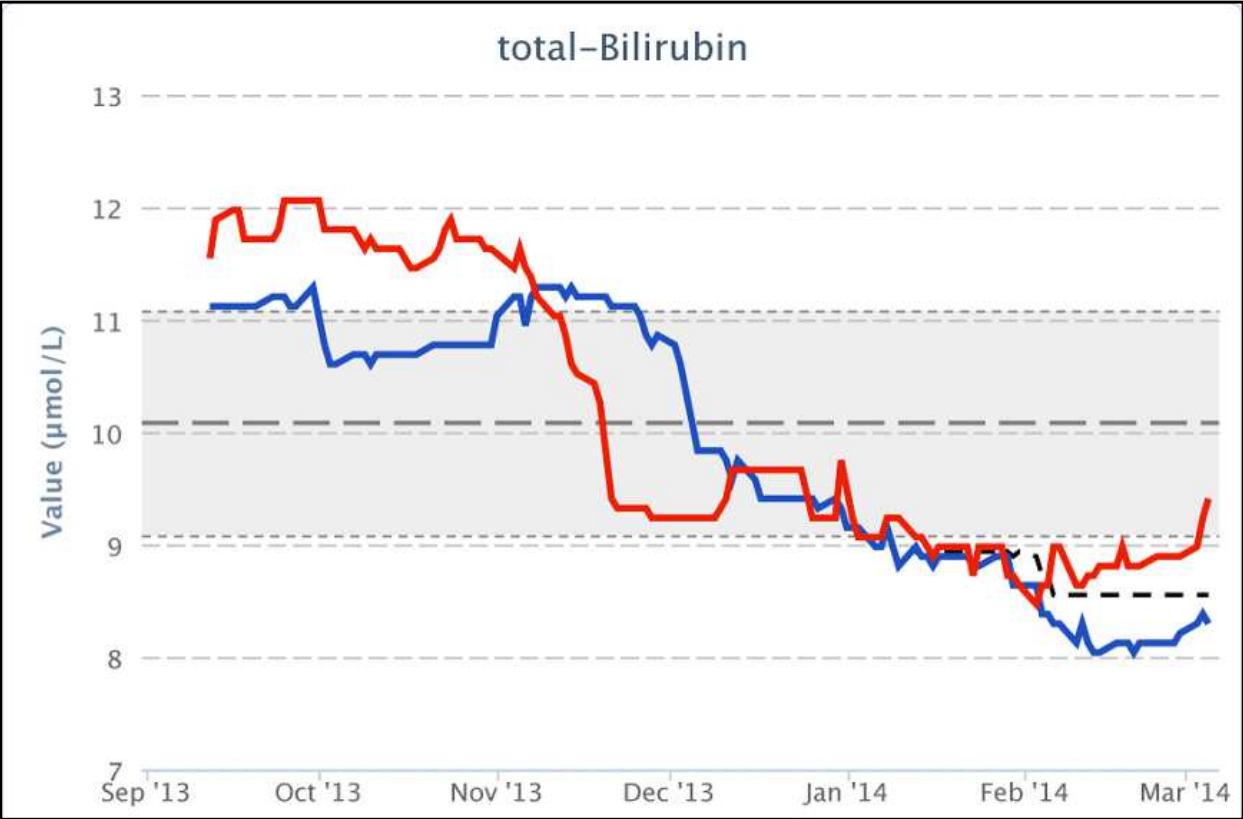
# Percentile Monitoring: Urea

	Abbott	Beckman		Ortho	Roche			Siemens	
Statistic	Architect	AU	Synchron	Vitros	Cobas	Integra	Modular	Advia	Vista
q1	5.2	5.5	4.5	5.4	5.2	5.5	5.6	5.6	5.0
min	4.2	5.3	4.2	4.4	4.6	4.6	5.6	5.4	5.0
median	5.4	5.7	4.7	5.5	5.4	5.7	5.7	5.6	5.3
max	6.3	7.3	5.9	6.6	7.3	7.5	5.8	6.3	6.1
q3	5.5	5.9	4.9	5.7	5.7	6.0	5.7	5.7	5.8
Count	16	10	8	27	81	5	6	6	4



# Total Bilirubin Shift

Master Comparison = Point Estimate



# Finances

## Costs

– Single donation samples:	€ 20 000
– Transport/distribution:	€ 10 000
– REF procedures:	€ 15 000
<b>Total:</b>	<b>€ 45 000</b>

## Sponsorship (money & time)

- UGent
- **ST**T Consulting
- Others welcome

# Thanks

**Laboratories that “went the extra mile”**

**[www.stt-consulting.com](http://www.stt-consulting.com) > Empower Tab**

**Manufacturers that “went the extra mile”**

**Abbott**

**Beckman**

**Ortho**

**Roche**

**Siemens**

**EQA-partners of the “first hour”**

**Fundación Bioquímica (Argentina)**

**NKK (Norway)**

**Labquality (Finland)**

**WEQAS (Wales)**

# Discussion

**Questions concerning the presentation?**

**Questions concerning the general report and analyte Excel files?**