



Single Coal Accreditation Program (SCAP)

2013 Report

Organizer: *Kimon Christanis*

The 2012 SCAP exercise

A. Samples

Entry: 6 polished blocks
Continuation: 2 bulk coal samples

B. Measurements

- Vitrinite random Reflectance (VR)
- Vitrinite Content (VC)

The Timetable

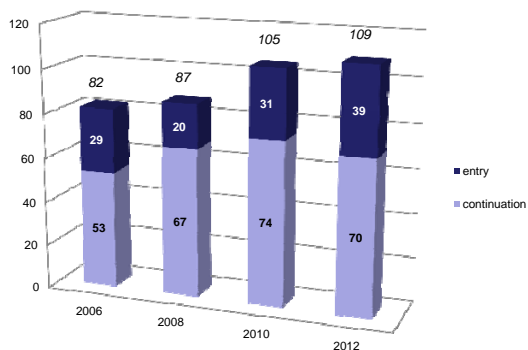
- end October 2012: deadline for results submission
- mid December 2012: data assessment
- end December 2012: participants were informed
- mid January 2013: mail out of certificates
- end January 2013: list of accredited petrographers uploaded on ICCP's webpage

The Participants

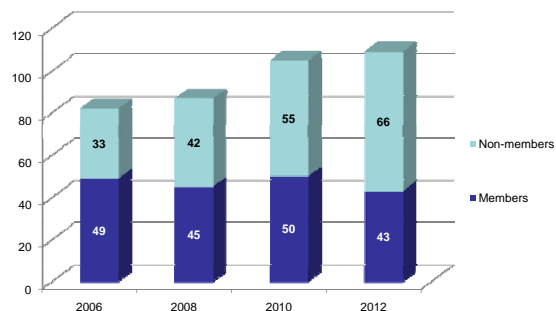
110 analysts from 23 countries applied
109 sent results

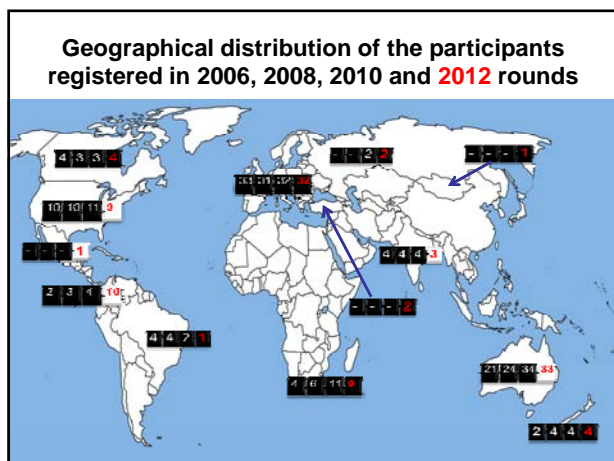
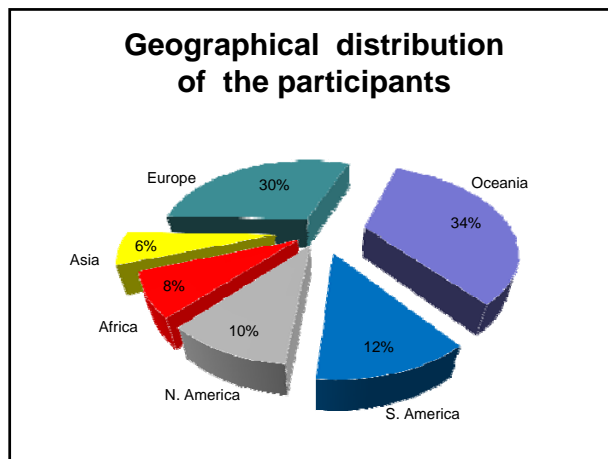
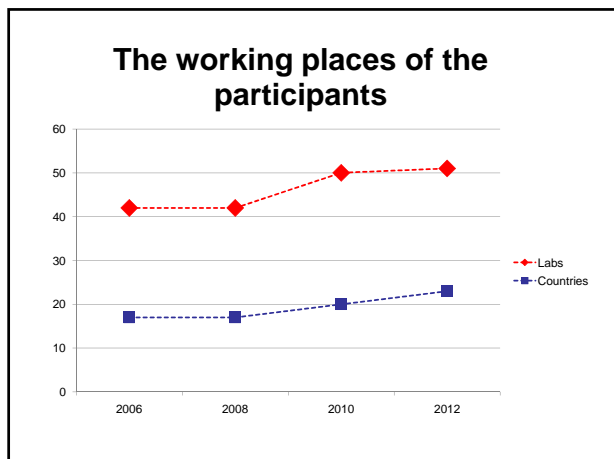
- 70 continuations
- 39 entries
- 43 ICCP members
- 66 non-members

The Participants



The ICCP membership of the participants





Screening Method for Beginners (SMB)

After a first evaluation the participants are:

- *accredited* if $AUMSD < 1.5$ and $ASMSD < \pm 1.5$ (6 samples);
- *not accredited* if $AUMSD > 1.5$ and/or $ASMSD > \pm 1.5$ (6 samples)

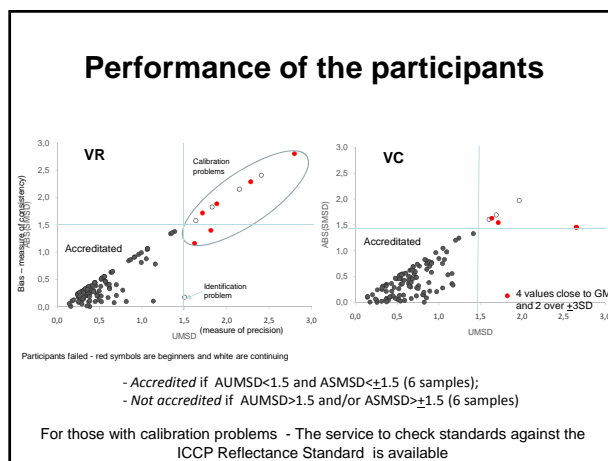
If the beginner is not accredited, the UMSD values are checked.

- ❖ If these values are always below 3SD, then the results are maintained in the database.
- ❖ If one or more values are over 3SD, all the values from the participant are removed from the database and the results for the others are evaluated after removing these results.

The results

VR 109 participants
 98 awarded accreditation
 11 failed (5 C, 6 E): 10 before and 1 after applying SMB

VC 109 participants
 101 awarded accreditation
 8 failed (3 C, 5 E): all before applying SMB



Status of the database

- ✓ Despite the overall quality of the results, 15% and 10% of the participants have significant to extreme bias in VR and VC respectively, even with the application of the SMB;
- ✓ The protection of the SCAP coal databank is always a concern;
- ✓ In the 2012-2013 exercise 16 coals were used being 2 of them new coals;
- ✓ The application of the SMB was very useful in 13 coals which permitted to maintain or decrease slightly the SD;
- ✓ Only in 3 coals no data was removed;
- ✓ VR - data of 4 participants was excluded of the pool, which means that 24 values were removed from the database, 4 of them out of the $\pm 3SD$;
- ✓ VC - 6 analysts reported 18 values out of the $\pm 3SD$, some of them even higher than -7 (2 participants of the same lab!). In this case, 36 values were removed from the database.

Status of the database

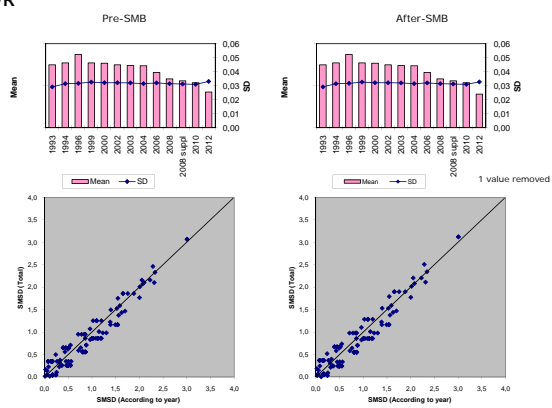
- ✓ VR (10+1 failed) - the data removed from the database (24 values) did not modify the group mean (0 for all coals), only the GSD decreases slightly in 9 coals (negative values with changes in the third decimal place);

Differences between coal data after and before the application of the SMB

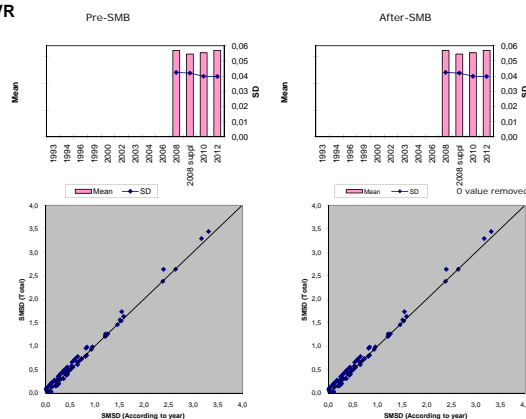
	Coal 1	Coal 2	Coal 3	Coal 4	Coal 5	Coal 6	Coal 7	Coal 8
REFLECTANCE								
N Total	-1	-2	-1	-1	-2	-3	-3	-3
Mean Total	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
SD Total	0,000	-0,004	0,000	-0,002	-0,003	-0,002	-0,002	-0,006

	Coal 9	Coal 10	Coal 11	Coal 12	Coal 13	Coal 14	Coal 15	Coal 16
REFLECTANCE								
N Total	-1	-3	0	-1	0	0	-2	-1
Mean Total	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
SD Total	0,000	-0,003	0,000	-0,002	0,000	0,000	-0,001	0,000

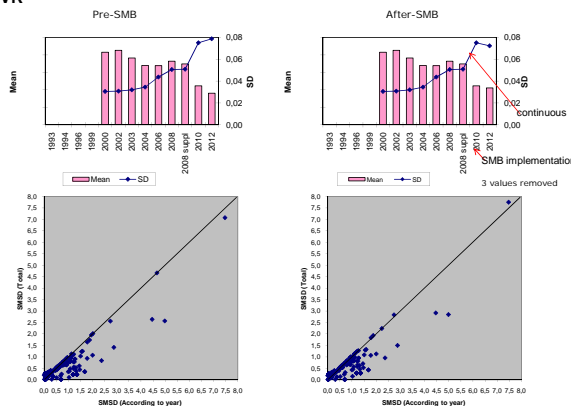
VR



VR



VR



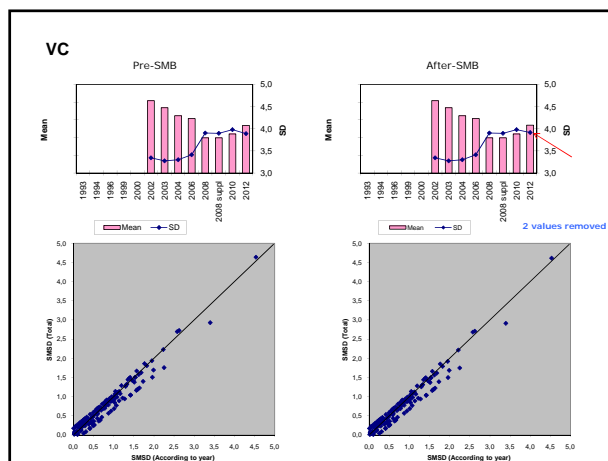
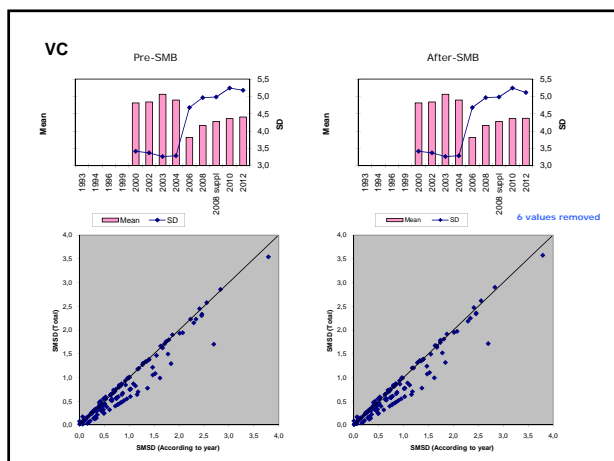
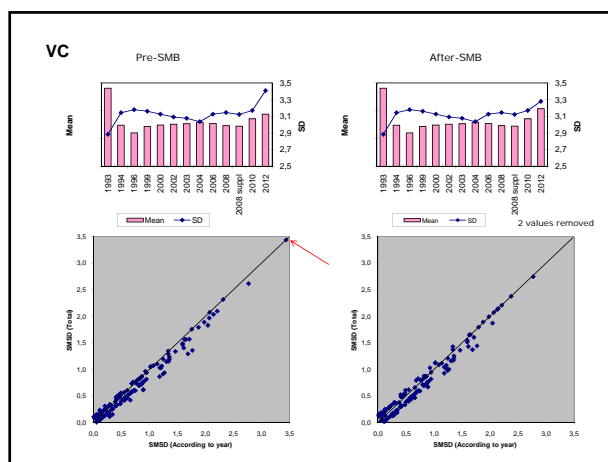
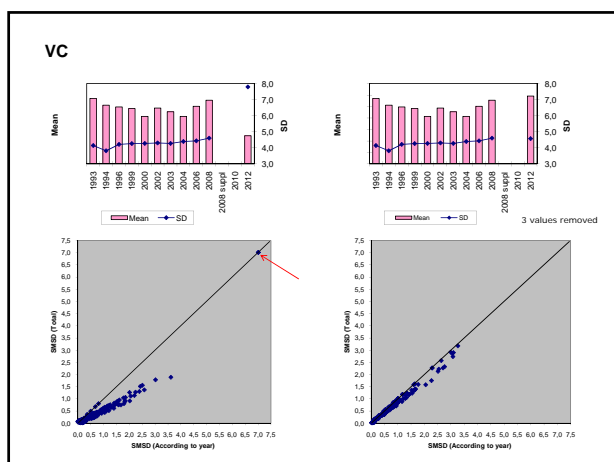
Status of the database

- ✓ VC (8 failed) - data submitted by several participants were catastrophic and the application of the SMB was very useful for the protection of the database. 36 values removed;
- ✓ GMean of 7 coals increased (positive values) particularly coal 1, which means that for this coal very low values were reported;
- ✓ GSD decreases in more 9 coals (negative values) in one case more than -3!;
- ✓ GSD for coals 2 and 10 increases, which means that for these coals the data submitted were very close to the group mean.

Differences between coal data after and before the application of the SMB

	Coal 1	Coal 2	Coal 3	Coal 4	Coal 5	Coal 6	Coal 7	Coal 8
VITRINITE								
N Total	-3	-1	-2	-3	-5	-4	-4	-6
Mean Total	0,69	-0,03	0,10	-0,31	-0,16	-0,20	-0,30	-0,04
SD Total	-3,228	0,004	-0,129	-0,264	-0,077	-0,222	-0,266	-0,062

	Coal 9	Coal 10	Coal 11	Coal 12	Coal 13	Coal 14	Coal 15	Coal 16
VITRINITE								
N Total	0	-2	-2	-2	0	0	-1	-1
Mean Total	0,00	0,01	0,02	0,12	0,00	0,00	0,29	0,08
SD Total	0,000	0,024	-0,025	-0,241	0,000	0,000	-0,602	-0,011



The next exercise

- January 2014: checking of new samples
- February 2014: exercise announcing
- March 2014: invoicing
- April 2014: fee payment; samples and instructions mailed out
- September 2014: deadline for results submission

SCAP Sample Bank

anybody who can supply coal samples,

may contact Kimon Christanis

christan@upatras.gr

Acknowledgements

Many thanks go to:

- the members of the ASC
- the Treasurer Jen
- George and Görkem