Topic 8	1st Meeting of the Heads of the Laboratories within ICP Forests 9.-10. June 2008 in Hamburg, Germany

Quality Assurance and Control Program in the FutMon-Project

LIFE+ Environment Policy and Governance 2007- C1
Further Development and Implementation of an EU-level Forest Monitoring System

(FutMon)

Total costs of the FutMon project: 83.500.000 Euro

Co-financed: 40.500.000 Euro

C1-projects (mostly for QA/QC and meetings):

2.200.000 Euro

QA/QC part of C1 (ringtests, intercalibration courses etc.):

1.100.000 Euro (13 %)

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DETAILS OF PROPOSED ACTIONS with QA/QC parts:

Action C1-QAC-15(IT): Coordination of Quality assurance and quality control (QA/QC)
Action C1-GV-15(IT): Quality and expertise within ground vegetation assessments
Action C1-Water-40(IT): Analysis and reporting of water ringtests
Action C1-QALab-30(NWD): Quality assurance in laboratories
Action C1-tree-30(NWD): Quality, expertise and evaluations within tree health assessments
Action C1-Soil-3(FL): Quality, expertise and evaluations within soil surveys
Action C1-Dam-3(FL): Quality, expertise and evaluations within tree damage assessments
Action C1-SS-10(FI): Quality, expertise and evaluations within soil solution surveys
Action C1-Fol1-10(FI): Quality, expertise and evaluations within in tree foliage assessments and nutrient cycles
Action C1-Phen-10(FI): Quality, expertise and evaluations within phenological assessments
Action C1-Fol2-2(AT): Organisation of foliage ringtests
Action C1-Gro-2(AT): Quality, expertise and evaluations within forest growth assessments

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The QA/QC program for laboratories consists of 4 parts:

- **Meetings of the WG QA/QC in Labs**
- **Ringtests (soil, foliar, water)**
- **Meetings of the heads of the laboratories**
- **Helping program for labs with bad ringtest results**

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1. Ringtests are the most important part of a QA/QC program for laboratories. Only with ringtests carried out each year (every 2 years for soil) it can be ensured that all analytical data in these programs are intercomparable and of good quality.
Evaluation of the ringtests should, in the future, be carried out by the FFCC, FSCC or by appointed work groups who receive payment for this task.

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Costs Ringtests	Soil	Foliar	Water
Sample collection and transport to lab	2350	2500	3000
Sample preparation in the lab	5000	2500	7000
Homogenity test	16860	2100	5000
Sending samples to the participating laboratories	3370	1000	10000
Data collection (by Internet program FFCC)	3000	1000	3000
Printing costs of report and CD, sending of the report	2420	1900	3500
Personal costs (scientific work)	21000	4000	30500
total costs	54000	15000	62000

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Ringtest program
ICP Forest
2009-2013

ringtest		year				
		2009	2010	2011	2012	2013
soil		x		x		x
foliar		x	x	x	x	x
water		x	x	x	x	x

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2. Meetings of the WG QA/QC in Labs:

Each year (5 meetings)

3. Regular meetings of the heads of the laboratories are needed in order to ensure that QA/QC programs and quality checks are adopted in all the laboratories and to discuss analytical problems identified on the basis of the results of the ringtests.
The meetings will be organized and prepared by the WG of QA/QC in labs of ICP Forests.

Meetings every second year (3 meetings)

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Meetings	year				
	2009	2010	2011	2012	2013
WG on QA/QC (12 persons)	1	1	1	1	1
Meeting of the head of the labs (50 persons)	1		1		1

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4. The helping program for laboratories with bad ringtest results – visits and backvisits of colleagues from laboratories with high qualitiy – is very important to improve the quality of the laboratories. The helping program will be organized by the WG of QA/QC in labs of ICP Forests.

22 helping visits within 5 years

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costs ringtests	year	2009	2010	2011	2012	2013	
Soil (100 %)		54000	0	54000	0	54000	
Foliar (100 %)		15000	15000	15000	15000	15000	
Water (50 %)		62000	62000	62000	62000	62000	
total costs ringtests		131000	77000	131000	77000	131000	547000
costs Meetings (50 %)							
WG QA/QC in Labs (12 persons)		10000	10000	10000	10000	10000	
Meeting of the head of the labs (50 persons)		40000		40000		40000	
total costs meetings		50000	10000	50000	10000	50000	
Helping program for labs Coordination work WG QA/QC in Labs		14000 10000	14000 10000	14000 10000	14000 10000	14000 10000	
total costs (quality in labs)		124000	44000	124000	44000	124000	460000

Total costs: 1.007.000 Euro