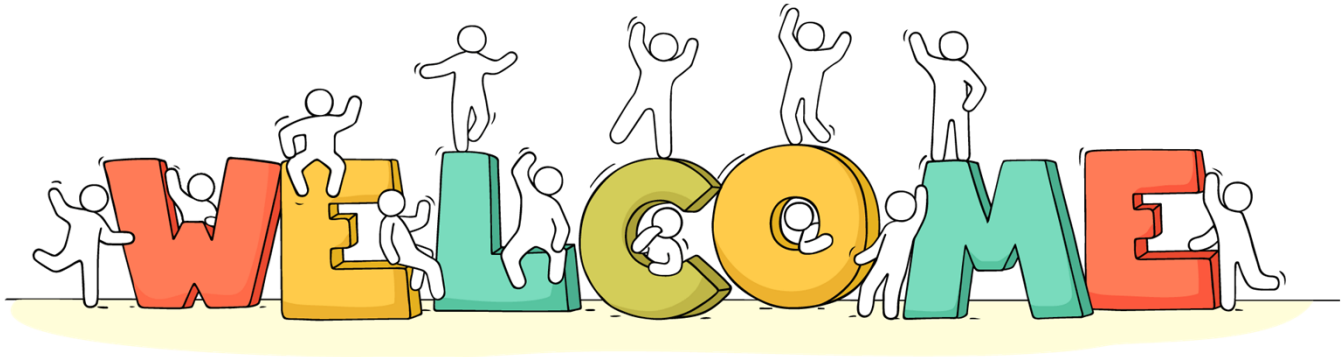
Short report on the 2nd OGTAC-CC community meeting April 28 2026



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Overview

→Online meeting with 24 participants from 9 European countries

2nd OGTAC-CC community meeting 2026 (online) – Agenda Tuesday April 28	
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13:30 - 14:00	Current status of the Technical Requirements documentation
14:00 - 14:15	Current status of the measurement guidelines documentation
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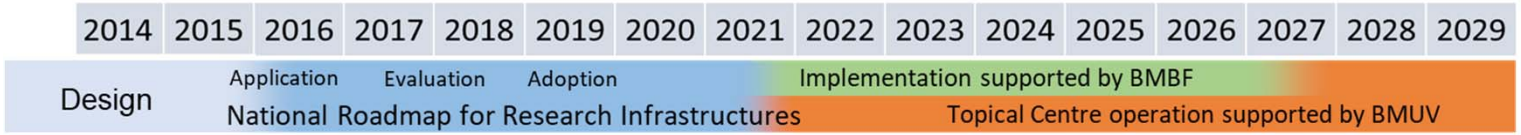
Overview OGTAC-CC main activities

ACTRIS Germany



2 main activities:

1) Training of operators and scientists – operational activity

2) Calibration Centre Activities – task chain

a) implementation → b) operation

+ Trans National Access (TNA), new project ATMO-SERV starts this summer until 2030!

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Overview active NFs

Module	Name of the module
1	Biomass burning
2	Primary biogenic
3	Organic ions
4	Biogenic SOA – acids
5	SOA – aldehydes
6	SOA – nitroaromatics
7	PAHs

Currently listed NFs (planning to) measuring the variable “mass concentration of organic tracers”:

No.	NF	Country	Target compounds (module)	Measurement performing laboratory	PI
1	Birkenes	Norway	1+2	NILU	Karl Espen Yttri
2	Zeppelin	Sweden	1+2	NILU	Karl Espen Yttri
3	Melpitz	Germany	1+2+3	TROPOS	Laurent Poulain
4	Vielsalm	Belgium	1	ISSeP	Benjamin Bergmans
5	Sonnblick	Austria	1+2	TU Vienna	Anne Kasper-Giebl
6	Lecce	Italy	1+2+3	CNR-ISAC	Antonio Pennetta
7	ACD-C	Germany	4-6	TROPOS	Peter Mettke
8	Euphore	Spain	4-6	CEAM	Amalia Munoz

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Overview potential future NFs

Potential future NFs to measure the variable “mass concentration of organic tracers” because of offline OC/EC measurements (planned):

No.	NF	Country	PI
1	Pic du Midi	France	Véronique Pont
2	Puy de Dome	France	Evelyn Freney
3	Opar La Reunion	France	Valentin Duflot
4	SIRTA	France	Jean Eudes Petit
5	Waldhof	Germany	Maik Schütze
6	Athens NOA	Greece	Eleni liakakou
7	Helmos	Greece	Konstantinos Eleftheriadis
8	Finokalia	Greece	Nikos Kalivitis
9	CIAO Potenza	Italy	Lucia Mona
10	ISPRA	Italy	Jean-Philippe Putaud

No.	NF	Country	PI
11	Barcelona	Spain	Andres Alastuey
12	Montseny	Spain	Andres Alastuey
13	Montsec	Spain	Andres Alastuey
14	Granada	Spain	Lucas Alados
15	4 stations	Sweden	Erik Swietlicki
16	3 Stations (Raciborz, Belsk, Wroclaw)	Poland	Anetta Drzeniecka-Osiadacz
17	NAOK	Czech R.	Jakub Ondracek
18	Suchdol	Czech R.	Jakub Ondracek
19	Risoe Res. St.	Denmark	Andreas Massling
20	Villum	Denmark	Henrik Skov

Technical requirements and measurement guidelines

https://www.actris-ecac.eu/

a) Technical requirements documentation (general instrumental setup and infrastructure needed to provide data about particulate organics, personnel resources not included)
b) Measurement guidelines documentation (partly module dependent)

→ Upload of both documents to the CAIS-ECAC website is planned for summer 2026, measurement guidelines are module dependent, starting with the biomass burning module (module 1)!

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Data Quality Objective

Table 2: General Data Quality Objectives (DQOs) for organic tracers and aerosol constituents.

DQO	Description
Sampler	High- or Low-volume sampler and cascade impactors according to DIN EN 12341:2023-10.[2]
Field blank sampling	Minimum number shall correspond to 5% of the number of real measurement samples or minimum once a month.
Measurement time	It is recommended to measure on a continuous basis, minimum requirement is a weekly sample or one sample per week, exceptions, like intensive measurement campaigns need to be individually discussed with the calibration centre (CC).
Analytical instrument calibration	5 concentration levels, measured as triplicate
Maximum laboratory bias	Module dependent – see the measurement guidelines documentation
Limit of detection	Module dependent – see the measurement guidelines documentation
Data coverage	≥ 80% of the planned yearly activity. Technical issues and maintenance to be done by the manufacturer are excluded.
Data provision	Beginning of the next year for the full year before: 1) submission to the CC - Deadline 31st of March 2) submission to the DC - Deadline 31st of May
Interlaboratory comparisons	Participation in biennial module specific ILCs and stay within the maximum laboratory bias, the ILC data is discussed with the participants in a workshop after the data is assessed.

"In any case, the NF must ensure that the operation of the technical part is organized in that way, that everything impacting the quality of the data is well monitored, documented and considered in the data control process."

Module dependent,
→ measurement guidelines

Table 5: Key facts of the laboratory analysis protocol and individual DQOs for the Biomass Burning module 1.

Target compound	CAS number	Recommended and supported analytical technique	Maximum laboratory bias	Analytical limit of detection [mg L^{-1}]
Levoglucosan	498-07-7	HPAEC-PAD	20%	0.05
Mannosan	14168-65-1		20%	0.05
Galactosan	644-76-8		20%	0.1

Planned activities within implementation phase

2) Calibration Centre Activities – task chain

- Definition of target compounds, e.g., biomass burning or on secondary organic aerosol constituents of biogenic and anthropogenic origin
- Set up technical requirements, for all steps from sampling to the quantitative result, set Data Quality Objectives (DQO)
- Development of measurement guidelines based on the technical requirements and Interlaboratory Comparisons (ILCs)

We will publish the draft versions on the cais-ecac website

https://www.actris-ecac.eu/

Future activities:

- SOP templates needs to be finalized by each NF individually together with the calibration centre containing step by step instructions for a specific sampler/analytical method combination at the respective NF (max. level of detail)
- NF individual SOP will finally need approval by the calibration centre
- Define QA/QC procedures, e.g., performance test by ILCs
- Develop workflow for offline data submission

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Agenda

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Results 1st ILC – filter samples: summary levoglucosan

- ILC confirms the ability of the mostly used analytical protocols GC-MS, HPAEC-PAD and LC-MS (incl. the corresponding sample preparation steps) to measure levoglucosan in real ambient particle filters
- All participating laboratories provided acceptable data for levoglucosan in all samples in terms of the z-score evaluation, highlighting the already high quality of the currently applied analytical protocols
- Testing the impact of the sample preparation and the analytical method could not clearly identify the “best” analytical protocol confirming the eligibility of using different protocols as also given in CEN 2024 basically describing the application of a protocol for HPAEC-PAD and GC-MS
- Manuscript under review (comments send to reviewers…)

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2nd ILC target compounds from module 4-6:

→ Participation of the exploratory NFs was obligatory
→ 7 European research laboratories registered
→ 9 different analytical protocols will be applied
→ Lab code 1-9

Module 4	Biogenic SOA - acids
1	Terebic acid
2	Vanillic acid
3	Isovanillic acid
4	MBTCA
5	Norpinonic acid
6	Pinic acid
7	Pinonic acid
Module 5	SOA - aldehydes
1	Vanillin
2	Syringaldehyde
3	Coniferyl aldehyde
4	Acetosyringone (3,5-dimethoxy-4-hydroxyacetophenc
Module 6	SOA - nitroaromatics
1	2-Nitrophenol
2	4-nitrophenol
3	2,4 Dinitrophenol
4	3-Nitrocatechol
5	4-nitrocatechol
6	2-methyl-4-nitrophenol
7	4-Nitroguaiacol
8	4-Methyl-5-nitrocatechol
9	3-methyl-5-nitrocatechol

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Information about upcoming OGTAC-CC ILCs in 2026/2027 within ACTRIS

a) 3rd ILC on BB tracer compounds autumn 2026
b) 4th ILC on PAHs spring 2027

2nd OGTAC-CC community meeting within the framework of the CAIS-ECAC CF 04/2026

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3rd (2026) ILC target compounds from module 1 and 2:

Module 1	Biomass burning (Anhydromonosaccharides)
1	Levoglusosan
2	Mannosan
3	Galactosan
Module 2	Primary biogenic (pollen / fungal spores)
1	Erythritol
2	Arabitol
3	Glucose
4	Fructose
5	Mannose
6	Galactose
7	Mannitol
8	Ergosterol

Participation obligatory for ACTRIS NFs measuring compounds from module 1 and 2:

1) Birkenes / Zeppelin
2) Melpitz
3) SBO
4) Vielsalm
5) Lecce

More??? Targeted number of participants 10+X!

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Overview 3rd ILC

- Planned duration 3 months: e.g., November 2026 – January 2027
- Min. 3x real field samples plus X synthetic samples (depending on the number of participants)
- 1x blank filter

→ Goal: triplicate analysis, each sample 3 times full procedure

- 2x standard solutions

→ 3 injections each

- Participants should use their individual analytical measurement protocol (SOP) but need to follow the guidelines given by the CC with respect to:
  - Number of injections
  - Number of sample runs (repetitions)
  - Sequence design
  - Documentation

Registration open!!!

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4th (2027) ILC target compounds from module 7:

Module 7	16 EPA PAHs
1	Naphthalene
2	Acenaphthylene
3	Acenapthene
4	Fluorene
5	Phenanthrene
6	Anthracene
7	Fluoranthene
8	Pyrene
9	Benz(a)anthracene
10	Chrysene
11	Benzo[b]fluoranthene
12	Benzo[k]fluoranthene
13	Benzo[a]pyrene
14	Indeno[1,2,3-cd]pyrene
15	Benzo[ghi]perylene
16	Dibenz[a,h]anthracene

Planned for January 2027 – April 2027

Registration open!!!

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Open discussion

Questions, comments…

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Entire presentation from the community meeting is available online!

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Thanks for your attention!

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