



2<sup>nd</sup> Periodic Project Meeting, Florence  
14. – 16. October 2014



	Tuesday, 14 October	Wednesday, 15 October	Thursday, 16 October
9:00		<b>Plenary session 2 (9:00 - 11:00)</b> chair: Arjan Hensen, room Pontevecchio (120pers)  9:00 Ana López-Ballesteros: UGR as new partner	<b>Plenary session 4 (9:00 - 10:30)</b> chair Alex Vermeulen, room Pontevecchio (120pers)  9:00 Peter Bergamaschi / Ute Karstens: Top-down estimates of European CH <sub>4</sub> and N <sub>2</sub> O emissions using different inverse models and improved observations
9:10		9:10 Alice Dvorska: Contribution of the Czech Republic to the InGOS project	
9:20		9:20 JosepAnton Morgui: IC3 as a new partner	9:20 Hartmut Boesch: Observing Methane Concentrations over Europe with Satellites
9:30		9:30 Lynn Hazan: General update SA activities	
9:40			9:40 Daniela Famulari: Nitrous oxide fluxes from a Scottish grassland measured by eddy covariance: a comparison between different systems
10:00	<b>Registration</b>	10:00 Arjan Hensen: General update TNA activities and discussion	10:00 Werner Kutsch (ICOS): t.b.a.
10:30	JRA6 pre-meeting		<b>Coffee break</b>
10:45			<b>Plenary session 5 (10:45 - 13:00)</b> chair Alex Vermeulen, room Pontevecchio (120pers)  General WP overview and summary parallel sessions
11:00		Coffee break	
11:15		<b>Contractor's meeting (11:15 - 12:30)</b> chair Alex Vermeulen, participants at least one per full partner, room Pontevecchio (120pers)	
11:30			
12:00	<b>Welcome coffee</b>		
12:30		Lunch	
13:00	Welcome Introduction: Alex Vermeulen		small buffet lunch
13:30	<b>Plenary session 1 (13:30 – 15:30),</b> chair: Alex Vermeulen  13:30 – Ray Weiss (SAB): Resolving discrepancies in high-GWP GHG emissions using atmospheric measurements: Recent AGAGE results	<b>Parallel session 2 (13:30 - 15:30)</b> chairs: WP leader  WP 15 (JRA3), 9 partners, room Mistrangelo (60pers.)  WP 18 (JRA6), 6 partners, room Santa	Following <b>Final SAB + WP meeting</b> (end approximately 14.30), room Michelangelo (20pers.)

		Croce (24pers.)  WP 6 (NA6), 4 partners, room Michelangelo (20pers.)  additional WP2/WP3 + WP12 meeting, 17 partners, room Pontevecchio (120pers.)	
14:00	14:00 Thomas Krings (Bremen): Estimating methane emissions from point sources using airborne in-situ and airborne remote sensing observations		
14:30	14:30 Guus Velders (RIVM): HFC banks and their growing role in climate change		
15:00	15:00 Damian Arevalo–Martinez: Improving nitrous oxide measurements in the ocean		
15:30	Coffee break	Coffee break	
15:45	<b>Parallel session 1 (15:45 - 17:15)</b> chairs: WP leader  WP 13 (JRA1), 11 partners, room: Mistrangelo (60pers)  WP 14 (JRA2), 4 partners, room: Santa Croce (24pers.)  additional WP 15 (JRA3) meeting, 9 partners, room Pontevecchio (120pers), evt. shared with WP2/WP3	<b>Parallel session 3 (15.45 - 17:15)</b> chairs: WP leader  WP 2 + WP 3 + WP 15 (NA2+NA3+JRA3), 18 partners, room Pontevecchio (120pers)  WP 5 (NA5), 15 partners, room Mistrangelo (60pers.)  WP 4 + WP 17 (NA4+JRA5), 6 partners, room Santa Croce (24pers.)  WP 16 (JRA4), 4 partners, room: Michelangelo (20pers.)	
17:15	Coffee break	Coffee break	
17:30	<b>SAB + WP meeting (17:30 - 19:00)</b> room Michelangelo (20pers)	<b>Plenary session 3 (17:30 - 19:00)</b> chair: Alex Vermeulen, room Pontevecchio (120pers)  17:30 Mari Pihlatie: Preliminary results from the N <sub>2</sub> O chamber intercomparison campaign	
18:00		18:00 Stefan Reimann: Findings of the new UNEP/WMO Ozone Assessment	
18:30		18:30 Elmer Topp-Jørgensen: INTERACT – International Network for Terrestrial Research and Monitoring in the Arctic	
19:00	<b>Cocktail reception + poster presentation (19:00 - 21:00)</b>		
20:00		<b>20:00 Conference dinner</b>	
21:00			
22:00			

## Poster session

**Manuel Acosta** – Ecosystem station Lanzhot – The Czech Republic

**Huilin Chen** – Validation of TCCON observations of CO<sub>2</sub>/CH<sub>4</sub>/CO at Sodankylä using AirCore

**InGOS** – A general project overview

**Ana López Ballesteros** – GHG fluxes in wetlands dominated by *Phragmites australis* under different climates

**Katerina Machacova** – Scots pine trees (*Pinus sylvestris*) as significant emitter of nitrous oxide and methane in boreal upland forest

**Irene Mappe** – Atmospheric inversions of N<sub>2</sub>O emissions in the framework of InGOS

**Denise Müller** – Measurements of dissolved greenhouse gases in rivers and estuaries using Fourier Transform Infrared (FTIR) spectrometry

**Mercedes de la Paz** – Oceanic measurements of N<sub>2</sub>O and CH<sub>4</sub> in the North Atlantic from different observational platforms

**Nabil Saad** – Comparison of a Gas Chromatograph and a Cavity Ringdown Spectrometer for Flux Quantification of Nitrous Oxide, Carbon Dioxide and Methane in Closed Soil Chambers

**Dominik Schmithüsen** – Comparison of European <sup>222</sup>Rn instrumentation

**Sylvia Walter** - The isotopic composition of atmospheric and dissolved molecular H<sub>2</sub> along an Atlantic meridional transect

**Giulia Zazzeri** – Methane Emissions in SE England: Deciphering Regional Sources with Mobile Measurements

## Agendas of parallel work package meetings

### Parallel session 1 (Tuesday, 14 October, 15:45 - 17:15) chairs: WP leader

#### **WP 13 (JRA1), 11 partners, room: Mistrangelo (60pers)**

- Alex Vermeulen – Evaluation of the Ecotech Spectronus FTIR instrument for implementing tall tower gradients in static mode
- Hella van Asperen - FTIR-field measurements of respiratory del13CO2 and photodegradation
- Discussion

#### **WP 14 (JRA2), 4 partners, room: Santa Croce (24pers.)**

- Bart Dils – Comparison of stratospheric CH<sub>4</sub> from TCCON with ACE-FTS
- Hartmut Bösch – Impact of the stratospheric CH<sub>4</sub> on GOSAT CH<sub>4</sub> retrievals and GOSAT-TCCON comparisons
- Frank Hase – Improved instrumental comparability among TCCON sites
- Rigel Kivi – FTS and AirCore observations of methane
- Thorsten Warneke – Comparison of modeled 3D CH<sub>4</sub> fields with TCCON observations – first results
- Discussion (lead: Thorsten Warneke):
  - Towards a tropospheric XCH<sub>4</sub> from satellites: How could TCCON be used for validation using a “chemical tropopause”?
  - Remaining work in INGOS

#### **WP 16 (JRA4), 4 partners, room: Michelangelo (20pers.)**

- Guillaume Monteil – Atmospheric modeling of the  $\delta^{13}\text{C}$ -CH<sub>4</sub> variability at European measurement sites
- Joachim Mohn – Real-time analysis of  $\delta^{13}\text{C}$ - and  $\delta\text{D}$ -CH<sub>4</sub> in atmospheric CH<sub>4</sub> by laser spectroscopy: Method development and first inter-comparison results
- Thomas Röckmann – A fully automated IRMS system for  $\delta^{13}\text{C}$  and  $\delta\text{D}$  analysis of atmospheric methane in the field

#### **additional WP 15 (JRA3) meeting, 9 partners, room Pontevecchio (120pers), room shared with WP2/WP3**

- WP15: discussion of task 15.1/15.2: Inverse modeling of CH<sub>4</sub>/N<sub>2</sub>O (lead: Peter Bergamaschi)
- WP2/3: discussion of task 2.2: Evaluation and approval of historic H<sub>2</sub> data (lead: Martina Schmidt)

### Parallel session 2 (Wednesday, 15 October, 13:30 – 15:30) chairs: WP leader

#### **WP 15 (JRA3), 9 partners, room Mistrangelo (60pers.)**

- Ute Karstens – task 15.4: Model validation
- Dominik Brunner – task 15.5: Modeling of halocarbons
- Guillaume Monteil – task 15.6: Modeling of  $\delta^{13}\text{C}$ CH<sub>4</sub>
- Marielle Saunois – task 15.7: Network analysis and optimization

#### **WP 18 (JRA6), 6 partners, room Santa Croce (24pers.)**

- Carole Hefter – Tall-tower monitoring of methane, carbon monoxide and carbon dioxide emissions in London, UK
- Olli Peltola – Studying the spatial variability of methane flux in an agricultural landscape with several short flux towers and one tall tower
- Elin Sundqvist – Methane exchange in a boreal forest estimated by gradient method and upscaling of chamber measurements
- Andreas Ibrom – Tall tower N<sub>2</sub>O flux measurements in a Danish agricultural and urban and coastal area
- Emeline Lequy – Bottom-up and top-down estimations of N<sub>2</sub>O emissions at an agricultural and urban area by the eutrophic Roskilde fjord in Denmark
- Discussion

#### **WP 6 (NA6), 4 partners, room Michelangelo (20pers.)**

- Herman Bange – InGOS WP6 Activities – Overview
- Emma Huertas – CSIC contribution to harmonization and quality control of N<sub>2</sub>O and CH<sub>4</sub> measurements in the ocean
- Hermann Bange – MEMENTO - The MarinE MethanE and NiTrous Oxide database
- Discussion WP6

#### **additional WP2/WP3 + WP12 meeting, 17 partners, room Pontevecchio (120pers.)**

- Martina Schmidt, Lynn Hazan – Task 3.1: Improvement of in situ measurement precision and comparability: approval of updated (until end of 2013) CH<sub>4</sub> and N<sub>2</sub>O data, meta data submission
- Martina Schmidt – Task 3.2: NRT data submission: update of current status (M. Schmidt)
- Andrew Manning – Task 3.3: Efficient ICP exercises including their evaluation: Update on Cucumber paper

### Parallel session 3 (Wednesday, 15 October, 15:45 – 17:15) chairs: WP leader

#### **WP 2 / 3 / 15 (NA2 / NA3 / JRA3), 18 partners, room Pontevecchio (120 pers.)**

- joint discussion NA2/3-JRA3
- presentation of results from JRA3
- updates from NA2/3 (I. Levin)
- discussion of treatment of errors (lead by S. Hammer)

#### **WP 5 (NA5), 15 partners, room Mistrangelo (60pers.)**

- Per Ambus – Comparison of five chamber systems for N<sub>2</sub>O flux measurements based on a field campaign
- Andreas Ibrom – Eddy covariance N<sub>2</sub>O flux measurements at low flux rates: results from the InGOS campaign in a Danish willow field
- Benjamin Loubet – N<sub>2</sub>O gradient measurements during the Easter Bush campaign
- Dario Papale – Storage variability for different GHGs under a young forest canopy and implications in the eddy covariance measurements
- Ralf Kiese – Impacts of climate change on nitrogen cycling and associated losses of (pre-) alpine grassland ecosystems under intensive and extensive management – a climate sequence lysimeter study
- Brief discussion on outstanding tasks on NA5 (lead: Eiko Nemitz)

#### **WP 4 + WP 17 (NA4+JRA5), 6 partners, room Santa Croce (24pers.)**

- Simon O’Doherty – Data assurance halocarbon measurements
- Stefan Reimann – Innovation in halocarbon measurement techniques
- Jaroslaw Bielewski - CFCs and SF<sub>6</sub> concentration in air of southern Poland
- Michela Maione – Top down emission estimates of radiatively active F-gases vs bottom up inventories
- Johannes Laube – Halogenated greenhouse gases in the atmosphere - Newly detected compounds and isotope effects
- Overview and discussion of remaining commitments (Stefan Reimann / Simon O’Doherty)

