

# MercOx

EURAMET MercOx Kick-Off Meeting report

Work package no. 6

Report date: 26.10.2017

<http://www.mercox.si>



## BIBLIOGRAPHICAL INFORMATION

**Project acronym:** MercOx

**Project title:** Metrology for Oxidised Mercury

**Subject:** MercOx Kick-Off Meeting Report

Funding scheme:

Grant Agreement Number: 16ENV01

Duration of Contract: 01.10.17- 30.09.20

Report date: 26.10.2017

Contact:

**Project coordinator**

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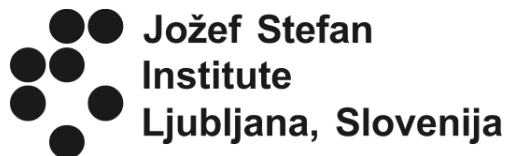
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## 1. KICK-OFF MEETING AGENDA

### MercOx Kick-off Meeting Agenda

16ENV01 MercOx

#### Metrology for oxidised mercury

Jožef Stefan Institute, Department of Environmental Sciences, Reactor Center ([www.rcp.ijs.si](http://www.rcp.ijs.si))

9.- 11. October, 2017

*8:30 – Bus: City Hotel – Reactor Center*

*9:00 – 9:15 Registration of participants*

**Day 1:            9.10.2017    Setting the stage for MercOx**

**9:15 – 10:30**

Welcome (M. Horvat)

Minamata Convention and its challenges (E. Toda, UNEP via Skype)

EMPIR MeTra project and its achievements (H. Ent)

Standardisation challenges (W. Corns)

*10:30 – 11.00 Morning break*

**11.00 – 13:00**

Atmospheric mercury chemistry (P. Ariya)

Atmospheric measurements of Hg and its species (G. Mae)

Stable isotope applications in atmospheric measurements (O. Donard)

*13:00 -14.00 - Lunch*

**14:00 – 15:30**

US EPA experiences in oxidized Hg measurements (J. Ryan, via Skype)

Mercury in the cement clinker production (T. Ljubič Mlakar)

Tekran's latest development in Hg speciation in the atmosphere and emission sources (E. Prestbo)

*15:30 – 16:00 Afternoon break*

**16:00 – 17:00**

PSA Analytical – latest developments in mercury measurements and speciation in air (W. Corns)

Lumex – latest development in mercury measurements and speciation in air (R. Moeseler)

**17:00 - 18:30**

*Visit of the JSI laboratories*

**18:30**



*Reception at the Reactor Center*

*20:00 Bus: Reactor Center –City Hotel*

## **Day 2: 10.10.2017 - MercOx work programme**

*8:30 Bus: City Hotel – Reactor Center*

**9:00 – 9:30**

MercOx overview – Milena Horvat

**9:30 – 11:00**

**WP 1:** Traceable calibration for oxidised Hg -VSL

T 1.1 Traceable calibration method for Hg(II) species – Lumex, PSA, VTT, VSL

T 1.2 Traceable calibration for stack gas emission measurements – Optoseven, VSL

T 1.3 Traceable calibration for atmospheric measurements – VSL, Optoseven, JSI

*11:00 – 11.30 Morning break*

**WP 3:** Traceable sampling methods for gaseous Hg species - **JSI**

T 3.1 Mercury chemistry in the stack gas and the atmosphere – CNR, UPPA

T 3.2 Sampling of Hg(II) and Hg(0) in the atmosphere and stack gas emissions – CNR, LGC, UPPA, JSI

11.00 – 13:00

*13:00 -14.00 - Lunch*

**14:00 – 15:30**

**WP2:** Measurement of Hg(II) - LGC

T 2.1 Measurement of selectively trapped gaseous Hg(II) at environmental concentrations – LGC, JSI, UPPA

T 2.2 Measurement of Hg(II) on particulate matter (PM) – LGC, JSI, UPPA

*15:30 – 16:00 Afternoon break*

**16:00 – 17:30**

**WP4:** Field measurements - **VTT**

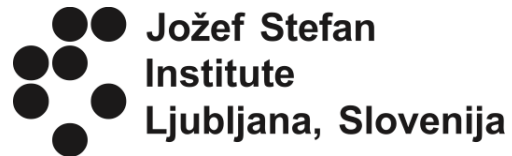
T 4.1 Atmospheric measurement – CNR, LGC, UPPA

T 4.2 Stack emission measurement - VTT

*17:30 Departure of the bus from the Reactor Center to the City hotel*

*19:30 Group dinner – City Center*

**Day 3: 11.10.2017 Detailed discussion on the work programme**



8:30 Bus: City Hotel – Reactor Center

**9:00 – 10:00**

Working group discussion based on Day 2 presentations & open issues

*10:00 – 10:30 Morning break*

**10:30-12:00**

WP5: Creating impact – UBA, JSI

WP5: Management issues - JSI

**12:00**

Wrap-up and closure

*12:30 Lunch*

13:30 – onwards Departures of the participants to the city and to the airport (as convenient for the participants)



## 2. KICK-OFF MEETING MINUTES

### 2.1 MORNING SESSION DAY 1

The kick-off meeting was opened by Prof. Milena Horvat (Project Coordinator), who gave thanks for everyone's participation and began with a brief description of the project. The session then continued following the agenda with a series of research topic presentations related to the mercury in the atmosphere and atmospheric measurements. After presentations finished, participants were divided into two groups to see the laboratories at the Department of Environmental Sciences.

Presentations:

(Available on Intranet at [www.mercox.si](http://www.mercox.si))

### 2.3 MORNING SESSION DAY 2

The morning session began with MercOx overview, held by prof. Horvat and continued with the presentation of each Work Package:

WP1: Traceable calibration for oxidised Hg

WP2: Measurement of Hg

WP3: Traceable sampling methods for gaseous Hg species

WP4: Field applications – on-line and sorbent trap Hg measurements

### 2.4. MORNING SESSION DAY 3

The morning session began with group discussion based on day 2 presentations and continued with open issues. The meeting continued with a penultimate presentation, of WP5, which was held by UBA.

The last presentation was about WP6: Management and coordination, and it was held by prof. Horvat, which highlighted the critical factors of project management and further coordination.

The project coordinator thanked members for their contributions and closed the meeting. The Kick-off meeting ended as proposed in the agenda at 13:30.



### 3. KICK-OFF MEETING ATTENDEES



PARTNERS	
DAVID DOUGLAS	LGC
JOHN ENTWISLE	LGC
PANAYOT PETROV	TUBITAK
SÜLEYMAN Z. CAN	TUBITAK
INA FETTIG	UBA
JAN KOSCHORRECK	UBA
HUGO ENT	VSL
IRIS DE KROM	VSL
TIMO RAMAJAKI	VTT
IAN HEDGECK	CNR
ATTILIO NACCARATO	CNR
MOESLER REINHOLD	Lumex
SERGEJ SHOLUPOV	Lumex
TONI LAURILA	Optoseven
WARREN CORNS	PSA
OLIVER DONARD	UPPA
MARIA ROCIO TORRES ARVIZU	CENAM
ERIC PRESTBO	Tekran
MAE GUSTIN	University of Nevada-Reno
PARISA ARIYA	McGill University



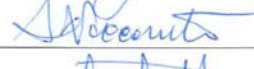














COORDINATOR	
MILENA HORVAT	JSI
POLONA VREČA	JSI
VESNA FAJON	JSI
MARKO ŠTOK	JSI
IGOR ŽIVKOVIČ	JSI
SABINA BERISHA	JSI
MAJDA PAVLIN	JSI
YAROSLAV SHLYAPNIKOV	JSI
DELALI TULASI	JSI
RAGHURAJ VHOUMAN	JSI
JANJA VAUPOTIČ	JSI
DAFINA KIKAJ	JSI
RADOJKO JAČIMOVIČ	JSI
JOŽE KOTNIK	JSI



#### 4. ENCLOSURES

##### I. Signed list of attendees day 1






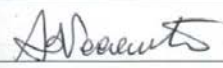

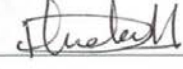
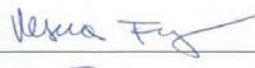
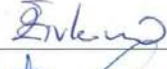



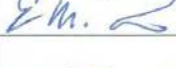




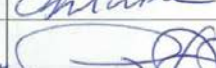

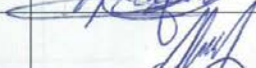

MercOx Kick Off Meeting 9.10.2017		
PARTICIPANT	ORGANISATION	SIGNATURE
Polona VREČA	JSI	
IAN M. HEDGECOCK	CNR- IIA	
ATTILIO NACCARATO	CNR- IIA	
DELALI TUBASI	JSI	
VESNA FASON	JSI	
IGOR ENKOVIČ	JSI	
Sabina Berisha	JSI	
Mujda Paulin	JSI	
Yaroslav Shlyapnikov	IS	
Blaise DONARD	UGPA / CNRS	
Warren Corns	PSA	
Panoyol Petrov	LGC	
DAVID DOUGLAS	LGC	
JOHN EINTWISLE	LGC	
Maria del Rocío Arvizu-Towes	CENAM	
Süleyman Z. CAN	TUBITAK ÜME	
Toni Lounila	OPTOSEVEN	



Hg-ox		Jožef Stefan Institute Department of Environmental Sciences
Timo Degančič	VIT MIKES	
MARIKO ŠTROK	JSI	
Raghay	JSI	
MAE GUSTAR	UNIV. of NEVADA - Reno	
Hugo ENT	USL	
Iris de Keom	USL	
Reinhold Möseler	Lumex	
Sergey Sholupov	Lumex	
Ina Felja	USA	
Janja Vaupotič	JSI	
Dajina Kibaj	JSI	
RADOJICO JADROVIČ	IJS	
MILENA HORVAT	JSI	
JOŽE KOTNIK	JSI	

II. Signed list of attendees day 2


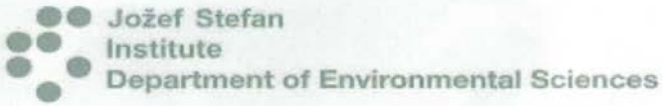


**Jožef Stefan  
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MercOx Kick Off Meeting 10.10.2017		
PARTICIPANT	ORGANISATION	SIGNATURE
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VEŠNA FAJON	JSI	
IGOR ŽIVKOVIĆ	JSI	
Sabina Beriška	JSI	
Majda Paulin	JSI	
Yaroslav Shlyapnikov	JSI	
ERIC PRESTBO	TEKRAN	
Olivier DONARD	MARS-IPREM	
Warren Corus	PSA	
Panayot Petrov	LGC	
DAVID DOUGLAS	LGC	
JOHN ENTWISLE	LGC	
Jana Filipič	McGill University	
Haris Rođanović Jones	CERAM	
Süleyman Z. ÇSN	TUBITAK ÜME	



Toni Lannila	OPTOSEVEN	
Timo Depantei	VII	
Ian Woschoppech	USA	
Ino Felija	USA	
Hugo ENT	VSC	
Iris de Krom	USL	
Reinhold Moseler	Lumex	
Sergey Sholepov	Lumex	
Polona Vreca	IJS	
IAN HEDGECOCK	CDR - IIA	
RADOJKO JASTROVID	IJS	

III. Signed list of attendees day 3

MercOx Kick Off Meeting 11.10.2017		
PARTICIPANT	ORGANISATION	SIGNATURE
VESNA FAJON	JSI	Vesna Fajon
IGOR ŽIVKOVIČ	JSI	Ižupovič
Sabina Beriška	JSI	Beriška
Mujda Pavlin	JSI	Mujda Pavlin
Yaroslav Shlyapnikov	JSI	Shlyapnikov
WARREN CORNS	PSA	Warren Corns
DONALD ALVIN	MARSS - STED	Donald Alvin
DAVID DOUGLAS	LGC	David Douglas
JOHN ENTWISLE	LGC	John Entwisle
RADOJKO JACIČKOVIČ	JSI	Radojko Jacičkovič
Panagot Petrov	LGC	Panagot Petrov
Alonso del Rocio Arrizu Torres	CEADAS	Alonso del Rocio Arrizu Torres
Süleyman Z. CAN	TÜBİTAK ÜME	Süleyman Z. Can
Timo Depažić	VIT	Timo Depažić
MARKO ŠTROK	JSI	Marko Štrok
Milena Horová	JSI	Milena Horová
RADO LAPUH	MRS	Rado Lapuh

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