

Barcelona, 19 April 2018

**Subject:** Minutes of the 1<sup>st</sup> Joint Working Group Meeting of COST Action CA16202: “International Network to Encourage the Use of Monitoring and Forecasting Dust Products” – Barcelona 14-15/03/2018

### 1. Adoption of the agenda

The agenda (**Annex 1**) for 1<sup>st</sup> InDust Joint Working Group Meeting was adopted.

### 2. Welcome to participants

The participants were welcomed by Sara Basart and Slobodan Nickovic, Chairs of the Action.

The meeting had participation of 65 participants (44 MC members and MC substitutes) from 25 countries from Europe, North Africa, Middle East and South America. The list of officially nominated delegates and the participants of the meeting with their contact details is presented in **Annex 2**.

### 3. InDust overview

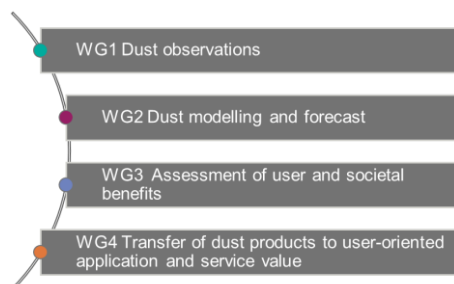
Sara Basart (Spain, Chair) and Slobodan Nickovic (Serbia, Vice-Chair) introduced the antecedents and motivation of the Action.

InDust (International Network to Encourage the Use of Monitoring and Forecasting Dust Products) is the COST Action CA16202. InDust started on 14<sup>th</sup> November 2017 and have a duration of four years.

Currently, 28 COST Countries have signed the Memorandum of Understanding (MoU; [https://e-services.cost.eu/files/domain\\_files/CA/Action\\_CA16202/mou/CA16202-e.pdf](https://e-services.cost.eu/files/domain_files/CA/Action_CA16202/mou/CA16202-e.pdf)). The Action involves 3 NNCs (Egypt, Jordan and Morocco), 1 international body (WMO) and 9 IPCs (Chile, Brasil, Japan, USA, Iran, Sudafrica, Saudi Arabia, Kazahkistan and Namibia).

InDust has an overall objective **to establish a network** involving research institutions, service providers and potential end users of information on airborne dust. Because, airborne dust transport has multi- and trans-disciplinary effects at local, regional and global scales; InDust involves a multidisciplinary group of international experts on aerosol measurements, regional aerosol modelling, stakeholders and social scientists. InDust also searches **to coordinate and harmonise the process of transferring dust observation and prediction data to users as well as to assist the diverse socio-economic sectors** affected by the presence of high concentrations of airborne mineral dust.

The program of the Action will be realised through the following Working Groups (WGs):



The Core Group (approved during the 1<sup>st</sup> Management Committee meeting in Brussels) is the following:

Action Chair	S. Basart (Spain)	S. Nickovic (Serbia)
WG1 Leader	V. Amiridis (Greece)	B. Weinzierl (Austria)
WG2 Leader	A. Vukovic (Serbia)	I. Tegen (Germany)
WG3 Leader	S. Kazadzis (Switzerland)	H. El-Askary (Egypt)
WG4 Leader	L. Mona (Italy)	A. Durant (UK)
STSM Grant Coordinator	A. Monteiro (Portugal)	G. Varga (Hungary)
Science Communication	I. Christel-Jiménez (Spain)	A. Nemuc (Romania)
ITC Conference Grant Coordinator	Pavla Dagsson (Iceland)	

After the general overview of the Action, each WG Leader introduced the specific objectives of the corresponding WG as well as the associated Milestones and Deliverables that help us to ensure that the objectives defined in the MoU will be achieved.

Because the network was evolving during the last months, the objectives of the 1<sup>st</sup> InDust Working Group meeting were the following:

- Map the InDust network
  - Identification of the institutes, initiatives, networks currently represented in the network.
- Identification of the initiatives that InDust will support
  - The objectives included in the MoU are flexible enough to consider new initiatives raised during the Action.

#### 4. Invited speakers

- **Alexander Baklanov** (WMO, abaklanov@wmo.int), “Previous experiences: EuMetChem and the WMO SDS-WAS objectives”. Overview of the WMO SDS-WAS programme and the COST Action EuMetChem.
- **Lefteris Mamais** (Evenflow, lefteris@evenflowconsulting.eu), “Towards the sustainable user uptake of dust-related services”. He showed (from his experience as a private company) how we can bring the benefits of dust-related services in the hands of the users. Significant “paradigm shift” bringing users at the epicentre is currently in motion (i.e. Copernicus or EuroGEOSS).
- **Tareq Hussein** (University of Jordan, t.hussein@ju.edu.jo), “Aerosol Association for North Africa and the Middle East (AAMENA)”. Overview of this initiative that is searching to promote research related to aerosol science as well as collaboration among the MENA states. See more: <https://sds-was.aemet.es/projects-research/aerosol-association-in-the-middle-east-northern-africa-region>.

#### 5. Summary of the discussion sessions

From the afternoon session discussions, each WG Leader summarised the main activities for the next months within its corresponding WG.

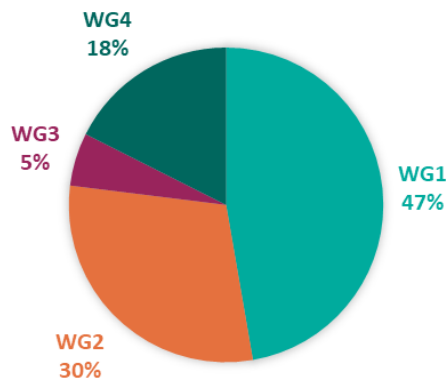
- WG1 on dust observations (V. Amiridis, Greece):
  - Dust Catalogue with the available parameters and the known methods to extract the “dust contribution” (based on ground networks, sensors, ... )
    - This catalogue will be public for any potential user.
    - It will include existing repositories as GAW and ACTRIS.
  - White paper on the current available dust observations.
    - A scientific paper will be submitted to a peer-review journal during 2018.
  - Constrain the uncertainty between different measure techniques.
    - Comparison between different datasets, i.e. ACTRIS vs ESA Aerosol CCI.
- WG2 on modelling (A. Vukovic, Serbia):
  - Dust Selection dust model products oriented to specific communities:
    - Identification of a first set of available dust products

- Dust model catalogue (operational, hindcast and reanalysis)
      - Uncertainties in “our” products
      - Identification of “gaps” – New model developments
    - Research associated to observations community (WG1-WG2 exchange)
      - Input data needed for models:
        - Land surface observations: sources, mineralogy, soil texture, ...
      - Identification of key persons from WG1 and WG2 to start discussions on:
        - Data Assimilation
        - Model Evaluation
        - Exchange of data – Data format
  - WG3 on Dissemination and capacity building (S. Kazadkis, Switzerland):
    - Disseminations tools organised within InDust will focus on:
      - **Build capacity** through the high-level teaching of users to promote the use of the delivered dust products.
      - **Train staff** to properly use the available observational and forecast products to design and implement preparedness and mitigation measures.
      - **Enhance the cooperation** with institutions from near-neighbouring and international partner countries in Northern Africa and the Middle East.
      - **Enhance the participation** of non-scientific users. This will be fundamental to achieve our main goal for providing user-oriented products.
    - Disseminations tools and events organised within InDust will be:
      - Meetings (Working Groups, Workshops, Conferences, ...)
        - One important activity will be the organisation of specific meeting for selected socio-economic sectors (Aviation, Air Quality and Solar energy). These meetings will be essential to draft a list of requirements of each particular socio-economic sector.
      - Training Schools about:
        - Use of the current available observational and forecast products.
        - Aerosol measurements (management of any instrument following the international standards).
        - Capacity building in and outside Europe (i.e. North Africa and Middle East).
      - Short Term Scientific Mission (STSM) calls
      - ITC Conference Grant calls
      - Dissemination materials: Website, videos, leaflets, ...
        - The InDust website ([www.cost-indust.eu](http://www.cost-indust.eu)) will be launched in April 2018.
    - WG3 will work closely with:
      - Short Term Scientific Mission (STSM) Coordinators (A. Monteiro, Portugal, and G. Varga, Hungary)
      - ITC Conference Grant Coordinator (P. Dagsson, Iceland)
      - Science Communication Coordinators (I. Ch. Jimenez, Spain, and A. Nemuc, Romania)
  - WG4 on user-oriented products (L. Mona, Italy):
    - Together with WG3, WG4 will work on the elaboration of a user’s survey that will be used during the user-oriented workshops.
      - This survey will help to WG4 on the definition of some requirements to get user products.
    - Identification of the information needed to perform socio-economic analysis by sectors.
      - Review of the dust (observations and modelling) catalogues provided by WG1 and WG2
    - To address the different needs of different communities, it has been discussed to set up different task groups working on first selected user-oriented products
      - Aviation
      - Solar energy
      - Health
      - Air quality
    - Potential products:

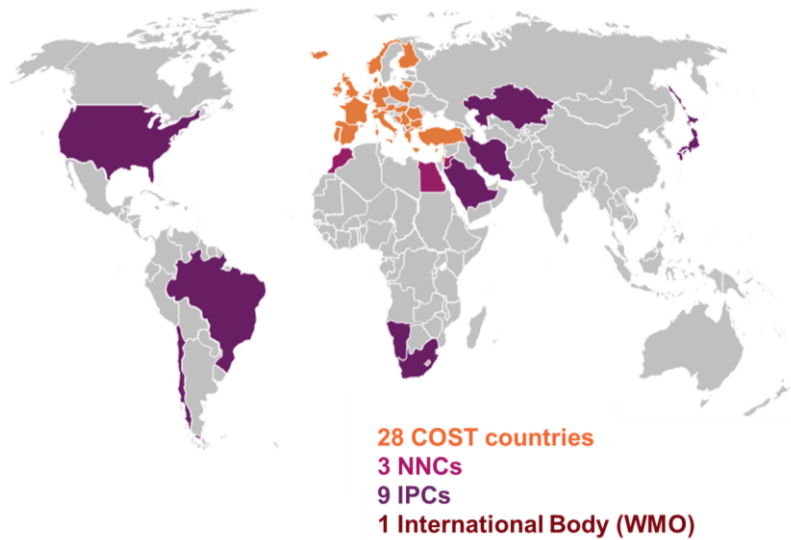
- Development of early warning system
  - There are some ongoing warning systems as meteoalarm.eu

## 6. Conclusions

- Description of the network:
  - Participants: Currently the network includes more than 150 participants from more than 70 reseach institutions and private companies.
  - WG involment – WG preferred



- Countries:



- Projects, Programmes, Intiatives and Networks:
  - Programmes and initiatives:
    - WMO SAG-Aerosols
    - WMO SDS-WAS
    - UNCDD
    - ICAP
    - AQMEII
    - AAMENA
    - FAIRMODE
  - Networks:

- WMO GAW and GURME
- WMO GALION (i.e. EARLINET, MPLNET,..)
- ACTRIS (i.e. EARLINET, AERONET, EMEP)
- e-PROFILE (from COST Action TOPROF)
- INDAAF
- CARAGA
- Projects:
  - Copernicus (CAMS and C3S)
  - GEOSS (GEO-CRADLE)
  - ESA Aerosol CCI (i.e. IASI)
  - H2020 (SOLWATT, DustClim, EUNADICS-AV, CERTAINER, CRESCENDO, INDICES)
  - Marie Curie (MSCA-IF-DUST-GLASS, MSCA-ITN-AMBITIOUS, MSCA-ITN-Essential)
  - ERC (FRAGMENT, D-TECT)
  - EU-Life (Life-Diapason, Life-Airuse, Life-MEDParticles)
  - Others: SALTRACE, NARVAL, AEROCLO-sA, SOARIAL, MULTIPP, INTERDUST, PALMOD, FP7-MarcoPolo, PYTHEIA, AFAIR, AER-D, DUSTUP, ASHTIME, PAPILA, PEGASOS, PANDA, RESIZED
- Communities
  - Researchers on:
    - Satellite products
    - Ground observations (i.e. in-situ and remote-sensing)
    - Operational aerosol forecast (global and regional)
    - Hindcast and reanalysis
    - Socio-economic aspects
  - Users:
    - International bodies (WMO, UNCCD, ...)
    - Solar energy
    - Aviation
    - Air Quality
    - Health
    - Society at large
- InDust objectives:
  - Our approaches and activities always must be user-oriented.
    - We should prioritise those actions and activities that have as a final objective a more user perspective.
    - In WG1 and WG2, these user-oriented objectives are secondary. It is need to better define the main objectives and actions for the next GP2 particularly for the WG2.
  - We should promote new initiatives and works that can expand our community beyond the duration of the Action.
    - Promote collaborative efforts (studies, proposals, ....)
    - Keep our results accessible for all the community (link with the SDS-WAS Regional Center)

## 7. Any Other Business (AOB)

None.

## 8. Closing


The Chairs and WG Leaders thank participants for their participation and cooperation.

## List of Annexes

**Annex 1 - Agenda**

**Annex 2 - Attendance list**

## Annex 1 - Agenda




**1<sup>st</sup> InDust Joint Working Group Meeting**

**14 – 15 March 2018**  
Sala Àgora of Facultat de telecomunicacions of UPC, Barcelona, Spain

**Agenda**



**Wednesday, 14<sup>th</sup> March:**

9:00	9:30	Registration
9:30	10:00	Welcome and scope of the InDust meeting (S. Basart and S. Nickovic)
10:00	10:15	WG1 - Objectives and timelines (V. Amiridis)
10:15	10:30	WG2 - Objectives and timelines (A. Vukovic)
10:30	10:45	WG3 - Objectives and timelines (S. Kadzakis)
10:45	11:00	WG4 - Objectives and timelines (A. Durant)
11:00	11:30	Coffee Break
Invited Speakers		
11:30	12:00	A. Baklanov - Previous experiences: COST EuMetChem and the WMO SDS-WAS objectives
12:00	12:30	L. Mamais - Dissemination of scientific results and link with end users
12:30	13:00	T. Hussein - Aerosol association for North Africa and the Middle East
13:00	14:30	Lunch Break (in Foyer) - MareNostrum visit
Discussion Session –		
14:30	15:30	WG1 Discussion Session (Sala Àgora)   WG2 Discussion Session (Aula B3)
16:00	16:30	Coffee Break
16:30	18:00	WG3 + WG4 Discussion Session
18:00	18:30	Closure
20:00	22:00	Networking Dinner: El Mussol - Las Arenas (Plaça Espanya)



**Thursday, 15<sup>th</sup> March:**

General Conclusions - Summary		
9:00	9:30	WG1 – Summary and conclusions (V. Amiridis)
9:30	10:00	WG2 - Summary and conclusions (A. Vukovic)
10:00	10:30	WG3 - Summary and conclusions (S. Kadzakis)
10:30	11:30	WG4 - Summary and conclusions (L. Mona)
11:00	11:30	Coffee Break
General Conclusions – Work Plan Discussions		
11:30	13:00	General Conclusions – Work Plan Discussions
13:00	14:00	Lunch Break - Sodexo Restaurant
Management Committee (restricted MC members)		
14:00	14:30	COST Association: Rose Cruz (COST Manager) – Any administrative question?
14:30	15:30	Work and Budget Plan for GP2 for approval
	15:30	Closure

## Annex 2 - Attendance list

Name	Surname	Country	e-mail	Role in InDust
Josef	Gasteiger	Austria	josef.gasteiger@univie.ac.at	MC member or MC substitute
Barbara	Scherllin-Pirscher	Austria	barbara.scherllin-pirscher@zamg.ac.at	MC member or MC substitute
Konstantinos	Genikomsakis	Belgium	Konstantinos.GENIKOMSAKIS@umons.ac.be	MC member or MC substitute
Yves	Govaerts	Belgium	yves.govaerts@rayference.eu	MC member or MC substitute
Christos	Ioakeimidis	Belgium	christos.ioakeimidis@umons.ac.be	MC member or MC substitute
Lefteris	Mamais	Belgium	lefteris@evenflowconsulting.eu	Other participants
Sophie	Vandenbussche	Belgium	sophie.vandenbussche@aeronomie.be	MC member or MC substitute
Aida	Bidžan-Gekić	Bosnia and Herzegovina	aidabidzan@gmail.com	MC member or MC substitute
Haris	Gekić	Bosnia and Herzegovina	hgekic@gmail.com	MC member or MC substitute
Emilia	Georgieva	Bulgaria	emilia.georgieva@meteo.bg	MC member or MC substitute
Dimitar	Stoyanov	Bulgaria	dvstoyanov@yahoo.co.uk	MC member or MC substitute
Nicolás	Huneelus	Chile	nhuneelus@dgf.uchile.cl	Other participants
Theodore	CHRISTOUDIAS	Cyprus	t.christoudias@cyi.ac.cy	Other participants
Jamal	Jokar Arsanjani	Denmark	jja@plan.aau.dk	MC member or MC substitute
Osama	El-Tawil	Egypt	osamaeltawil@yahoo.com	MC member or MC substitute
Gerrit	de Leeuw	Finland	gerrit.leeuw@fmi.fi	MC member or MC substitute
Riina	Haavisto	Finland	Riina.Haavisto@fmi.fi	Other participants
Mikhail	Sofiev	Finland	mikhail.sofiev@fmi.fi	MC member or MC substitute
Yves	Balkanski	France	yves.balkanski@lsce.ipsl.fr	Other participants
Jochen	Foerstner	Germany	jochen.foerstner@dwd.de	Other participants
Silke	Gross	Germany	Silke.Gross@dlr.de	Other participants
Natalie	Hanrieder	Germany	natalie.hanrieder@dlr.de	MC member or MC substitute
Jose	Prieto	Germany	Jose.Prieto@eumetsat.int	Other participants
Kerstin	Schepanski	Germany	schepanski@tropos.de	MC member or MC substitute
Vassilis	Amiridis	Greece	vamoir@noa.gr	MC member or MC substitute
Efstathios ('Stathis')	Arapostathis	Greece	arapost@phs.uoa.gr	MC member or MC substitute
Antonis	Gkikas	Greece	agkikas79@gmail.com	MC member or MC substitute
Vasiliki	Kotroni	Greece	kotroni@noa.gr	Other participants
Emmanouil	Proestakis	Greece	proestakis@noa.gr	Other participants
György	Varga	Hungary	varga.gyorgy@csfk.mta.hu	MC member or MC substitute
Pavla	Dagsson Waldhauserova	Iceland	pavla@lbhi.is	MC member or MC substitute
Darius	Ceburnis	Ireland	darius.cebunis@nuigalway.ie	MC member or MC substitute
Francesca	Barnaba	Italy	f.barnaba@isac.cnr.it	MC member or MC substitute
LUCIA	MONA	Italy	lucia.mona@imaa.cnr.it	MC member or MC substitute
Tareq	Hussein	Jordan	T.hussein@ju.edu.jo	Other participants
Astrid	Manders	Netherlands	astrid.manders@tno.nl	MC member or MC substitute
Michael	Gauss	Norway	michael.gauss@met.no	Other participants
Christine	Groot Zwaafink	Norway	cgz@nilu.no	MC member or MC substitute
Svetlana	Tsyro	Norway	svetlana.tsyro@met.no	MC member or MC substitute



Carla	Gama	Portugal	carlagama@ua.pt	Other participants
Alexandra	Monteiro	Portugal	alexandra.monteiro@ua.pt	MC member or MC substitute
Livio	Belegante	Romania	belegantelivio@inoe.ro	MC member or MC substitute
Anca	Nemuc	Romania	anca@inoe.ro	MC member or MC substitute
Vladimir	Djurdjevic	Serbia	vdj@ff.bg.ac.rs	MC member or MC substitute
Slobodan	Nickovic	Serbia	nickovic@gmail.com	MC member or MC substitute
Ana	Vukovic	Serbia	pazisadana@gmail.com	MC member or MC substitute
Andres	Alastuey	Spain	andres.alastuey@idaea.csic.es	Other participants
Sara	Basart	Spain	sara.basart@bsc.es	MC member or MC substitute
Alberto	Cazorla	Spain	cazorla@ugr.es	Other participants
Emilio	Cuevas	Spain	ecuevasa@aemet.es	MC member or MC substitute
Isadora-Christel	Jimenez	Spain	isadora.jimenez@bsc.es	MC member or MC substitute
Martina	Klose	Spain	martina.klose@bsc.es	Other participants
Laura	Palacios	Spain	laura.palacios1@um.es	Other participants
Carlos	Pérez García-Pando	Spain	carlos.perez@bsc.es	MC member or MC substitute
Enric	Terradellas	Spain	eterradellasj@aemet.es	MC member or MC substitute
Alexander	Baklanov	Switzerland	abaklanov@wmo.int	Other participants
Martine	Collaud Coen	Switzerland	Martine.Collaud@meteoswiss.ch	MC member or MC substitute
Stelios	Kazadzis	Switzerland	stelios.kazadzis@pmodwrc.ch	MC member or MC substitute
Cihan	Dundar	Turkey	cdundar@mgm.gov.tr	MC member or MC substitute
Gurdal	Tuncel	Turkey	tuncel@metu.edu.tr	MC member or MC substitute
Adam	Durant	United Kingdom	adam.durant@satavia.com	MC member or MC substitute
Franco	Marenco	United Kingdom	franco.marenco@metoffice.gov.uk	Other participants
Dirk	Simon	United Kingdom	dirk.simon@satavia.com	Other participants