

# International Network to Encourage the Use of Monitoring and Forecasting Dust Products

# INDust

*COST Action CA16202*

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Period: 14 Nov 2017 – 14 Nov 2021

## Goals

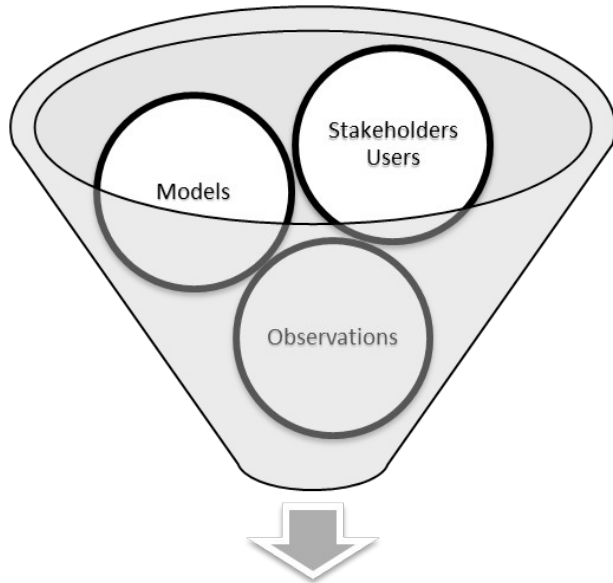
- Sand and Dust Storms (SDS) play a significant role in different aspects of weather, climate and atmospheric chemistry and represent a **serious hazard** for economy, environment and health
- Understanding, managing and mitigating **SDS risks** requires cross-disciplinary knowledge
- **inDust** searches to build a community of researches and users that can start to design the strategy to develop **dust services**



Tehran, Iran, June 2014

## Goals

- To **establish a network** involving research institutions, service providers and potential end users of information on airborne dust
- To **coordinate** and **harmonise** the process of transferring dust observations and predictions to users (including researchers and stakeholders).
- To **assist** the diverse socio-economic sectors affected by the presence of high concentrations of airborne mineral dust



## Dust-related Services



WG1 Dust observations

WG2 Dust modelling and forecast

WG3 Assessment of user and societal benefits

WG4 Transfer of dust products to user-oriented application and service value

**WG4-Health** transfer of dust products for epidemiological studies

## Health effects of Sand and Dust Storms

- Evidence on **health effects** remains unclear (*Hashizume et al. 2010, Karanasiou et al. 2012, Longeville et al. 2013, Zhang et al. 2014*)
- Main **differences** on,
  - a) **Study design** and statistical analysis
  - b) **Health outcomes**, age groups and lagged effects
  - c) **Methods to identify dust events** and its contribution to particulate matter
  - d) **Role of desert dust based** on a binary metric or as a continuous exposure

## Health effects of Sand and Dust Storms

- A recent systematic review commissioned by WHO , with standardized protocol, shows the need to **develop an standardize study protocol** for epidemiological studies for the short-term health effects of sand and dust storms, with same methodological characteristics, in and near to hot spots

## Goals for the meeting

- To discuss the availability of **measurements and products to identify dust** events and sources for natural and local contributions to particulate matter
- To discuss the main **methodological characteristics to help developing a standardized study protocol** for the short-term health effects
- To develop a document **providing guidelines** for future studies

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## How

- Identify scientific and technical **gaps in “dust” research**
- Coordinate and harmonise the process to get **user-oriented products**.
- **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.