

Task Force on Health Recent results

Marie-Eve Héroux

Technical Officer, Air Quality and Noise

European Centre for Environment and Health

WHO Regional Office for Europe

Task Force on Health – Agenda of the 15th Meeting, Bonn, 22-23 May 2012

1. Review of the progress in research on health impacts of particulate matter and ozone
2. Use of health evidence in revision of EU policies on air quality
3. Monitoring and modelling of air pollution and its health impacts in countries of Eastern Europe, the Caucasus and Central Asia
4. Health aspects of wildfire smoke
5. Methods for estimation of burden of disease due to air pollution
6. Work plan of TFH

15th TFH Meeting, Bonn, 22-23 May 2012 – participating countries / parties

Albania

Armenia

Azerbaijan

Belarus

Belgium

Canada (phone)

Finland

Georgia

Germany

Greece

Ireland

Kyrgyzstan

Netherlands

Norway

Poland

Sweden

Switzerland

The Former Yugoslav Republic of Macedonia

Turkey

Ukraine

United Kingdom

United States of America (phone)

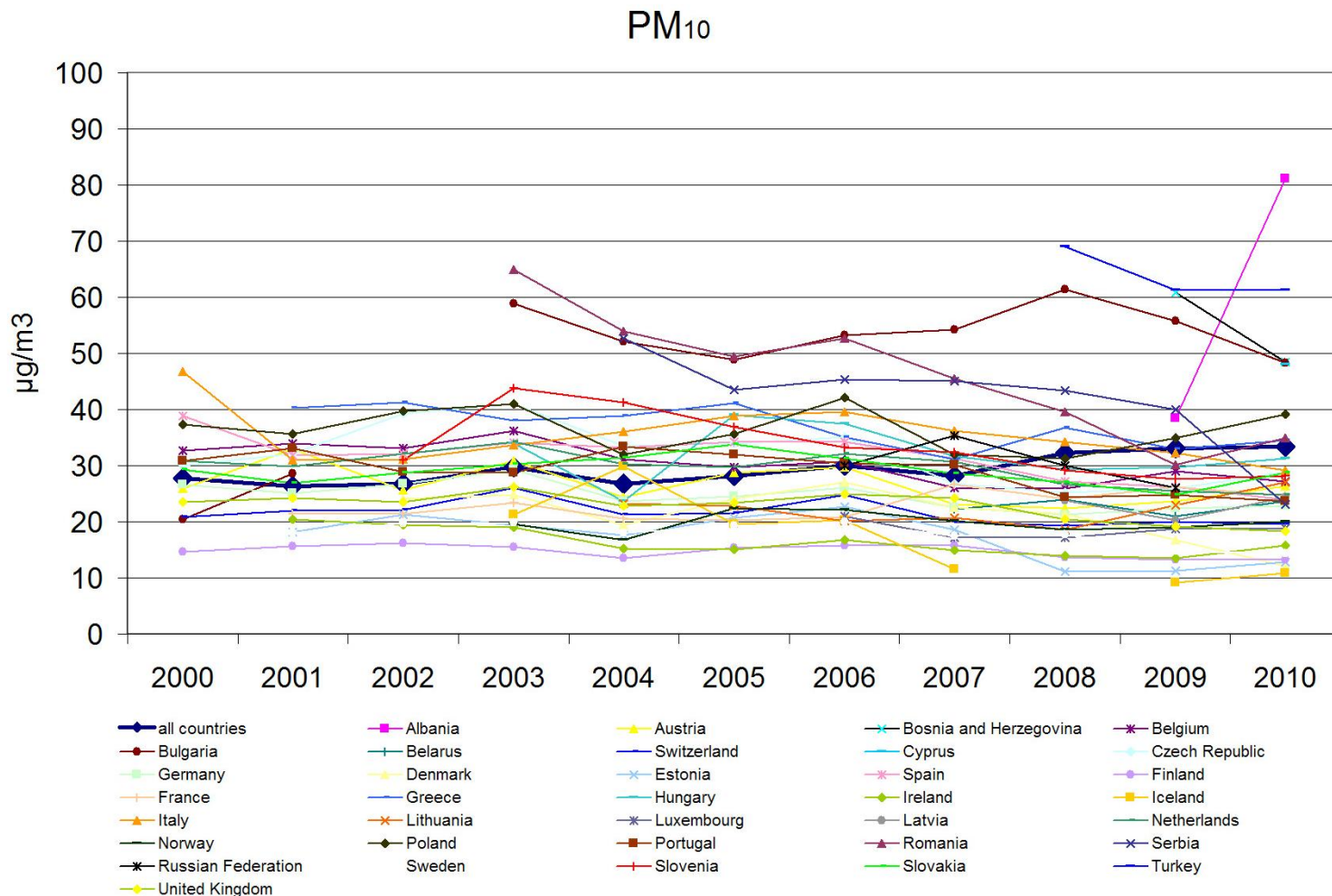
Uzbekistan

European Union (represented by European Commission)

+ experts (incl IIASA), WHO and observers

**Financial contribution from Germany and Switzerland*

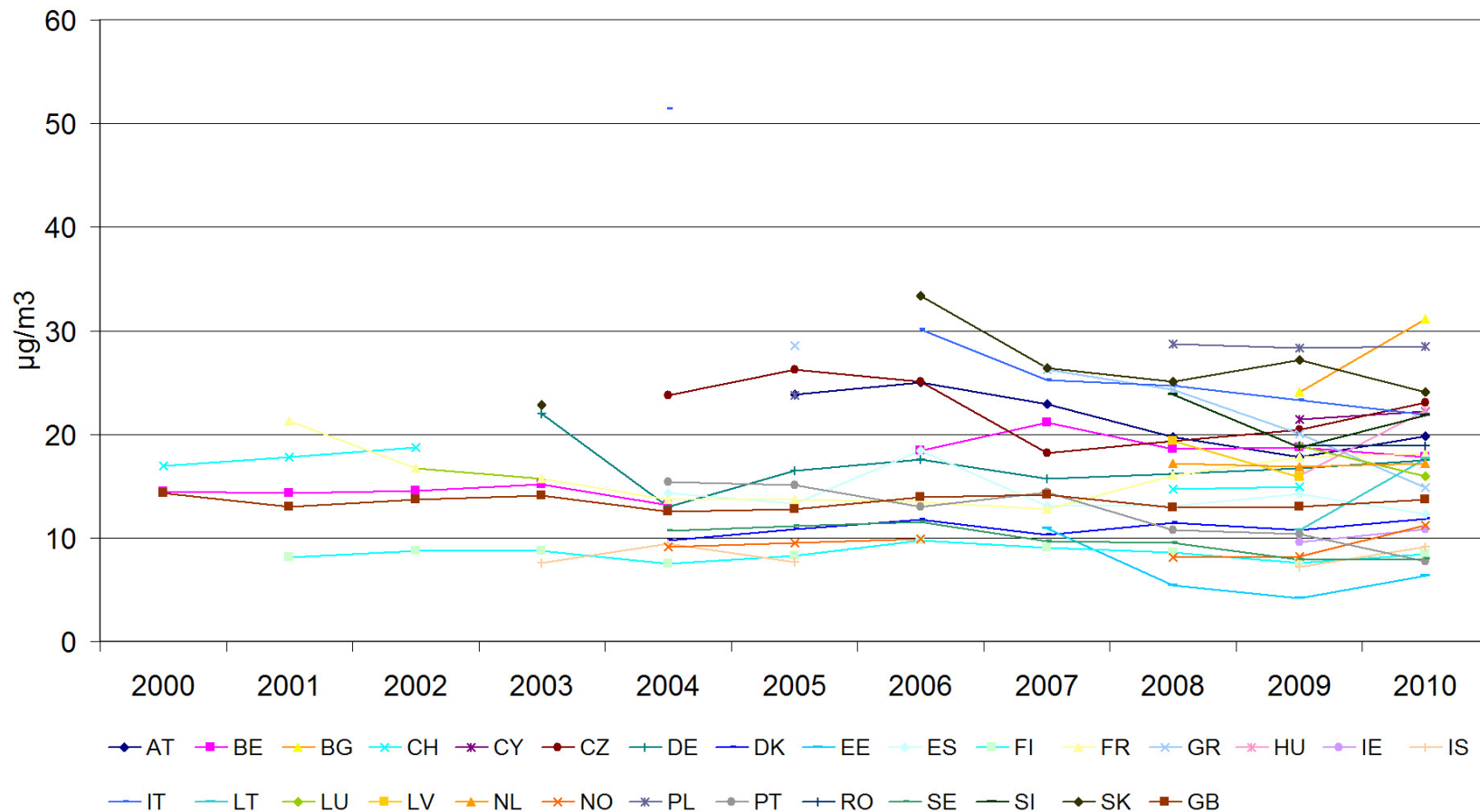
PM₁₀ levels in European Region of WHO



Source: Airbase/EEA

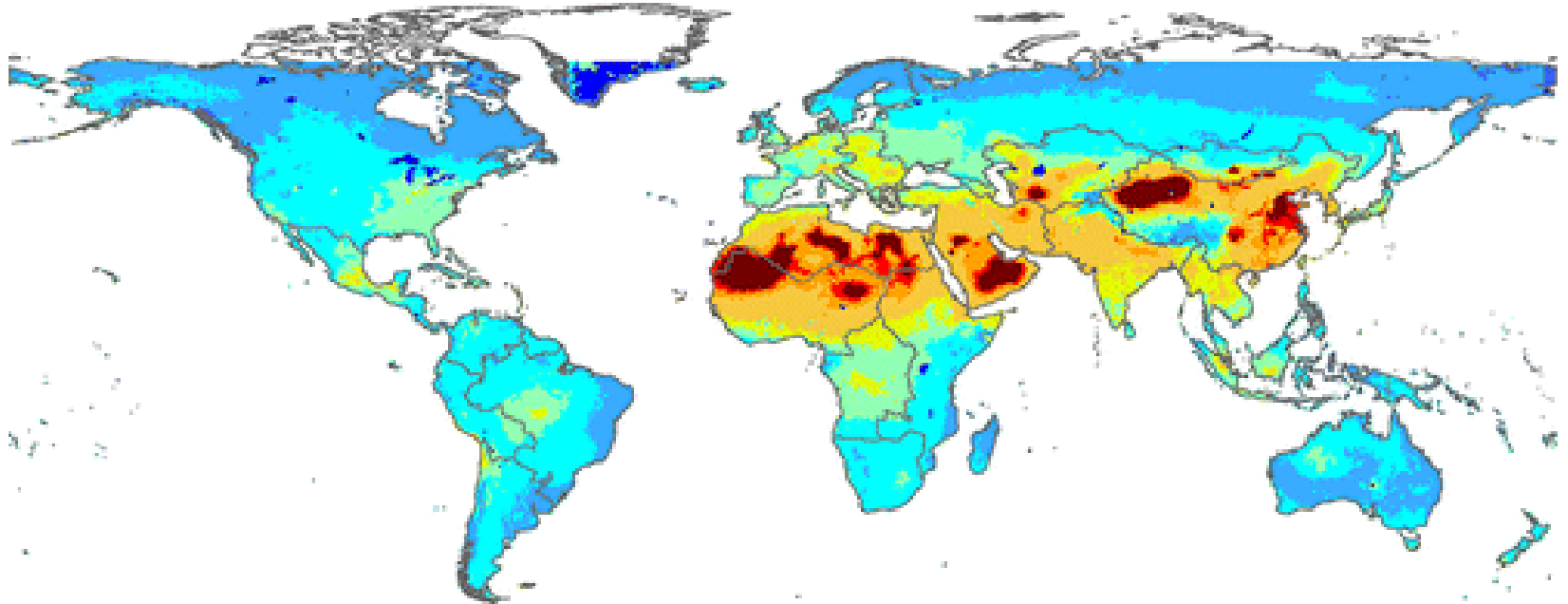
PM_{2.5} levels in European Region of WHO

PM_{2.5}



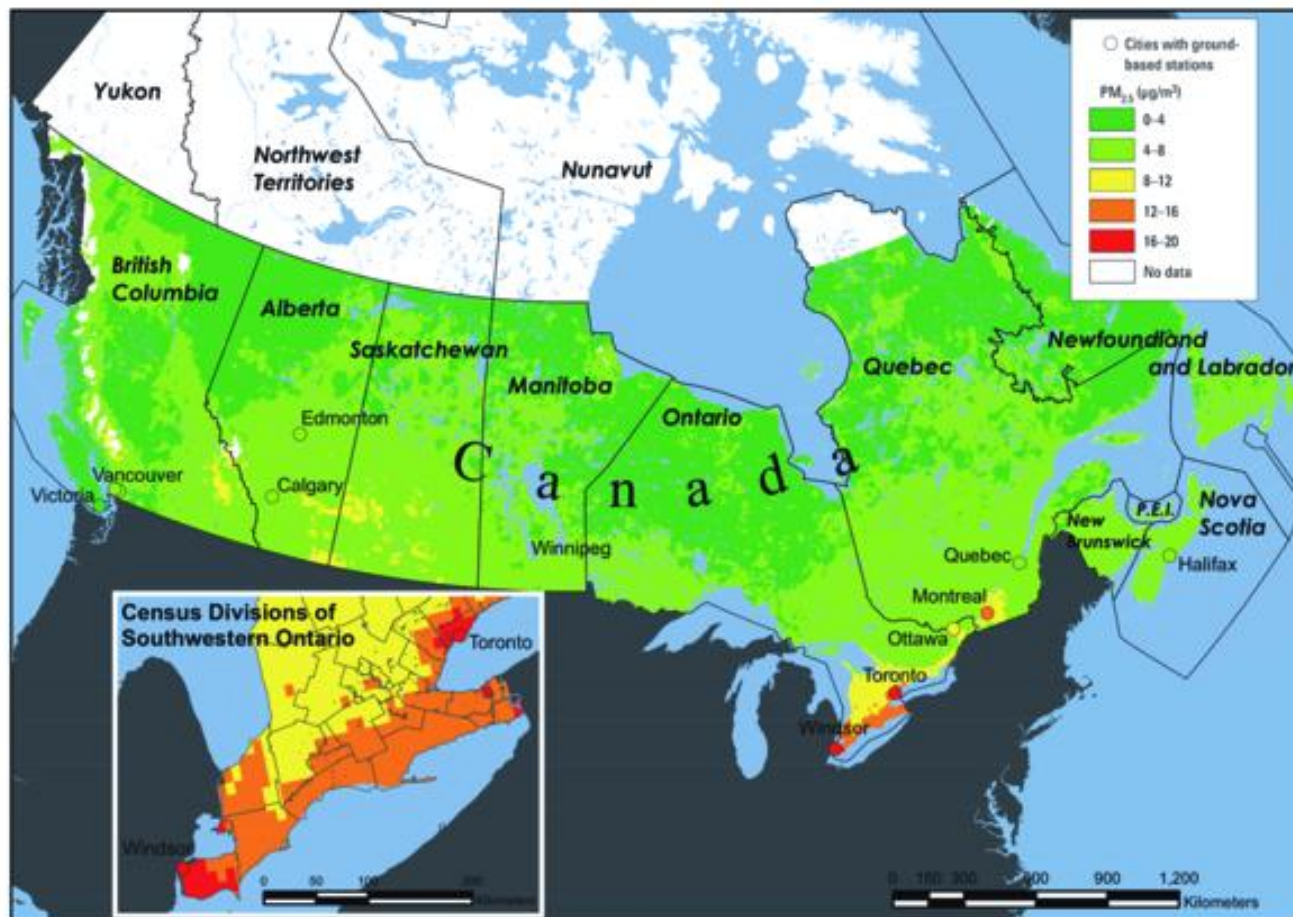
Source: Airbase/EEA

PM_{2.5} annual exposure estimates for 2005 – GBD2010



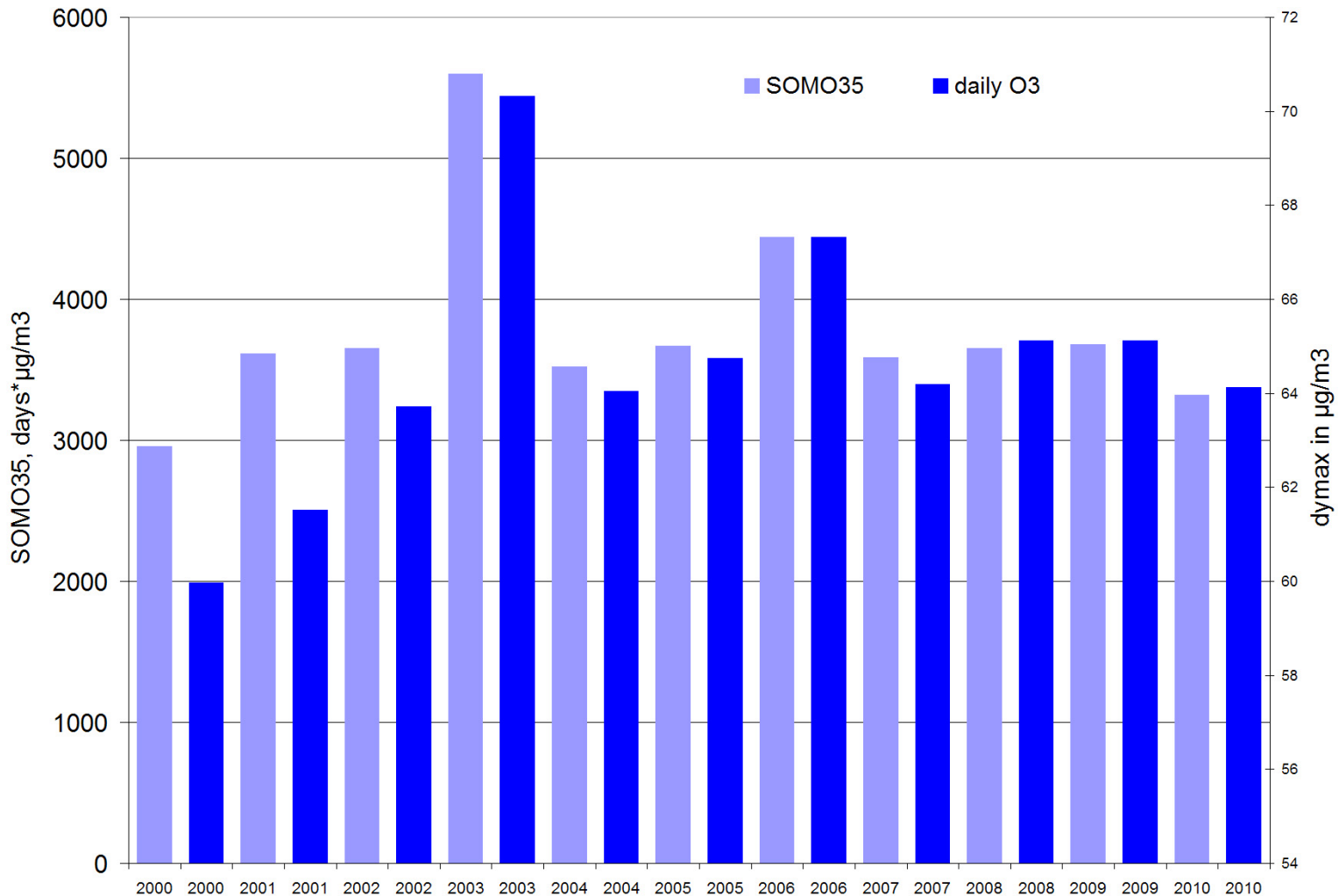
Brauer et al. EST (2012)

Long-term exposure to low PM_{2.5} is associated with nonaccidental and cardiovascular mortality



Crouse et al. EHP 2012

Ozone (SOMO35, daily max) levels in European Region of WHO



Source: Airbase/EEA

Review of evidence on health aspects of air pollution for guidance of EU policy (REVIHAAP/HRAPIE)

- WHO/EC funded project, Sept 2011 - Sept 2013
- Development of answers to 26 key policy questions on:
 - A. Particulate matter $PM_{2.5}$ and PM_{10}
 - B. Ground-level ozone
 - C. Other air pollutants (SO_2 , metals, PAHs) and their mixtures
 - D. General questions
 - Impact on revision of EU policies and/or need to revise WHO guidelines
 - Emerging issues on health risks from air pollution
 - Evidence of health benefits from reduction of air pollution
 - Evidence of threshold, and identification/development of concentration-response functions (CRFs) to be included in cost-benefit analysis

REVIHAAP/HRAPIE - Milestones

- *April-July 2012: Preparation of background papers & draft responses*
- *21-23 Aug 2012: Expert meeting formulating responses*
- Oct-Nov 2012: External review (19 first questions)
- Sept-Nov 2012: Implications for WHO guidelines & EU policy
- Sept-April 2013: Identification/development of CRFs to be included in cost-benefit analysis
- Nov 2012: Survey on emerging issues on health risks from air pollution
- 15-17 Jan 2013: Expert meeting to adopt responses (24 questions)
- April 2013: Final REVIHAAP report
- Sept 2013: Final HRAPIE report

TFH PM Paper for EECCA Countries

- Summary of evidence on health effects of PM and policy implications for EECCA countries
- Objective to stimulate the development of more effective strategies to reduce air pollution and related health effects
- Comments on draft paper welcome

Introduction and context

What is PM?

Sources

Levels and trends

Health effects

Burden of disease

WHO guidelines

Evidence on effects of air quality improvements

Air quality management and policy

Conclusions

References and selected bibliography

TFH discussions on health aspects of wildfire smoke

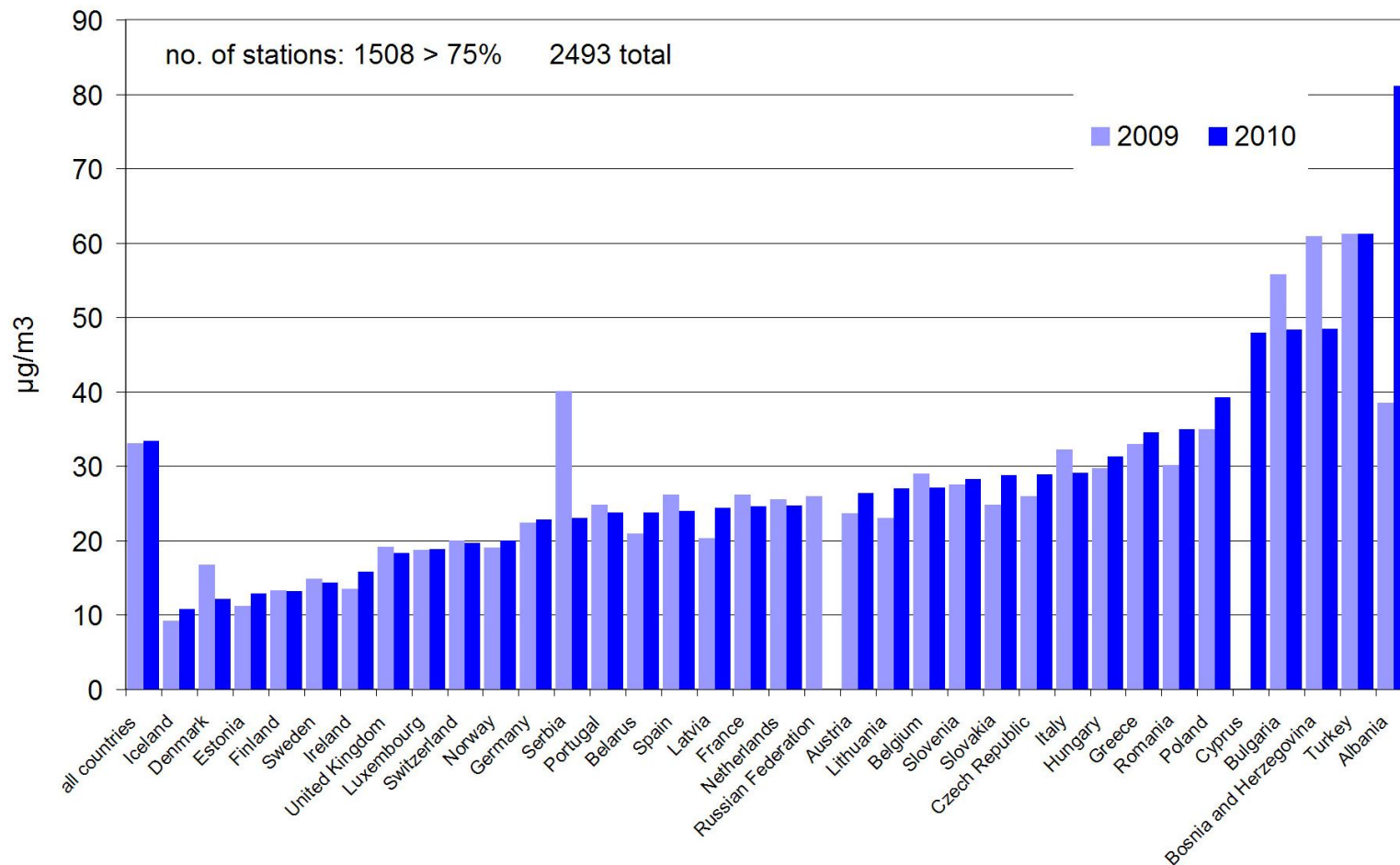
- Workshop held on 21 May 2012
- Discussion on modelling and forecasting of concentrations for public health response
- Associations between PM from landscape fires and various health parameters (reliever medication use, hospital visits, asthma, increased mortality)
- Mitigation measures (building shell, mechanical ventilation, air conditioning, HEPA filters)
- Need for strengthened interdisciplinary collaboration

TFH Ongoing work plan 2012-2013

- Finalize and publish PM paper for EECCA countries
- Prepare paper on residential wood biomass burning
 - Review of health effects
 - Highlight linkages between air pollution management and global warming mitigation
- Continue update of evidence on health impacts of ozone and PM, and others (*REVIHAAP/HRAPIE*)
 - Methods for quantification of health burden of disease:
 - Review of available information (ESCAPE, Global Burden of Disease Project, etc)
 - Identification/development of CRFs

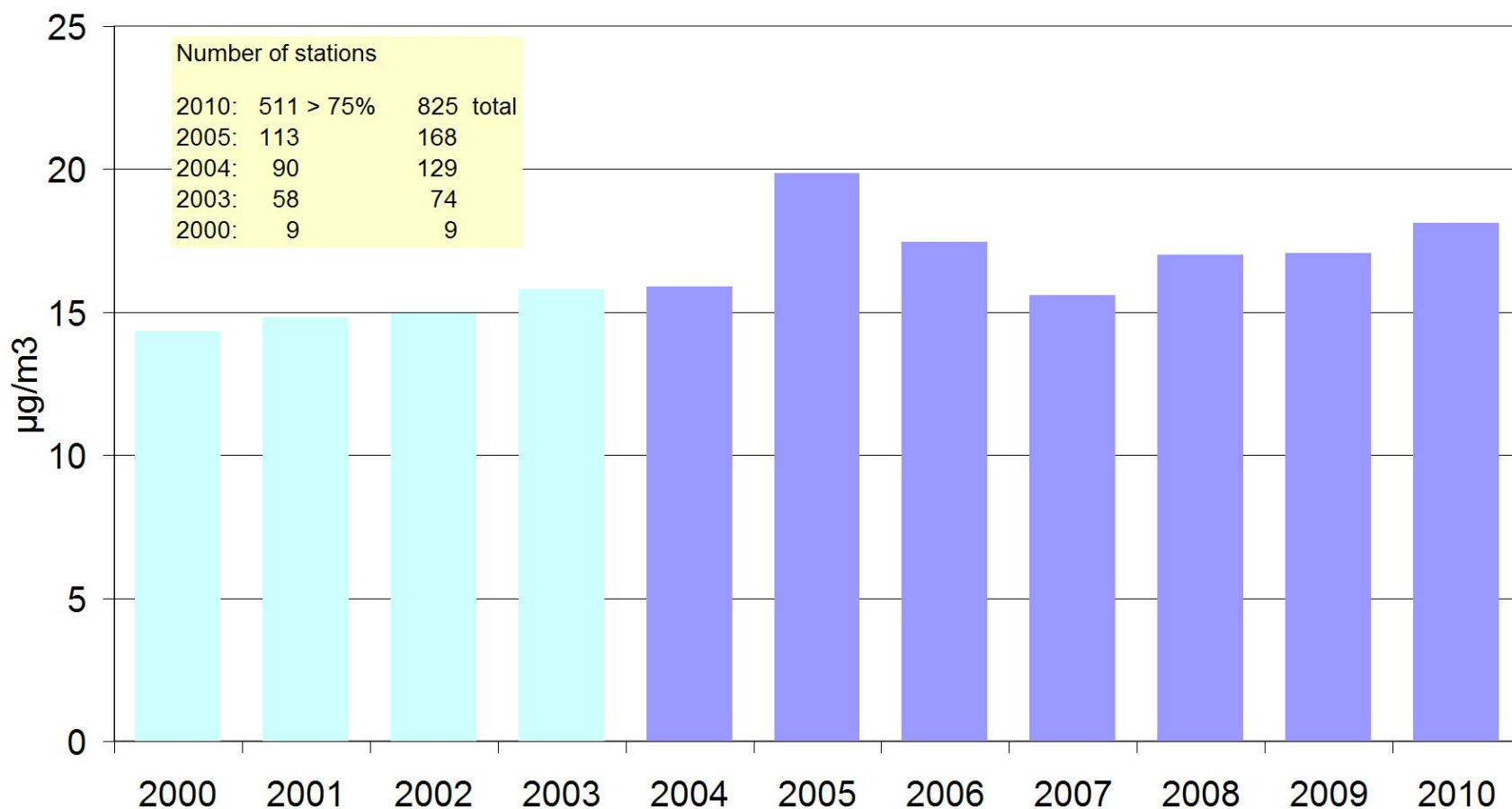
PM₁₀ levels in European Region of WHO

PM₁₀



Source: Airbase/EEA

PM_{2.5} levels in European Region of WHO



Source: Airbase/EEA