Green Week 2013

THE CONTRIBUTION OF AIR FILTRATION TO BETTER INDOOR AIR QUALITY
Camfil by the numbers

• Founded in 1963

• € 490 Million turnover

• 3 428 employees worldwide, 1475 in Europe

• 23 production sites worldwide, 11 in Europe

• Commercial subsidiaries in 25 countries and representation in 50 countries

• More than € 4 Million invested in Research and Development in Europe annually
Why indoor air quality matters

- Air pollution in Europe = more than 400,000 premature deaths annually
- Indoor environment = up to 50 times more polluted than outdoor
- People in Europe spend 90% of their time indoor
- Health impacts = respiratory diseases and heart conditions
- Affect the young, the elderly and chronically ill
- Socio-economic impact: increased sick leave rates and lower performance at school or workplace
Benefits of better Indoor air quality

**HEALTH**
- 35% reduction in sick leave rates with increased ventilation
- The combination of a systematic improvement of ventilation systems and sick leave reduction was estimated to save $400 annually per employee

**PRODUCTIVITY**
- Good indoor air quality improves school children’s performance
- Performance in both maths and reading tests increased by 13% with higher ventilation levels

**ENERGY EFFICIENCY**
- Specifically designed good quality filters can reduce the operating cost of a ventilation system by more than 20%
Solutions for better indoor air quality

**Prerequisite**
- Reduction of pollutants at source
- Effective decrease of ambient air pollution

**The Contribution of Ventilation**
- Air cleaning strategies essential to effectively reduce people’s exposure to pollutants indoors
- Ventilation systems with adequate design and proper maintenance

**Tools**
- Wide range of mechanical solutions combining effective ventilation and filtration
- Existing European standards such as EN 779:2012 or EN13779 to select best technology available

Technology and innovation can significantly contribute to the improvement of human health, while boosting the competitiveness of European industry.
Particles and gases filtration

Airborne Particles

- Virus
- Bacteria
- Cat allergens
- Pollen
- Tobacco smoke
- Dust mites allergens
- Industrial dust
- Carbon dust
- Wood smoke
- Sand

Gases

- Molecules & gases: O3, NOX, PAH, SOX, VOCs

Solutions

- Molecular filters
- Activated carbon

- Particle filter range used in ventilation systems

- G4 to M6 Coarse filters
- F7 to F9 Fine filters
- Hepa filters
EU Policy overview

- **ENVIRONMENT & HEALTH ACTION PLAN 2004-2010**
  Improve indoor air quality as priority for action

- **HEALTH ACTION PROGRAMME 2008-2013**
  Health effects of wider environmental determinants, including indoor air quality, to be addressed

- **ENERGY PERFORMANCE OF BUILDINGS DIRECTIVE**
  Indoor air quality to be taken into account when setting energy performance requirements for buildings

- **6TH ENVIRONMENT ACTION PROGRAMME**
  Recommendations for future measures on indoor air quality and health impacts to be defined

- **OTHER RECENT INITIATIVES:** WHO REVIHAAP report, Healthvent project

In spite of these patchy references to indoor air quality, no concrete policy action has been taken so far
Policy – how can Europe help?

- **2013 Year of Air** – Include the indoor air quality dimension into upcoming Commission’s communication on the review of the EU air quality strategy

- Launch the **debate on EU future framework** on indoor air quality with a Green Paper
THANK YOU

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