

# Pollen monitoring: the way to limit the epidemic of allergy in Europe

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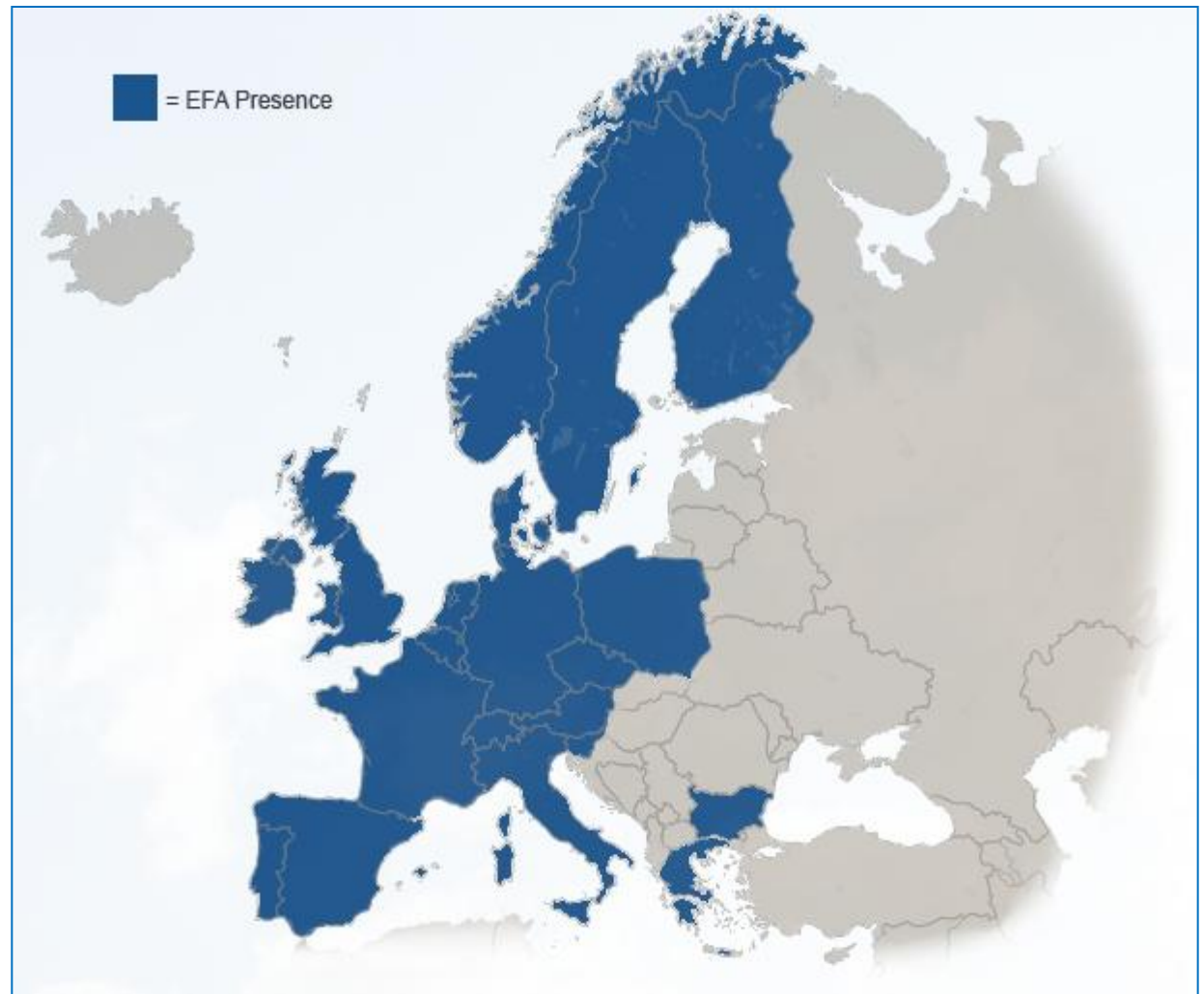
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# EFA members

**22** European  
countries  
**35** member  
organisations  
representing over  
**400,000** patients  
& carers



# EFA vision

EFA is the leading reference point for people with allergy, asthma and COPD

EFA is dedicated to making Europe a place where people with allergy, asthma and COPD:

- Have the right to the best quality of care and safe environment
- Live uncompromised lives
- Are actively involved in all decisions influencing their health



# What can we do at the EU level?

*“Giving voice to patients with asthma, allergy and COPD in Europe”*

## 1. Advocacy:

Represent patients towards EU decision makers

Allow for constructive participation in EU policy formulation

## 2. Communication:

Follow up and communicate EU policy developments to members

Share best practices

## 3. Project management:

Represent patients in EU funded research and health projects



The **Health and Environment Alliance** (HEAL) is a not-for-profit organisation addressing:

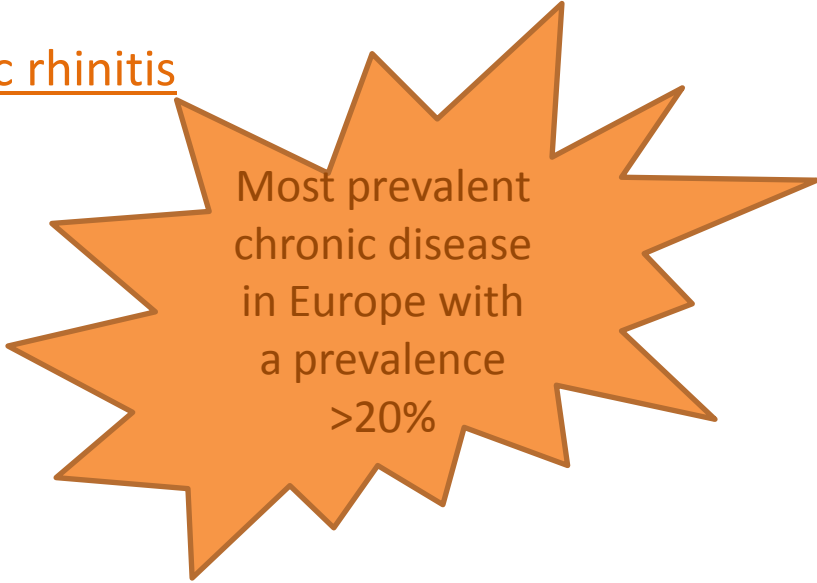
- **how the environment affects health** in the European Union,
- demonstrating how policy changes can **help protect health**, and
- **enhance people's quality of life.**

HEAL has over 65 member organisations, representing health professionals, not-for-profit health insurers, patients, citizens, women, youth and environmental experts. HEAL was created to bring the health voice to the centre of a wide spectrum of EU environmental policies, and to **integrate environmental concerns in public health decisions.**

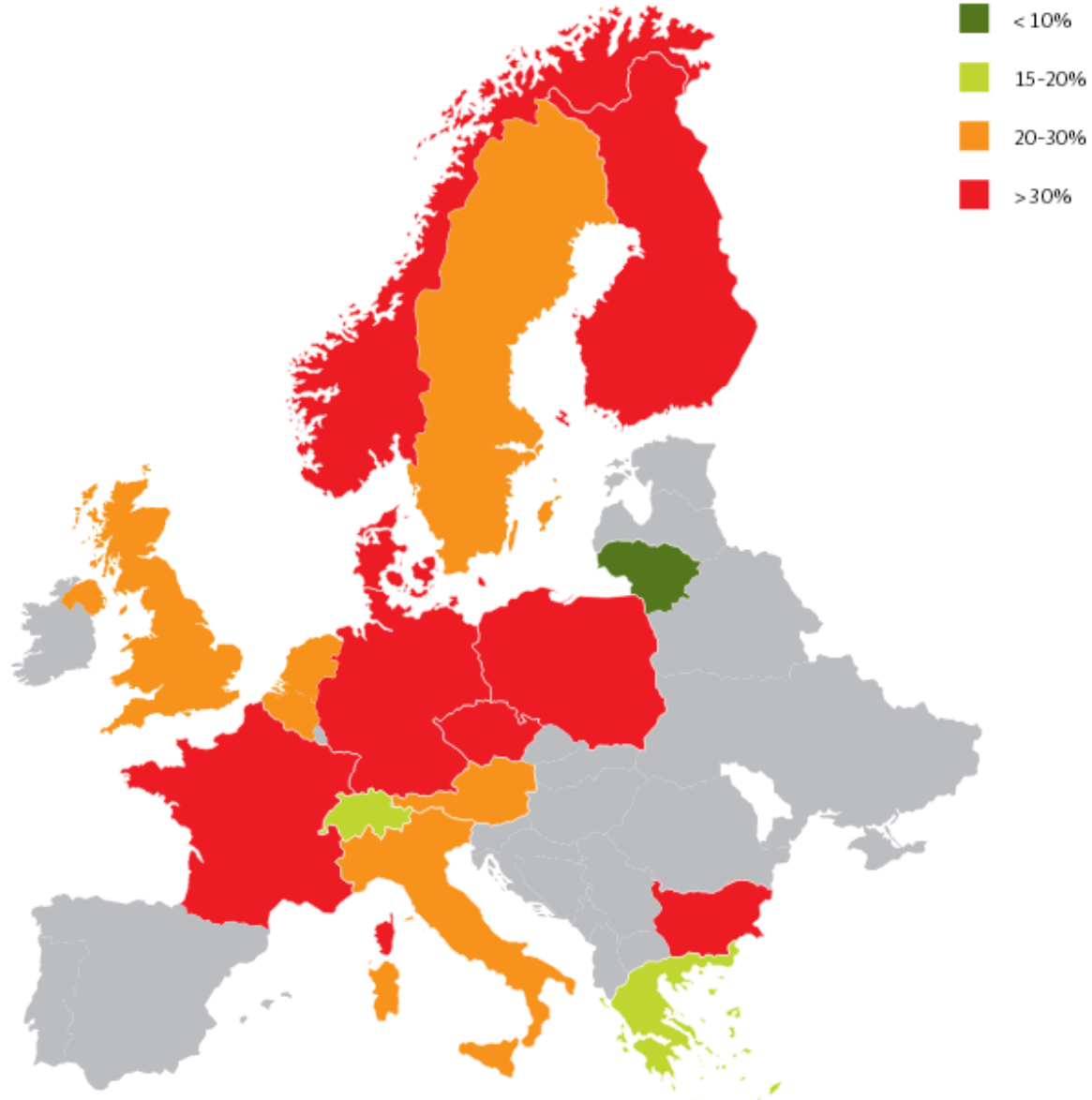


# Allergy in Europe – the data

- Over **150 million EU citizens** suffer from allergies
- Over 100 million Europeans suffer from allergic rhinitis and 70 million from asthma
- Asthma and allergies as most common non-communicable diseases in children → Prevention, early diagnosis and treatment of chronic respiratory diseases in children (Polish Presidency Council Conclusion, December 2011)
- Over 17 million Europeans suffer from food allergies or severe allergies risking acute attacks or anaphylaxis
- By **2040, 40%** of the EU population will present an allergic predisposition



Most prevalent chronic disease in Europe with a prevalence >20%



Reference: EFA  
Book on  
Respiratory  
Allergy in  
Europe

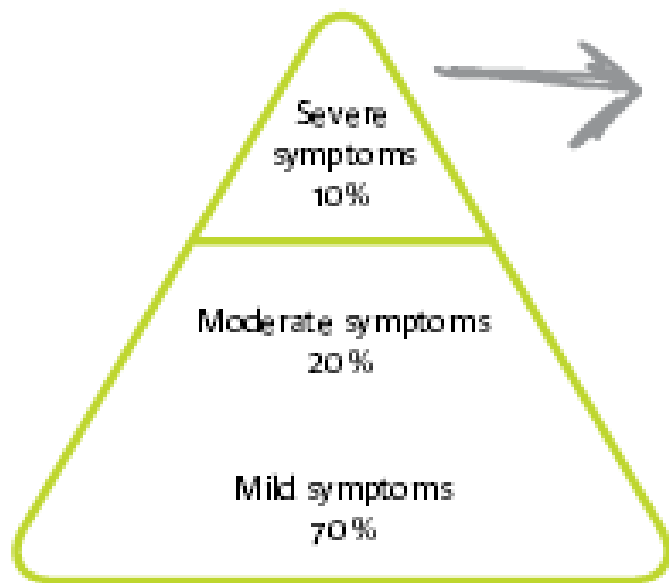
# Allergy in Europe – the costs

## Economic burden:

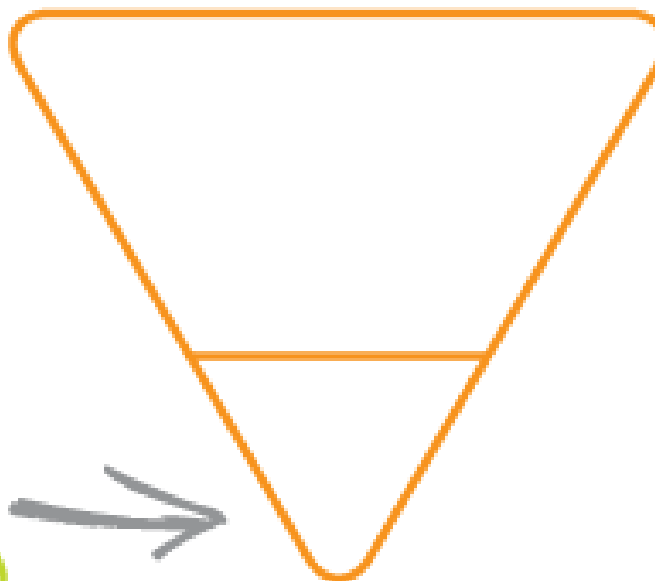
- High direct and indirect costs
- Allergic rhinoconjunctivitis and asthma are the **first leading cause of loss of productivity worldwide** (indirect)
- Asthma and allergies are the **first cause of emergency room visits and hospital admissions** for children (direct)
- Monetary loss of **24-72 EUR per day** due to reduction in performance at work by 10-30% (untreated patient) **vs. 1 EUR** per day (cost of treatment) [Reference: GAL<sup>2</sup>EN, the Global Allergy and Asthma European Network]
- Allergic rhinitis may cost up to **100 billion EUR** [Reference: GAL<sup>2</sup>EN]
- Focus on ambrosia: costs of medication of **3.5 billion EUR** per year + **0.1 billion EUR** staff costs to administer treatment based on countries wage rates [Reference: Assessing and controlling the effects of common Ragweed (*Ambrosia artemisiifolia*) in Europe]



## Disease severity



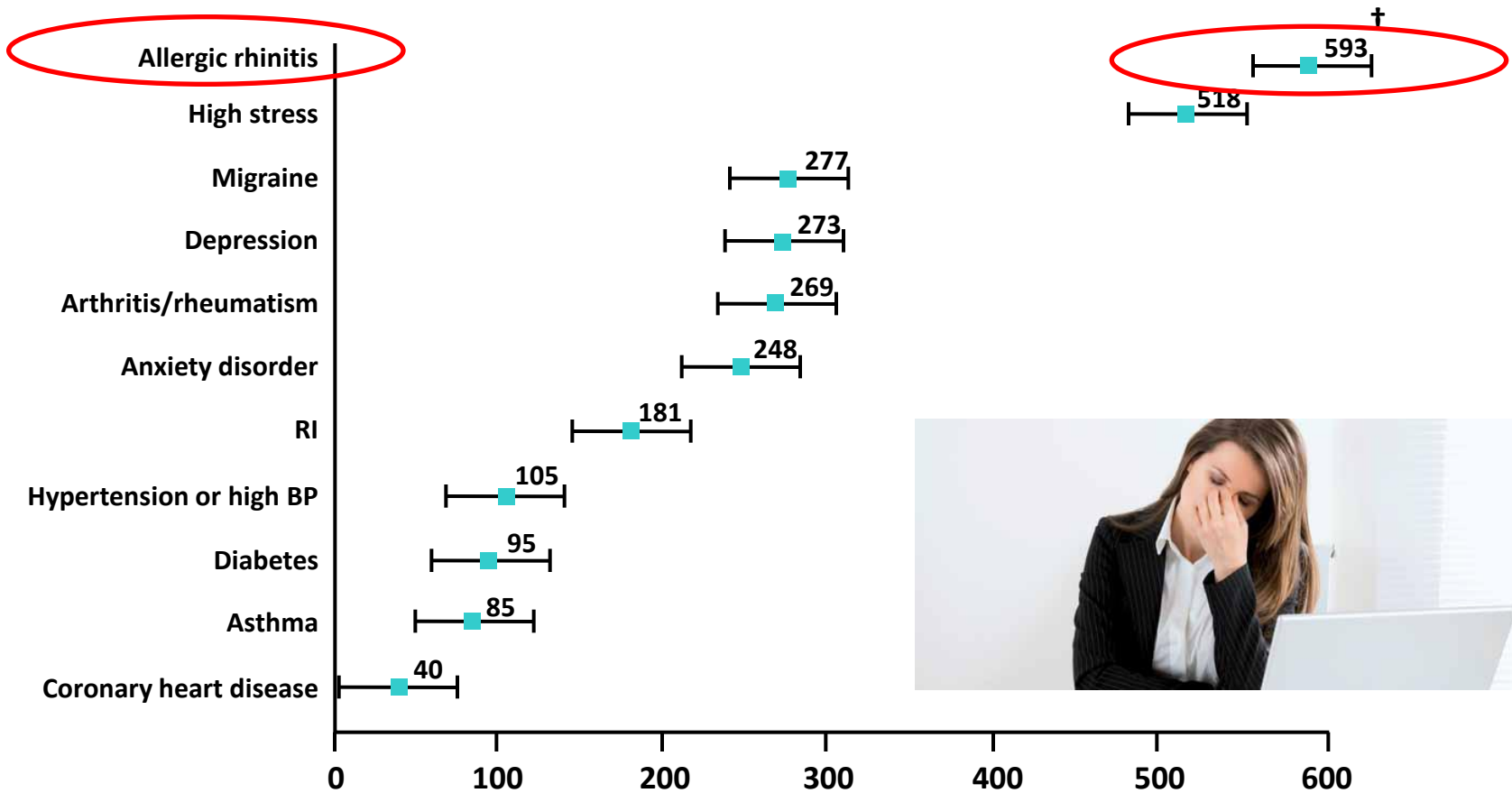
## Cost



*“Allergy is far more than huffing and sneezing for a couple of weeks during the pollen season.”*

[Breda Flood, EFA President]

The allergy pyramid. Most allergy symptoms are mild and intermittent, but due to the high prevalence of allergy, severe symptoms are also common and account for most of the costs. From: The Finnish Asthma Programme [25].

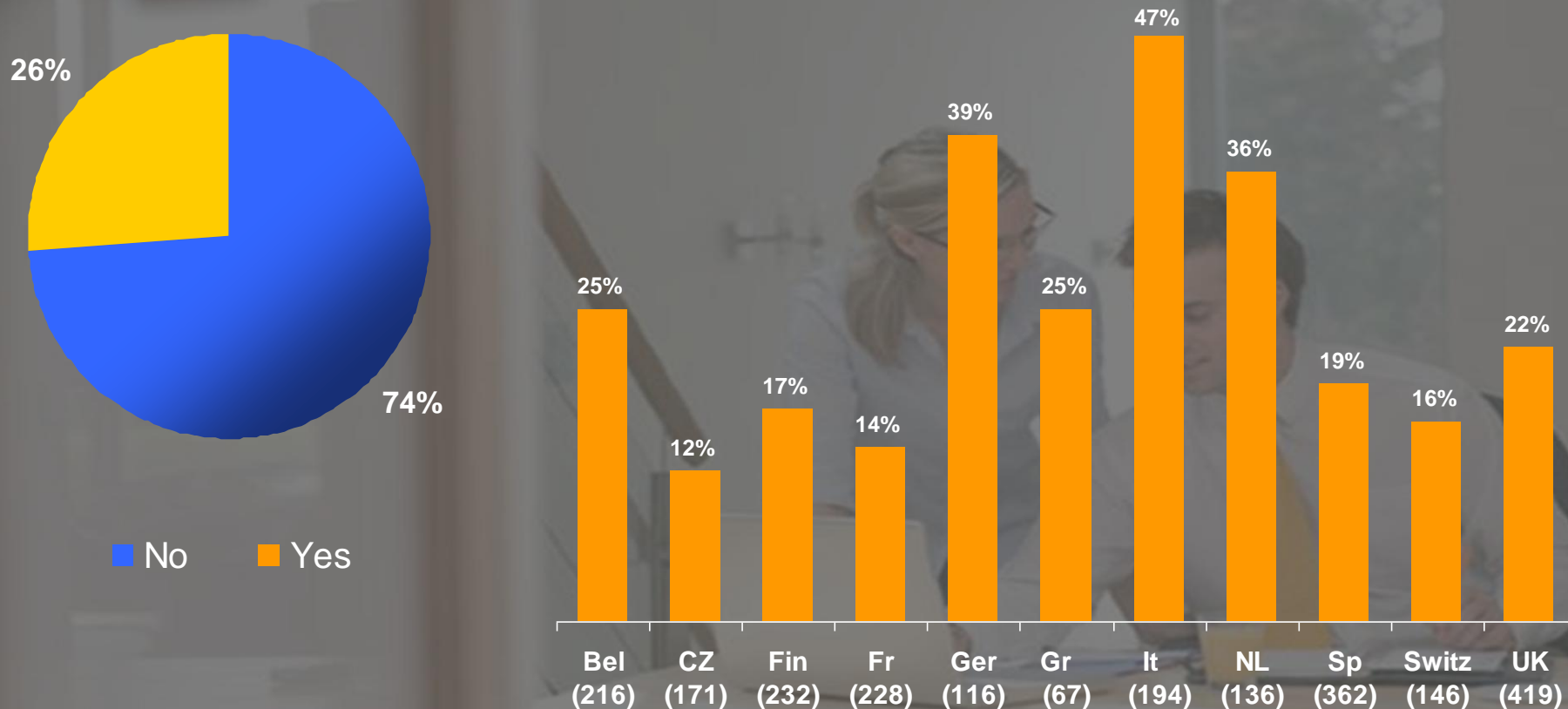


Allergic rhinitis impairs the working capacity: costs are twice those of migraine or depression

Mean productivity loss per employee, per year (\$) <sup>†</sup>P<0.05 for allergic rhinitis/hay fever vs. other conditions

According to a study conducted on a total of 8,267 US employees at 47 employer locations  
 Lamb CE et al Curr Med Res Opin. 2006 Jun;22(6):1203-10.

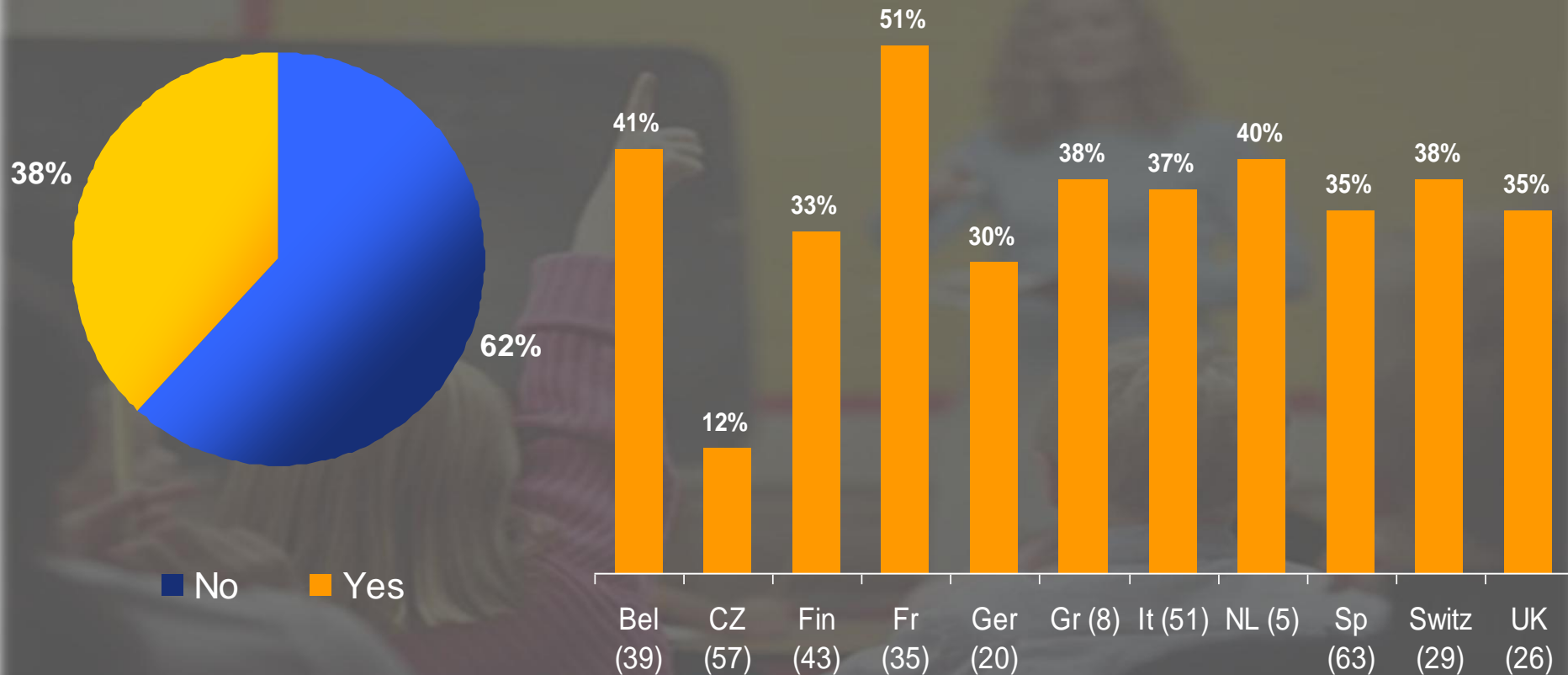
## Every fourth working patient took time off work due to allergic rhinitis\*



\* According to a quantitative, self-completion survey of 3,562 patients with allergic rhinitis (16 years and older) conducted among patients from EFA members

Valovirta E, Myrseth S-E, Palkonen S. *Current Opinion in Allergy and Clinical Immunology* 2008, 8:1-9

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## Social consequences:

- 43% of patients with allergic rhinitis and asthma have sleep disturbances & 39% have difficulty in falling asleep → Impaired social life, career & school performance
- Emotional disorders (shame, loss of self-esteem), family problems (parent anxiety, overprotection, hostility), increased risk of depressive disorders → Decreased quality of life

# Allergy in Europe – the challenges

1. Lack of clear understanding of the **causes** of allergies → Need for additional research in the field/need for cooperation and coordination between several EU funded projects (e.g. EFA is part of MeDALL)
2. Poor **diagnosis**: approximately **45%** of patients have never received it → Need to harmonise education for medical specialists (allergologists) + need to increase coordination among the different medical doctors dealing with allergy (paediatricians, pulmonologists, ENT doctors, dermatologists) – EFA Allergy Alert Paper to Commissioners for Health and Education and to EP ENVI chair and coordinators
  - Allergic march
  - “One airway, one disease”

3. Lack of **awareness**: neglected and under-recognised both by national healthcare authorities and by people → Need for national programmes involving patients and pharmacists
  - Finnish Allergy Programme (2008-2018)
  - EFA Allergy Awareness Programme (2011-2014)
  
4. **Inequalities** in the management of allergy within and among Member States in Europe: different healthcare and reimbursement policies, low awareness of preventive treatment → Need to **align healthcare and reimbursement policies** to support appropriate disease management
  
5. Lack of **prevention** measures → Need to secure real-time pollen information in Europe

# Focus on pollen

EFA position paper on pollen forecasting in Europe:

<http://bit.ly/GXzVw2>

- Grasses pollen the most important airborne pollen type in Europe
  - Northern Europe: pollen of birch, alder and hazelnut
  - Southern Europe: cypress, parietaria and olive pollen
- Pollen can remain suspended in air several hours, causing allergy outbreaks far away from their source at any time of the day
- Pollen concentration decreases rapidly with distance from the source: a single tree in a garden can have stronger health impact than a large forest 10 km away



In a more & more integrated Europe with free movement of citizens, knowledge of atmospheric pollen concentration necessary

→ Physicians: better diagnosis of pollinosis symptoms – importance to monitor exposure of patients to allergens acknowledged by the European Medicines Agency (EMA) since 2004

→ Patients: short-term adjustments of their planned outdoor activities and application of pre-emptive medication

## HOWEVER

In most EU Member States, pollen information services based on voluntary work by researchers

→ Economic crisis endangers their activities

Necessity to secure continuation of the work through adding the pollen information and forecasting service as obligatory tasks to the European air quality framework programme

**Problem:** pollen cannot be monitored, “EU environmental protection legislation or policy covered by the Clean Air for Europe Programme excludes such components because pollen emissions are not from man-made activities and hence cannot be reduced by Member State action” – European Commission answer to MEP Zanoni written question on real-time information on allergenic pollen in the European Union, <http://bit.ly/1b6Nz96>

**BUT...**

## Pollen emissions are very much affected by human activities

### 1. Air pollution is significantly worsening pollen's aggression

- Higher concentrations of carbon dioxide (CO<sub>2</sub>): plants grow faster, produce more fruits & release aggressive pollen grains
- Co-exposure to grass pollen and small particles (PM): stronger allergic responses
- Exposure to sulphur dioxide (SO<sub>2</sub>) and nitrogen dioxide (NO<sub>2</sub>): exacerbation of pollen allergy and enhanced lung inflammation

### 2. Climate change influences pollen

- Total amount of pollen in the air growing, probably due to interaction between changing land use, temperature and CO<sub>2</sub> concentrations
- Growing season of many trees and grasses starts earlier and lasts longer than 10–20 years ago
- Impact on plants and fungi + changes in production, dispersion and allergen content of pollen

EFA, EAACI and ERS  
(European  
Respiratory Society)  
joint response,  
<http://bit.ly/Hac0KC>

### 3. People plant **highly allergenic trees**

- Plantation of alder, hazelnut, cypress, etc.
- Large monocultures of spruce, olive trees, oilseed, etc.
- New or non-indigenous allergenic species, such as ragweed, introduced by human activities (e.g. exports)

#### THEREFORE...

- Advocacy for the Seventh Environment Action Programme
- EFA Manifesto for European Parliament Elections 2014
- Support for Written Declaration on Recognising the Burden of Allergic Disease
- Advocacy for upcoming review of the EU air legislation
- Public event on pollen in 2014
- Call to Action on Respiratory Allergy



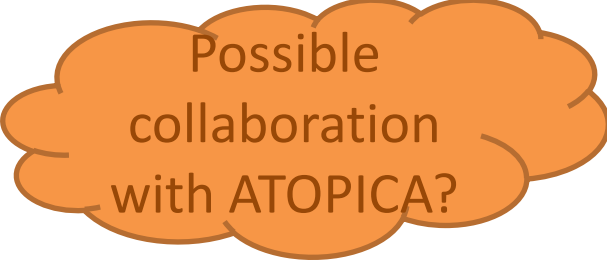
## Seventh Environment Action Programme

- To be voted tomorrow by the EP plenary
- Does not mention pollen, but tackles air pollution & climate change

## Revision of the EU air legislation

- To be proposed before the end of the year by the Commission (EU Year of Air 2013)
- Pollen to be taken into account

## Public event on pollen in 2014



Possible  
collaboration  
with ATOPICA?

## EFA Manifesto for European Parliament Elections 2014

- 3 priority areas and 14 objectives → Under priority 2 “Invest in prevention – tackle health determinants”, sub-objective 2.5 “Include pollen monitoring under the Clean Air Programme for Europe”
- Launched last week, **sign it now**: [manifesto.efanet.org](http://manifesto.efanet.org)

### EFA Manifesto for 2014 European Parliament Elections



400,000 EFA patients  
=  
400,000 votes

## Written Declaration on Recognising the Burden of Allergic Disease

- Launched yesterday, to be running for 3 months
- Commission is asked to promote “use of preventive and tolerance-inducing approaches to allergies treatment; scientific research into direct and indirect risk factors for allergies, including pollution”
- 11 proposing MEPs from different political groups and Member States **BUT** 380 signatures are needed



Use your  
contacts and  
personal  
networks!

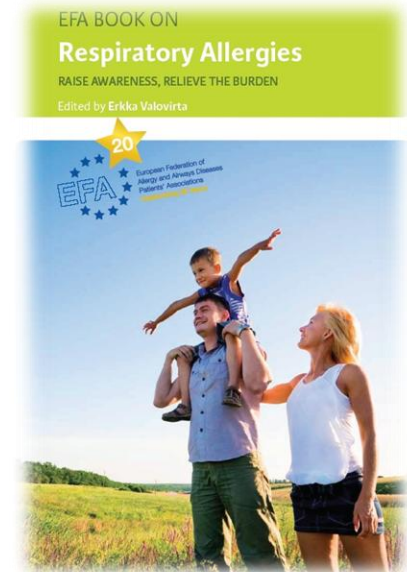
## EFA Call to Action on Respiratory Allergy in Europe

1. Increase the political recognition of respiratory allergies as a real and serious disease
2. Promote national programmes on respiratory allergies
3. Prioritise the management and control of respiratory allergies
4. Promote training in allergy for healthcare professionals to improve accurate and early diagnosis
5. Align healthcare and reimbursement policies, to support appropriate disease management
6. Improve indoor air quality

Signed by more than 700 people and several MEPs

<http://www.efacallaction.net>

SIGN  
NOW!





# Thank you for your attention!

European Federation of Allergy and Airways Diseases Patients'  
Associations (EFA)

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