## 1.40% of the rooms have bad indoor air quality

### What did we test?

Where? 4 countries (FR, DE, GR, NL) Who? 15 to 20 participants in each country What? Newly renovated and furnished baby rooms How? Two air samplers per baby room Which pollutants? Formaldehyde and total Volatile Organic Compounds (VOC)

## What did we find?

40% of the baby rooms had formaldehyde or VOC levels above the guidelines (10µg/m<sup>3</sup> formaldehyde and 200 µg/m≥total VOC).

For children,

who are especially

vulnerable, the EU

**INDEX** program advises

a 1  $\mu$ g/m<sup>3</sup> value for all

easy-to-use air samplers

exposures, whether

acute or chronic





Source TVOC 200 μg guideline : European Collaborative Action – Indoor Air Quality Report on TVOC, 1997

## 3. Which pollutants of high concern did we find?

## Formaldehyde

Preservative used in plywood, glues, varnishes, carpets, textiles



Health effects known carcinogen, irritations of the eyes, nose, throat, triggers allergy and asthma

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## Alcohols

Ethanol, methanol, isopropanol, etc. solvents found in cleaning products, glues, paints, varnishes, deodorizers etc

**Health effects** headaches, irritations of the eyes, throat, skin, mucous membranes



type acetone, 2-butanone, etc. solvents found in paints, varnishes,

> **Health effects** irritations of the eyes, nose, throat, affects the nervous central system



Netherlands

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#### France

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Germany

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## **Good ventilation habits in the 4 countries**

(these values do not produce a comprehensive picture of ventilation habits in Europe)





# Indoor air quality in European baby rooms A study conducted by WECF and INC/60 Millions de Consommateurs in 4 countries (DE, NL, FR, GR)

## 2. Countries' specificities

All participants have ventilation habits differing from one country to another but generally above good ventilation standards.

> *In the four countries, 50% of the participants ventilate more* than 1 hour per day. Globally, a total of 75% of participants ventilate more than 15 minutes per day, considered a good ventilation standard.

### France

- All families of VOC detected in poor or high concentrations depending on samplers
- 42% of the participants are above VOC guidelines **Netherlands**
- All families of VOC detected in rather poor concentrations - 31% of the participants above VOC guidelines

### Greece

- Generally rather light VOC found, contrary to Germany - 28% of participants above formaldehyde guidelines

### Germany

- Country with less VOC
- 21% of the participants above formaldehyde guidelines

### Ketones

glues, adhesives



**Compounds such as formaldehyde**, hydrocarbons, terpenes, known carcinogens and allergens, were found in the baby rooms.



Exposing babies to a cocktail of chemicals.



### **Hydrocarbons**



benzene, toluene, xylenes, alcanes C9 to C13, found in paints, varnishes and wood preservatives

**Health effects** Irritations of the eyes, digestive problems, headaches, some are carcinogens



the region Rhône Alpes,







### **Terpenes**



eucalyptol, limonene, etc; hydrocarbons derived from plants used in essential oils and fragrances, found in paints, furniture, cleaning products, deodorizers

Health effects allergens, irritations of the eyes, skin, harmful if swallowed

# www.projectnesting.org

