

## The Action Programme

### Preventing and reducing radon in indoor environments

Radon is a natural radioactive gas that occurs in higher concentrations in soil in some parts of Germany. It can find its way into basements through gaps and cracks and then up into the home, where it can cause health risks for the occupants. The aim is to inform the public about health risks arising from radon and about refurbishment costs and assistance programmes for buildings, and to create statutory provisions and planning figures for new buildings. The programme seeks to improve scientific knowledge about health risks due to radon in indoor environments and to refurbish polluted homes and public buildings.

### "Blue Angel" for healthy homes

The Blue Angel is the first and oldest environment-related label for products and services in Germany. The mission of the environmental symbol is clearly defined: The Blue Angel primarily promotes the interests of environmental protection, but is increasingly taking account of health protection aspects. In the regular reviews of existing requirements for the award of the symbol to products in the home sector, and also in the development of award criteria for additional products where no Blue Angel has been awarded to date, stringent pollutant minimization and health requirements are laid down and appropriate evidence is demanded. The Blue Angel is awarded for a large number of low-pollutant product groups. In the home sector, for example, it is awarded for upholstered furniture, floorings and panels, wood-based boards, wall paints, wallpapers, electric and gas cookers, or for insecticide-free pesticides for indoor use. The Blue Angel is also available

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for IT equipment, such as computers or other office devices with copying, printing and fax functions.

### European Project on Housing and Health

The Bonn office of the World Health Organisation's European Centre for Environment and Health is studying the health-related influences of various living conditions such as home environment, occupants' ventilation habits, social aspects of the living situation, and pollution from furniture and building materials. The project serves the interests of precautionary health protection with a view to permitting better assessment of environment-related health problems such as allergies. Germany is taking part in the project.

For further information on the Action Programme Environment and Health, visit the APUG website at [www.apug.de](http://www.apug.de) or contact the APUG-Secretariat directly.



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Housing and Indoor Air  
(Selected activities)



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One important area of health-related environmental protection is indoor air quality. People in Central Europe spend about 80 to 90% of their life in enclosed spaces: at home, at work, in transport facilities such as car, bus and train.

Possible sources of pollutants in indoor situations include tobacco smoke, solvents and plasticizers evaporating from building products, furniture, carpets, wallpaper etc. The air we breathe is also contaminated by substances from disinfectant and pesticide sprays or cosmetics such as hair spray, deodorants or perfume. When we wash or dry our clothes or take a bath or shower, moisture is released into the air, and if not removed this can lead to mould formation. Irritation of the respiratory tract and eyes, skin irritation, allergic symptoms and other health problems may result.

Energy-saving improvements in buildings have resulted in a marked reduction in the natural air exchange that takes place through gaps around doors and windows. If the rooms are not sufficiently ventilated, considerable concentrations of substances with indoor sources can build up.

Consumers can take the precaution of buying low-pollutant products, those identified by the "Blue Angel" environmental symbol.

**Pollutant-free indoor air is very important for human health and well-being.**

**The Action Programme Environment and Health aims to make a contribution here.**

In June 1999, Germany's Federal Environment Ministry and Federal Health Ministry presented their joint **Action Programme Environment and Health** (German acronym: APUG) to the public. The Federal Consumer Protection Ministry joined the Programme in autumn of 2002.

## Activities

### **Building products as a health risk**

New buildings and freshly decorated rooms often emanate a typical smell unpleasant for most people. This smell is caused by various gaseous components evaporating from building products. A testing and evaluation method recently developed by the "Ausschuss zur gesundheitlichen Bewertung von Bauprodukten" (Committee on Health-Oriented Evaluation of Building Products (German acronym: AgBB Scheme)) is designed to evaluate health issues relating to emanations of volatile organic substances from building products and permits comparisons between products. Manufacturers can compare any evaporation of gases with the requirements of the scheme as early as the product development stage.

### **Indoor air quality in old buildings after energy-saving improvements**

In order to improve ambient air and reduce emissions of greenhouse gases such as CO<sub>2</sub>, buildings are being equipped with better and better heat insulation and made more airtight with a view to minimizing losses of heating energy and heat losses due to ventilation. The disadvantage of better sealing is an increase in humidity and in the concentrations of chemical and biological pollutants in indoor air. The research project makes "before and after" comparisons of indoor air quality in older buildings that have been refurbished for energy-saving purposes. The aim is to draw up recommendations on construction and use with a view to ensuring good indoor air quality in old buildings after energy-saving improvements.

The Action Programme Environment and Health aims to strengthen the links between environmental and health protection in order to offer better protection of human health against adverse environmental impacts. It emphasises the protection of children and adolescents.

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### **Mould identification and control**

Mould is becoming increasingly common in indoor environments. It grows as a result of dampness, often due to damage. Its growth is favoured by inadequate ventilation. Mould spores are harmful to health and may give rise to allergic reactions and irritation - such as asthma, irritation of skin or mucous membranes, or influenza-like symptoms. A guide to preventing, investigating, assessing and combating mould growth in indoor environments offers information about the entire complex of "mould". This discusses the problem of mould growth in rooms and buildings with natural ventilation by means of doors and windows. The guide also includes relevant information for air-conditioned rooms. It goes into the properties, sources and occurrence of the various types of mould and also their health significance. It also explains how to assess existing mould growth and how to prevent it happening in the first place.

### **Guide to clean air in schools**

Children and adolescents in school buildings may be exposed to gases such as aldehydes (e.g. formaldehyde) and other volatile and semi-volatile organic compounds released from building materials and furniture and equipment, and fibrous dust from acoustic ceiling panels etc. Elevated carbon dioxide concentrations may also make themselves felt (poor concentration, increased fatigue, headache, irritation of eyes and respiratory tract) if classrooms are not sufficiently ventilated. A guide to clean air in school buildings contains factual information and gives practical hints on how to protect schoolchildren from health risks due to polluted indoor air.

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