

# INVENTNET – General Co-ordination of European Industrial Ventilation Activities

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## Network of Industrial Ventilation – Inventnet

INVENTNET is one thematic network within "Energy, Environment and Sustainable Development" thematic programme of the Fifth (EC) RTD Framework Programme (1998–2002). The duration of the INVENNET is 36 months (2000–2002).

Helsinki University of Technology from Finland acts as project co-ordinator and the 11 partners are: SINTEF Energiforskning AS (NOR), Kungliga Tekniska Högskolan (S), University of Ferrara (I), Technical University of Budapest (HUN), Brno University of Technology (CZ), University of Leeds (UK), Eric Curd (UK), Swiss Federal Laboratories For Materials Testing And Research (CH), Universitaet Stuttgart, IKE-

Lehrstuhl fuer Heiz-u. Raumluftechnik (D), Institut ASER (D), Federation of Finnish Metal Engineering and Electrotechnical Industries (FIN). The Finnish Institute of Occupational Health is involved as subcontractor of the Helsinki University of Technology.

## **Background**

The systematic R&D in the area of industrial ventilation (includes all working premises) was strongly accelerated through a national "INVENT" technology programme in Finland in 1991–1996. Based on this ventilation programme a European Action, COST G3, Industrial Ventilation, was started in 1997. Also a Thermie B project was started based on the results of this programme. The work will be continued and disseminated through INVENTNET.

## **Description**

This INVENTNET network gives platform to join the activities of industrial ventilation as a part of building services master network. This network joins ongoing activities, such as R&D projects, SME operations, governmental guides, national networks, seminars and workshops. The work joins activities in different programmes such as COST, SAVE etc. Activities are controlled in regular network meetings 3 times a year. Better industrial ventilation lowers energy consumption, decreases pollution, gives better work satisfaction, decreases sicknesses and gives better working environment, it is cost-effective among other benefits.

## **Network**

This INVENTNET - network is built in order to give the possibilities to further joint discussions / workshops, seminars, joining the activities in Industrial Ventilation IAQ (Indoor Air Quality), creating new activities, initialising activities to European standardisation, for SME activities and for governmental regulations. This international network exchanges information, coordinates activities, stimulates and improves transfer of technologies. It also creates models to participating countries to establish activities based on the pilots made in selected countries. This kind of models are for example the Finnish national network of industrial ventilation and the Finnish Guide Book for governmental use.

## **Work Description**

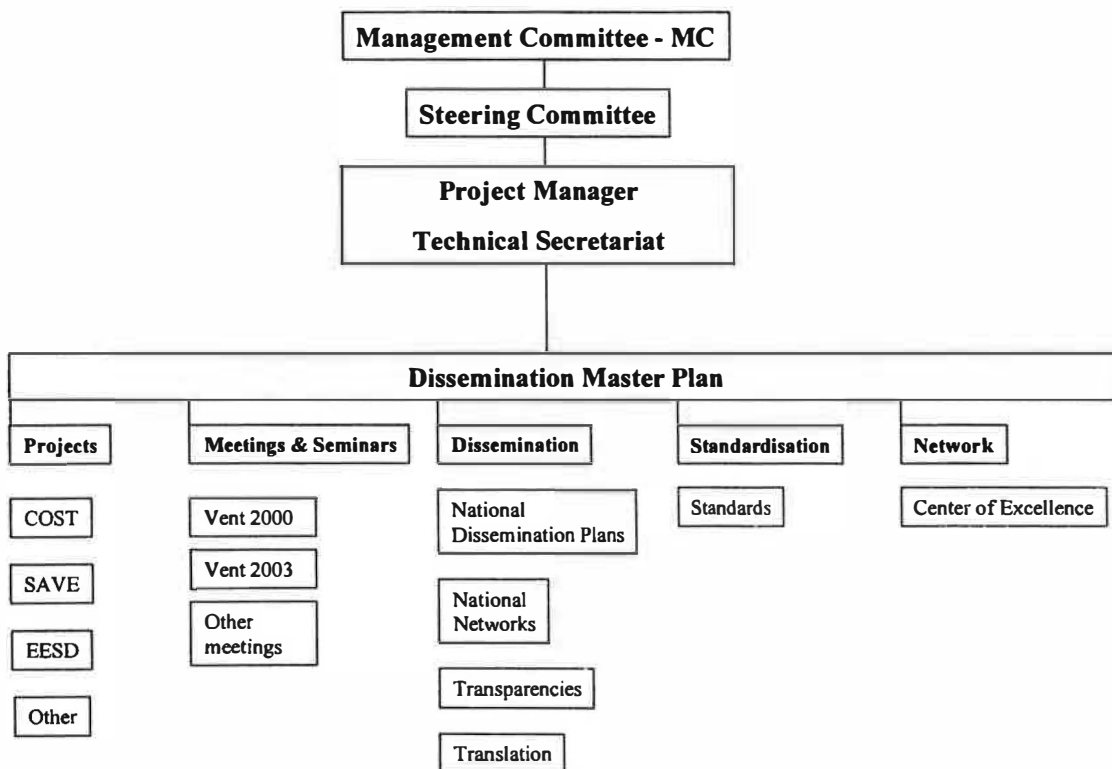
In the COST G3 action are 18 participating countries and in the Thermie B activity 3 countries. In national INVENT programme the amount of participants was over 100. During this process (1991-1999) participants have realised the need for joint activities, further R&D work and dissemination. Many activities have started and there is a need for many new activities and therefore the need for networking activities has been identified. The main deliverable of the COST G3 action is Design Guidebook (parts: Fundamentals, Systems & Equipment and Applications) in the field of industrial ventilation. The Thermie B activity concentrated on dissemination of ventilation experiences in form of 8 application packages (transparencies and internet version) to managers in industry, designers, installers and suppliers.

The network participants meet together 3 times a year in joint meetings together with other ongoing activities. The first meeting was held in February 2000 in Nancy, France. Amount of countries in these activities is 18 and amount of participating members at the starting point is appr. 40.

The work consists of management committee, steering committee, project manager, scientific secretary and Center of Excellence. The work is divided into 6 packages, projects, meetings and seminars, dissemination, standardisation, national networks, network and management. All WG:s have WG leader and task with task leaders.

All stakeholders from researchers to end users are included in the operations. One main activity is to prepare a draft for joint network, where all different areas of Building services are included to guide and follow all the areas of building services based on the Atlas report division.

The network creates models to participating countries to establish activities based on the pilots made in selected countries. This kind of models are for example the Finnish national network of industrial ventilation and the Finnish Guide Book for administration Helsinki University of Technology, Center of Excellence, is operating as the key organiser and as the "postmaster" in creating and updating a network of specialists throughout Europe and globally. In our preliminary network is also included Canada, USA, Russia and Japan which will ensure international cooperation.



## Scientific and Technical Prospects

This action will generate a number of RTD activities in the field of industrial ventilation. The INVENTNET will provide a wide electronic network between industrial ventilation experts.

The proposers have excellent contacts to national organisations and institutes which are responsible for the dissemination, organising seminars etc. Excellent contacts with European organisations also exist via for example EUROVENT and REHVA.

EUROVENT, the European Committee for Air Handling and Air Conditioning Manufacturers, is an umbrella organisation for national manufacturers' associations, at present it has 11 member organisations.

REHVA, the Federation of European Heating and Air conditioning Associations, is the umbrella organisation which presently consists of 23 national societies of engineers in the field of heating, refrigeration, ventilation and air conditioning, with a total of 90.000 individual members.

International seminars and workshops will be arranged in the course of the action. National courses can be arranged in different countries, in cooperation with national member organisations in REHVA and/or EUROVENT, based on the material completed and tested in international seminars/workshops as part of the proposed action.

The partner FIMET-AFMAHE owns excellent possibilities to utilise its contacts to REHVA and EUROVENT as Finnish national member of EUROVENT and through cooperation agreement between EUROVENT and REHVA in order to disseminate results of industrial ventilation activities.

FIOH as subcontractor of HUT will be a Collaborating Centre to the World Health Organisation, Occupational and Environmental Health, department of Protection of the Human Environment.

These actions together give access to several big networks for distribution of training material.

Brainstorming seminars to prepare these activities were held in Zürich, September 1995 and in Helsinki in January 1996. At these seminars the basis for these activities was formulated together with INVENT international reference group. Seminars (Chester/UK, Stuttgart/Germany and Ottawa/Canada in conjunction of VENT'97,) arranged in the course of the previous Thermie B dissemination action has given the partners a chance to disseminate the results world wide and the response has been extremely positive everywhere. The critical mass to continue industrial ventilation activities to its culmination point (Industrial Ventilation Design Guidebook) has already now been reached.

The activity gives base to researchers, developers, consultants, contractors, manufacturers, governmental bodies and end users (these all are included in Finnish pilot network). The network creates a critical mass for all the stakeholders to improve

the level of technology. The network gives companies solid base for their development work for new innovations.

The timing in all the activities is also important. This process started in Finland year 1989, it was a national success. European activities started year 1994 and international activities year 1996. Now the group is ready to create a solid European and global network.

The number of ongoing or completed projects in the research project database is 40 and 13 international projects are under preparation.