

EUROPEAN CONCERTED ACTION

# INDOOR AIR QUALITY & ITS IMPACT ON MAN

COST Project 613

Environment and Quality of Life

Report No. 5

## Project Inventory

The Community-COST Concertation Committee



Commission of the European Communities  
Directorate General for Science, Research and Development  
Joint Research Centre - Institute for the Environment

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prepared on behalf of

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Joint Research Centre - Institute for the Environment

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# 1. INTRODUCTION

The Community-COST Concerted Action "Indoor Air Quality & Its Impact on Man" has the scope to promote research and knowledge in this field in the participating European Countries. Operated by a Concertation Committee composed of representatives of the participating Countries and of the Commission (see enclosed list) the Concerted Action intends to

- promote mutual information and contacts between research groups in the participating countries,
- assess the status of knowledge and research needs,
- develop through working groups common research instruments such as guidelines for various types of measurements (e.g. emissions from materials, surveys in indoor spaces, "sick building syndrome" investigations),
- validate measurement methods through the organization of interlaboratory comparisons
- organize discussion meetings on various aspects of its field of action.

For all these activities an *inventory of ongoing or recently concluded research projects* is an important working tool, in particular for identifying expert knowledge in various fields.

Moreover the inventory will enable workers in the field to identify colleagues with similar interests and will hopefully promote contacts within the indoor air quality community.

Although we have made considerable efforts to render this first edition as complete as possible with a total of 239 projects there will still be ongoing work of which we are unaware. We will be grateful for any communication of as yet unreported work and for any corrections or modifications to reported projects. For this purpose empty project reporting forms are included.

It is intended to issue updated versions of the inventory every 12 - 18 months depending on the number of new projects and alterations to those already reported which are received. Projects will no longer be included in the inventory two years after their completion. However a list of titles of completed projects and of names and addresses of their principal investigators will be included, in order to give users the opportunity to contact people with experience in their fields of interest.

Project forms which are lacking one of the following items will also not be included in the inventory: Institute, address, name of principal investigator, descriptive project title and keywords. Starting with the next edition also projects without indication of the year of their start and envisaged end will no longer be included but only mentioned in the list of those already completed. Please ensure that the envisaged end of your project(s) is correctly reported. If your project is open ended, please state this clearly.

'When reporting new projects, please, describe them with keywords taken from the enclosed keyword list. **Add new keywords only if absolutely necessary.**

Please, send information on new projects or on changes or corrections to those reported at your earliest convenience to:

Dr. Helmut Knöppel  
Joint Research Centre  
Institute for the Environment  
I-21020 Ispra (VA), Italy

We hope that the inventory will be useful for you and thank for your collaboration.

Bernd Seifert  
Chairman of the  
Concertation Committee

Maurizio De Bortoli  
Secretary

Helmut Knöppel  
CEC responsible

## 2. KEYWORDS

Please choose from the following list those keywords which characterize your project(s) best. Words in parentheses serve for explanation of keywords and need not to be reported.

### KEYWORDS RELATED TO GENERAL PROJECT OBJECTIVES

adsorption  
annual exposure  
bioaccumulation  
concentrations  
control  
control techniques  
cost/benefit (*evaluations or calculations*)  
diurnal  
dose  
electrostatic filters  
emissions  
energy conservation  
exposure  
guidelines  
indoor/outdoor ratios  
reactions  
reactive  
seasonal variations  
spatial variations  
standards  
(*control*) strategies  
surfaces  
TLV (*threshold limit values*)  
variations (*of concentrations/exposure*)

### SOURCE RELATED KEYWORDS

sources (*of pollution; if possible specify source*)  
building equipment  
building materials  
combustion (*sources*)  
dogs  
drinking water  
dry cleaning shops  
external sources  
filter systems  
furniture  
gas cookers  
harbour sludge  
hobby activities  
hobby products  
home textiles  
household products  
outdoor air  
paints  
paraffin heaters  
pets  
plants  
refuse shoots  
renovation  
screen printing plants  
soil  
soil characteristics  
uffi  
water  
waterborne

### POLLUTANT RELATED KEYWORDS

aerosols  
aldehydes  
allergens  
ammonia  
asbestos  
bacteria  
biocides  
biological (*pollution*)  
charged particles  
chemical  
chloramines  
chlorinated dioxins  
chlorinated H(*ydro-*)C(*arbons*)  
chlorine  
CO<sub>2</sub>  
dioxin  
ETS (*Environmental Tobacco Smoke*)  
fibres  
food contamination  
formaldehyde  
fungi  
gamma radiation  
gases  
halogenated H(*ydro-*)C(*arbons*)  
HCHO (*formaldehyde*)  
home dust  
inorganic (*chemical*)  
insecticides  
ions  
isocyanates  
lindane  
metals  
mites  
MMMf (*man made mineral fibres*)  
mould  
noise  
NO<sub>x</sub> (*NO<sub>2</sub>, NO*)  
N-PAH  
odours  
organic (*chemical*)  
other microorganisms  
ozone  
PAH (*polycyclic aromatic hydrocarbons*)  
PCB (*polychlorinated biphenyls*)  
PCP (*pentachlorophenol*)  
perchloroethylene (= *tetrachloroethylene*)  
PM (*particulate matter*)  
pollution  
pollutants  
POM (*particulate organic matter = organics extractable from particulate matter*)  
radioactivity  
radon  
SO<sub>2</sub>  
solvents  
styrene  
suspended particulates  
SVOC (*semivolatile organic compounds*)  
tetrachloroethylene (= *perchloroethylene*)  
vapours  
VOC (*volatile organic compounds*)

### INDOOR ENVIRONMENT RELATED KEYWORDS

buildings (*specify further if possible*)  
day-care-centres  
developing countries  
dwellings  
hospitals  
industrial buildings  
mobile homes  
new buildings  
offices  
residences  
schools (*incl. nursery schools, universities etc.*)  
sport establishments  
swimming halls  
temporary building  
traffic related (*environments, including cars*)  
underground

### EFFECT AND OCCUPANT RELATED KEYWORDS

airway  
allergy  
asthma  
asthmatic  
atopic  
(*neuro-*) behavioural effects  
biochemical effects  
bronchoreactivity  
cancer  
cancerogenic  
chemical sensitivity  
children  
CNSLD  
comfort  
complaint study  
complaints (*study, investigation*)  
effects (*add further specification if possible:*)  
elderly  
employees  
general population  
(*other*) genotoxicity  
health  
hyperreactivity  
hypersensitivity  
immunotoxicity  
infection  
infestation  
inhalation  
irritation (*mucuous membranes, eyes, skin*)  
lung function  
mutagenicity  
nasal function  
neurotoxicity  
non-respiratory  
nurses  
occupants  
other immune effects  
other systemic (*diseases*)  
physiological (*reactions*)

respiratory (*effects*)  
risk (*assessment, estimate, calculation, analysis*)  
risk groups  
SBS (= "*Sick*" Building Syndrome investigation)  
sensory effects  
susceptible groups  
toxicological  
toxicology

### CLIMATE/VENTILATION RELATED KEYWORDS

ACS (*Air Conditioning System*)  
air infiltration  
air movement  
climate (*temperature a/o humidity*)  
condensation  
forced ventilation  
humidity  
meteorological factors  
meteorology  
moisture  
natural ventilation  
temperature  
ventilation

### METHOD RELATED KEYWORDS

analysis  
animal study  
assessment  
bioassay  
biochemical monitoring  
biological monitoring  
chamber study  
(*human*) controlled exposure (*study*)  
data base,  
detection (*of any parameter*)  
detection methods  
development  
environmental monitoring  
epidemiological study  
epidemiology  
evaluation  
field measurements  
field trials  
interlaboratory comparison  
inventory  
investigations  
in vitro study  
measurement (*of any parameter*)  
measurement methods  
methods  
mice  
modeled approach  
models  
multi zonal  
passive samplers,  
representative survey  
review  
sampling  
standardization  
subjective evaluation  
validation

### 3. ORGANIZATION OF THE PROJECT INVENTORY

Information on the projects is contained on formatted sheets three of which are accommodated on each page. The projects of each country are grouped together. An identification number has been attributed to each project composed of the country code as used for automobiles and a number. Numbers are sequential and start from 1. They are attributed arbitrarily and may differ from one edition of the inventory to the next.

The project descriptions (section 5.) are preceded by an alphabetic list (section 4.) of all keywords occurring in the project descriptions together with the corresponding project identification number(s) and (in parentheses) the number of times the keyword is occurring.

Section 6. contains the project title and the name and address of the principal investigator for projects which were completed more than two years previously or whose description is lacking important information (see introduction section). These projects are also grouped according to their country of origin.

### 4. KEYWORDS IN ALPHABETIC ORDER WITH PROJECT IDENTIFICATION NUMBERS

<b>ACS (9)</b>	DK 43, P 1, D 23, GB 5, NL 23, NL 30, F 7, F 31, F 30
<b>aerosols (2)</b>	D 16, CH 22
<b>air-infiltration (2)</b>	NL 24, CEC 3
<b>air-movement (16)</b>	P 1, GB 6, GB 16, GB 19, GB 26, NL 9, NL 25, NL 29, NL 31, F 27, F 28, CH 4, CH 7, CH 18, CH 20, CH 24
<b>airway (1)</b>	GB 41
<b>aldehydes (2)</b>	F 11, F 19
<b>allergens (4)</b>	D 14, D 23, D 24, NL 4
<b>allergy (5)</b>	DK 1, D 5, D 17, NL 23, F 3
<b>ammonia (1)</b>	GB 12
<b>animal-study (7)</b>	DK 32, D 10, D 13, D 17, D 21, D 16, F 12
<b>annual-exposure (1)</b>	DK 22
<b>asbestos (8)</b>	GB 1, GB 9, GB 10, GB 27, GB 29, GB 32, GB 35, F 6

<b>assessment (26)</b>	DK 19, DK 24, DK 26, P 3, IRL 1, GR 1, GR 2, D 5, D 15, D 21, D 24, D 31, GB 1, GB 14, GB 15, GB 21, GB 22, GB 27, GB 29, GB 34, GB 35, NL 32, NL 19, I 4, I 5, CH 14
<b>asthma (2)</b>	DK 1, CH 23
<b>asthmatic (5)</b>	DK 7, DK 13, DK 40, GB 3, GB 41
<b>atopic (1)</b>	DK 13
<b>bacteria (1)</b>	F 32
<b>behavioural (4)</b>	DK 4, DK 6, F 4, CH 9
<b>bioaccumulation (1)</b>	GR 5
<b>bioassay (1)</b>	DK 32
<b>biochemical-monitoring (1)</b>	D 19
<b>biocides (6)</b>	D 19, D 29, D 30, D 32, GB 39, CH 17
<b>biological (25)</b>	DK 12, D 14, D 23, D 24, GB 22, GB 39, GB 20, NL 4, NL 8, NL 16, NL 18, NL 20, NL 23, NL 24, NL 33, NL 36, F 2, F 3, F 4, F 8, F 24, F 31, F 32, I 8, CH 22
<b>biological-monitoring (8)</b>	GR 4, GR 5, D 6, D 18, D 27, D 20, GB 39, I 3
<b>bronchoreactivity (1)</b>	DK 40
<b>building-equipment (4)</b>	D 1, D 9, D 24, NL 7
<b>building-materials (26)</b>	DK 8, DK 9, DK 18, DK 32, DK 33, DK 34, DK 37, P 2, GR 1, D 2, D 15, D 18, D 19, D 29, D 32, GB 4, GB 9, NL 7, NL 17, NL 32, F 29, I 9, I 11, CH 3, CH 8, CEC 2
<b>buildings (30)</b>	DK 19, DK 27, DK 41, IRL 2, GB 27, GB 28, GB 29, GB 30, GB 35, NL 26, F 2, F 5, F 6, F 8, F 9, F 16, F 18, F 19, F 20, F 25, F 26, F 27, F 29, F 30, I 7, I 8, CH 2, CH 6, CH 25, CH 26
<b>cancer (1)</b>	NL 36
<b>cancerogenic (1)</b>	F 12
<b>chamber-study (17)</b>	DK 8, DK 10, DK 18, DK 32, DK 33, DK 34, DK 40, D 9, D 13, D 17, D 21, D 16, F 1, F 17, F 25, CH 10, CEC 2
<b>charged-particles (1)</b>	GB 17
<b>chemical-sensitivity (1)</b>	GB 15
<b>children (11)</b>	D 11, D 12, D 18, D 29, D 32, D 3, GB 2, GB 25, GB 32, I 12, CH 19



<b>chloramines (1)</b>	F 19
<b>chlorinated-HC (5)</b>	GR 7, D 7, D 25, D 31, D 20
<b>chlorinated-dioxins (2)</b>	D 29, D 30
<b>chlorine (1)</b>	D 16
<b>climate (21)</b>	P 1, GB 14, GB 22, GB 26, NL 6, NL 8, NL 9, NL 16, NL 18, NL 22, NL 23, NL 24, NL 25, NL 26, NL 28, F 23, F 24, F 27, F 30, F 31, F 32
<b>combustion (8)</b>	GB 3, GB 25, NL 14, NL 18, F 9, F 14, F 20, I 1
<b>comfort (2)</b>	GB 26, NL 6
<b>complaint-study (2)</b>	NL 18, CEC 4
<b>complaints (11)</b>	DK 1, IRL 2, D 30, GB 5, GB 14, NL 15, NL 21, NL 22, CH 11, CH 18, CH 20
<b>concentrations (46)</b>	DK 9, DK 21, DK 22, DK 30, DK 44, DK 37, DK 39, P 2, P 3, GR 7, D 4, D 11, D 17, D 22, D 27, D 28, GB 1, GB 7, GB 9, GB 10, GB 25, GB 27, GB 29, GB 33, GB 34, GB 35, GB 36, GB 39, GB 20, NL 31, NL 35, F 13, F 14, F 18, F 20, F 29, F 31, F 32, I 2, I 4, CH 1, CH 2, CH 16, CH 17, CEC 3, CEC 4
<b>condensation (1)</b>	GB 22
<b>control (19)</b>	DK 21, DK 23, DK 30, D 2, D, 14, GB 11, GB 21, GB 27, GB 29, GB 30, NL 5, NL 8, NI 11, NI 23, F 29, F 30, CH 12, CH 21, CH 22
<b>control-techniques (1)</b>	DK 15
<b>controlled-exposure (4)</b>	DK 2, DK 4, DK 6, DK 7
<b>cost-benefit-calculations (1)</b>	CH 5
<b>database (8)</b>	DK 42, GB 15, NL 13, NL 35, F 13, CH 12, CH 13, CH 14
<b>detection (3)</b>	DK 16, DK 31, F 16
<b>detection-methods (2)</b>	NL 24, CH 1
<b>developing-countries (1)</b>	NL 14
<b>development (18)</b>	DK 10, DK 25, D 1, D 2, D 4, D 9, D 14, D 26, GB 4, GB 12, GB, 18, NL 9, NL 3, F 1, F 8, I 5, CH 1, CH 8
<b>dioxin (3)</b>	D 12, D 18, D 19
<b>diurnal (2)</b>	F 26, F 32

<b>diurnal-variations (1)</b>	CH 4
<b>dogs (1)</b>	D 16
<b>dose (5)</b>	P 3, IRL 1, D 12, NL 43, I 5
<b>drinking-water (1)</b>	D 6
<b>dry-cleaning-shops ((3)</b>	D 7, D 20, CEC 3
<b>dust (2)</b>	D6, GB 4
<b>dwellings (4)</b>	DK 13, DK 16, NL 33, I 1
<b>effectiveness (1)</b>	NL 25
<b>effects (53)</b>	DK 1, DK 2, DK 4, DK 6, DK 7, DK 11, DK 13, DK 38, DK 39, DK 40, DK 41, DK 42, DK 43, D 3, D 5, D 8, D 10, D 13, D 16, D 17, D 18, D 19, D 27, D 28, D 30, GB 2, GB 3, GB 5, GB 15, GB 17, GB 23, GB 33, GB 38, GB 40, GB 41, NL 6, NL 7, NL 12, NL 14, NL 16, NL 21, NL 23, NL 35, NL 36, F 3, F 4, F 7, F 12, F 31, CH 9, CH 14, CH 19, CH 23
<b>electrostatic-filters (1)</b>	GB 11
<b>emissions (20)</b>	DK 8, DK 9, DK 18, DK 33 DK 37, D 1, D 2, D 9, D 15, GB 2, GB 3, GB 4, NL 35, F 1, F 10, F 13, F 16, F 19, I 1, CH 3
<b>employee (1)</b>	CEC 4
<b>energy-conservation (1)</b>	CH 5
<b>epidemiological-study (12)</b>	D 6, D 11, D 12, D 18, D 19, D 32, GB 2, GB 3, GB 33, NL 21, I 6, CH 19
<b>epidemiology (1)</b>	F 6
<b>ETS (7)</b>	GB 20, F 17, F 31, CH 10, CH 15, CH 21, CH 23
<b>exposure (56)</b>	DK 4, DK 10, DK 37, DK 38, DK 40, DK 44, P 2, P 3, IRL 1, GR 3, GR 4, GR 5, D 6, D 8, D 11, D 17, D 21, D 25, D 29, D 30, D 31, D 32, D 20, D 16, GB 15, GB 25, GB 27, GB 28, GB 32, GB 33, GB 40, NL 4, NL 5, NL 15, NL 18, NL 21, NL 23, NL 32, F 1, F 5, I 5, I 7, I 11, CH 5, CH 10, CH 16
<b>external-radiation (1)</b>	DK 22
<b>external-sources (1)</b>	P 2
<b>fibres (15)</b>	DK 31, GR 4, GB 1, GB 7, GB 9, GB 10, GB 27, GB 28, GB 29, GB 32, GB 34, GB 35, F 29, I 7, CH 8
<b>field-measurements (22)</b>	DK 16, GR 2, GR 3, GR 4, GR 7, D 25, GB 25, GB 27, GB 29, GB 36, F 19, F 20, F 21, F 23, F 24, F 29, F 31, I 1, I 4, CH 2, CEC 4, CEC 3

<b>field-trials (1)</b>	GB 21
<b>filter-systems (1)</b>	D 23
<b>food-contamination (1)</b>	D 7
<b>forced-ventilation (5)</b>	DK 27, P 1, F 26, CH 7, CH 24
<b>fungi (4)</b>	D 23, GB 39, NL 24, F 8
<b>furniture (2)</b>	D 1, D 22
<b>gamma-radiation (1)</b>	NL 32
<b>gas-cookers (3)</b>	GB 2, GB 3, GB 25
<b>gases (1)</b>	GB 38
<b>general-population (2)</b>	IRL 1, D 6
<b>genotoxicity (1)</b>	D 21
<b>guidelines (2)</b>	D 1, NL 34
<b>halogenated-HC (1)</b>	F 19
<b>HCHO = formaldehyde (13)</b>	DK 2, DK 34, GR 3, D 1, D 6, GB 4, GB 37, GB 20, F 12, F 18, F 21, I 1, CH 17
<b>health (4)</b>	DK 38, DK 39, GB 17, NL 19
<b>hobby (4)</b>	D 15, F 9, F 10, F 13
<b>home-dust (1)</b>	D 5
<b>home-textiles (1)</b>	D 24
<b>hospitals (2)</b>	F 8, F 30
<b>household-products (10)</b>	D 9, D 10, D 15, NL 23, F 9, F 10, F 13, F 16, I 6, CEC 2
<b>human-controlled-exposure (1)</b>	D 17
<b>humidity (1)</b>	NL 26
<b>hyperreactivity (3)</b>	D 3, D 8, D 30
<b>immune (1)</b>	GB 15
<b>immune-effects (2)</b>	D 18, D 19
<b>immunotoxicity (1)</b>	D 30
<b>indoor-outdoor-concentrations-ratios (1)</b>	GB 13
<b>industrial-buildings (2)</b>	GB 6, GB 26

<b>infection (1)</b>	NL 23
<b>infestation (1)</b>	NL 23
<b>inhalation (1)</b>	D 10
<b>inorganic (8)</b>	D 8, GB 12, GB 13, GB 15, GB 38, GB 40, F 20, F 24
<b>insecticides (1)</b>	GB 39
<b>interlaboratory-comparison (1)</b>	DK 8
<b>inventory (2)</b>	GB 9, F 1
<b>investigation (2)</b>	IRL 2, GB 14
<b>irritation (3)</b>	DK 2, DK 40, D 21
<b>isocyanates (1)</b>	CH 2
<b>lindane (2)</b>	D 18, D 19
<b>lung-function (4)</b>	DK 40, D 16, D 3, GB 33
<b>material-description (1)</b>	D 22
<b>measurement (18)</b>	DK 21, DK 36, D 2, D 27, GB 4, GB 6, GB 17, GB 19, GB 21, GB 26, NL 3, NL 4, NL 22, NL 23, F 1, F 5, F 6, CH 10
<b>measurement-methods (4)</b>	NL 25, CH 8, CEC 1, CEC 2
<b>metals (8)</b>	GR 5, GR 7, D 6, D 11, D 27, F 11, F 18, F 21
<b>meteorological-factors (1)</b>	DK 21
<b>meteorology (1)</b>	CH 4
<b>methods (23)</b>	DK 10, DK 14, DK 16, DK 31, DK 35, D 1, D 2, D 9, D 14, D 26, GB 12, GB 27, GB 29, GB 30, NL 20, F 1, F 8, F 9, F 16, F 22, F 25, I 4, CH 25
<b>mice (1)</b>	DK 32
<b>mites (1)</b>	D 24
<b>MMMF (1)</b>	GB 34
<b>mobile-homes (1)</b>	D 1
<b>models (25)</b>	DK 9, DK 33, DK 34, DK 42, P 1, D 4, GB 16, GB 21, GB 31, NL 8, NL 9, NL 10, NL 23, NL 24, NL 27, NL 28, NL 29, NL 30, NL 31, NL 33, F 17, F 26, F 28, CH 13, CH 24
<b>moisture (5)</b>	NL 8, NL 9, NL 16, NL 24, NL 25

<b>moulds (3)</b>	GB 22, NL 8, NL 20
<b>movement (1)</b>	GB 31
<b>multi-zonal (1)</b>	CH 25
<b>mutagenicity (5)</b>	D 9, D 27, D 28, NL 12, NL 36
<b>N-PAH (1)</b>	D 27
<b>nasal-function (1)</b>	DK 40
<b>natural-ventilation (8)</b>	DK 17, DK 23, DK 24, GB 6, NL 24, F 26, CH 7, CH 24
<b>NO<sub>2</sub> (4)</b>	DK 40, D 21, GB 13, CH 19
<b>noise (1)</b>	F 4
<b>non-respiratory (1)</b>	D 16
<b>NO<sub>x</sub> (14)</b>	DK 38, DK 39, DK 40, D 8, D 21, GB 3, GB 13, GB 25, GB 20, F 14, F 21, I 1, CH 19
<b>nursery-schools (1)</b>	D 29
<b>nurses (1)</b>	D 29
<b>occupants (2)</b>	D 19, CEC 4
<b>odours (2)</b>	D 2, F 16
<b>offices (20)</b>	DK 20, IRL 2, GB 8, GB 19, GB 30, GB 35, GB 36, GB 38, GB 20, F 16, F 29, F 31, F 30, I 8, CH 2, CH 11, CH 18, CH 20, CH 21, CH 22
<b>organic (5)</b>	D 2, GB 15, GB 38, CH 1, CH 2
<b>ozone (1)</b>	GB 40
<b>PAH (2)</b>	D 27 F, 14
<b>paints (1)</b>	DK 33
<b>paraffin-heaters (2)</b>	GB 2, GB 25
<b>passive-samplers (3)</b>	GB 12, GB 13, CEC 1
<b>PCB (1)</b>	D 30
<b>PCP (5)</b>	D 18, D 19, D 29, D 30, D 32
<b>perchloroethylene (1)</b>	D 7
<b>physiological (4)</b>	DK 4, DK 6, CH 9, CH 23

<b>pollutants (35)</b>	DK 8, DK 11, DK 18, DK 37, D 2, D 5, D 10, D 13, D 14, D 22, D 26, D 27, GB 11, GB 12, GB 27, GB 29, GB 36, GB 38, GB 39, GB 40, GR 4, GR 5, NL 4, F 8, F 9, F 12, F 13, F 14, I 1, I 2, I 3, CH 8, CH 17, CEC 3, CEC 4
<b>pollution (88)</b>	DK 12, DK 15, DK 17, DK 19, DK 21, DK 22, DK 42, DK 43, IRL 1, D 7, D 11, D 12, D 17, D 23, D 24, D 25, D 28, D 29, D 30, D 31, D 32, D 20, D 16, D 3, GB 1, GB 3, GB 4, GB 7, GB 9, GB 10, GB 13, GB 14, GB 15, GB 17, GB 18, GB 21, GB 22, GB 25, GB 28, GB 32, GB 33, GB 34, GB 35, GB 37, GB 20, GR 1, GR 2, GR 3, GR 6, GR 7, NL 8, NL 12, NL 18, NL 19, NL 20, NL 21, NL 23, NL 24, NL 31, NL 32, NL 33, NL 34, NL 36, F 2, F 3, F 4, F 5, F 11, F 15, F 16, F 17, F 18, F 20, F 21, F 22, F 24, F 29, F 31, F 32, I 4, I 5, I 11, CH 1, CH 2, CH 16, CH 22, P 2, P 3
<b>POM (6)</b>	D 27, GB 11, NL 36, F 14, F 21, CH 8
<b>radioactivity (1)</b>	GR 2
<b>radon (20)</b>	DK 19, DK 21, DK 22, DK 30, P 2, P 3, IRL 1, GR 1, GR 2, D 4, GB 21, NL 32, F 12, F 15, I 4, I 5, I 11, CH 3, CH 4, CH 5
<b>reactive (1)</b>	CH 1
<b>renovation (2)</b>	D 2, F 2
<b>representative-survey (1)</b>	DK 22
<b>residences (29)</b>	DK 21, DK 30, P 2, P 3, D 4, D 31, GB 2, GB 3, GB 7, GB 10, GB 25, GB 34, GB 35, NL 21, NL 22, NL 23, NL 32, F 2, F 8, F 9, F 10, F 16, F 18, F 20, F 25, CH 2, CH 7, CH 11, CH 22
<b>respiratory (11)</b>	D 8, D 16, D 3, GB 2, GB 3, NL 14, NL 16, F 3, F 31, I 12, CH 19
<b>review (2)</b>	DK 38, DK 39
<b>risk (6)</b>	DK 13, GR 1, D 21, NL 19, NL 33, F 1
<b>risk-groups (3)</b>	GB 23, GB 24, CH 23
<b>sampling-analysis (10)</b>	DK 14, GB 12, GB 13, GB 18, NL 20, NL 34, F 8, F 9, F 22, CH 2
<b>SBS (15)</b>	DK 20, GB 5, GB 8, GB 19, GB 24, GB 30, NL 1, NL 5, NL 15, NL 23, F 7, F 24, F 30, CH 11, CH 18
<b>schools (15)</b>	DK 17, DK 27, D 12, D 18, D 19, D 32, GB 32, F 4, F 5, F 6, F 11, F 29, CH 2, CH 11, CH 20
<b>screen-printing-plants (1)</b>	NL 19

<b>seasonal (1)</b>	F 26
<b>sensory (5)</b>	DK 11, DK 41, DK 42, DK 43, CH 9
<b>SO<sub>2</sub> (2)</b>	D 8, GB 12
<b>soil-characteristics (1)</b>	DK 21
<b>solvents (4)</b>	GB 36, NL 19, I 2, I 3
<b>sources (40)</b>	DK 8, DK 12, DK 33, DK 37, DK 42, DK 43, GR 3, D 1, D 15, D 22, D 23, D 24, D 25, D 27, D 20, GB 2, GB 3, GB 4, NL 5, NL 14, NL 18, NL 19, NL 21, NL 32, NL 35, F 1, F 4, F 9, F 10, F 13, F 14, F 16, F 20, F 29, I 1, I 9, CH 3, CH 11, CH 19, CH 22
<b>spatial (2)</b>	F 26, F 32
<b>standardization (1)</b>	D 10
<b>standards (13)</b>	DK 9, DK 39, DK 41, GB 18, GB 23, GB 33, NL 23, F 16, F 25, CH 6, CH 9, CH 15, CH 26
<b>strategies (12)</b>	NL 23, NL 33, NL 34, NL 36, F 26, CH 6, CH 9, CH 10, CH 12, CH 15, CH 21, CH 26
<b>styrene (1)</b>	D 28
<b>subjective-evaluation (1)</b>	DK 11
<b>surfaces (1)</b>	F 32
<b>survey (1)</b>	GB 8
<b>susceptible-groups (10)</b>	DK 7, DK 13, DK 40, D 8, D 11, D 12, GB 2, GB 3, GB 15, GB 32
<b>suspended-particulates (1)</b>	D 27
<b>SVOC (15)</b>	DK 37, D 12, D 15, D 17, D 18, D 19, D 29, D 30, D 32, F 13, F 18, F 21, I 1, CH 2, CH 8
<b>swimming-halls (2)</b>	F 5, F 19
<b>technique (2)</b>	DK 25, DK 26
<b>temperature (1)</b>	P 1
<b>temporary-buildings (1)</b>	GB 37
<b>test (1)</b>	CH 25
<b>tetrachloroethylene (1)</b>	D 20
<b>TLV (1)</b>	DK 39
<b>toxicological (2)</b>	NL 21, NL 36

<b>toxicology (2)</b>	D 10, D 27
<b>traffic-related (2)</b>	D 1, F 32
<b>uffi (1)</b>	GB 4
<b>underground (1)</b>	F 32
<b>validation (9)</b>	DK 36, D 21, NL 3, NL 20, F 8, F 28, CH 8, CH 9, CH 25
<b>vapours (1)</b>	GB 38
<b>variations (11)</b>	DK 21, DK 23, DK 44, GR 5, D 4, D 8, D 11, GB 20, F 18, F 26, F 32,
<b>ventilation (38)</b>	DK 15, DK 16, DK 25, DK 26, DK 28, DK 29, DK 30, DK 34, DK 36, DK 41, D 23, GB 16, GB 23, GB 31, GB 20, NL 6, NL 9, NL 11, NL 13, NL 18, NL 22, NL 23, NL 25, NL 27, F 25, F 27, F 28, F 31, F 30, I 8, CH 4, CH 6, CH 18, CH 20, CH 21, CH 25, CH 26, CEC 4
<b>VOC (48)</b>	DK 4, DK 6, DK 7, DK 8, DK 9, DK 11, DK 18, DK 32, DK 33, DK 34, DK 35, DK 37, GR 5, GR 7, D 6, D 7, D 9, D 13, D 17, D 21, D 23, D 25, D 28, D 31, D 20, D 16, GB 4, GB 38, GB 20, NL 18, NL 19, F 5, F 11, F 13, F 14, F 18, F 19, F 21, I 1, I 2, I 3, CH 1, CH 8, CH 17, CEC 1, CEC 2, CEC 3, CEC 4
<b>waterborne (1)</b>	DK 33
<b>yellowing (1)</b>	NL 18



## **5. DESCRIPTION OF ONGOING OR RECENTLY CONCLUDED PROJECTS**

**CONCERTED ACTION "INDOOR AIR QUALITY AND ITS IMPACT ON MAN" (COST 613)**  
**PROJECT INVENTORY**

<i>Institute, address:</i> Commission of the European Communities Joint Research Centre Environment Institute I-21020 ISPRA (VARESE) Italy		a
		b CEC 1
<i>Name of principal investigator:</i> Dr. Maurizio DE BORTOLI		<i>Telephone No:</i> 0332 - 789230
<i>Descriptive project title:</i> Development and performance of a thermally desorbable diffusion sampler		
<i>Keywords (see attached list):</i> Measurement methods, sampling, passive samplers, VOC, analysis		
<i>Project start:</i> 1986	<i>(Evisaged) project end:</i> 1989	
<i>Estimated man power:</i> 1 man year	<i>Estimated cost:</i>	
<i>Institute, address:</i> Commission of the European Communities Joint Research Centre Environment Institute I-21020 ISPRA (VARESE) Italy		a
		b CEC 2
<i>Name of principal investigator:</i> Dr. Maurizio DE BORTOLI		<i>Telephone No:</i> 0332 - 789230
<i>Descriptive project title:</i> Method development for the determination of VOC emission rates from building/furnishing materials and household products by small test chambers.		
<i>Keywords (see attached list):</i> Measurement methods, chamber study, building materials, household products, VOC, sampling, analysis.		
<i>Project start:</i> 1988	<i>(Evisaged) project end:</i> 1990	
<i>Estimated man power:</i> 2 man year	<i>Estimated cost:</i>	
<i>Institute, address:</i> Commission of the European Communities Joint Research Centre Environment Institute I-21020 ISPRA (VARESE) Italy		a
		b CEC 3
<i>Name of principal investigator:</i> Dr. Helmut KNÖPPEL		<i>Telephone No:</i> 0332 - 789204
<i>Descriptive project title:</i> Follow-up study of VOC concentrations in a home sample in Northern Italy.		
<i>Keywords (see attached list):</i> pollutants, VOC, field measurements, dwellings, concentrations, air infiltration, sampling, analysis		
<i>Project start:</i> 1989	<i>(Evisaged) project end:</i> 1990	
<i>Estimated man power:</i> 0.5 man year	<i>Estimated cost:</i>	

**CONCERTED ACTION "INDOOR AIR QUALITY AND ITS IMPACT ON MAN" (COST 613)**  
**PROJECT INVENTORY**

<i>Institute, address:</i> Commission of the European Communities Joint Research Centre Environment Institute I-21020 ISPRA (VARESE) Italy		a
		b CEC 4
<i>Name of principal investigator:</i> Dr. Helmut KNÖPPEL		<i>Telephone No:</i> 0332 - 789204
<i>Descriptive project title:</i> Monitoring of VOC concentrations in some administrative buildings and investigations on possible links with occupant complaints		
<i>Keywords (see attached list):</i> pollutants, VOC, concentration, offices, complaint study, employee, field measurements, ventilation, occupants		
<i>Project start:</i> 1986		<i>(Evisaged) project end:</i> 1989
<i>Estimated man power:</i> 15 man year		<i>Estimated cost:</i>
<i>Institute, address:</i>		a
		b
<i>Name of principal investigator:</i>		<i>Telephone No:</i>
<i>Descriptive project title:</i>		
<i>Keywords (see attached list):</i>		
<i>Project start:</i>		<i>(Evisaged) project end:</i>
<i>Estimated man power:</i>		<i>Estimated cost:</i>
<i>Institute, address:</i>		a
		b
<i>Name of principal investigator:</i>		<i>Telephone No:</i>
<i>Descriptive project title:</i>		
<i>Keywords (see attached list):</i>		
<i>Project start:</i>		<i>(Evisaged) project end:</i>
<i>Estimated man power:</i>		<i>Estimated cost:</i>

**CONCERTED ACTION "INDOOR AIR QUALITY AND ITS IMPACT ON MAN" (COST 613)  
PROJECT INVENTORY**

<i>Institute, address:</i> The Danish Institute for Clinical Epidemiology 25, Svanemoellevej DK - 2100 Copenhagen 0		a
		b DK 1
<i>Name of principal investigator:</i> Niels Kr. Rasmussen		<i>Telephone No:</i> 45 120 7777
<i>Descriptive project title:</i> The Danish Health and Morbidity Survey 1986/87		
<i>Keywords (see attached list):</i> effects, allergy, asthma, complaints		
<i>Project start:</i> 01/1986		<i>(Evisaged) project end:</i> 12/1988
<i>Estimated man power:</i> 4 M/Y		<i>Estimated cost:</i>
<i>Institute, address:</i> Institute of Environmental and Occupational Medicine Aarhus Universitetet Bygn. 180, Universitetsparken DK - 8000 Aarhus C.		a
		b DK 2
<i>Name of principal investigator:</i> Lars Mølhave		<i>Telephone No:</i> 45 612 8288
<i>Descriptive project title:</i> Human reaction to formaldehyde vapours in a controlled experiment.		
<i>Keywords (see attached list):</i> controlled exposure, formaldehyde, effects, irritation		
<i>Project start:</i> 01/1983		<i>(Evisaged) project end:</i> 12/1987
<i>Estimated man power:</i> 8 M/Y		<i>Estimated cost:</i>
<i>Institute, address:</i> Institute of Environmental and Occupational Medicine Aarhus Universitetet Bygn. 180, Universitetsparken DK 8000 Aarhus C.		a
		b DK 3
<i>Name of principal investigator:</i> Lars Mølhave		<i>Telephone No:</i> 45 612 8288
<i>Descriptive project title:</i> n-Decane and n-Undecane, a litterature survey		
<i>Keywords (see attached list):</i>		
<i>Project start:</i> 01/1984		<i>(Evisaged) project end:</i> 12/1987
<i>Estimated man power:</i> 1 M/Y		<i>Estimated cost:</i>

**CONCERTED ACTION "INDOOR AIR QUALITY AND ITS IMPACT ON MAN" (COST 613)**  
**PROJECT INVENTORY**

<i>Institute, address:</i> Institute of Environmental and Occupational Medicine Aarhus Universitetet Bygn. 180, Universitetsparken <u>DK - 8000 Aarhus C.</u>		a
		b DK 4
<i>Name of principal investigator:</i> Lars Mølhave		<i>Telephone No:</i> 45 612 8288
<i>Descriptive project title:</i> Human reactions to volatile organic indoor air pollutants		
<i>Keywords (see attached list):</i> controlled exposure, VOC, effects, behavioural, physiological		
<i>Project start:</i> 01/1984		<i>(Evisaged) project end:</i> 12/1987
<i>Estimated man power:</i>		<i>Estimated cost:</i>
<i>Institute, address:</i> Institute of Environmental and Occupational Medicine Aarhus Universitetet Bygn. 180, Universitetsparken <u>DK - 8000 Aarhus C.</u>		a
		b DK 5
<i>Name of principal investigator:</i> Lars Mølhave		<i>Telephone No:</i> 45 612 8288
<i>Descriptive project title:</i> Ventilation systems as source for indoor air pollution		
<i>Keywords (see attached list):</i> ventilation, mechanical, ACS, sources, pollution		
<i>Project start:</i> 01/1986		<i>(Evisaged) project end:</i> 12/1987
<i>Estimated man power:</i> 1 MY		<i>Estimated cost:</i>
<i>Institute, address:</i> Institute of Environmental and Occupational Medicine Aarhus Universitetet Bygn. 180, Universitetsparken <u>DK - 8000 Aarhus C.</u>		a
		b DK 6
<i>Name of principal investigator:</i> Lars Mølhave		<i>Telephone No:</i> 45 612 8288
<i>Descriptive project title:</i> Human reaction to n-decane vapours		
<i>Keywords (see attached list):</i> controlled exposure, VOC, effects, behavioural, physiological		
<i>Project start:</i> 01/1984		<i>(Evisaged) project end:</i> 12/1987
<i>Estimated man power:</i> 5 MY		<i>Estimated cost:</i>

**CONCERTED ACTION "INDOOR AIR QUALITY AND ITS IMPACT ON MAN" (COST 613)****PROJECT INVENTORY**

<i>Institute, address:</i> Institute of Environmental and Occupational Medicine Aarhus Universitetet Bygn. 180, Universitetsparken <u>DK - 8000 Aarhus C.</u>		a
		b DK 7
<i>Name of principal investigator:</i> Henrik Harving/Lungeklinikken		<i>Telephone No.:</i> 45 612 8288
<i>Descriptive project title:</i> The reactions of astmatic patients to exposure to volatile organic indoor air pollution.		
<i>Keywords (see attached list):</i> controlled exposure, VOC, effects, susceptible groups, asthmatic		
<i>Project start:</i> 01/1985		<i>(Evisaged) project end:</i> 12/1987
<i>Estimated man power:</i> 1 MY		<i>Estimated cost:</i>
<i>Institute, address:</i> Institute of Environmental and Occupational Medicine Aarhus Universitetet Bygn. 180, Universitetsparken <u>DK - 8000 Aarhus C.</u>		a
		b DK 8
<i>Name of principal investigator:</i> Lars Mølhave		<i>Telephone No.:</i> 45 612 8288
<i>Descriptive project title:</i> International intercalibration of measurements of emissions from building materials		
<i>Keywords (see attached list):</i> emissions, pollutants, VOC, sources, building materials, chamber study, interlaboratory comparison		
<i>Project start:</i> 01/1987		<i>(Evisaged) project end:</i> 12/1988
<i>Estimated man power:</i> 1 MY		<i>Estimated cost:</i>
<i>Institute, address:</i> Institute of Environmental and Occupational Medicine Aarhus Universitetet Bygn. 180, Universitetsparken <u>DK - 8000 Aarhus C.</u>		a
		b DK 9
<i>Name of principal investigator:</i> Lars Mølhave		<i>Telephone No.:</i> 45 612 8288
<i>Descriptive project title:</i> Mathematical models for indoor air pollution due to emissions from building material. Standard setting.		
<i>Keywords (see attached list):</i> standards, emissions, VOC, building materials, models, concentrations		
<i>Project start:</i> 01/1986		<i>(Evisaged) project end:</i> 12/1989
<i>Estimated man power:</i> 1 MY		<i>Estimated cost:</i>

**CONCERTED ACTION "INDOOR AIR QUALITY AND ITS IMPACT ON MAN" (COST 613)****PROJECT INVENTORY**

<i>Institute, address:</i> Institute of Environmental and Occupational Medicine Aarhus Universitetet Bygn. 180, Universitetsparken <u>DK - 8000 Aarhus C.</u>		a
		b DK 10
<i>Name of principal investigator:</i> Lars Mølhave		<i>Telephone No:</i> 45 612 8288
<i>Descriptive project title:</i> Development of dust exposure facilities in a climate chamber.		
<i>Keywords (see attached list):</i> methods, developments, PM, exposure, chamber study		
<i>Project start:</i> 01/1988		<i>(Evisaged) project end:</i> 12/1989
<i>Estimated man power:</i> 1 MY		<i>Estimated cost:</i>
<i>Institute, address:</i> Institute of Environmental and Occupational Medicine Aarhus Universitetet Bygn. 180, Universitetsparken <u>DK - 8000 Aarhus C.</u>		a
		b DK 11
<i>Name of principal investigator:</i> Lars Mølhave		<i>Telephone No:</i> 45 612 8288
<i>Descriptive project title:</i> Human subjective evaluations of volatile organic indoor air pollutants.		
<i>Keywords (see attached list):</i> subjective evaluation, effects, sensory, pollutants, VOC		
<i>Project start:</i> 1/1987		<i>(Evisaged) project end:</i> 12/1988
<i>Estimated man power:</i> 1 MY		<i>Estimated cost:</i>
<i>Institute, address:</i> The Jutland Technological Institute Chemical Technology Department Technologiparken <u>DK - 8000 Aarhus C.</u>		a
		b DK 12
<i>Name of principal investigator:</i> Hanne Moeller Andersen		<i>Telephone No:</i> 45 612 4200
<i>Descriptive project title:</i> Microorganism in the indoor climate in relation to the standard of cleaning		
<i>Keywords (see attached list):</i> pollution, biological, sources		
<i>Project start:</i> 1/1988		<i>(Evisaged) project end:</i> 04/1988
<i>Estimated man power:</i> 0.1 MY		<i>Estimated cost:</i>

**CONCERTED ACTION "INDOOR AIR QUALITY AND ITS IMPACT ON MAN" (COST 613)****PROJECT INVENTORY**

<i>Institute, address:</i> Lungeklinikken og lungemedicinsk afdeling, Aarhus Kommunehospital <u>DK - 8000 Aarhus C</u>		a
		b DK 13
<i>Name of principal investigator:</i> Jens Korsgaard, Henrik Harving		<i>Telephone No:</i> 06 12 5555
<i>Descriptive project title:</i> Evaluation of the influence of mini-risk dwellings on persons with bronchial asthma and atopic eczema.		
<i>Keywords (see attached list) :</i> Evaluation, risk, dwellings, susceptible groups, asthmatics, atopics, asthma, effects.		
<i>Project start:</i> 03/1984	<i>(Evisaged) project end:</i> 08/1988	
<i>Estimated man power:</i> 8 MY	<i>Estimated cost:</i>	
<i>Institute, address:</i> SBI-Danish Building Research Institute P.O. Box 119 <u>DK 2970 Horsholm</u>		a
		b DK 14
<i>Name of principal investigator:</i> Peter A. Nielsen		<i>Telephone No:</i> 286 5533
<i>Descriptive project title:</i> Development of a test method for determination of mineral fibre emission from ceiling boards.		
<i>Keywords (see attached list) :</i> method, sampling, analysis		
<i>Project start:</i> 01/1985	<i>(Evisaged) project end:</i> 12/1988	
<i>Estimated man power:</i> 3 MY	<i>Estimated cost:</i>	
<i>Institute, address:</i> SBI-Danish Building Research Institute P.O. Box 119 <u>DK - 2970 Horsholm</u>		a
		b DK 15
<i>Name of principal investigator:</i> Niels Bergsoe		<i>Telephone No:</i> 286 5533
<i>Descriptive project title:</i> Investigations of air change rates and air quality in occupied buildings.		
<i>Keywords (see attached list) :</i> control techniques, ventilation, pollution		
<i>Project start:</i> 10/1987	<i>(Evisaged) project end:</i> 04/1989	
<i>Estimated man power:</i> 2 MY	<i>Estimated cost:</i>	



**CONCERTED ACTION "INDOOR AIR QUALITY AND ITS IMPACT ON MAN" (COST 613)****PROJECT INVENTORY**

<i>Institute, address:</i> SBI-Danish Building Research Institute P.O. Box 119 <u>DK - 2970 Horsholm</u>		a
		b DK 16
<i>Name of principal investigator:</i> Niels Bergsoe		<i>Telephone No:</i> 286 5533
<i>Descriptive project title:</i> Study of the perfluorocarbon tracer gas measurement technique and preliminary investigations of air change rates in occupied dwellings		
<i>Keywords (see attached list):</i> ventilation, field measurement, method, detection, dwellings		
<i>Project start:</i> 03/1986	<i>(Evisaged) project end:</i> 12/1988	
<i>Estimated man power:</i> 1.5 MY	<i>Estimated cost:</i>	
<i>Institute, address:</i> SBI-Danish Building Research Institute P.O. Box 119 <u>DK - 2970 Horsholm</u>		a
		b DK 17
<i>Name of principal investigator:</i> Ole Valbjørn		<i>Telephone No:</i> 286 5533
<i>Descriptive project title:</i> Air quality in modern schools without mechanical ventilation systems.		
<i>Keywords (see attached list):</i> natural-ventilation, schools, pollution		
<i>Project start:</i> 01/1987	<i>(Evisaged) project end:</i> 12/1988	
<i>Estimated man power:</i> 0.5 MY	<i>Estimated cost:</i>	
<i>Institute, address:</i> SBI-Danish Building Research Institute P.O. Box 119 <u>DK - 2970 Horsholm</u>		a
		b DK 18
<i>Name of principal investigator:</i> Peter A. Nielsen		<i>Telephone No:</i> 286 5533
<i>Descriptive project title:</i> Emission of gases and vapours from building materials.		
<i>Keywords (see attached list):</i> emission, pollutants, VOC, building materials, chamber study		
<i>Project start:</i> 01/1985	<i>(Evisaged) project end:</i> 12/1988	
<i>Estimated man power:</i> 1 MY	<i>Estimated cost:</i>	

**CONCERTED ACTION "INDOOR AIR QUALITY AND ITS IMPACT ON MAN" (COST 613)  
PROJECT INVENTORY**

<i>Institute, address:</i> SBI-Danish Building Research Institute P.O. Box 119 <u>DK - 2970 Horsholm</u>		a
		b DK 19
<i>Name of principal investigator:</i> Peter A. Nielsen		<i>Telephone No:</i> 286 5533
<i>Descriptive project title:</i> Radon in buildings.		
<i>Keywords (see attached list):</i> assessment, pollution, radon, buildings		
<i>Project start:</i> 01/1987		<i>(Evisaged) project end:</i> 12/1988
<i>Estimated man power:</i> .5 MY		<i>Estimated cost:</i>
<i>Institute, address:</i> SBI-Danish Building Research Institute P.O. Box 119 <u>DK - 2970 Horsholm</u>		a
		b DK 20
<i>Name of principal investigator:</i> Peder Skov and Ole Valbjørn		<i>Telephone No:</i> 286 5533
<i>Descriptive project title:</i> The Sick Building Syndrome in the Office Environment. The Danish Town Hall Study.		
<i>Keywords (see attached list):</i> SBS, offices		
<i>Project start:</i> 1/1983		<i>(Evisaged) project end:</i> 12/1988
<i>Estimated man power:</i> 6.5 MY		<i>Estimated cost:</i>
<i>Institute, address:</i> Health Physics Department Risø National Laboratory <u>DK - 4000 Roskilde</u>		a
		b DK 21
<i>Name of principal investigator:</i> B. Majborn		<i>Telephone No:</i> 452371212
<i>Descriptive project title:</i> Investigation of factors influencing indoor radon concentrations.		
<i>Keywords (see attached list):</i> radon, concentrations, variations, control, measurement, residences, soil characteristics, meteorological factors.		
<i>Project start:</i> 01/1986		<i>(Evisaged) project end:</i> 12/1987
<i>Estimated man power:</i> 1.6 M/Y		<i>Estimated cost:</i>

**CONCERTED ACTION "INDOOR AIR QUALITY AND ITS IMPACT ON MAN" (COST 613)****PROJECT INVENTORY**

<i>Institute, address:</i> National Board of Health National Institute of Radiation Hygiene Frederikssundsvej 378 DK - 2700 Broenshoej		a
		b DK 22
<i>Name of principal investigator:</i> Kaare Ulbak		<i>Telephone No:</i> 294 3773
<i>Descriptive project title:</i> Natural Radiation in Danish Dwellings		
<i>Keywords (see attached list):</i> representative survey, radon concentrations, external radiation, annual exposures.		
<i>Project start:</i> 01/1984		<i>(Evisaged) project end:</i> 12/1987
<i>Estimated man power:</i>		<i>Estimated cost:</i>
<i>Institute, address:</i> Teknologisk Institut Byggeteknik Oregersensvej DK - 2630 Taastrup		a
		b DK 23
<i>Name of principal investigator:</i> Morten Egedorf		<i>Telephone No:</i> 02 996611
<i>Descriptive project title:</i> Compensation of variations in natural ventilation.		
<i>Keywords (see attached list):</i> natural-ventilation, variations, control		
<i>Project start:</i> 01/1986		<i>(Evisaged) project end:</i> 12/1988
<i>Estimated man power:</i> .4 M		<i>Estimated cost:</i>
<i>Institute, address:</i> Teknologisk Institut Byggeteknik Oregersensvej DK - 2630 Taastrup		a
		b DK 24
<i>Name of principal investigator:</i> Hanne Dybro		<i>Telephone No:</i> 02 996611
<i>Descriptive project title:</i> Dimensioning of natural ventilation in small houses		
<i>Keywords (see attached list):</i> natural-ventilation, assessment		
<i>Project start:</i> 08/1985		<i>(Evisaged) project end:</i> 04/1988
<i>Estimated man power:</i>		<i>Estimated cost:</i>

**CONCERTED ACTION "INDOOR AIR QUALITY AND ITS IMPACT ON MAN" (COST 613)**  
**PROJECT INVENTORY**

<i>Institute, address:</i> Teknologisk Institut Byggeteknik Oregersensvej <u>DK - 2630 Taastrup</u>		a
		b DK 25
<i>Name of principal investigator:</i> Morten Egedorf		<i>Telephone No:</i> 02 996611
<i>Descriptive project title:</i> Development of an automatic ventilating flop		
<i>Keywords (see attached list):</i> ventilation, technique, development		
<i>Project start:</i> 08/1982		<i>(Evisaged) project end:</i> 12/1987
<i>Estimated man power:</i> 0.4 MY		<i>Estimated cost:</i>
<i>Institute, address:</i> Teknologisk Institut Byggeteknik Oregersensvej <u>DK - 2630 Taastrup</u>		a
		b DK 26
<i>Name of principal investigator:</i> Morten Egedorf		<i>Telephone No:</i> 02 996611
<i>Descriptive project title:</i> Test of an automatic ventilating flop		
<i>Keywords (see attached list):</i> ventilation, technique, assessment		
<i>Project start:</i> 01/1981		<i>(Evisaged) project end:</i> 12/1987
<i>Estimated man power:</i> 0.4 MY		<i>Estimated cost:</i>
<i>Institute, address:</i> Teknologisk Institut Byggeteknik Oregersensvej <u>DK - 2630 Taastrup</u>		a
		b DK 27
<i>Name of principal investigator:</i> Morten Egedorf		<i>Telephone No:</i> 02 996611
<i>Descriptive project title:</i> Simplification of mechanical ventilation in institutions for children		
<i>Keywords (see attached list):</i> ventilation, mechanical, buildings, schools		
<i>Project start:</i>		<i>(Evisaged) project end:</i> 12/1987
<i>Estimated man power:</i> 0.6 MY		<i>Estimated cost:</i>

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PROJECT INVENTORY**

<i>Institute, address:</i> Teknologisk Institut Byggeteknik Oregersensvej <u>DK - 2630 Taastrup</u>		a
		b DK 28
<i>Name of principal investigator:</i> Morten Egedorf		<i>Telephone No:</i> 02 996611
<i>Descriptive project title:</i> Energy saving by requirement controlled ventilation		
<i>Keywords (see attached list):</i> ventilation, energy conservation		
<i>Project start:</i> /1987	<i>(Evisaged) project end:</i> 12/1989	
<i>Estimated man power:</i> 0.3 MY	<i>Estimated cost:</i>	
<i>Institute, address:</i> Teknologisk Institut Byggeteknik Oregersensvej <u>DK - 2630 Taastrup</u>		a
		b DK 29
<i>Name of principal investigator:</i> Morten Egedorf, P. F. Collet		<i>Telephone No:</i> 02 996611
<i>Descriptive project title:</i> Measurement of user controlled air change in 3 mechanically ventilated low energy houses in Hjortekar.		
<i>Keywords (see attached list):</i> ventilation, measurement		
<i>Project start:</i> /1985	<i>(Evisaged) project end:</i> /1988	
<i>Estimated man power:</i> 0.15 MY	<i>Estimated cost:</i>	
<i>Institute, address:</i> Teknologisk Institut Byggeteknik Oregersensvej <u>DK - 2630 Taastrup</u>		a
		b DK 30
<i>Name of principal investigator:</i> P. C. Collet		<i>Telephone No:</i> 02 996611
<i>Descriptive project title:</i> Examination of the influence of forced ventilation of the crawling space on the concentration of radon in habitations		
<i>Keywords (see attached list):</i> ventilation, radon, concentrations, control, residences		
<i>Project start:</i> 01/1988	<i>(Evisaged) project end:</i> 07/1988	
<i>Estimated man power:</i> .53	<i>Estimated cost:</i>	

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<i>Institute, address:</i> Danish National Institute of Occupational Health Baunegaardsvej 73 <u>DK - 2900 Hellerup</u>		a
		b DK 31
<i>Name of principal investigator:</i> Thomas Schneider		<i>Telephone No:</i> 01-682868
<i>Descriptive project title:</i> Detection of asbestos in very low concentrations		
<i>Keywords (see attached list):</i> asbestos, methods, detection		
<i>Project start:</i> 05/1986		<i>(Evisaged) project end:</i> 10/1987
<i>Estimated man power:</i>		<i>Estimated cost:</i>
<i>Institute, address:</i> Danish National Institute of Occupational Health Baunegaardsvej 73 <u>DK - 2900 Hellerup</u>		a
		b DK 32
<i>Name of principal investigator:</i> G. Damgard Nielsen		<i>Telephone No:</i> 01-682868
<i>Descriptive project title:</i> Preliminary project for the set-up of a bio-assay for airway irritants off-gasing from building materials		
<i>Keywords (see attached list):</i> bioassay, mice, VOC, chamber-study, building-materials		
<i>Project start:</i> 5/1987		<i>(Evisaged) project end:</i>
<i>Estimated man power:</i> 1 MY		<i>Estimated cost:</i>
<i>Institute, address:</i> Danish National Institute of Occupational Health Baunegaardsvej 73 <u>DK - 2900 Hellerup</u>		a
		b DK 33
<i>Name of principal investigator:</i> Wolkoff/Nielsen		<i>Telephone No:</i> 01-682868
<i>Descriptive project title:</i> Emission from waterborne paints post application		
<i>Keywords (see attached list):</i> waterborne paints, chamber-study, models, VOC, emissions, sources, building-materials		
<i>Project start:</i> /1985		<i>(Evisaged) project end:</i> 12/1988
<i>Estimated man power:</i> 2MY		<i>Estimated cost:</i>

**CONCERTED ACTION "INDOOR AIR QUALITY AND ITS IMPACT ON MAN" (COST 613)**  
**PROJECT INVENTORY**

<i>Institute, address:</i> Danish National Institute of Occupational Health Baunegaardsvej 73 <u>DK - 2900 Hellerup</u>		a
		b DK 34
<i>Name of principal investigator:</i> Wolkoff/Nielsen/Moelhave		<i>Telephone No:</i> 01-682868
<i>Descriptive project title:</i> The twin apartment study		
<i>Keywords (see attached list):</i> VOC, models, HCHO, ventilation, building-materials, chamber-study		
<i>Project start:</i> 09/1987		<i>(Evisaged) project end:</i> 12/1989
<i>Estimated man power:</i> 4MY		<i>Estimated cost:</i>
<i>Institute, address:</i> Danish National Institute of Occupational Health Baunegaardsvej 73 <u>DK - 2900 Hellerup</u>		a
		b DK 35
<i>Name of principal investigator:</i> Wolkoff/Nielsen		<i>Telephone No:</i> 01-682868
<i>Descriptive project title:</i> Cryogenic trapping of VOC		
<i>Keywords (see attached list):</i> VOC, methods, sampling		
<i>Project start:</i> 01/1988		<i>(Evisaged) project end:</i> 01/1989
<i>Estimated man power:</i> 1MY		<i>Estimated cost:</i>
<i>Institute, address:</i> Danish National Institute of Occupational Health Baunegaardsvej 73 <u>DK - 2900 Hellerup</u>		a
		b DK 36
<i>Name of principal investigator:</i> N. O. Breum		<i>Telephone No:</i> 01-682868
<i>Descriptive project title:</i> How to measure the ventilation efficiency		
<i>Keywords (see attached list):</i> ventilation, measurement, validation		
<i>Project start:</i> 04/1986		<i>(Evisaged) project end:</i> 05/1987
<i>Estimated man power:</i> 2MY		<i>Estimated cost:</i> D.Kr. 500.000

**CONCERTED ACTION "INDOOR AIR QUALITY AND ITS IMPACT ON MAN" (COST 613)****PROJECT INVENTORY**

<i>Institute, address:</i> Danish Environmental Center A/S Smedeskovvej 38 <u>DK - 8464 Galten</u>		a
		b DK 37
<i>Name of principal investigator:</i> Sv.Aa. Linde/Lene Hansen		<i>Telephone No:</i> 06 944266
<i>Descriptive project title:</i> Emission of amines and organic acids from building materials. Development of test and analytical methods.		
<i>Keywords (see attached list):</i> building-materials, concentrations, exposure, pollutants, emissions, sources, SVOC, VOC		
<i>Project start:</i> 01/1987		<i>(Evisaged) project end:</i> 06/1989
<i>Estimated man power:</i> 3 MY		<i>Estimated cost:</i>
<i>Institute, address:</i> Institute of environmental and occupational medicine University of Aarhus <u>DK - 8000 Aarhus C</u>		a
		b DK 38
<i>Name of principal investigator:</i> Soeren Kjaergaard		<i>Telephone No:</i> 06 128288
<i>Descriptive project title:</i> Health effects of Nitrogen oxides in the indoor air		
<i>Keywords (see attached list):</i> review, NO <sub>x</sub> , effects, health, exposure		
<i>Project start:</i> /1986		<i>(Evisaged) project end:</i> /1986
<i>Estimated man power:</i> 1 MY		<i>Estimated cost:</i>
<i>Institute, address:</i> Institute of environmental and occupational medicine University of Aarhus <u>DK - 8000 Aarhus C</u>		a
		b DK 39
<i>Name of principal investigator:</i> Soeren Kjaergaard		<i>Telephone No:</i> 06128288
<i>Descriptive project title:</i> A documentation of health effects due to exposure to nitrogen dioxide and nitrogen oxide		
<i>Keywords (see attached list):</i> review, TLV, NO <sub>x</sub> , health, effects, concentrations, standards		
<i>Project start:</i> /1987		<i>(Evisaged) project end:</i> /1988
<i>Estimated man power:</i> 1 MY		<i>Estimated cost:</i>



**CONCERTED ACTION "INDOOR AIR QUALITY AND ITS IMPACT ON MAN" (COST 613)  
PROJECT INVENTORY**

<i>Institute, address:</i> Institute of environmental and occupational medicine University of Aarhus DK - 8000 Aarhus C		a
		b DK 40
<i>Name of principal investigator:</i> Soeren Kjaergaard, Ole Find Pedersen		<i>Telephone No:</i> 06128288
<i>Descriptive project title:</i> An exposure study with nitrogen dioxide exposure of healthy and astmatic subjects in climate chambers		
<i>Keywords (see attached list):</i> exposure, NO <sub>x</sub> , effects, lung-function, bronchoreactivity, nasal-function, irritation, susceptible-groups, asthmatic, chamber-study, NO <sub>2</sub>		
<i>Project start:</i>	<i>(Evisaged) project end:</i>	
<i>Estimated man power:</i>	<i>Estimated cost:</i>	
<i>Institute, address:</i> Laboratory of Heating and Air Conditioning Technical University of Denmark Building 402 A DK-2800 Lyngby		a
		b DK 41
<i>Name of principal investigator:</i> P.O.Fanger		<i>Telephone No:</i> 45 42 88 46 22
<i>Descriptive project title:</i> Ventilation requirements in buildings		
<i>Keywords (see attached list):</i> ventilation, buildings, sensory effects, measurements, standards		
<i>Project start:</i> 07/1987	<i>(Evisaged) project end:</i> 12/1991	
<i>Estimated man power:</i> 4 M/Y	<i>Estimated cost:</i>	
<i>Institute, address:</i> Laboratory of Heating and Air Conditioning Technical University of Denmark Building 402 A DK-2800 Lyngby		a
		b DK 42
<i>Name of principal investigator:</i> P.O.Fanger		<i>Telephone No:</i> 45 42 88 46 22
<i>Descriptive project title:</i> Olf-values for materials		
<i>Keywords (see attached list):</i> database, pollution, sensory effects, models, source		
<i>Project start:</i> 01/1988	<i>(Evisaged) project end:</i> 12/1990	
<i>Estimated man power:</i> 4 M/Y	<i>Estimated cost:</i>	

**CONCERTED ACTION "INDOOR AIR QUALITY AND ITS IMPACT ON MAN" (COST 613)****PROJECT INVENTORY**

<i>Institute, address:</i> Laboratory of Heating and Air Conditioning Technical University of Denmark Building 402 A DK-2800 Lyngby		a
		b DK 43
<i>Name of principal investigator:</i> P.O.Fanger		<i>Telephone No:</i> 45 42 88 46 22
<i>Descriptive project title:</i> Air pollution sources in ventilation systems		
<i>Keywords (see attached list):</i> ACS, sources, pollution, sensory effects		
<i>Project start:</i> 01/1988		<i>(Evisaged) project end:</i> 07/1990
<i>Estimated man power:</i> 5 M/Y		<i>Estimated cost:</i>
<i>Institute, address:</i> Danish National Institute of Occupational Health Baunegaardsvej 73 2900 Hellerup		a
		b DK 44
<i>Name of principal investigator:</i> Ole Holm Petersen		<i>Telephone No:</i>
<i>Descriptive project title:</i> Easy method for measuring dust on surfaces and the effectiveness of cleaning		
<i>Keywords (see attached list):</i> variations of concentrations, exposure measurement		
<i>Project start:</i> 03/1987		<i>(Evisaged) project end:</i> 03/1988
<i>Estimated man power:</i> 1 MY		<i>Estimated cost:</i>
<i>Institute, address:</i>		a
		b
<i>Name of principal investigator:</i>		<i>Telephone No:</i>
<i>Descriptive project title:</i>		
<i>Keywords (see attached list):</i>		
<i>Project start:</i>		<i>(Evisaged) project end:</i>
<i>Estimated man power:</i>		<i>Estimated cost:</i>

**CONCERTED ACTION "INDOOR AIR QUALITY AND ITS IMPACT ON MAN" (COST 613)****PROJECT INVENTORY**

<i>Institute, address:</i> ELECTRICITE DE FRANCE (EDF)      avec:      Commissariat à l'Energie Atomique (C.E.A.) Direction des Etudes et Recherches      Laboratoire d'Hygiène de la Ville de Paris (LHVP) 6 quai Watier      Laboratoire National d'Essais <u>F - 78401 Chatou Cedex</u>		a
		b F 1
<i>Name of principal investigator:</i> J. Cl. Loewenstein		<i>Telephone No:</i> 30.71.76.12
<i>Descriptive project title:</i> Indoor air pollution: sources inventory, measurement techniques development, emission factors characterisation, sanitary risks evaluation.		
<i>Keywords (see attached list):</i> sources, measurement, exposure, emissions, inventory, methods, risk, evaluation, development, chamber-study		
<i>Project start:</i> /1988		<i>(Evisaged) project end:</i> /1990
<i>Estimated man power:</i> 8 MY		<i>Estimated cost:</i> F 1,600'000
<i>Institute, address:</i> Centre de la Pierre Laboratoire Municipal de Bordeaux 17 quai de la Monnaie <u>F - 33800 Bordeaux</u>		a
		b F 2
<i>Name of principal investigator:</i> J. G. Faugere		<i>Telephone No:</i> 56.31.36.36
<i>Descriptive project title:</i> Microbiological and fungal contaminations in buildings or flats at different steps of renovation.		
<i>Keywords (see attached list):</i> biological pollution, building, residences, renovation		
<i>Project start:</i> /1988		<i>(Evisaged) project end:</i>
<i>Estimated man power:</i>		<i>Estimated cost:</i>
<i>Institute, address:</i> Centre Hospitalier Régional Universitaire de Strasbourg Service de Pneumologie II Pavillon Laennec BP 421 <u>F - 67091 Strasbourg Cédex</u>		a
		b F 3
<i>Name of principal investigator:</i> Me G. Pauli		<i>Telephone No:</i>
<i>Descriptive project title:</i> Indoor organic pollution from animal origin (Acarus) in relation to respiratory allergies in habitations.		
<i>Keywords (see attached list):</i> biological, pollution, allergy, effects, respiratory		
<i>Project start:</i> /1988		<i>(Evisaged) project end:</i>
<i>Estimated man power:</i>		<i>Estimated cost:</i>

**CONCERTED ACTION "INDOOR AIR QUALITY AND ITS IMPACT ON MAN" (COST 613)  
PROJECT INVENTORY**

<i>Institute, address:</i> Laboratoire d'Hygiène de la Ville de Paris (LHVP)      avec: Laboratoire des Particules Inhalées 1 bis rue des Hospitalières Saint-Gervais      et Médecine Scolaire Ville de Paris, CHRU <u>F - 75004 Paris</u> Angers		a
		b F 4
<i>Name of principal investigator:</i> Pr B. Festy		<i>Telephone No:</i> 42.74.13.14
<i>Descriptive project title:</i> Atmospheric pollution and health in schools		
<i>Keywords (see attached list):</i> schools, chemical, biological, pollution, noise, sources, behavioural, effects		
<i>Project start:</i> /1988		<i>(Evisaged) project end:</i> /1991
<i>Estimated man power:</i> 10 MY		<i>Estimated cost:</i> F 850,000
<i>Institute, address:</i> Centre Hospitalier Régional Universitaire d'Angers (CHRU Angers) Laboratoire de Pharmacologie et de Toxicologie <u>F - 45040 Angers Cédex</u>		a
		b F 5
<i>Name of principal investigator:</i> Pr. P. Allain		<i>Telephone No:</i> 41.88.69.51
<i>Descriptive project title:</i> Identification and determination of volatile organic compounds in the atmosphere of collective buildings and in the expired air of the inhabitants.		
<i>Keywords (see attached list):</i> swimming-halls, schools, VOC, pollution, exposure, buildings, measurement		
<i>Project start:</i> /1988		<i>(Evisaged) project end:</i>
<i>Estimated man power:</i>		<i>Estimated cost:</i>
<i>Institute, address:</i> Institut de Médecine du Travail - Université Paris VI Faculté de Médecine Broussais - Hôtel Dieu avec INSERM U139 CRETEIL - Laboratoire des Particules Inhalées (LEPI) <u>Ville de Paris</u>		a
		b F 6
<i>Name of principal investigator:</i> Pr. J. Proteau		<i>Telephone No:</i>
<i>Descriptive project title:</i> Revaluation of asbestos exposure in relation to an exposed population in university buildings.		
<i>Keywords (see attached list):</i> buildings, schools, exposure, asbestos, epidemiology		
<i>Project start:</i> /1988		<i>(Evisaged) project end:</i>
<i>Estimated man power:</i>		<i>Estimated cost:</i>

**CONCERTED ACTION "INDOOR AIR QUALITY AND ITS IMPACT ON MAN" (COST 613)**  
**PROJECT INVENTORY**

<i>Institute, address:</i> Hôpital Sabourin Clinique de Pneumologie BP 125 <u>F - 63020 Clermont Ferrand</u>		a
		b F 7
<i>Name of principal investigator:</i> Pr Cl. Molina		<i>Telephone No:</i> 72.26.83.25
<i>Descriptive project title:</i> Sick building syndrome and air conditioning.		
<i>Keywords (see attached list):</i> ACS, SBS, effects		
<i>Project start:</i> /1988		<i>(Evisaged) project end:</i>
<i>Estimated man power:</i>		<i>Estimated cost:</i>
<i>Institute, address:</i> Centre Hospitalier Universitaire (CHU) de Créteil avec: CHU Saint-Antoine ( U - INSERM 139 et 51 avenue du Maréchal Delattre de Tassigny Service Parasito-mycologie) <u>F - 94010 Créteil Cédex</u>		a
		b F 8
<i>Name of principal investigator:</i> Dr Me M. Feuilhade de Chanvin		<i>Telephone No:</i>
<i>Descriptive project title:</i> Development of methods for indoor fungal contamination		
<i>Keywords (see attached list):</i> methods,sampling-analysis,development,validation,pollutants,biological,funghi, buildings,hospitals,residences		
<i>Project start:</i> /1988		<i>(Evisaged) project end:</i>
<i>Estimated man power:</i>		<i>Estimated cost:</i>
<i>Institute, address:</i> Commissariat à l'Energie Atomiques (C.E.A.) avec: Electricité de France (EDF) et Laboratoire Institut Protection Sanitaire d'Hygiène de la Ville de Paris (LHVP) BP n. 6 <u>F - 92265 Fontenay aux Roses Cédex</u>		a
		b F 9
<i>Name of principal investigator:</i> Mr F. Anguenot		<i>Telephone No:</i> 46.54.74.51.
<i>Descriptive project title:</i> Inventory of domestic pollutions in relation to combustion, household products,odd jobs - measurement techniques		
<i>Keywords (see attached list):</i> methods,sampling-analysis,evaluation,pollutants,sources,combustion, household-products,hobby,buildings,residences		
<i>Project start:</i> /1987		<i>(Evisaged) project end:</i>
<i>Estimated man power:</i>		<i>Estimated cost:</i>

**CONCERTED ACTION "INDOOR AIR QUALITY AND ITS IMPACT ON MAN" (COST 613)**  
**PROJECT INVENTORY**

<i>Institute, address:</i> Association pour la Prévention de la Pollution Atmosphérique (APPA) Pays de Loire BP 527 F - 44026 Nantes Cédex Société d'Etudes des Risques Toxiques La Charterie Route de Gachel, BP 527, F - 44026 Nantes Cédex 03		a
		b F 10
<i>Name of principal investigator:</i> H. L. Boiteau		<i>Telephone No:</i> 40.48.56.90
<i>Descriptive project title:</i> Indoor air pollution due to household products and odd jobs		
<i>Keywords (see attached list):</i> hobby, sources, residences, household-products, emissions, measurements		
<i>Project start:</i> /1988		<i>(Evisaged) project end:</i>
<i>Estimated man power:</i>		<i>Estimated cost:</i>
<i>Institute, address:</i> A:P.P.A. Comité Marseille Provence 36 Rue Edouard-Delanglade Laboratoire de Toxicologie Générale et Biotoxicologie Laboratoire de Chimie Analytique- Faculté de Pharmacie 27 boulevard Jean-Moulin, F - 13385 Marseille		a
		b F 11
<i>Name of principal investigator:</i> Pr A. Viala		<i>Telephone No:</i>
<i>Descriptive project title:</i> Indoor air pollution: study in school and university building		
<i>Keywords (see attached list):</i> schools, exposure, pollution, metals, aldehydes, VOC		
<i>Project start:</i> /1988		<i>(Evisaged) project end:</i>
<i>Estimated man power:</i>		<i>Estimated cost:</i>
<i>Institute, address:</i> Institut de Protection et de Sureté Nucléaire Département de Protection Sanitaire BP 6 F - 92265 Fontenay aus Roses Cédex		a
		b F 12
<i>Name of principal investigator:</i> G. Monchaux, J. P. Morlier, M. Morin		<i>Telephone No:</i>
<i>Descriptive project title:</i> Experimental study of the potential cocarcinogenic effects of combined exposure to radon and formaldehyde in rats.		
<i>Keywords (see attached list):</i> cancerogenic, effects, radon, HCHO, exposure, animal-study, pollutants		
<i>Project start:</i> /1988		<i>(Evisaged) project end:</i> /1991
<i>Estimated man power:</i> 2.5 M/Y		<i>Estimated cost:</i>

**CONCERTED ACTION "INDOOR AIR QUALITY AND ITS IMPACT ON MAN" (COST 613)  
PROJECT INVENTORY**

<i>Institute, address:</i> Institut de Protection et de Sureté Nucléaire Département de Protection Sanitaire BP 6 F - 92265 Fontenay aus Roses Cédex		a
		b F 13
<i>Name of principal investigator:</i> Dr J. Aiqueperse and F. Anguenot		<i>Telephone No:</i> (1) 46547047
<i>Descriptive project title:</i> Evaluation of exposure from household and hobby products emissions		
<i>Keywords (see attached list):</i> exposure, concentrations, household-products, hobby, VOC, SVOC, database, evaluation, emissions, pollutants, sources		
<i>Project start:</i> /1987		<i>(Evisaged) project end:</i> /1990
<i>Estimated man power:</i> 1.5 M/Y		<i>Estimated cost:</i>
<i>Institute, address:</i> Institut de Protection et de Sureté Nucléaire Département de Protection Sanitaire BP 6 F - 92265 Fontenay aus Roses Cédex		a
		b F 14
<i>Name of principal investigator:</i> F. Anguenot and Dr J. Aiqueperse		<i>Telephone No:</i> (1) 46547451
<i>Descriptive project title:</i> Evaluation of exposure from wood-burning fireplace emissions		
<i>Keywords (see attached list):</i> exposure, concentrations, pollutants, sources, combustion, evaluation, NOX, VOC, POM, PAH		
<i>Project start:</i> /1987		<i>(Evisaged) project end:</i> /1990
<i>Estimated man power:</i> 1 M/Y		<i>Estimated cost:</i>
<i>Institute, address:</i> Institut de Protection et de Sureté Nucléaire Département de Protection Sanitaire CEN:FAR - BP 6 F - 92265 Fontenay aus Roses		a
		b F 15
<i>Name of principal investigator:</i> A. Rannou		<i>Telephone No:</i> (1) 46547718
<i>Descriptive project title:</i> Assessment of the indoor radon exposure in France		
<i>Keywords (see attached list):</i> pollution, radon, exposure		
<i>Project start:</i> 05/1983		<i>(Evisaged) project end:</i> 12/1990
<i>Estimated man power:</i> 10 M/Y		<i>Estimated cost:</i>

**CONCERTED ACTION "INDOOR AIR QUALITY AND ITS IMPACT ON MAN" (COST 613)  
PROJECT INVENTORY**

<i>Institute, address:</i> Commissariat à l'Energie Atomique Centres d'Etudes Nucléaires de Fontenay-aux-Roses BP 6 <u>F - 92265 Fontenay-aux-Roses Cédex France</u>		a
		b F 16
<i>Name of principal investigator:</i> Marie-Line Perrin		<i>Telephone No:</i> (1) 46547204
<i>Descriptive project title:</i> Indoor air pollution: characterization of emission factors of odorous compounds a/o aerosols by housing equipment and equipment for the well-being of occupants		
<i>Keywords (see attached list):</i> standards, odours, PM, exposure, sources, emissions, measurement, methods, buildings, residences, offices, household-products, pollution, detection, methods		
<i>Project start:</i> 06/1988		<i>(Evisaged) project end:</i> 12/1989
<i>Estimated man power:</i> .25 M/Y		<i>Estimated cost:</i> F 400,000
<i>Institute, address:</i> Laboratoire d'Hygiène de la Ville de Paris (L.H.V.P) 1 bis, rue des Hospitalières St Gervais <u>F - 75004 Paris</u>		a
		b F 17
<i>Name of principal investigator:</i> B. Festy, A. Person, A. M. Laurent		<i>Telephone No:</i> 42.74.13.14
<i>Descriptive project title:</i> Assessment of environmental tobacco smoke (ETS) contribution to the indoor air quality		
<i>Keywords (see attached list):</i> pollution, ETS, exposure, chamber study, models		
<i>Project start:</i> /1986		<i>(Evisaged) project end:</i>
<i>Estimated man power:</i>		<i>Estimated cost:</i>
<i>Institute, address:</i> Laboratoire d'Hygiène de la Ville de Paris (L.H.V.P) 1 bis, rue des Hospitalières St Gervais <u>F - 75004 Paris</u>		a
		b F 18
<i>Name of principal investigator:</i> A. Person, B. Festy		<i>Telephone No:</i> 42.74.13.14
<i>Descriptive project title:</i> Characterization of emission inside domestic environments. Assessment of personal cumulative exposure to organic air pollutants in urban area		
<i>Keywords (see attached list):</i> buildings, residences, pollutants, HCHO, NOx, VOC, SVOC, PM, metals, concentrations, exposure, variations		
<i>Project start:</i> /1987		<i>(Evisaged) project end:</i> /1989
<i>Estimated man power:</i> 2 MY		<i>Estimated cost:</i>



**CONCERTED ACTION "INDOOR AIR QUALITY AND ITS IMPACT ON MAN" (COST 613)****PROJECT INVENTORY**

<i>Institute, address:</i> Laboratoire d'Hygiène de la Ville de Paris (L.H.V.P) 1bis, rue des Hospitalières St Gervais <u>F - 75004 Paris</u>		a
		b F 19
<i>Name of principal investigator:</i> A. Person, B. Festy		<i>Telephone No:</i> 42.74.13.14
<i>Descriptive project title:</i> Characterization of indoor air quality in covered swimming pools		
<i>Keywords (see attached list):</i> VOC, aldehydes, halogenated-HC, buildings, chloramines, exposure, emissions, field-measurements, swimming-halls		
<i>Project start:</i> /1986	<i>(Evisaged) project end:</i>	
<i>Estimated man power:</i> 1 MY	<i>Estimated cost:</i>	
<i>Institute, address:</i> Préfecture de Police - Laboratoire Central 39bis rue de Dantzig <u>F - 75015 Paris</u>		a
		b F 20
<i>Name of principal investigator:</i> M. Donati		<i>Telephone No:</i> 45.31.14.80
<i>Descriptive project title:</i> Control of combustion appliances in residences and measurement of pollutants (carbon monoxide and carbon dioxide) in residences		
<i>Keywords (see attached list):</i> sources, combustion, buildings, residences, pollution, inorganic, concentrations, field measurements		
<i>Project start:</i> permanent	<i>(Evisaged) project end:</i>	
<i>Estimated man power:</i> 10 M/Y	<i>Estimated cost:</i>	
<i>Institute, address:</i> Préfecture de Police - Laboratoire Central 39bis rue de Dantzig <u>F - 75015 Paris</u>		a
		b F 21
<i>Name of principal investigator:</i> M. Donati		<i>Telephone No:</i> 45.31.14.80
<i>Descriptive project title:</i> Determination of atmospheric pollution		
<i>Keywords (see attached list):</i> pollution, HCHO, NOx, SVOC, POM, field measurements		
<i>Project start:</i> permanent	<i>(Evisaged) project end:</i>	
<i>Estimated man power:</i> 10 M/Y	<i>Estimated cost:</i>	

**CONCERTED ACTION "INDOOR AIR QUALITY AND ITS IMPACT ON MAN" (COST 613)****PROJECT INVENTORY**

<i>Institute, address:</i> Préfecture de Police - Laboratoire Central 39bis rue de Dantzig <u>F - 75015 Paris</u>		a
		b F 22
<i>Name of principal investigator:</i> M. Donati		<i>Telephone No:</i> 45.31.14.80
<i>Descriptive project title:</i> Test methods for atmospheric pollution		
<i>Keywords (see attached list) :</i> methods, sampling-analysis, pollution, evaluation		
<i>Project start:</i> permanent		<i>(Evisaged) project end:</i>
<i>Estimated man power:</i> 10 M/Y		<i>Estimated cost:</i>
<i>Institute, address:</i> Préfecture de Police - Laboratoire Central 39bis rue de Dantzig <u>F - 75015 Paris</u>		a
		b F 23
<i>Name of principal investigator:</i> M. Donati		<i>Telephone No:</i> 45.31.14.80
<i>Descriptive project title:</i> Determination of temperature and humidity		
<i>Keywords (see attached list) :</i> climate, field measurements		
<i>Project start:</i> permanent		<i>(Evisaged) project end:</i>
<i>Estimated man power:</i> 10 M/Y		<i>Estimated cost:</i>
<i>Institute, address:</i> Préfecture de Police - Laboratoire Central 39bis rue de Dantzig <u>F - 75015 Paris</u>		a
		b F 24
<i>Name of principal investigator:</i> M. Donati		<i>Telephone No:</i> 45.31.14.80
<i>Descriptive project title:</i> Determination of temperature, humidity, Carbon dioxide and monoxide, account of germs		
<i>Keywords (see attached list) :</i> SBS, pollution, inorganic, biological, climate, field-measurements		
<i>Project start:</i> permanent		<i>(Evisaged) project end:</i>
<i>Estimated man power :</i> 10 M/Y		<i>Estimated cost:</i>

**CONCERTED ACTION "INDOOR AIR QUALITY AND ITS IMPACT ON MAN" (COST 613)****PROJECT INVENTORY**

<i>Institute, address:</i> C.S.T.B. 84, av. Jean Jaurés Champs/Marne <u>F - 77421 Marne la Vallée Cédex 02</u>		a
		b F 25
<i>Name of principal investigator:</i> D. Bienfait		<i>Telephone No.</i> 1-60.05.90.58
<i>Descriptive project title:</i> Quality assessment of ventilation techniques in residential building		
<i>Keywords (see attached list):</i> buildings, chamber-study, evaluation, standards, ventilation, methods, residences		
<i>Project start:</i> /1987	<i>(Evisaged) project end:</i>	
<i>Estimated man power:</i> 0.3 MY	<i>Estimated cost:</i> FF 300,000	
<i>Institute, address:</i> C.S.T.B. 84, av. Jean Jaurés Champs/Marne <u>F - 77421 Marne la Vallée Cédex 02</u>		a
		b F 26
<i>Name of principal investigator:</i> D. Bienfait		<i>Telephone No.</i> 1-60.05.90.58
<i>Descriptive project title:</i> Compared efficiency of ventilation techniques with regard to the heat losses and air quality		
<i>Keywords (see attached list):</i> buildings, ventilation mechanical, natural, variations, diurnal, seasonal, spatial, models, strategies		
<i>Project start:</i> /1987	<i>(Evisaged) project end:</i> /1989	
<i>Estimated man power:</i> .5 MY	<i>Estimated cost:</i> FF 500,000	
<i>Institute, address:</i> C.S.T.B. 84, av. Jean Jaurés Champs/Marne <u>F - 77421 Marne la Vallée Cédex 02</u>		a
		b F 27
<i>Name of principal investigator:</i> M. Millet		<i>Telephone No.</i> 1-60.05.90.58
<i>Descriptive project title:</i> Indoor climate and climate design of buildings in summer for temperate climates and in warm climates		
<i>Keywords (see attached list):</i> buildings, climate, air movement, ventilation		
<i>Project start:</i> /1982	<i>(Evisaged) project end:</i> /1989	
<i>Estimated man power:</i> 0.5 MY	<i>Estimated cost:</i> FF 500,000	

**CONCERTED ACTION "INDOOR AIR QUALITY AND ITS IMPACT ON MAN" (COST 613)  
PROJECT INVENTORY**

<i>Institute, address:</i> C.S.T.B. Et de Sophia B.P. 21 <u>F - 06562 Valbonne Cedex</u>		a
		b F 28
<i>Name of principal investigator:</i> R. Pelletret		<i>Telephone No:</i> 93.65.34.00
<i>Descriptive project title:</i> Air movement measurements in multicelled dwellings		
<i>Keywords (see attached list):</i> ventilation, models, validation, air-movement		
<i>Project start:</i> /1986		<i>(Evisaged) project end:</i> /1989
<i>Estimated man power:</i>		<i>Estimated cost:</i>
<i>Institute, address:</i> Laboratoire d'Etude des Particules Inhalées 44, rue Charles Moureu <u>F - 75013 Paris</u>		a
		b F 29
<i>Name of principal investigator:</i> Guy Dufour		<i>Telephone No:</i> 45.84.12.09
<i>Descriptive project title:</i> Asbestos and non-asbestos fibre measurements in building atmospheres		
<i>Keywords (see attached list):</i> pollution fibres, concentration, source building materials, control, field measurements evaluation, buildings, offices, schools)		
<i>Project start:</i> Routine Work - Know How		<i>(Evisaged) project end:</i>
<i>Estimated man power:</i>		<i>Estimated cost:</i>
<i>Institute, address:</i> Laboratoire d'Hygiène de la Ville de Paris (L.H.V.P) 1bis, rue des Hospitalières St Gervais <u>F - 75004 Paris</u> and Ministries of Health and Construction and Housing		a
		b F 30
<i>Name of principal investigator:</i> B. Festy, F. Squinazi, A. Mouilleseaux		<i>Telephone No:</i>
<i>Descriptive project title:</i> Air and water quality in buildings with A.C.S.		
<i>Keywords (see attached list):</i> buildings, offices, hospitals, climate, control, SBS, ventilation, ACS		
<i>Project start:</i>		<i>(Evisaged) project end:</i>
<i>Estimated man power:</i>		<i>Estimated cost:</i>

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<i>Institute, address:</i> Laboratoire d'Hygiène de la Ville de Paris (L.H.V.P) 1bis, rue des Hospitalières St Gervais F - 75004 Paris		a
		b F 31
<i>Name of principal investigator:</i> S. Perdrizet, P. Durieux, B. Festy		<i>Telephone No:</i> 42.74.13.14
<i>Descriptive project title:</i> Respiratory symptoms and environmental measurements in two buildings with different ventilation systems		
<i>Keywords (see attached list):</i> offices, epidemiology, ACS, ETS, pollution, biological, climate, concentration, respiratory effects, ventilation, field measurements		
<i>Project start:</i> /1987		<i>(Evisaged) project end:</i> /1987
<i>Estimated man power:</i>		<i>Estimated cost:</i>
<i>Institute, address:</i> Laboratoire d'Hygiène de la Ville de Paris (L.H.V.P) 1bis, rue des Hospitalières St Gervais F - 75004 Paris		a
		b F 32
<i>Name of principal investigator:</i> C. Parfait, B. Festy		<i>Telephone No:</i> 42.74.13.14
<i>Descriptive project title:</i> Air and surface quality of the underground railway system		
<i>Keywords (see attached list):</i> underground, climate, concentrations, air, surfaces, bacteria, variations, diurnal, spatial, biological, pollution, traffic-related		
<i>Project start:</i> /1982 routine work		<i>(Evisaged) project end:</i>
<i>Estimated man power:</i> FF 500,000		<i>Estimated cost:</i>
<i>Institute, address:</i>		a
		b
<i>Name of principal investigator:</i>		<i>Telephone No:</i>
<i>Descriptive project title:</i>		
<i>Keywords (see attached list):</i>		
<i>Project start:</i>		<i>(Evisaged) project end:</i>
<i>Estimated man power:</i>		<i>Estimated cost:</i>

**CONCERTED ACTION "INDOOR AIR QUALITY AND ITS IMPACT ON MAN" (COST 613)  
PROJECT INVENTORY**

<i>Institute, address:</i> Fraunhofer-Institut für Holzforschung (WKI) Bienroderweg 54 E <u>D -3300 Braunschweig</u>		a
		b D 1
<i>Name of principal investigator:</i> Dr.rer.nat. R. Marutzky		<i>Telephone No:</i> 0531-39090
<i>Descriptive project title:</i> Investigations aimed at the preparation of guidelines for the measurement of formaldehyde emissions from furniture and furnished caravans/mobile homes.		
<i>Keywords (see attached list):</i> HCHO, guidelines, development, methods, measurements, emissions, sources, building-equipment, furniture, traffic-related, mobile homes		
<i>Project start:</i> 04/1986		<i>(Evisaged) project end:</i> 12/1988
<i>Estimated man power:</i> 35 MMonth		<i>Estimated cost:</i>
<i>Institute, address:</i> Fraunhofer-Institut für Holzforschung Bienroderweg 54 E <u>D -3300 Braunschweig</u>		a
		b D 2
<i>Name of principal investigator:</i> Dr.rer.nat. R. Marutzky		<i>Telephone No:</i> 0531-39090
<i>Descriptive project title:</i> Investigations on the contribution of building and renovation materials to odour and pollutant concentrations in indoor air. Development of methods for the measurement, assessment and reduction of emissions from materials		
<i>Keywords (see attached list):</i> emissions, pollutants, organic, odour, building materials, control, methods, measurement, development, renovation		
<i>Project start:</i> 03/1985		<i>(Evisaged) project end:</i> 12/1988
<i>Estimated man power:</i> 75 MMonth		<i>Estimated cost:</i>
<i>Institute, address:</i> Universitäts-Kinderklinik Projekt Atemwege und Luftverschmutzung Mathildenstraße 1 <u>D - 7800 Freiburg</u>		a
		b D 3
<i>Name of principal investigator:</i> Prof. Dr. R. Urbanek		<i>Telephone No:</i> 0761/270-4446
<i>Descriptive project title:</i> Air pollution, bronchial hyperreactivity and bronchial pulmonary disorders in children and adults		
<i>Keywords (see attached list)</i> pollution, effects, hyperreactivity, respiratory, lung function, children:		
<i>Project start:</i> 1/1987		<i>(Evisaged) project end:</i> 12/1989
<i>Estimated man power:</i> 3 M/Y		<i>Estimated cost:</i>

**CONCERTED ACTION "INDOOR AIR QUALITY AND ITS IMPACT ON MAN" (COST 613)**  
**PROJECT INVENTORY**

<i>Institute, address:</i> Gesellschaft für Strahlen- und Umweltforschung mbH. Institut für Strahlenschutz Ingolstädter Landstr. 1 <u>8042 Oberschleißheim</u>		a
		b D 4
<i>Name of principal investigator:</i> Prof. W. Jacobi		<i>Telephone No:</i> 089-3187-0
<i>Descriptive project title:</i> Development and application of a model for the computation of radon distribution in houses		
<i>Keywords (see attached list):</i> radon, concentrations, variations, residences, models, development		
<i>Project start:</i> 01/1985		<i>(Evisaged) project end:</i> 12/1987
<i>Estimated man power:</i>		<i>Estimated cost:</i>
<i>Institute, address:</i> Institut für Wasser-,Boden- und Lufthygiene des Bundesgesundheitsamtes Corrensplatz 1 <u>1000 Berlin 33</u>		a
		b D 5
<i>Name of principal investigator:</i> Dr. C. Krause		<i>Telephone No:</i> 030-8308-2715
<i>Descriptive project title:</i> Occurrence of home dust allergies in the FRG		
<i>Keywords (see attached list):</i> allergy, pollutants, PM, home dust, effects, assessment		
<i>Project start:</i> /1987		<i>(Evisaged) project end:</i> /1989
<i>Estimated man power:</i> 1.5 MY		<i>Estimated cost:</i>
<i>Institute, address:</i> Institut für Wasser-,Boden- und Lufthygiene des Bundesgesundheitsamtes Corrensplatz 1 <u>1000 Berlin 33</u>		a
		b D 6
<i>Name of principal investigator:</i> Dr. C. Krause		<i>Telephone No:</i> 030-8308-2715
<i>Descriptive project title:</i> Measurement and analysis of environmental exposure in the FRG - Project " Environment and Health "		
<i>Keywords (see attached list):</i> epidemiological study, general population, exposure, biological monitoring, VOC, HCHO, dust, metals, drinking water		
<i>Project start:</i> 07/1985		<i>(Evisaged) project end:</i> 12/1989
<i>Estimated man power:</i> 7 MY		<i>Estimated cost:</i> DM 3,500,000

**CONCERTED ACTION "INDOOR AIR QUALITY AND ITS IMPACT ON MAN" (COST 613)  
PROJECT INVENTORY**

<i>Institute, address:</i> Max von Pettenkofer Institut des Bundesgesundheitsamtes Unter den Eichen 82-84 1000 Berlin 45		a
		b D 7
<i>Name of principal investigator:</i> Dr. R. Weber, Dr. M. Fischer, Dr. C. Krause		<i>Telephone No:</i> 030-8308 2298/2487
<i>Descriptive project title:</i> Transfer of air pollutants to foodstuff		
<i>Keywords (see attached list):</i> pollution, chlorinated HC, perchloroethylene, food contamination, dry cleaning shops		
<i>Project start:</i> 09/1986		<i>(Evisaged) project end:</i> 06/1987
<i>Estimated man power:</i> .3 MY		<i>Estimated cost:</i>
<i>Institute, address:</i> Institut für Wasser-,Boden- und Lufthygiene des Bundesgesundheitsamtes Corrensplatz 1 1000 Berlin 33		a
		b D 8
<i>Name of principal investigator:</i> Dr. N. Englert		<i>Telephone No:</i> 030-8308-2805
<i>Descriptive project title:</i> Comparative investigation of the acute effect of air pollutants. Part III: Air quality and respiratory illness in selected population groups		
<i>Keywords (see attached list):</i> effects, hyperreactivity, respiratory effects, exposure variations, NO <sub>x</sub> , SO <sub>2</sub> , PM, susceptible groups		
<i>Project start:</i> 12/1986		<i>(Evisaged) project end:</i> 12/1989
<i>Estimated man power:</i> 6 MY		<i>Estimated cost:</i> DM 800,000
<i>Institute, address:</i> Institut für Wasser-,Boden- und Lufthygiene des Bundesgesundheitsamtes Corrensplatz 1 1000 Berlin 33		a
		b D 9
<i>Name of principal investigator:</i> Dr. M. Fischer		<i>Telephone No:</i> 030-8308-0
<i>Descriptive project title:</i> Measurement and assessment of pollutants in indoor air (see D 22)		
<i>Keywords (see attached list):</i> emissons, VOC, household products, building equipment, methods, development, chamber study, mutagenicity		
<i>Project start:</i> 09/1986		<i>(Evisaged) project end:</i> 08/1989
<i>Estimated man power:</i> 6.5 MY		<i>Estimated cost:</i> DM 1,500,000



**CONCERTED ACTION "INDOOR AIR QUALITY AND ITS IMPACT ON MAN" (COST 613)****PROJECT INVENTORY**

<i>Institute, address:</i> Institut für Wasser-,Boden- und Lufthygiene des Bundesgesundheitsamtes Corrensplatz 1 D - 1000 Berlin 33		a
		b D 10
<i>Name of principal investigator:</i> Dr. G. Hoffmann		<i>Telephone No:</i> 030-8308-0
<i>Descriptive project title:</i> Standardized animal model for the assessment of noxious pollutants inhaled with indoor air		
<i>Keywords (see attached list):</i> animal study, inhalation, toxicology, effects, standardization, pollutants, household products		
<i>Project start:</i> 07/1985		<i>(Evisaged) project end:</i> 06/1988
<i>Estimated man power:</i> 1MY		<i>Estimated cost:</i>
<i>Institute, address:</i> Freie und Hansestadt Hamburg Gesundheitsbehörde Abteilung Gesundheit und Umwelt Tesdaorfstraße 8 D - 2000 Hamburg 13		a
		b D 11
<i>Name of principal investigator:</i> Dr. Neus		<i>Telephone No:</i> 040-44195-1 (386)
<i>Descriptive project title:</i> Epidemiological study of the internal burden of arsenic and heavy metals in inhabitants of the city of Hamburg		
<i>Keywords (see attached list):</i> pollution, metals, concentrations, exposure, variations, epidemiological study, susceptible groups, children		
<i>Project start:</i> 10/1987		<i>(Evisaged) project end:</i> 12/1991
<i>Estimated man power:</i> 9 MY		<i>Estimated cost:</i>
<i>Institute, address:</i> Freie und Hansestadt Hamburg, Gesundheitsbehörde Amt für Gesundheits- und Veterinärwesen Abteilung G5, Gesundheit und Umwelt Tesdaorfstr. 8, 2000 Hamburg 13		a
		b D 12
<i>Name of principal investigator:</i> Dr. Neus, Dr. Sagunski		<i>Telephone No:</i> 040-44 195-1 (385)
<i>Descriptive project title:</i> Epidemiological study of the dioxin dose of infants due to indoor air in creches		
<i>Keywords (see attached list):</i> epidemiological-study, dose, pollution, SVOC, dioxin, schools, susceptible groups, children		
<i>Project start:</i> 08/1987		<i>(Evisaged) project end:</i> 07/1988
<i>Estimated man power:</i> 5 MY		<i>Estimated cost:</i>

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<i>Institute, address:</i> Fraunhofer Institut für Umweltchemie und Ökotoxikologie <u>5948 Schmallenberg-Grafschaft</u>		a
		b D 13
<i>Name of principal investigator:</i> Dr. U. Glaser		<i>Telephone No:</i> 02972-302-0
<i>Descriptive project title:</i> Inhalation study using experimental animals for the diagnosis of subclinical health disturbances caused by mixtures of volatile compounds in indoor air and by home dust		
<i>Keywords (see attached list):</i> effects, animal study, chamber study, pollutants, VOC, PM		
<i>Project start:</i> /1988	<i>(Evisaged) project end:</i> /1989	
<i>Estimated man power:</i> 2.5 MY	<i>Estimated cost:</i>	
<i>Institute, address:</i> Fraunhofer-Institut für Umweltchemie und Ökotoxikologie <u>5948 Schmallenberg-Grafschaft</u>		a
		b D 14
<i>Name of principal investigator:</i> Dr. D. Hochrainer		<i>Telephone No:</i> 02972-302-239
<i>Descriptive project title:</i> Development of air filters for the protection of residences and offices from allergens		
<i>Keywords (see attached list):</i> pollutants, biological, allergens, control, methods, development		
<i>Project start:</i> 01/1988	<i>(Evisaged) project end:</i> 12/1990	
<i>Estimated man power:</i> 6 MY	<i>Estimated cost:</i>	
<i>Institute, address:</i> Gesellschaft für Strahlen- und Umweltforschung mbH Institut für Ökologische Chemie Ingolstädter Landstr. 1 <u>8042 Neuherberg</u>		a
		b D 15
<i>Name of principal investigator:</i> Dr. I. Gebefügi		<i>Telephone No:</i> 089-3187-2690
<i>Descriptive project title:</i> Detection and assessment of organic chemicals potentially present in indoor air over long periods of time		
<i>Keywords (see attached list):</i> sources, building materials, household products, hobby, SVOC, emissions, sampling, analysis, assessment		
<i>Project start:</i> 06/1985	<i>(Evisaged) project end:</i> 1989	
<i>Estimated man power:</i> 7 MY	<i>Estimated cost:</i>	

**CONCERTED ACTION "INDOOR AIR QUALITY AND ITS IMPACT ON MAN" (COST 613)****PROJECT INVENTORY**

<i>Institute, address:</i> GSF - Proj. Inhalation Ingolstädter Landstr. 1 D - 8042 Neuherberg		a
		b D 16
<i>Name of principal investigator:</i> Prof. Dr. J. Heyder, Dr. W. G. Kreyung		<i>Telephone No:</i> 089-3187 2309
<i>Descriptive project title:</i> Effect of environmental aerosols on function and structure of the respiratory tract		
<i>Keywords (see attached list):</i> pollution, PM, aerosols, chamber study, chronic exposure, animal study, dogs, effects respiratory, non-respiratory, lung function		
<i>Project start:</i> /1987		<i>(Evisaged) project end:</i> open
<i>Estimated man power:</i> 30 MY		<i>Estimated cost:</i>
<i>Institute, address:</i> Technische Universität München Lehrstuhl für Ökologische Chemie Institut für Chemie Am Löwentor D - 8050 Freising-Weihenstephan		a
		b D 17
<i>Name of principal investigator:</i> Prof. Dr. F. Korte		<i>Telephone No:</i> 8161-71-3277
<i>Descriptive project title:</i> Behaviour and effects of indoor chemicals - Identification, quantitation of exposure, hazard assessment with toxicological verification		
<i>Keywords (see attached list):</i> pollution, VOC, SVOC, concentrations, exposure, effects, animal study, human controlled exposure, allergy, chamber study		
<i>Project start:</i> /1988		<i>(Evisaged) project end:</i> /1991
<i>Estimated man power:</i> 4 M/Y		<i>Estimated cost:</i>
<i>Institute, address:</i> Universitäts-Krankenhaus Eppendorf Pediatric Clinic, Institute for Medical Sociology & Department of Clinical Biochemistry Martinistrasse 52 D - 2000 Hamburg 20		a
		b D 18
<i>Name of principal investigator:</i> Prof. Dr. Schulte, Dr. W. Karmaus		<i>Telephone No:</i> 040-468 33 96
<i>Descriptive project title:</i> Health consequences of wood preservatives on children in day-care centres		
<i>Keywords (see attached list):</i> building materials, schools, effects, PCP, dioxin, lindane, immune effects, biological monitoring, epidemiological study, children ( N = 600)		
<i>Project start:</i> 06/1987		<i>(Evisaged) project end:</i> 9/1988
<i>Estimated man power:</i> 14 M/Y		<i>Estimated cost:</i> DM 420,000

**CONCERTED ACTION "INDOOR AIR QUALITY AND ITS IMPACT ON MAN" (COST 613)****PROJECT INVENTORY**

<i>Institute, address:</i> Universitäts-Krankenhaus Eppendorf Institute for Medical Sociology & Department of Clinical Biochemistry Martinistrasse 52 D - 2000 Hamburg 20		a
		b D 19
<i>Name of principal investigator:</i> Dr. W. Karmaus		<i>Telephone No:</i> 040-468 33 96
<i>Descriptive project title:</i> Health consequences of wood preservatives on teacher in day-care centres		
<i>Keywords (see attached list):</i> building-materials, schools, effects, immune-effects, biochemical-monitoring, epidemiological-study, PCP, dioxin, lindane, biocides, occupants		
<i>Project start:</i> 10/1987		<i>(Evisaged) project end:</i> 09/1988
<i>Estimated man power:</i> 12 MY		<i>Estimated cost:</i> DM 390,000
<i>Institute, address:</i> Städtisches Gesundheitsamt Augsburg Labor für Umwelthygiene Hoher Weg 8 D - 8900 Augsburg		a
		b D 20
<i>Name of principal investigator:</i> Prof. J. Gostomzyk, Th. Gratza		<i>Telephone No:</i> 0821-324 2073
<i>Descriptive project title:</i> Tetrachloroethylene causing indoor air pollution and resulting blood concentrations in the neighbourhood of dry cleaning shops		
<i>Keywords (see attached list):</i> Tetrachloroethylene, pollution, VOC, chlorinated HC, sources, dry cleaning, exposure, biological monitoring		
<i>Project start:</i> /1988		<i>(Evisaged) project end:</i>
<i>Estimated man power:</i>		<i>Estimated cost:</i>
<i>Institute, address:</i> Fraunhofer-Institut für Umweltchemie und Ökotoxikologie Postfach 12 60 D - 5948 Schmallingenberg-Grafschaft		a
		b D 21
<i>Name of principal investigator:</i> Dr. Ulrich Glaser		<i>Telephone No:</i> 02972-302-0
<i>Descriptive project title:</i> Validation of experimental animal analyses for risk assessment of indoor air pollutant mixtures		
<i>Keywords (see attached list):</i> NO <sub>2</sub> , NO <sub>x</sub> , VOC, PM, exposure, chamber study, animal study, genotoxicity, irritation, risk, assessment, validation		
<i>Project start:</i> 01/1989		<i>(Evisaged) project end:</i> 12/1991
<i>Estimated man power:</i> 6 MY		<i>Estimated cost:</i>

**CONCERTED ACTION "INDOOR AIR QUALITY AND ITS IMPACT ON MAN" (COST 613)****PROJECT INVENTORY**

<i>Institute, address:</i> Fraunhofer-Institut für Systemtechnik und Innovationsforschung Breslauerstraße 48 D - 7500 Karlsruhe 1		a
		b D 22
<i>Name of principal investigator:</i> Dr. Walter Tötsch		<i>Telephone No:</i> 0721-6809-116
<i>Descriptive project title:</i> Measurement and assessment of pollutants in indoor air (in collaboration with Institut für Wasser-, Boden-, Lufthygiene, see D 9)		
<i>Keywords (see attached list):</i> concentrations, pollutants, sources, furniture, material description		
<i>Project start:</i> 09/1986		<i>(Evisaged) project end:</i>
<i>Estimated man power:</i> 2.5 M/Y		<i>Estimated cost:</i> 09/1989
<i>Institute, address:</i> Förderverein Allergieforschung e.V. Mönchengladbach Tomperstraße 27 D - 4050 Mönchengladbach 6		a
		b D 23
<i>Name of principal investigator:</i> Josef H. Elixmann		<i>Telephone No:</i> 02161-550755
<i>Descriptive project title:</i> Air conditioning filters as ecosystem and distributor for fungi and fungal allergens		
<i>Keywords (see attached list):</i> ACS, biological, allergens, pollution, sources, VOC, ventilation, for fungi filter systems		
<i>Project start:</i> 10/1984		<i>(Evisaged) project end:</i> 12/1988
<i>Estimated man power:</i> 4 M/Y		<i>Estimated cost:</i>
<i>Institute, address:</i> G A F - Gesellschaft für angewandte und experimentelle Allergieforschung mbH Tomper Straße 27 D - 4050 Mönchengladbach		a
		b D 24
<i>Name of principal investigator:</i> Josef H. Elixmann		<i>Telephone No:</i> 02161-550755
<i>Descriptive project title:</i> Evidence of dust mites in home textiles of different type and fibre and in different environment		
<i>Keywords (see attached list):</i> pollution, biological, sources, building equipment, home textiles, mites allergens, assessment		
<i>Project start:</i> 06/1988		<i>(Evisaged) project end:</i> 06/1989
<i>Estimated man power:</i>		<i>Estimated cost:</i>

**CONCERTED ACTION "INDOOR AIR QUALITY AND ITS IMPACT ON MAN" (COST 613)**  
**PROJECT INVENTORY**

<i>Institute, address:</i> Institut für Umweltuntersuchungen im Amt für Umweltschutz der Stadt Köln Eifelwall 7 <u>D - 5000 Köln</u>		a
		b D 25
<i>Name of principal investigator:</i> Dr. Willfried Dulson, Kirsten Reinhardt		<i>Telephone No:</i> 0221-221 7626
<i>Descriptive project title:</i> Indoor perchlorethylene concentrations in the neighbourhood of dry cleaning shops		
<i>Keywords (see attached list):</i> pollution, VOC, field measurements, exposure, sources, chlorinated HC		
<i>Project start:</i> 08/1987		<i>(Evisaged) project end:</i> 08/1988
<i>Estimated man power:</i>		<i>Estimated cost:</i>
<i>Institute, address:</i> Medizinische Universität zu Lübeck Institut für Hygiene Ratzeburger Allee 160 <u>D - 2400 Lübeck</u>		a
		b D 26
<i>Name of principal investigator:</i> Prof. Dr. med. J. Beckert		<i>Telephone No:</i> 0451-5002796
<i>Descriptive project title:</i> Heat recovery and indoor air pollution. Determination of carry over rates of air pollutants relevant to the indoor environment and development of simple passive air sampling methods.		
<i>Keywords (see attached list):</i> pollutants, methods, sampling, development		
<i>Project start:</i> 09/1987		<i>(Evisaged) project end:</i> 12/1989
<i>Estimated man power:</i> 5 M/Y		<i>Estimated cost:</i>
<i>Institute, address:</i> Institut für Hygiene der Freien Universität Berlin Leiter: Prof. Dr. med. Rüdén Hindenburgdamm 27 <u>D - 1000 Berlin 45</u>		a
		b D 27
<i>Name of principal investigator:</i> Dr.-Ing. H. -J. Moriske		<i>Telephone No:</i> 030-798 3680/81
<i>Descriptive project title:</i> Biological and chemical characterization of organic pollutants and heavy metals in indoor air		
<i>Keywords (see attached list):</i> metals, PAH, concentrations, sources, measurement, toxicology, mutagenicity, POM, PM, effects, biological monitoring, suspended particulates, N-PAH, pollutants		
<i>Project start:</i> /1989		<i>(Evisaged) project end:</i> /1991
<i>Estimated man power:</i> 4 MY		<i>Estimated cost:</i> DM 200,000

**CONCERTED ACTION "INDOOR AIR QUALITY AND ITS IMPACT ON MAN" (COST 613)**  
**PROJECT INVENTORY**

<i>Institute, address:</i> Institut für Hygiene der Freien Universität Berlin Leiter: Prof. Dr. med. Rüdén Hindenburgdamm 27 D - 1000 Berlin 45		a
		b D 28
<i>Name of principal investigator:</i> Dr.-Ing. H. -J. Moriske		<i>Telephone No:</i> 030-798 3680/81
<i>Descriptive project title:</i> Concentrations of styrene monomeres in indoor air		
<i>Keywords (see attached list):</i> styrene, pollution, concentrations, mutagenicity, effects, VOC		
<i>Project start:</i> /1987		<i>(Evisaged) project end:</i> /1988
<i>Estimated man power:</i> 2 MY		<i>Estimated cost:</i> DM 20,000
<i>Institute, address:</i> Institut für Hygiene, Ruhr-Universität Bochum Postfach 102148 D - 4630 Bochum 1		a
		b D 29
<i>Name of principal investigator:</i> Prof. Dr. med. F. Selenka		<i>Telephone No:</i> 0234-700 2365
<i>Descriptive project title:</i> Transmission of PCP, HCH and chlorinated dioxins and furans from preserved wood to man. Study at nursery schools from Northrhein - Westfalia		
<i>Keywords (see attached list):</i> pollution, SVOC, biocides, chlorinated dioxins, pentachlorophenol, building materials, nursery schools, schools, exposure, nurses, children		
<i>Project start:</i> /1984		<i>(Evisaged) project end:</i> /1989
<i>Estimated man power:</i> 5 MY		<i>Estimated cost:</i> DM 800,000
<i>Institute, address:</i> Institut für Hygiene, Ruhr-Universität Bochum Postfach 102148 D - 4630 Bochum 1		a
		b D 30
<i>Name of principal investigator:</i> Prof. Dr. med. F. Selenka		<i>Telephone No:</i> 0234-700 2365
<i>Descriptive project title:</i> Immunological parameters influenced by chlorinated organic compounds		
<i>Keywords (see attached list):</i> Pollution SVOC, biocides, exposure, chlorinated dioxins, PCP, PCB, HCH, effects, immunotoxicity, hyperreactivity, complaint		
<i>Project start:</i> /1987		<i>(Evisaged) project end:</i> /1988
<i>Estimated man power:</i> 3 MY		<i>Estimated cost:</i> DM 360,000

**CONCERTED ACTION "INDOOR AIR QUALITY AND ITS IMPACT ON MAN" (COST 613)  
PROJECT INVENTORY**

<i>Institute, address:</i> Institut für Hygiene, Ruhr-Universität Bochum Postfach 102148 D - 4630 Bochum 1		a
		b D 31
<i>Name of principal investigator:</i> Prof. Dr. med. F. Selenka		<i>Telephone No:</i> 0234-700 2365
<i>Descriptive project title:</i> Volatile chlorinated organic compounds in residences		
<i>Keywords (see attached list) :</i> Pollution VOC, chlorinated HC, residences, exposure, assessment		
<i>Project start:</i> /1985		<i>(Evisaged) project end:</i> /1989
<i>Estimated man power:</i> 3 MY		<i>Estimated cost:</i> DM 180,000
<i>Institute, address:</i> Untersuchungsstelle für Umwelttoxikologie des Landes Schleswig-Holstein Fleckenstraße 4 D - 2300 Kiel 1		a
		b D 32
<i>Name of principal investigator:</i> Dr. med. Birger Heinzow		<i>Telephone No:</i> 0431-597 3545
<i>Descriptive project title:</i> Indoor air pollution in day-nurseries in Schleswig-Holstein		
<i>Keywords (see attached list) :</i> Pentachlorphenol, exposure, schools, pollution, biocides, children, epidemiological, study, building materials		
<i>Project start:</i> /1986		<i>(Evisaged) project end:</i> /1988
<i>Estimated man power:</i> 2 MY		<i>Estimated cost:</i> DM 50,000
<i>Institute, address:</i>		a
		b
<i>Name of principal investigator:</i>		<i>Telephone No:</i>
<i>Descriptive project title:</i>		
<i>Keywords (see attached list) :</i>		
<i>Project start:</i>		<i>(Evisaged) project end:</i>
<i>Estimated man power:</i>		<i>Estimated cost:</i>



COMMISSION OF THE EUROPEAN COMMUNITIES, JOINT RESEARCH CENTRE, ISPRA  
**CONCERTED ACTION "INDOOR AIR QUALITY AND ITS IMPACT ON MAN" (COST 613)**  
**PROJECT INVENTORY**

<i>Institute, address:</i> Health & Safety Executive The Occupational Medicine & Hygiene Laboratories 403, Edgware Rd. <u>London NW2 6LN</u>		a
		b GB 1
<i>Name of principal investigator:</i> Dr. A. P. Rood		<i>Telephone No:</i> 01-450-8911
<i>Descriptive project title:</i> Asbestos in the non-occupational Environment		
<i>Keywords (see attached list):</i> fibres, pollution, asbestos, concentrations, assessment		
<i>Project start:</i> 1978		<i>(Evisaged) project end:</i> 1988
<i>Estimated man power:</i> 2 M/Y		<i>Estimated cost:</i>
<i>Institute, address:</i> Department of Community Medicine St. Thomas's Campus <u>London SE1 7EH</u>		a
		b GB 2
<i>Name of principal investigator:</i> Dr. Jane Melia		<i>Telephone No:</i> 01-928-9292 Ext.3150
<i>Descriptive project title:</i> Investigation of the relation between respiratory illness in primary school children living in inner city areas and the use of gas cookers and paraffin heaters in the home		
<i>Keywords (see attached list):</i> emissions, sources, gas-cookers, paraffin-heaters, residences, effects, epidemiological-study, respiratory, susceptible-groups, children		
<i>Project start:</i> 1987		<i>(Evisaged) project end:</i> 1989
<i>Estimated man power:</i> 9 M/Y		<i>Estimated cost:</i>
<i>Institute, address:</i> Department of Community Medicine University of Dundee The Medical School, Ninewells Hospital <u>Dundee DD1 9SY</u> Scotland		a
		b GB 3
<i>Name of principal investigator:</i> Charles du V. Florey		<i>Tel. No:</i> 0382-60111-X2124 <i>Fax No.:</i> 645748
<i>Descriptive project title:</i> Relation of the severity of asthmatic symptoms to the use of gas for cooking in the home.		
<i>Keywords (see attached list):</i> Susceptible-groups, effects, epidemiological-study, respiratory, asthmatic, pollution, NOX, emissions, gas-cookers, residences, emissions, sources, combustion		
<i>Project start:</i> 01/1986		<i>(Evisaged) project end:</i> 12/1987
<i>Estimated man power:</i>		<i>Estimated cost:</i>

**CONCERTED ACTION "INDOOR AIR QUALITY AND ITS IMPACT ON MAN" (COST 613)****PROJECT INVENTORY**

<i>Institute, address:</i> Building Research Establishment Building Research Station Garston, Watford <u>Hertfordshire, WD2 7JR</u>		a
		b GB 4
<i>Name of principal investigator:</i> Dr. B. Gardiner and Dr. D. Crump		<i>Telephone No:</i> 0923-674040
<i>Descriptive project title:</i> Analysis of Volatile Emissions from Polymeric Materials		
<i>Keywords (see attached list):</i> emissions, pollution, HCHO, VOC, dust, sources, building materials, uffi, measurement, development		
<i>Project start:</i> 04/1986		<i>(Evisaged) project end:</i> 03/1989
<i>Estimated man power:</i> 1 M/Y		<i>Estimated cost:</i>
<i>Institute, address:</i> South Manchester Health Authority Wythenshawe Hospital <u>Manchester M23 9LT</u>		a
		b GB 5
<i>Name of principal investigator:</i> Dr. C. A. C. Pickering		<i>Telephone No:</i> 0619-987070
<i>Descriptive project title:</i> A Study of Air Conditioning Systems and their Effect on Man		
<i>Keywords (see attached list):</i> SBS, effects, epidemiological, complaint, ACS		
<i>Project start:</i> 08/1985		<i>(Evisaged) project end:</i> 08/1988
<i>Estimated man power:</i> 2 M/Y		<i>Estimated cost:</i>
<i>Institute, address:</i> Welsh School of Architecture (R&D) UWIST 20/22 North Road <u>Cardiff CF1 3DY</u>		a
		b GB 6
<i>Name of principal investigator:</i> Dr. P. J. Jones and Prof. P. E. O'Sullivan		<i>Telephone No:</i> 0222-42588
<i>Descriptive project title:</i> Ventilation rates in large buildings - Tracer gas and air leakage measurements carried out in 10 factories.		
<i>Keywords (see attached list):</i> ventilation, natural, industrial buildings, air movement, measurement		
<i>Project start:</i> 12/1986		<i>(Evisaged) project end:</i> 05/1989
<i>Estimated man power:</i> 3 M/Y		<i>Estimated cost:</i>

**CONCERTED ACTION "INDOOR AIR QUALITY AND ITS IMPACT ON MAN" (COST 613)****PROJECT INVENTORY**

<i>Institute, address:</i> Institute of Occupational Medicine 8 Roxburgh Place <u>Edinburgh EH8 9SU</u>		a
		b GB 7
<i>Name of principal investigator:</i> J. Dodgson		<i>Telephone No:</i> 031-6675131
<i>Descriptive project title:</i> Mineral Fibre Concentrations in Domestic Houses		
<i>Keywords (see attached list):</i> fibres, pollution, concentrations, residences		
<i>Project start:</i> 05/1987		<i>(Evisaged) project end:</i> 12/1987
<i>Estimated man power:</i> 1 M/Y		<i>Estimated cost:</i>
<i>Institute, address:</i> Building Use Studied Ltd 14/16 Stephenson Way Euston <u>London NW1 2HD</u>		a
		b GB 8
<i>Name of principal investigator:</i> S. Wilson		<i>Telephone No:</i> 01-387-3332
<i>Descriptive project title:</i> Office Environment Survey, a Study of Building Sickness		
<i>Keywords (see attached list):</i> SBS, offices, survey		
<i>Project start:</i> 02/1985		<i>(Evisaged) project end:</i> 08/1987
<i>Estimated man power:</i> 2 M/Y		<i>Estimated cost:</i>
<i>Institute, address:</i> Department of Occupational Health London School of Hygiene and Tropical Medicine Keppel St. <u>London WC1E YHT</u>		a
		b GB 9
<i>Name of principal investigator:</i> G. W. Crockford		<i>Telephone No:</i> 01-636-8636
<i>Descriptive project title:</i> Asbestos Inventory of the Bloomsbury Health Authority		
<i>Keywords (see attached list):</i> fibres, pollution, asbestos, building materials, concentrations, inventory		
<i>Project start:</i> 05/1986		<i>(Evisaged) project end:</i> 10/1988
<i>Estimated man power:</i> 1 M/Y		<i>Estimated cost:</i>

**CONCERTED ACTION "INDOOR AIR QUALITY AND ITS IMPACT ON MAN" (COST 613)****PROJECT INVENTORY**

<i>Institute, address:</i> Department of Occupational Health London School of Hygiene and Tropical Medicine Keppel St. <u>London WC1E 6HT</u>		a
		b GB 10
<i>Name of principle investigator:</i> G. W. Crockford		<i>Telephone No:</i> 01-636-8636
<i>Descriptive project title:</i> Indoor Asbestos Levels on a Housing Estate		
<i>Keywords (see attached list):</i> pollution, fibres, asbestos, concentrations, residences		
<i>Project start:</i>	<i>(Evisaged) project end:</i>	
<i>Estimated man power:</i> 1.5 M/Y	<i>Estimated cost:</i>	
<i>Institute, address:</i> Department of Occupational Health London School of Hygiene and Tropical Medicine Keppel St. <u>London WC1E 6HT</u>		a
		b GB 11
<i>Name of principle investigator:</i> G. W. Crockford		<i>Telephone No:</i> 01-636-8636
<i>Descriptive project title:</i> Electrostatic Air Filtering of Mixed Pollutant Clouds (Indoor Air Pollution Control)		
<i>Keywords (see attached list):</i> POM, PM, control, pollutants, electrostatic-filters		
<i>Project start:</i> 10/1987	<i>(Evisaged) project end:</i> 10/1990	
<i>Estimated man power:</i> 1.25 M/Y	<i>Estimated cost:</i>	
<i>Institute, address:</i> Environmental and Medical Sciences Division B.551, Harwell Laboratory <u>Didcot, Oxfordshire OX11 0RA</u>		a
		b GB 12
<i>Name of principle investigator:</i> D. H. F. Atkins		<i>Telephone No:</i> 0235-24141 Ext.4076
<i>Descriptive project title:</i> Development of passive sampling systems for ammonia and sulphur dioxide		
<i>Keywords (see attached list):</i> passive-samplers, development, ammonia, SO <sub>2</sub> , methods, sampling-analysis, pollutants, inorganic		
<i>Project start:</i> /1986	<i>(Evisaged) project end:</i> 1988	
<i>Estimated man power:</i>	<i>Estimated cost:</i>	

**CONCERTED ACTION "INDOOR AIR QUALITY AND ITS IMPACT ON MAN" (COST 613)  
PROJECT INVENTORY**

<i>Institute, address:</i> Environmental and Medical Sciences Division B.551, Harwell Laboratory <u>Didcot, Oxfordshire OX11 ORA</u>		a
		b GB 13
<i>Name of principal investigator:</i> H. F. Atkins		<i>Telephone No:</i> 0235-24141 Ext.4076
<i>Descriptive project title:</i> Investigation of indoor-outdoor concentration ratios for nitrogen dioxide		
<i>Keywords (see attached list):</i> NO <sub>2</sub> , passive-samplers, indoor-outdoor-concentration-ratios, pollution, inorganic, NO <sub>x</sub> , sampling-analysis		
<i>Project start:</i> /1985		<i>(Evisaged) project end:</i> /1987
<i>Estimated man power:</i> 0.5 M/Y		<i>Estimated cost:</i>
<i>Institute, address:</i> Environmental and Medical Sciences Division B.551, Harwell Laboratory <u>Didcot, Oxfordshire OX11 ORA</u>		a
		b GB 14
<i>Name of principal investigator:</i> D. H. F. Atkins		<i>Telephone No:</i> 0235-24141 Ext.4076
<i>Descriptive project title:</i> Investigation of specific complaints concerning indoor air quality on a commercial basis.		
<i>Keywords (see attached list):</i> pollution, climate, complaints, assessment, investigation		
<i>Project start:</i>		<i>(Evisaged) project end:</i>
<i>Estimated man power:</i>		<i>Estimated cost:</i>
<i>Institute, address:</i> Allergy and Environmental Medicine Department Lister Hospital Chelsea Bridge Road <u>London SW1</u>		a
		b GB 15
<i>Name of principal investigator:</i> Dr. J. Monro		<i>Telephone No:</i> 01-730-3417
<i>Descriptive project title:</i> Assembly of data on chemical sensitivity of patients and compilation of assessments.		
<i>Keywords (see attached list):</i> pollution, organic, inorganic, exposure, effects, immune, susceptible-groups, chemical-sensitivity, assessment, database		
<i>Project start:</i> 01/1983		<i>(Evisaged) project end:</i> 12/1987
<i>Estimated man power:</i> 6.5 MY		<i>Estimated cost:</i>

**CONCERTED ACTION "INDOOR AIR QUALITY AND ITS IMPACT ON MAN" (COST 613)****PROJECT INVENTORY**

<i>Institute, address:</i> Institute of Occupational Medicine 8 Roxborough Place <u>Edinburgh EH8 9SU</u>		a
		b GB 16
<i>Name of principal investigator:</i> Dr. James H. Vincent		<i>Telephone No:</i> 031-667 5131
<i>Descriptive project title:</i> Feasibility of using scale aerodynamic models for ventilation studies.		
<i>Keywords (see attached list):</i> air movement, ventilation, models		
<i>Project start:</i> ongoing	<i>(Evisaged) project end:</i>	
<i>Estimated man power:</i> 2 MY	<i>Estimated cost:</i>	
<i>Institute, address:</i> Institute of Occupational Medicine 8 Roxborough Place <u>Edinburgh EH8 9SU</u>		a
		b GB 17
<i>Name of principal investigator:</i> Mr. A. D. Jones		<i>Telephone No:</i> 031-667 5131
<i>Descriptive project title:</i> Electrostatic charge properties of aerosols		
<i>Keywords (see attached list):</i> measurement, health effects, pollution, PM, charged particles		
<i>Project start:</i> ongoing	<i>(Evisaged) project end:</i>	
<i>Estimated man power:</i> 2 MY	<i>Estimated cost:</i>	
<i>Institute, address:</i> Institute of Occupational Medicine 8 Roxburgh Place <u>Edinburgh EH8 9SU</u>		a
		b GB 18
<i>Name of principal investigator:</i> Mr. D. Mark		<i>Telephone No:</i> 031-667 5131
<i>Descriptive project title:</i> Development of versatile personal and static samplers		
<i>Keywords (see attached list):</i> standards, pollution, PM, sampling-analysis, development		
<i>Project start:</i> ongoing	<i>(Evisaged) project end:</i> 12/1987	
<i>Estimated man power:</i> .5 MY	<i>Estimated cost:</i>	

**CONCERTED ACTION "INDOOR AIR QUALITY AND ITS IMPACT ON MAN" (COST 613)****PROJECT INVENTORY**

<i>Institute, address:</i> Welsh School of Architecture (R&D) UWIST 20/22 North Roas <u>Cardiff CF1 3DY</u>		a
		b GB 19
<i>Name of principal investigator:</i> Dr. P. J. Jones and Prof. P. E. Sullivan		<i>Telephone No:</i> 0222-42588
<i>Descriptive project title:</i> Monitoring the Thermal Environment in nine offices as part of a 'Sick' Building Study		
<i>Keywords (see attached list):</i> SBS, air movement, measurement, offices		
<i>Project start:</i> 11/1986		<i>(Evisaged) project end:</i> 09/1987
<i>Estimated man power:</i> .25 MY		<i>Estimated cost:</i>
<i>Institute, address:</i> Imperial College of Science, Technology and Medicine South Kensington London SW7 2BU		a
		b GB 20
<i>Name of principal investigator:</i> Prof.R.Perry and Dr.J.N.Lester		<i>Telephone No:</i> 01 589 5111
<i>Descriptive project title:</i> Air quality in the indoor working environment		
<i>Keywords (see attached list):</i> Pollution, HCHO, NOX, VOC, ETS, biological, concentrations, variations, ventilation, measurement, offices		
<i>Project start:</i> 10/1988		<i>(Evisaged) project end:</i> 09/1990
<i>Estimated man power:</i> 1.75 MY		<i>Estimated cost:</i> 135'000
<i>Institute, address:</i> Building Research Establishment Burknalls Lane <u>Garston, Watford WD2 7JR</u> United Kingdom		a
		b GB 21
<i>Name of principal investigator:</i> Dr. S. S. Wozinak, Mrs.C.Uglow,Dr.P.R.Warren		<i>Telephone No:</i> 0923-674040
<i>Descriptive project title:</i> Radon in Buildings - Remedial Measures		
<i>Keywords (see attached list):</i> pollution, radon, control, measurement, field trials, models, assessment		
<i>Project start:</i> 04/1987		<i>(Evisaged) project end:</i> 03/1989
<i>Estimated man power:</i>		<i>Estimated cost:</i>

**CONCERTED ACTION "INDOOR AIR QUALITY AND ITS IMPACT ON MAN" (COST 613)****PROJECT INVENTORY**

<i>Institute, address:</i> Building Research Establishment Scottish Laboratory, Kelvin Road East Kilbride <u>Glasgow G75 ORZ</u>		a
		b GB 22
<i>Name of principal investigator:</i> Dr. J. P. Cornish, Dr. A. F. Bravery		<i>Telephone No:</i> 03552-33001
<i>Descriptive project title:</i> Condensation and Mould Growth		
<i>Keywords (see attached list):</i> climate, condensation, pollution, biological, moulds, assessment		
<i>Project start:</i>	<i>(Evisaged) project end:</i>	
<i>Estimated man power:</i>	<i>Estimated cost:</i>	
<i>Institute, address:</i> Building Research Establishment Burknalls Lane <u>Garston, Watford WD2 7JR</u> United Kingdom		a
		b GB 23
<i>Name of principal investigator:</i> Dr. P. R. Warren		<i>Telephone No:</i> 0923-674040
<i>Descriptive project title:</i> Indoor Air Quality and Ventilation Requirements		
<i>Keywords (see attached list):</i> ventilation, standards, effects, risk groups		
<i>Project start:</i> 04/1985	<i>(Evisaged) project end:</i> 03/1989	
<i>Estimated man power:</i>	<i>Estimated cost:</i>	
<i>Institute, address:</i> Building Use Studies 14-16 Stephenson Way Euston <u>London NW1 2HD</u>		a
		b GB 24
<i>Name of principal investigator:</i> Adrian Leman and David Tong		<i>Telephone No:</i> 01-387 3332
<i>Descriptive project title:</i> Sick Building Syndrome: Individual and organisational aspects		
<i>Keywords (see attached list):</i> SBS, risk groups		
<i>Project start:</i> 03/1988	<i>(Evisaged) project end:</i> 09/1988	
<i>Estimated man power:</i> 1 MY	<i>Estimated cost:</i>	



**CONCERTED ACTION "INDOOR AIR QUALITY AND ITS IMPACT ON MAN" (COST 613)****PROJECT INVENTORY**

<i>Institute, address:</i> Department of Community Medicine United Medical and Dental Schools Social Medicine and Health Services Research Unit and Division of Community Health St. Thomas' Campus, <u>London SE1 7EH</u>		a
		b GB 25
<i>Name of principal investigator:</i> Dr. Jane Melia		<i>Telephone No:</i> 01-928 9292 Ext 3150
<i>Descriptive project title:</i> Investigation of indoor NO <sub>2</sub> levels in inner city homes with gas cookers and paraffin heaters		
<i>Keywords (see attached list):</i> NO <sub>x</sub> , concentrations, exposure, pollution, field-measurements, combustion, residences, children, gas-cookers, paraffin-heaters		
<i>Project start:</i> /1988		<i>(Evisaged) project end:</i> /1988
<i>Estimated man power:</i> 1 MY		<i>Estimated cost:</i>
<i>Institute, address:</i> Welsh School of Architecture (R&D) UWIST PO Box 25 <u>Cardiff CF1 3XE</u>		a
		b GB 26
<i>Name of principal investigator:</i> Dr. P. J. Jones		<i>Telephone No:</i> 0222-42588
<i>Descriptive project title:</i> Investigation on heating system options for low energy factories Study of heat delivery and distribution for radiant and convective systems		
<i>Keywords (see attached list):</i> industrial-buildings, measurement, comfort, air-movement, climate		
<i>Project start:</i> 11/1986		<i>(Evisaged) project end:</i> 09/1987
<i>Estimated man power:</i> .25 MY		<i>Estimated cost:</i>
<i>Institute, address:</i> McCrone Research Associates Ltd. 2 McCrone Mews, Belsize Lane <u>London NW3 5BG</u>		a
		b GB 27
<i>Name of principal investigator:</i> Miss J. Prentice		<i>Telephone No:</i> 01-435-2282/3
<i>Descriptive project title:</i> Investigations into the effectiveness of asbestos management and removal programmes in buildings		
<i>Keywords (see attached list):</i> control, buildings, fibres, field-measurements, exposure, asbestos, pollutants, assessment, concentrations, methods		
<i>Project start:</i> 10/1986		<i>(Evisaged) project end:</i> 03/1988
<i>Estimated man power:</i> 1 MY		<i>Estimated cost:</i> £43,000

**CONCERTED ACTION "INDOOR AIR QUALITY AND ITS IMPACT ON MAN" (COST 613)  
PROJECT INVENTORY**

<i>Institute, address:</i> McCrone Research Associates Ltd. 2 McCrone Mews, Belsize Lane <u>London NW3 5BG</u>		a
		b GB 28
<i>Name of principal investigator:</i> Miss J. Prentice		<i>Telephone No:</i> 01-435-2282/3
<i>Descriptive project title:</i> Man made mineral fibres in the environment		
<i>Keywords (see attached list):</i> pollution, fibres, measurement, buildings, exposure		
<i>Project start:</i> 05/1988		<i>(Evisaged) project end:</i> 11/1989
<i>Estimated man power:</i> 1.5 MY		<i>Estimated cost:</i> £61,500
<i>Institute, address:</i> London School of Hygiene and Tropical Medicine Keppel Street <u>London WC1E 7HT</u>		a
		b GB 29
<i>Name of principal investigator:</i> Mr. C. Purnell		<i>Telephone No:</i> 01-636-8636
<i>Descriptive project title:</i> Investigation of the effectiveness of asbestos management and removal programmes in buildings		
<i>Keywords (see attached list):</i> asbestos, control, buildings, fibres, field-measurements, methods, assessment, concentrations, pollutants		
<i>Project start:</i> 11/1986		<i>(Evisaged) project end:</i> 03/1988
<i>Estimated man power:</i> 1 MY		<i>Estimated cost:</i> £38,000
<i>Institute, address:</i> Building Research Establishment Bucknalls Lane <u>Garston, Watford WD2 7JR</u> United Kingdom		a
		b GB 30
<i>Name of principal investigator:</i> Dr. G. Raw, Dr. P. R. Warren		<i>Telephone No:</i> 0923-894040
<i>Descriptive project title:</i> Sick Building Syndrome - Pilot Study		
<i>Keywords (see attached list):</i> SBS, buildings, offices, control, methods		
<i>Project start:</i> 01/1988		<i>(Evisaged) project end:</i> 10/1989
<i>Estimated man power:</i>		<i>Estimated cost:</i>

**CONCERTED ACTION "INDOOR AIR QUALITY AND ITS IMPACT ON MAN" (COST 613)****PROJECT INVENTORY**

<i>Institute, address:</i> Building Research Establishment Bucknalls Lane <u>Garston, Watford WD2 7JR</u> United Kingdom		a
		b GB 31
<i>Name of principal investigator:</i> Dr. P. R. Warren		<i>Telephone No:</i> 0923-894040
<i>Descriptive project title:</i> Indoor Air Movement		
<i>Keywords (see attached list):</i> air movement, models, ventilation		
<i>Project start:</i> 04/1989		<i>(Evisaged) project end:</i> 03/1992
<i>Estimated man power:</i>		<i>Estimated cost:</i>
<i>Institute, address:</i> The Occupational Medicine & Hygiene Laboratories 403 Edgware Rd. <u>London NW2 6LN</u>		a
		b GB 32
<i>Name of principal investigator:</i> Dr. A. P. Rood		<i>Telephone No:</i> 01 - 450 8911
<i>Descriptive project title:</i> Asbestos in the non-occupational environment		
<i>Keywords (see attached list):</i> pollution, fibres, asbestos, schools, exposure, susceptible-groups, children		
<i>Project start:</i> /1980		<i>(Evisaged) project end:</i> /1992
<i>Estimated man power:</i> 12 MY		<i>Estimated cost:</i> £500,000
<i>Institute, address:</i> Institute of Occupational Medicine 8 Roxburgh Place <u>Edinburgh EH8 9SU</u>		a
		b GB 33
<i>Name of principal investigator:</i> Dr. R. Love		<i>Telephone No:</i>
<i>Descriptive project title:</i> Respiratory symptoms and lung function effects of exposure to wool textile dust		
<i>Keywords (see attached list):</i> standards, pollution, PM, concentrations, exposure, epidemiological-study, effects, lung-function		
<i>Project start:</i> 08/1985		<i>(Evisaged) project end:</i> 07/1988
<i>Estimated man power:</i> 9 MY		<i>Estimated cost:</i> £180,000

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PROJECT INVENTORY**

<i>Institute, address:</i> Institute of Occupational Medicine 8 Roxburgh Place <u>Edinburgh EH8 9SU</u>		a
		b GB 34
<i>Name of principal investigator:</i> M. J. Cherrie		<i>Telephone No:</i> 031-667 5131
<i>Descriptive project title:</i> Assessment of airborne man-made mineral fibres in domestic houses		
<i>Keywords (see attached list):</i> concentrations, pollution, fibres, MMMF, residences, assessment		
<i>Project start:</i> 06/1987		<i>(Evisaged) project end:</i> 12/1987
<i>Estimated man power:</i>		<i>Estimated cost:</i> £35,000
<i>Institute, address:</i> Institute of Occupational Medicine 8 Roxburgh Place <u>Edinburgh EH8 9SU</u>		a
		b GB 35
<i>Name of principal investigator:</i> M. A. Bradley		<i>Telephone No:</i> 031-667 5131
<i>Descriptive project title:</i> Assessment of airborne asbestos fibres in domestic houses and offices		
<i>Keywords (see attached list):</i> fibres, buildings, concentrations, pollution, asbestos, residences, offices, assessment		
<i>Project start:</i> on going		<i>(Evisaged) project end:</i>
<i>Estimated man power:</i> 1 M/Y		<i>Estimated cost:</i>
<i>Institute, address:</i> Institute of Occupational Medicine 8 Roxburgh Place <u>Edinburgh EH8 9SU</u>		a
		b GB 36
<i>Name of principal investigator:</i> M. J. Cherrie		<i>Telephone No:</i> 031-667 5131
<i>Descriptive project title:</i> Solvent concentrations in offices		
<i>Keywords (see attached list):</i> solvents, offices, concentrations, pollutants, field measurements, VOC		
<i>Project start:</i> ongoing		<i>(Evisaged) project end:</i>
<i>Estimated man power:</i> 0.5 MY		<i>Estimated cost:</i>

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**PROJECT INVENTORY**

<i>Institute, address:</i> Institute of Occupational Medicine 8 Roxburgh Place <u>Edinburgh EH8 9SU</u>		a
		b GB 37
<i>Name of principal investigator:</i> Dr. A. Robertson		<i>Telephone No:</i> 031-667 5131
<i>Descriptive project title:</i> Formaldehyde in temporary buildings		
<i>Keywords (see attached list):</i> pollution, HCHO, temporary-buildings		
<i>Project start:</i> ongoing		<i>(Evisaged) project end:</i>
<i>Estimated man power:</i> 0.5 M/Y		<i>Estimated cost:</i>
<i>Institute, address:</i> Institute of Occupational Medicine 8 Roxburgh Place <u>Edinburgh EH8 9SU</u>		a
		b GB 38
<i>Name of principal investigator:</i> Dr. A. Robertson		<i>Telephone No:</i> 031-667 5131
<i>Descriptive project title:</i> Gases and vapours related to health effects in offices		
<i>Keywords (see attached list):</i> pollutants, organic, inorganic, VOC, gases, vapours, effects, offices		
<i>Project start:</i> ongoing		<i>(Evisaged) project end:</i>
<i>Estimated man power:</i>		<i>Estimated cost:</i>
<i>Institute, address:</i> Institute of Occupational Medicine 8 Roxburgh Place <u>Edinburgh EH8 9SU</u>		a
		b GB 39
<i>Name of principal investigator:</i> Dr. A. Robertson		<i>Telephone No:</i> 031-667 5131
<i>Descriptive project title:</i> Aspergillus fumigatus in the asthmatic airway. Insecticides in homes, environmental levels and biological monitoring		
<i>Keywords (see attached list):</i> insecticides, biological-monitoring, pollutants, biocides, fungi, concentrations, biological		
<i>Project start:</i> 09/1987		<i>(Evisaged) project end:</i> 09/1990
<i>Estimated man power:</i> 1.5 MY		<i>Estimated cost:</i>

COMMISSION OF THE EUROPEAN COMMUNITIES, JOINT RESEARCH CENTRE, ISPRA  
**CONCERTED ACTION "INDOOR AIR QUALITY AND ITS IMPACT ON MAN" (COST 613)**  
 PROJECT INVENTORY

<i>Institute, address:</i> Institute of Occupational Medicine 8 Roxburgh Place <u>Edinburgh EH8 9SU</u>		a
		b GB 40
<i>Name of principal investigator:</i> Dr. Donaldson (K)		<i>Telephone No:</i> 031-667 5131
<i>Descriptive project title:</i> Leucocyte-mediated injuries in ozone-exposed lungs		
<i>Keywords (see attached list):</i> ozone, pollutants, inorganic, exposure, effects, lung		
<i>Project start:</i> 08/1987	<i>(Evisaged) project end:</i> 078/1990	
<i>Estimated man power:</i> 1.52 M/Y	<i>Estimated cost:</i> £128,000	
<i>Institute, address:</i> Institute of Occupational Medicine 8 Roxburgh Place Edinburgh EH8 9SU		a
		b GB 41
<i>Name of principal investigator:</i> Dr. A. Robertson		<i>Telephone No:</i> 031-667 5131
<i>Descriptive project title:</i> Aspergillus fumigatus in the asthmatic airway		
<i>Keywords (see attached list):</i> asthmatic, airway, effects		
<i>Project start:</i> 09/1987	<i>(Evisaged) project end:</i> 09/1990	
<i>Estimated man power:</i> 1.5 M/Y	<i>Estimated cost:</i>	
<i>Institute, address:</i>		a
		b
<i>Name of principal investigator:</i>		<i>Telephone No:</i>
<i>Descriptive project title:</i>		
<i>Keywords (see attached list):</i>		
<i>Project start:</i>	<i>(Evisaged) project end:</i>	
<i>Estimated man power:</i>	<i>Estimated cost:</i>	

**CONCERTED ACTION "INDOOR AIR QUALITY AND ITS IMPACT ON MAN" (COST 613)**

**PROJECT INVENTORY**

<i>Institute, address:</i> Nuclear Physics Laboratory University of Thessaloniki GR-54006 Thessaloniki Greece		a
		b GR 1
<i>Name of principal investigator:</i> Prof. Constantin Papastefanou		<i>Telephone No:</i> 30-31-991455
<i>Descriptive project title:</i> Radon in dwellings as a function of the radioactivity of building materials and other parameters.		
<i>Keywords (see attached list):</i> pollution, radon, building materials, risk, assessment		
<i>Project start:</i> 07/1988	<i>(Evisaged) project end:</i> 06/1991	
<i>Estimated man power:</i> 12 M/Y	<i>Estimated cost:</i> DRA 20,000,000	
<i>Institute, address:</i> Institute of Nuclear Technology - Radiation Protection NCRPS "Democritos", Aghia Paraskevi Attikis Athens Greece		a
		b GR 2
<i>Name of principal investigator:</i> Dr. Panusiotis Kritidis		<i>Telephone No:</i> 01-6517306
<i>Descriptive project title:</i> Investigation of enhanced natural and artificial environmental radioactivity in Greece		
<i>Keywords (see attached list):</i> pollution, radon, radioactivity, field measurements, assessment		
<i>Project start:</i> /1985	<i>(Evisaged) project end:</i> /1989	
<i>Estimated man power:</i> 4 M/Y	<i>Estimated cost:</i>	
<i>Institute, address:</i> Aristoteles University of Thessaloniki Division of Hydraulics and Environmental Engineering School of Technology GR - 54006 Thessaloniki		a
		b GR 3
<i>Name of principal investigator:</i> Assis. Prof. E. Papachristou		<i>Telephone No:</i> 31-992728
<i>Descriptive project title:</i> Determination of formaldehyde in indoor places		
<i>Keywords (see attached list):</i> pollution, HCHO, field measurements, sources, exposure		
<i>Project start:</i> 06/1988	<i>(Evisaged) project end:</i> 07/1989	
<i>Estimated man power:</i> 8 MY	<i>Estimated cost:</i> DRA 2,400,000	

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**PROJECT INVENTORY**

<i>Institute, address:</i> The National Hellenic Research Foundation 48 Vassilos Constantinou Ave, <u>GR - 11635 Athens</u>		a
		b GR 4
<i>Name of principal investigator:</i> Dr. Chem. Wanna Pandi-Agatokli		<i>Telephone No:</i>
<i>Descriptive project title:</i> Determination of asbestos in indoor air and in biofluids of habitants.		
<i>Keywords (see attached list):</i> pollutants, fibres, asbestos, exposure, field measurements, biological monitoring		
<i>Project start:</i> 01/1988		<i>(Evisaged) project end:</i> 12/1990
<i>Estimated man power:</i> 2 MY		<i>Estimated cost:</i>
<i>Institute, address:</i> Laboratory of Analytical Chemistry University of Athens 104 Solonos str. <u>GR - 10680 Athens</u>		a
		b GR 5
<i>Name of principal investigator:</i> Prof. P. A. Siskos		<i>Telephone No:</i> 1-3613869
<i>Descriptive project title:</i> Determination of toxic compounds in air of chemical laboratories and in biological samples of working staff.		
<i>Keywords (see attached list):</i> pollutants, VOC, metals, bioaccumulation, variations, exposure, biological monitoring		
<i>Project start:</i> 11/1984		<i>(Evisaged) project end:</i> 07/1987
<i>Estimated man power:</i> 4 MY		<i>Estimated cost:</i> DRA 3,000,000
<i>Institute, address:</i> Department of Community Dentistry School of Health Sciences University of Athens 2 Thivon str. <u>GR - 11527 Athens</u>		a
		b GR 6
<i>Name of principal investigator:</i> Prof. A. X. Apostolopoulos		<i>Telephone No:</i> 1-7706036
<i>Descriptive project title:</i> Determination of mercury levels in the atmosphere of workplace and the biological samples of dental practicionisers		
<i>Keywords (see attached list):</i> pollution, measurement of mercury, exposure, effects, risk groups, variations		
<i>Project start:</i> 07/1986		<i>(Evisaged) project end:</i> 06/1988
<i>Estimated man power:</i> 4 MY		<i>Estimated cost:</i> DRA 3,000,000



**CONCERTED ACTION "INDOOR AIR QUALITY AND ITS IMPACT ON MAN" (COST 613)  
PROJECT INVENTORY**

<i>Institute, address:</i> University of Thessaloniki Department of Chemistry Environmental Pollution Control Laboratory GR - 54006 Thessaloniki		a
		b GR 7
<i>Name of principal investigator:</i> Prof. Th. Kouimtzis		<i>Telephone No:</i> 31-991483
<i>Descriptive project title:</i> Indoor air quality in the area of Thessaloniki		
<i>Keywords (see attached list):</i> pollution, metals, heavy metals, chlorinated HC, concentrations, field measurements		
<i>Project start:</i> 09/1988		<i>(Evisaged) project end:</i> 03/1990
<i>Estimated man power:</i> 4 MY		<i>Estimated cost:</i> DRA 3,000,000
<i>Institute, address:</i>		a
		b
<i>Name of principal investigator:</i>		<i>Telephone No:</i>
<i>Descriptive project title:</i>		
<i>Keywords (see attached list):</i>		
<i>Project start:</i>		<i>(Evisaged) project end:</i>
<i>Estimated man power:</i>		<i>Estimated cost:</i>
<i>Institute, address:</i>		a
		b
<i>Name of principal investigator:</i>		<i>Telephone No:</i>
<i>Descriptive project title:</i>		
<i>Keywords (see attached list):</i>		
<i>Project start:</i>		<i>(Evisaged) project end:</i>
<i>Estimated man power:</i>		<i>Estimated cost:</i>

**CONCERTED ACTION "INDOOR AIR QUALITY AND ITS IMPACT ON MAN" (COST 613)****PROJECT INVENTORY**

<i>Institute, address:</i> Physics Department University College Dublin <u>Dublin 4</u> Ireland		a
		b IRL 1
<i>Name of principal investigator:</i> J. P. McLaughlin		<i>Telephone No:</i> 01-693244
<i>Descriptive project title:</i> Assessment of the population dose indoors from natural radiation in Ireland with particular emphasis on radon daughter properties and behaviour		
<i>Keywords (see attached list):</i> pollution, radon, exposure, dose, general-population, assessment		
<i>Project start:</i> 07/1985	<i>(Evisaged) project end:</i> 12/1989	
<i>Estimated man power:</i> 9 MY	<i>Estimated cost:</i>	
<i>Institute, address:</i> EOLAS The Irish Science & Technology Agency Glasnevin <u>Dublin 9</u> Ireland		a
		b IRL 2
<i>Name of principal investigator:</i> P. A. Wright		<i>Telephone No:</i> 353 1 370101
<i>Descriptive project title:</i> Investigation of complaints by the occupants of a multistoried open plan office block in relation to air quality/comfort conditions		
<i>Keywords (see attached list):</i> complaint, buildings, office, investigation		
<i>Project start:</i> 02/1986	<i>(Evisaged) project end:</i> 06/1988	
<i>Estimated man power:</i> 0.5 MY	<i>Estimated cost:</i>	
<i>Institute, address:</i>		a
		b
<i>Name of principal investigator:</i>		<i>Telephone No:</i>
<i>Descriptive project title:</i>		
<i>Keywords (see attached list):</i>		
<i>Project start:</i>	<i>(Evisaged) project end:</i>	
<i>Estimated man power:</i>	<i>Estimated cost:</i>	

**CONCERTED ACTION "INDOOR AIR QUALITY AND ITS IMPACT ON MAN" (COST 613)****PROJECT INVENTORY**

<i>Institute, address:</i> CISE-Tecnologie Innovative Spa PO Box 12081 <u>I - 20134 Milano</u>		a
		b 11
<i>Name of principal investigator:</i> Roberto Ferraroli		<i>Telephone No:</i> 02-21672503
<i>Descriptive project title:</i> Pollutant emissions from natural gas combustion sources in dwellings		
<i>Keywords (see attached list):</i> source, combustion, emissions, field-measurement, HCHO, NO <sub>x</sub> , VOC, SVOC, dwellings, pollutants		
<i>Project start:</i> 03/1987		<i>(Evisaged) project end:</i> 12/1989
<i>Estimated man power:</i> 2 M/Y		<i>Estimated cost:</i>
<i>Institute, address:</i> Istituto di Medicina del Lavoro Universita di Verona Policlinico Borgo Roma <u>I - 37134 Verona</u>		a
		b 12
<i>Name of principal investigator:</i> Francesco Brugnone		<i>Telephone No:</i> 045-933295/584456
<i>Descriptive project title:</i> Industrial solvents in indoor air		
<i>Keywords (see attached list):</i> pollutants, VOC, solvents, concentrations		
<i>Project start:</i>		<i>(Evisaged) project end:</i>
<i>Estimated man power:</i>		<i>Estimated cost:</i>
<i>Institute, address:</i> Istituto di Medicina del Lavoro Universita di Verona Policlinico Borgo Roma <u>I - 37134 Verona</u>		a
		b 13
<i>Name of principal investigator:</i> Francesco Brugnone and Luigi Perbellini		<i>Telephone No:</i> 045-933295/584456
<i>Descriptive project title:</i> Industrial solvents in human biological materials ( Breath, blood, urine and fat tissue )		
<i>Keywords (see attached list):</i> pollutants, VOC, solvents, biological-monitoring		
<i>Project start:</i>		<i>(Evisaged) project end:</i>
<i>Estimated man power:</i>		<i>Estimated cost:</i>



**CONCERTED ACTION "INDOOR AIR QUALITY AND ITS IMPACT ON MAN" (COST 613)**  
**PROJECT INVENTORY**

<i>Institute, address:</i> Institute of Occupational Health University of Milano Via S. Barnaba 8 <u>1 - 20122 Milano</u>		a
		b 17
<i>Name of principal investigator:</i> Prof. Mario Patroni		<i>Telephone No:</i> 02-55181729
<i>Descriptive project title:</i> Assessment of human exposure to asbestos in public buildings and subway stations		
<i>Keywords (see attached list):</i> exposure, fibres, buildings		
<i>Project start:</i> /1987		<i>(Evisaged) project end:</i> /1989
<i>Estimated man power:</i>		<i>Estimated cost:</i>
<i>Institute, address:</i> Institute of Occupational Health University of Milano Via S. Barnaba 8 <u>1 - 20122 Milano</u>		a
		b 18
<i>Name of principal investigator:</i> Prof. Marco Maroni		<i>Telephone No:</i> 02-55181729
<i>Descriptive project title:</i> Characterization of biological pollutants in offices and community buildings with non-natural ventilation		
<i>Keywords (see attached list):</i> biological pollutants, offices, buildings, ventilation		
<i>Project start:</i> /1988		<i>(Evisaged) project end:</i>
<i>Estimated man power:</i>		<i>Estimated cost:</i>
<i>Institute, address:</i> Cattedra di Tecnologia dell'Architettura Università degli Studi di Reggio Calabria Via Diana 4 <u>1 - 89100 Reggio Calabria</u>		a
		b 19
<i>Name of principal investigator:</i> Prof. Adriana Baglioni		<i>Telephone No:</i> 0965-21158
<i>Descriptive project title:</i> Assessment of pollution sources in buildings and identification of preventive strategies in the building design and in the choice of building materials		
<i>Keywords (see attached list):</i> sources, building-materials		
<i>Project start:</i> /1988		<i>(Evisaged) project end:</i> /1990
<i>Estimated man power:</i>		<i>Estimated cost:</i>

**CONCERTED ACTION "INDOOR AIR QUALITY AND ITS IMPACT ON MAN" (COST 613)**  
**PROJECT INVENTORY**

<i>Institute, address:</i> Dipartimento di programmazione, progettazione e produzione edilizia Politecnico di Milano - Facoltà di Architettura Via Bonardi 3 I - 20133 Milano		a
		b 110
<i>Name of principal investigator:</i> Prof. Guido Nardi		<i>Telephone No:</i> 02-2364345
<i>Descriptive project title:</i> Energy saving and indoor pollution: assessment of the problem in different residential typologies and identification of remedies with social and economical feasibility		
<i>Keywords (see attached list):</i>		
<i>Project start:</i> /1988		<i>(Evisaged) project end:</i> /1991
<i>Estimated man power:</i>		<i>Estimated cost:</i>
<i>Institute, address:</i> Istituto Superiore di Sanita Viale Regina Elena I - 00161 Roma		a
		b 111
<i>Name of principal investigator:</i> Prof. G. Campos Venuti		<i>Telephone No:</i> 06-4990
<i>Descriptive project title:</i> Assessment of human exposure to radon in selected areas of central Italy characterized by extensive use of tufa as a building material		
<i>Keywords (see attached list):</i> pollution, human exposure, radon, building-materials		
<i>Project start:</i> /1987		<i>(Evisaged) project end:</i> /1990
<i>Estimated man power:</i>		<i>Estimated cost:</i>
<i>Institute, address:</i> Osservatorio Epidemiologico della Regione Lazio Via di S. Costanza 53 I - 00198 Roma		a
		b 112
<i>Name of principal investigator:</i> Dr. F. Forastiere		<i>Telephone No:</i> 06-8322315
<i>Descriptive project title:</i> Respiratory functions and air pollution in children: cross sectional study in three areas with different outdoor and indoor pollution levels		
<i>Keywords (see attached list):</i> effects, respiratory, children		
<i>Project start:</i> /1986		<i>(Evisaged) project end:</i> /1989
<i>Estimated man power:</i>		<i>Estimated cost:</i>

**CONCERTED ACTION "INDOOR AIR QUALITY AND ITS IMPACT ON MAN" (COST 613)  
PROJECT INVENTORY**

<i>Institute, address:</i> Groep Beleidsstudies en Informatie TNO, Studie- en Informatiecentrum voor Mileu-Onderzoek Schoemakerstr. 97 <u>2600 AD Delft</u>		a
		b NL 1
<i>Name of principal investigator:</i> R. W. Keulen		<i>Telephone No:</i> 015-696900
<i>Descriptive project title:</i> Sick Building Syndrome		
<i>Keywords (see attached list) :</i> SBS		
<i>Project start:</i> /1986		<i>(Evisaged) project end:</i> /1987
<i>Estimated man power:</i>		<i>Estimated cost:</i>
<i>Institute, address:</i> Nederlandse Organisatie voor Toegépast Natuurweten- schappelijk Onderzoek TNO, Hoofdgroep Maatschappelijke Technologie. Postbus 217 <u>2600 AE Delft</u>		a
		b NL 2
<i>Name of principal investigator:</i> H. Rolloos, B. Boesmans		<i>Telephone No:</i> 015-696900
<i>Descriptive project title:</i> Indoor environment quality in dwelling and working circumstances: safety in working circumstances		
<i>Keywords (see attached list) :</i>		
<i>Project start:</i> 01/1987		<i>(Evisaged) project end:</i> 12/1992
<i>Estimated man power:</i>		<i>Estimated cost:</i>
<i>Institute, address:</i> Hoofdgroep Maatschappelijke Technologie TNO Afdeling Binnenmilieu Postbus 217 <u>2600 AE Delft</u>		a
		b NL 3
<i>Name of principal investigator:</i> M. Rolloos		<i>Telephone No:</i> 015-696900
<i>Descriptive project title:</i> Development of measurement techniques for indoor air quality		
<i>Keywords (see attached list) :</i> development, evaluation, validation, techniques, measurement		
<i>Project start:</i> 01/1987		<i>(Evisaged) project end:</i> /1992
<i>Estimated man power:</i>		<i>Estimated cost:</i>

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<i>Institute, address:</i> Hoofdgroep Maatschappelijke Technologie TNO Afdeling Binnenmilieu Postbus 217 <u>2600 AE Delft</u>		a
		b NL 4
<i>Name of principal investigator:</i> W. M. ter Kuile		<i>Telephone No:</i> 015-696900
<i>Descriptive project title:</i> Detection of aero allergens		
<i>Keywords (see attached list):</i> measurement, evaluation, exposure, pollutants, biological, allergens		
<i>Project start:</i> 07/1986		<i>(Evisaged) project end:</i> /1989
<i>Estimated man power:</i>		<i>Estimated cost:</i>
<i>Institute, address:</i> Hoofdgroep Maatschappelijke Technologie TNO Afdeling Binnenmilieu Postbus 217 <u>2600 AE Delft</u>		a
		b NL 5
<i>Name of principal investigator:</i> J. F. van der Wal, M. Dubbeld		<i>Telephone No:</i> 015-696900
<i>Descriptive project title:</i> Indoor air quality		
<i>Keywords (see attached list):</i> exposure, control, sources, SBS		
<i>Project start:</i> /1987		<i>(Evisaged) project end:</i> /1992
<i>Estimated man power:</i>		<i>Estimated cost:</i>
<i>Institute, address:</i> Hoofdgroep Maatschappelijke Technologie TNO Afdeling Binnenmilieu Postbus 217 <u>2600 AE Delft</u>		a
		b NL 6
<i>Name of principal investigator:</i> M. Dubbeld		<i>Telephone No:</i> 015-696900
<i>Descriptive project title:</i> Behaviour of occupants and comfort valuation		
<i>Keywords (see attached list):</i> climate, ventilation, effects, comfort, evaluation		
<i>Project start:</i> 04/1985		<i>(Evisaged) project end:</i> 12/1989
<i>Estimated man power:</i>		<i>Estimated cost:</i>



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<i>Institute, address:</i> Hoofdgroep Maatschappelijke Technologie TNO Afdeling Binnenmilieu Postbus 217 <u>2600 AE Delft</u>		a
		b NL 7
<i>Name of principal investigator:</i> J. F. van der Wal		<i>Telephone No:</i> 015-696900
<i>Descriptive project title:</i> Discoloration of surfaces in houses		
<i>Keywords (see attached list):</i> effects, building-materials, building-equipment		
<i>Project start:</i> /1987		<i>(Evisaged) project end:</i> /1988
<i>Estimated man power:</i>		<i>Estimated cost:</i>
<i>Institute, address:</i> Hoofdgroep Maatschappelijke Technologie TNO Afdeling Binnenmilieu Postbus 217 <u>2600 AE Delft</u>		a
		b NL 8
<i>Name of principal investigator:</i> W. F. de Gids		<i>Telephone No:</i> 015-696900
<i>Descriptive project title:</i> Moisture and mould problems in houses		
<i>Keywords (see attached list):</i> models, control, pollution, biological, moulds, climate, moisture		
<i>Project start:</i> 03/1986		<i>(Evisaged) project end:</i> /1989
<i>Estimated man power:</i>		<i>Estimated cost:</i>
<i>Institute, address:</i> Hoofdgroep Maatschappelijke Technologie TNO Afdeling Binnenmilieu Postbus 217 <u>2600 AE Delft</u>		a
		b NL 9
<i>Name of principal investigator:</i> W.F. de Gids		<i>Telephone No:</i> 015-696900
<i>Descriptive project title:</i> Development of a moisture/ventilation model		
<i>Keywords (see attached list):</i> ventilation, models, air-movement, development, climate, moisture		
<i>Project start:</i> 01/1987		<i>(Evisaged) project end:</i> /1989
<i>Estimated man power:</i>		<i>Estimated cost:</i>

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<i>Institute, address:</i> Hoofdgroep Maatschappelijke Technologie TNO Afdeling Binnenmilieu Postbus 217 <u>2600 AE Delft</u>		a
		b NL 10
<i>Name of principal investigator:</i> R. W. Lanting		<i>Telephone No:</i> 015-696900
<i>Descriptive project title:</i> Models for indoor air quality		
<i>Keywords (see attached list):</i> models		
<i>Project start:</i> 03/1986	<i>(Evisaged) project end:</i>	
<i>Estimated man power:</i>	<i>Estimated cost:</i>	
<i>Institute, address:</i> Hoofdgroep Maatschappelijke Technologie TNO Afdeling Binnenmilieu Postbus 217 <u>2600 AE Delft</u>		a
		b NL 11
<i>Name of principal investigator:</i> B. Knoll		<i>Telephone No:</i> 015-696900
<i>Descriptive project title:</i> Prototype of a self-regulating ventilation system		
<i>Keywords (see attached list):</i> Control, ventilation		
<i>Project start:</i> 02/1987	<i>(Evisaged) project end:</i> /1989	
<i>Estimated man power:</i>	<i>Estimated cost:</i>	
<i>Institute, address:</i> Landbouwwuniversiteit Wageningen, vakgroep Toxicologie De dreijen 12 <u>6703 BC Wageningen</u>		a
		b NL 12
<i>Name of principal investigator:</i> J. J. van Houdt		<i>Telephone No:</i> 08370-82137
<i>Descriptive project title:</i> Mutagenicity of Indoor Air		
<i>Keywords (see attached list):</i> pollution, effects, mutagenicity		
<i>Project start:</i> 01/1984	<i>(Evisaged) project end:</i> 07/1987	
<i>Estimated man power:</i>	<i>Estimated cost:</i>	

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<i>Institute, address:</i> Hoofdgroep Maatschappelijke Technologie TNO Afdeling Binnenmilieu Postbus 217 <u>2600 AE Delft</u>		a
		b NL 13
<i>Name of principal investigator:</i> W.F. de Gids		<i>Telephone No:</i> 015-696900
<i>Descriptive project title:</i> Behaviour of occupants on ventilation houses		
<i>Keywords (see attached list):</i> ventilation, data base		
<i>Project start:</i> 03/1986		<i>(Evisaged) project end:</i> 12/1989
<i>Estimated man power:</i>		<i>Estimated cost:</i>
<i>Institute, address:</i> University of Wageningen Department of Air Pollution P.O.Box 8129 <u>NL - 6700 EV Wageningen</u>		a
		b NL 14
<i>Name of principal investigator:</i> J. S. M. Boleij		<i>Telephone No:</i> 08370-82684
<i>Descriptive project title:</i> Biomass burning and indoor air quality in developing countries		
<i>Keywords (see attached list):</i> exposure, developing countries, respiratory effects, sources, combustion		
<i>Project start:</i> /1986		<i>(Evisaged) project end:</i> /1990
<i>Estimated man power:</i> .3 M/Y		<i>Estimated cost:</i> Dfl 200,000/yr
<i>Institute, address:</i> University of Wageningen Department of Environmental Health and Air Pollution P.O.Box 238 <u>NL - 6700 AE Wageningen</u>		a
		b NL 15
<i>Name of principal investigator:</i> J. S. M. Boleij and B. Brunekreef		<i>Telephone No:</i> 08370-82684 / 82080
<i>Descriptive project title:</i> Health complaints in the office environment		
<i>Keywords (see attached list):</i> complaints, SBS		
<i>Project start:</i> /1988		<i>(Evisaged) project end:</i> /1993
<i>Estimated man power:</i> 2 M/Y		<i>Estimated cost:</i> Dfl. 200,000/yr (manpower not included)

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<i>Institute, address:</i> University of Wageningen Department of Environmental Health and Air Pollution P.O.Box 238 <u>NL - 6700 AE Wageningen</u>		a
		b NL 16
<i>Name of principal investigator:</i> B. Brunekreef and J. S. M. Boleij		<i>Telephone No:</i> 8370-82080 / 82684
<i>Descriptive project title:</i> Health effects associated with home dampness		
<i>Keywords (see attached list):</i> respiratory effects, homes, biological, climate, moisture		
<i>Project start:</i> /1988		<i>(Evisaged) project end:</i> /1993
<i>Estimated man power:</i> 1 M/Y		<i>Estimated cost:</i> Dfl. 100,000/yr (manpower not included)
<i>Institute, address:</i> Nederlandse Organisatie voor Toegepast Natuurwetenschappelijk Onderzoek TNO, Hoofdgroep Maatschappelijke Technologie, Postbus 217 <u>2600 AE Delft</u>		a
		b NL 17
<i>Name of principal investigator:</i> J. G. Wiebenga		<i>Telephone No:</i> 015-696900
<i>Descriptive project title:</i> Construction Materials		
<i>Keywords (see attached list):</i> building materials		
<i>Project start:</i> 01/1987		<i>(Evisaged) project end:</i> 07/1987
<i>Estimated man power:</i>		<i>Estimated cost:</i>
<i>Institute, address:</i> Gemeente Amsterdam, Gemeentelijke Geneeskundige en Gezondheids Dienst, Sector Volksgezondheid en Milieu Nieuwe Achtergracht 100 <u>NL - 1018 WT Amsterdam</u>		a
		b NL 18
<i>Name of principal investigator:</i> T. Fast		<i>Telephone No:</i> 020-555588
<i>Descriptive project title:</i> The relation between health complaints and indoor air quality		
<i>Keywords (see attached list):</i> complaint study, exposure, sources, climate, ventilation, yellowing, VOC, biological pollution, combustion		
<i>Project start:</i> /1988		<i>(Evisaged) project end:</i>
<i>Estimated man power:</i> 1 M/Y		<i>Estimated cost:</i>

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<i>Institute, address:</i> Gemeente Amsterdam, Gemeentelijke Geneeskundige en Gezondheids Dienst, Sector Volksgezondheid en Milieu Nieuwe Achtergracht 100 <u>NL - 1018 WT Amsterdam</u>		a
		b NL 19
<i>Name of principal investigator:</i> A. Verhoeff		<i>Telephone No:</i> 020-5555584
<i>Descriptive project title:</i> Residential indoor air contamination by screen printing plants		
<i>Keywords (see attached list):</i> pollution, VOC, solvents, sources, external, screen printing plants, health, risk, assessment		
<i>Project start:</i> 09/1985		<i>(Evisaged) project end:</i> 03/1987
<i>Estimated man power:</i> 0.5 M/Y		<i>Estimated cost:</i> Dfl 60,000
<i>Institute, address:</i> Gemeente Amsterdam, Gemeentelijke Geneeskundige en Gezondheids Dienst, Sector Volksgezondheid en Milieu Nieuwe Achtergracht 100 <u>NL - 1018 WT Amsterdam</u>		a
		b NL 20
<i>Name of principal investigator:</i> A. Verhoeff		<i>Telephone No:</i> 020-5555584
<i>Descriptive project title:</i> Enumeration and identification of airborne viable mould propagates in houses. A comparison of selected measurement techniques		
<i>Keywords (see attached list):</i> pollution, biological, moulds, methods, sampling techniques, evaluation, validation		
<i>Project start:</i> 10/1986		<i>(Evisaged) project end:</i> 05/1988
<i>Estimated man power:</i> 1 M/Y		<i>Estimated cost:</i> Dfl 100,000
<i>Institute, address:</i> TNO Institute of Preventive Health Care (NIPG-TNO) P.O.Box 124 <u>NL - 2300 AC Leiden</u>		a
		b NL 21
<i>Name of principal investigator:</i> R. G. de Jong and J. E. F. van Dongen		<i>Telephone No:</i> 071-178811
<i>Descriptive project title:</i> Survey on health aspects and quality in the indoor environment		
<i>Keywords (see attached list):</i> pollution, exposure, sources, complaints, effects, epidemiological study, toxicological, residences		
<i>Project start:</i> 05/1987		<i>(Evisaged) project end:</i> 11/1988
<i>Estimated man power:</i> 1 MY		<i>Estimated cost:</i>

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<i>Institute, address:</i> TNO Institute of Preventive Health Care (NIPG-TNO) P.O.Box 124 <u>NL - 2300 AC Leiden</u>		a
		b NL 22
<i>Name of principal investigator:</i> J. E. F. van Dongen		<i>Telephone No:</i> 071-178811
<i>Descriptive project title:</i> Inhabitant's behaviour and experiences on indoor air quality, heating and ventilation		
<i>Keywords (see attached list):</i> residences, climate, ventilation, measurement, complaint, evaluation		
<i>Project start:</i> /1983	<i>(Evisaged) project end:</i> /1989	
<i>Estimated man power:</i>	<i>Estimated cost:</i>	
<i>Institute, address:</i> Interuniversity Working Group " Home & Health" State University Utrecht / Technological University Eindhoven Catharijnesingel 101 <u>NL - 3511 GV Utrecht</u>		a
		b NL 23
<i>Name of principal investigator:</i> J. Vorenkamp and J. E. M. H. van Bronswijk		<i>Telephone No:</i> 030-372830
<i>Descriptive project title:</i> Management of biotic damage to buildings and human health		
<i>Keywords (see attached list):</i> strategies, standards, biological pollution, exposure, climate, ventilation, ACS, control, models, measurement, residences, SBS, effects, allergy, infection, infestation, household products		
<i>Project start:</i> 03/1988	<i>(Evisaged) project end:</i> 03/1992	
<i>Estimated man power:</i> 7 MY	<i>Estimated cost:</i>	
<i>Institute, address:</i> Technisch Fysische Dienst TNO-TH TNO Institute of Applied Physics P.O.Box 155 <u>NL - 2600 AD Delft</u>		a
		b NL 24
<i>Name of principal investigator:</i> J. Oldengarm		<i>Telephone No:</i> 015-788020
<i>Descriptive project title:</i> The crawl space as a source to indoor air pollution		
<i>Keywords (see attached list):</i> air infiltration, climate, moisture, ventilation, natural, model, detection-methods, pollution, biological, fungi		
<i>Project start:</i> /1987	<i>(Evisaged) project end:</i> /1990	
<i>Estimated man power:</i>	<i>Estimated cost:</i>	

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<i>Institute, address:</i> Technisch Physische Dienst TNO-TH TNO Institute of Applied Physics P.O.Box 155 <u>NL - 2600 AD Delft</u>		a
		b NL 25
<i>Name of principal investigator:</i> J. Oldengarm		<i>Telephone No:</i> 015-788020
<i>Descriptive project title:</i> Airborne moisture transfer in residences		
<i>Keywords (see attached list):</i> air movement, climate, moisture, measurement method, ventilation, effectiveness		
<i>Project start:</i> /1987		<i>(Evisaged) project end:</i> /1990
<i>Estimated man power:</i>		<i>Estimated cost:</i>
<i>Institute, address:</i> Technisch Physische Dienst TNO-TH TNO Institute of Applied Physics P.O.Box 155 <u>NL - 2600 AD Delft</u>		a
		b NL 26
<i>Name of principal investigator:</i> H. C. Peitsman		<i>Telephone No:</i> 015-787115
<i>Descriptive project title:</i> Accurate humidity measurements in buildings		
<i>Keywords (see attached list):</i> humidity, measurements, buildings, climate		
<i>Project start:</i> /1985		<i>(Evisaged) project end:</i> /1990
<i>Estimated man power:</i>		<i>Estimated cost:</i>
<i>Institute, address:</i> Technisch Physische Dienst TNO-TH TNO Institute of Applied Physics P.O.Box 155 <u>NL - 2600 AD Delft</u>		a
		b NL 27
<i>Name of principal investigator:</i> H. A. L. van Dijk		<i>Telephone No:</i> 015-787071
<i>Descriptive project title:</i> Modelling ventilation exchange between zones		
<i>Keywords (see attached list):</i> ventilation, models		
<i>Project start:</i> /1985		<i>(Evisaged) project end:</i> /1990
<i>Estimated man power:</i>		<i>Estimated cost:</i>

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<i>Institute, address:</i> Technisch Physische Dienst TNO-TH TNO Institute of Applied Physics P.O.Box 155 <u>NL - 2600 AD Delft</u>		a
		b NL 28
<i>Name of principal investigator:</i> H. J. Nicolaas		<i>Telephone No:</i> 015-787108
<i>Descriptive project title:</i> Thermal modelling of indoor climate		
<i>Keywords (see attached list):</i> climate, models		
<i>Project start:</i> /1986		<i>(Evisaged) project end:</i> /1991
<i>Estimated man power:</i>		<i>Estimated cost:</i>
<i>Institute, address:</i> Technisch Physische Dienst TNO-TH TNO Institute of Applied Physics P.O.Box 155 <u>NL - 2600 AD Delft</u>		a
		b NL 29
<i>Name of principal investigator:</i> A. D. Lemaire		<i>Telephone No:</i> 015-787107
<i>Descriptive project title:</i> Modelling of air movement based on Navier Stokes equations		
<i>Keywords (see attached list):</i> models, air movement		
<i>Project start:</i> /1986		<i>(Evisaged) project end:</i> /1991
<i>Estimated man power:</i>		<i>Estimated cost:</i>
<i>Institute, address:</i> Technisch Physische Dienst TNO-TH TNO Institute of Applied Physics P.O.Box 155 <u>NL - 2600 AD Delft</u>		a
		b NL 30
<i>Name of principal investigator:</i> H. J. Nicolaas		<i>Telephone No:</i> 015-787108
<i>Descriptive project title:</i> Models for air conditioning systems		
<i>Keywords (see attached list):</i> models, ACS		
<i>Project start:</i> /1970		<i>(Evisaged) project end:</i> /1990 and later
<i>Estimated man power:</i>		<i>Estimated cost:</i>



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<i>Institute, address:</i> Technisch Physische Dienst TNO-TH TNO Institute of Applied Physics P.O.Box 155 <u>NL - 2600 AD Delft</u>		a
		b NL 31
<i>Name of principal investigator:</i> A. D. Lemaire		<i>Telephone No:</i> 015-787107
<i>Descriptive project title:</i> Models for pollution concentration in air movements		
<i>Keywords (see attached list):</i> air movement, pollution, concentrations, models		
<i>Project start:</i> /1986		<i>(Evisaged) project end:</i> /1991 and later
<i>Estimated man power:</i>		<i>Estimated cost:</i> routine work
<i>Institute, address:</i> Radiological Service TNO P.O.Box 9034 <u>NL - 6800 ES Arnhem</u>		a
		b NL 32
<i>Name of principal investigator:</i> J. G. Ackers		<i>Telephone No:</i> 085-562469
<i>Descriptive project title:</i> Calculation of the radiation doses from natural sources in building materials used in various types of dwellings		
<i>Keywords (see attached list):</i> pollution, radon, gamma radiation, sources, building materials, residences, exposure, doses, assessment		
<i>Project start:</i> /1987		<i>(Evisaged) project end:</i> /1991
<i>Estimated man power:</i> 2 MY		<i>Estimated cost:</i>
<i>Institute, address:</i> Hoodfgroep Maatschappelijke Technologie TNO Afdeling Binnenmilieu Postbus 217 <u>NL - 2600 AE Delft</u>		a
		b NL 33
<i>Name of principal investigator:</i> R.W.Lanting		<i>Telephone No:</i> 015-696900
<i>Descriptive project title:</i> Risk assessment of toxic agents in dwellings		
<i>Keywords (see attached list):</i> pollution, chemical, biological, dwellings, risk, models, strategies		
<i>Project start:</i> /1988		<i>(Evisaged) project end:</i> /1989
<i>Estimated man power:</i>		<i>Estimated cost:</i>

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<i>Institute, address:</i> Hoodfgroep Maatschappelijke Technologie TNO Afdeling Binnenmilieu Postbus 217 NL - 2600 AE Delft		a
		b NL 34
<i>Name of principal investigator:</i> J.F. van der Wal, R.W.Lanting		<i>Telephone No:</i> 015-696900
<i>Descriptive project title:</i> Sampling strategies for indoor air pollution		
<i>Keywords (see attached list) :</i> strategies, guidelines, pollution, sampling-analysis		
<i>Project start:</i> /1988		<i>(Evisaged) project end:</i> /1989
<i>Estimated man power:</i>		<i>Estimated cost:</i>
<i>Institute, address:</i> Hoodfgroep Maatschappelijke Technologie TNO Afdeling Binnenmilieu Postbus 217 NL - 2600 AE Delft		a
		b NL 35
<i>Name of principal investigator:</i> M.Leupen, R.W.Lanting		<i>Telephone No:</i> 015-696900
<i>Descriptive project title:</i> Data bases sources/ emissions/ concentrations/ effects		
<i>Keywords (see attached list) :</i> database, sources, emissions, concentrations, effects		
<i>Project start:</i> /1988		<i>(Evisaged) project end:</i> /1992
<i>Estimated man power:</i>		<i>Estimated cost:</i>
<i>Institute, address:</i> Landbouwuiversiteit Wageningen Vakgroep Toxicologie Bomenweg 2 NL - 6703 HD Wageningen		a
		b NL 36
<i>Name of principal investigator:</i> G. A. H. Heussen		<i>Telephone No:</i> 08370-82137
<i>Descriptive project title:</i> Mutagenicity of Indoor Air		
<i>Keywords (see attached list) :</i> pollution, PM, POM, biological, effects, toxicological, mutagenicity, genotoxic, cancer, strategies		
<i>Project start:</i> 01/1984		<i>(Evisaged) project end:</i> 06/1989
<i>Estimated man power :</i>		<i>Estimated cost:</i>

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## PROJECT INVENTORY

<i>Institute, address:</i> Universidade de Aveiro Departamento de Ambiente Campo de Santiago <u>P - 3800 Aveiro</u>		a
		b P 1
<i>Name of principal investigator:</i> A. J. B. Samagaio and C. Borrego		<i>Telephone No:</i> 034-25085
<i>Descriptive project title:</i> Numerical modelling of recirculating flows in rooms		
<i>Keywords (see attached list):</i> climate, temperature, air movement, ventilation, mechanical ACS, models		
<i>Project start:</i> 05/1987		<i>(Evisaged) project end:</i> 08/1990
<i>Estimated man power:</i> 0.4 M/Y		<i>Estimated cost:</i>
<i>Institute, address:</i> LNETI- Departamento de Protecção e Segurança Radiológica Estrada Nacional 10 <u>P - 2685 Sâcavem</u>		a
		b P 2
<i>Name of principal investigator:</i> Dr. J. P. Galvão		<i>Telephone No:</i> 1-2550021
<i>Descriptive project title:</i> Evaluation of the population exposure to radon in the vicinity of uranium mining facilities		
<i>Keywords (see attached list):</i> pollution, radon, concentrations, exposure, residences, building materials, external sources		
<i>Project start:</i> 07/1986		<i>(Evisaged) project end:</i> 12/1989
<i>Estimated man power:</i> 3 M/Y		<i>Estimated cost:</i>
<i>Institute, address:</i> LNETI- Departamento de Protecção e Segurança Radiológica Estrada Nacional 10 <u>P - 2685 Sacavem</u>		a
		b P 3
<i>Name of principal investigator:</i> Dr. J. P. Galvão		<i>Telephone No:</i> 1-2550021
<i>Descriptive project title:</i> Assessment of population doses from radon inhalation in houses built in the vicinity of mining facilities or in which wastes have been used		
<i>Keywords (see attached list):</i> pollution, radon, concentrations, exposure, residences, doses, assessment		
<i>Project start:</i> 07/1986		<i>(Evisaged) project end:</i> 12/1989
<i>Estimated man power:</i> 3 M/Y		<i>Estimated cost:</i>

**CONCERTED ACTION "INDOOR AIR QUALITY AND ITS IMPACT ON MAN" (COST 613)**  
**PROJECT INVENTORY**

<i>Institute, address:</i> Institut für Toxikologie ETH und UNI Zürich Schorenstrasse 16 <u>CH - 8603 Schwerzenbach</u>		a
		b CH 1
<i>Name of principal investigator:</i> H. Rothweiler and Ch. Schlatter		<i>Telephone No:</i> 01-8251010
<i>Descriptive project title:</i> Concentrations of reactive and toxic VOC (bp < 250°C) in new and freshly renovated buildings		
<i>Keywords (see attached list):</i> pollution, organic, VOC, reactive, concentrations, detection methods, development		
<i>Project start:</i> 01/1988	<i>(Evisaged) project end:</i>	
<i>Estimated man power:</i> 2 M/Y	<i>Estimated cost:</i>	
<i>Institute, address:</i> Institut für Toxikologie ETH und UNI Zürich Schorenstrasse 16 <u>CH - 8603 Schwerzenbach</u>		a
		b CH 2
<i>Name of principal investigator:</i> S. Kehl and Ch. Schlatter		<i>Telephone No:</i> 01-8251010
<i>Descriptive project title:</i> Determination of isocyanates-concentrations at workplaces, offices, schools and residences		
<i>Keywords (see attached list):</i> pollution, organic, SVOC, isocyanates concentrations, buildings, offices, schools, residences, sampling, analysis, field measurements		
<i>Project start:</i> 06/1987	<i>(Evisaged) project end:</i> 06/1990	
<i>Estimated man power:</i> 1.2 M/Y	<i>Estimated cost:</i>	
<i>Institute, address:</i> Radiation Hygiene Division Paul Scherrer Institute vormals EIR <u>CH - 5303 Würenlingen</u>		a
		b CH 3
<i>Name of principal investigator:</i> Dr. R. Cramer, Dr. W. Burkart		<i>Telephone No:</i> 056-992343
<i>Descriptive project title:</i> Building materials as source of exposure in Swiss buildings		
<i>Keywords (see attached list):</i> radon, source, building materials, emissions		
<i>Project start:</i> /1987	<i>(Evisaged) project end:</i>	
<i>Estimated man power:</i> 1 MY	<i>Estimated cost:</i> Sfr 100,000 /year	

**CONCERTED ACTION "INDOOR AIR QUALITY AND ITS IMPACT ON MAN" (COST 613)**  
**PROJECT INVENTORY**

<i>Institute, address:</i> Radiation Hygiene Division Paul Scherrer Institute vormals EIR <u>CH - 5303 Würenlingen</u>		a
		b CH 4
<i>Name of principal investigator:</i> Dr. R. Cramer, Dr. W. Burkart		<i>Telephone No:</i> 056-992343
<i>Descriptive project title:</i> Mechanisms influencing the indoor radon concentration		
<i>Keywords (see attached list):</i> radon, diurnal variations, air movements, ventilation, meteorology		
<i>Project start:</i> /1985	<i>(Evisaged) project end:</i>	
<i>Estimated man power:</i> 2.5 MY	<i>Estimated cost:</i> Sfr 300,000 /year	
<i>Institute, address:</i> Radiation Hygiene Division Paul Scherrer Institute vormals EIR <u>CH - 5303 Würenlingen</u>		a
		b CH 5
<i>Name of principal investigator:</i> Dr. R. Cramer, Dr. W. Burkart		<i>Telephone No:</i> 056-992343
<i>Descriptive project title:</i> Radiation exposures due to air tightening of dwellings		
<i>Keywords (see attached list):</i> radon, energy conservation, exposure, cost/benefit calculations		
<i>Project start:</i> /1987	<i>(Evisaged) project end:</i>	
<i>Estimated man power:</i> 1.5 MY	<i>Estimated cost:</i> Sfr 200,000 /year	
<i>Institute, address:</i> Basler & Hofmann AG Forchstrasse 395 <u>CH - 8029 Zürich</u>		a
		b CH 6
<i>Name of principal investigator:</i> Dr. C. Filleux		<i>Telephone No:</i> 01-551122
<i>Descriptive project title:</i> Demand controlled ventilating systems, Swiss contribution to IEA Annex XVIII		
<i>Keywords (see attached list):</i> ventilation, buildings, strategies, standards		
<i>Project start:</i> 11/1987	<i>(Evisaged) project end:</i> 12/1991	
<i>Estimated man power:</i> 6.5 MY	<i>Estimated cost:</i> Sfr 605,000	

**CONCERTED ACTION "INDOOR AIR QUALITY AND ITS IMPACT ON MAN" (COST 613)  
PROJECT INVENTORY**

<i>Institute, address:</i> Laboratoire d'Energie Solaire GRES / EPFL <u>CH - 1015 Lausanne</u>		a
		b CH 7
<i>Name of principal investigator:</i> Dr. J. B. Gay		<i>Telephone No:</i> 021-474543
<i>Descriptive project title:</i> Natural and forced convection		
<i>Keywords (see attached list):</i> ventilation, natural, mechanical, air movement, residences		
<i>Project start:</i> 09/1987		<i>(Evisaged) project end:</i> 08/1989
<i>Estimated man power:</i> 2.5 MY		<i>Estimated cost:</i> Sfr 206,000
<i>Institute, address:</i> EMPA Abt. Luftfremdstoffe Ueberlandstr. 129 <u>Döbendorf</u>		a
		b CH 8
<i>Name of principal investigator:</i> P. Hofer, J. Morkowski		<i>Telephone No:</i> 823 55 11
<i>Descriptive project title:</i> Indoor pollution caused by building materials		
<i>Keywords (see attached list):</i> measurement methods, development, evaluation, validation, pollutants, VOC, SVOC, POM, PM, fibres, building materials		
<i>Project start:</i> 09/1988		<i>(Evisaged) project end:</i>
<i>Estimated man power:</i> 1 MY		<i>Estimated cost:</i>
<i>Institute, address:</i> Institut universitaire de médecine et d'hygiène du travail Rue du Bugnon 19 <u>CH - 1005 Lausanne</u>		a
		b CH 9
<i>Name of principal investigator:</i> M.P. Guillemin		<i>Telephone No:</i>
<i>Descriptive project title:</i> Feasibility of a guide for the prevention of psycho-physiological annoyance at the workplace in non-industrial environments		
<i>Keywords (see attached list):</i> standards, strategies, validation, sensory effects, behavioural effects, physiological effects		
<i>Project start:</i> /1988		<i>(Evisaged) project end:</i> /1988
<i>Estimated man power:</i> 1 MY		<i>Estimated cost:</i> Sfr 40,000

**CONCERTED ACTION "INDOOR AIR QUALITY AND ITS IMPACT ON MAN" (COST 613)****PROJECT INVENTORY**

<i>Institute, address:</i> Institut universitaire de médecine et d'hygiène du travail Rue du Bugnon 19 <u>CH - 1005 Lausanne</u>		a
		b CH 10
<i>Name of principal investigator:</i> T. Vu Duc		<i>Telephone No.:</i>
<i>Descriptive project title:</i> Chemical tracers of passive exposure to tobacco smoke		
<i>Keywords (see attached list) :</i> ETS, chamber, measurement strategies, exposure		
<i>Project start:</i> /1988		<i>(Evisaged) project end:</i> /1990
<i>Estimated man power:</i> 2 M/Y		<i>Estimated cost:</i> Sfr 250,000
<i>Institute, address:</i> Institut universitaire de médecine et d'hygiène du travail Rue du Bugnon 19 <u>CH - 1005 Lausanne</u>		a
		b CH 11
<i>Name of principal investigator:</i> C. A. Bernard		<i>Telephone No.:</i>
<i>Descriptive project title:</i> Causative factors, mechanisms of complaint and approach procedures in sick building syndrome and related housing outbreaks		
<i>Keywords (see attached list) :</i> complaint, SBS, source, residences, schools, offices		
<i>Project start:</i> /1988		<i>(Evisaged) project end:</i> /1990
<i>Estimated man power:</i> 2 M/Y		<i>Estimated cost:</i>
<i>Institute, address:</i> Zingg Markus Hochstrasse 55 <u>CH - 8200 Schaffhausen</u>		a
		b CH 12
<i>Name of principal investigator:</i> M. Zingg		<i>Telephone No.:</i> 053-54782
<i>Descriptive project title:</i> Questionnaire for evaluating indoor air problems		
<i>Keywords (see attached list) :</i> control, strategies, data base		
<i>Project start:</i> 12/1985		<i>(Evisaged) project end:</i>
<i>Estimated man power:</i>		<i>Estimated cost:</i>

**CONCERTED ACTION "INDOOR AIR QUALITY AND ITS IMPACT ON MAN" (COST 613)  
PROJECT INVENTORY**

<i>Institute, address:</i> Zingg Markus Hochstrasse 55 <u>CH - 8200 Schaffhausen</u>		a
		b CH 13
<i>Name of principal investigator:</i> M. Zingg		<i>Telephone No:</i> 053-54782
<i>Descriptive project title:</i> The possibility to calculate the indoor-concentration of substances		
<i>Keywords (see attached list):</i> models, data base		
<i>Project start:</i> 06/1987		<i>(Evisaged) project end:</i>
<i>Estimated man power:</i>		<i>Estimated cost:</i>
<i>Institute, address:</i> Zingg Markus Hochstrasse 55 <u>CH - 8200 Schaffhausen</u>		a
		b CH 14
<i>Name of principal investigator:</i> M. Zingg		<i>Telephone No:</i> 053-54782
<i>Descriptive project title:</i> The possibility to estimate the toxicological effects of indoor pollution		
<i>Keywords (see attached list):</i> effects, assessment		
<i>Project start:</i>		<i>(Evisaged) project end:</i>
<i>Estimated man power:</i>		<i>Estimated cost:</i>
<i>Institute, address:</i> Bundesamt für Gesundheitswesen Lebensmittelkontrolle c/o Institut für Toxikologie der ETH und UNI Zürich Schorenstrasse 16 <u>CH - 8603 Schwerzenbach</u>		a
		b CH 15
<i>Name of principal investigator:</i> J. Schlatter		<i>Telephone No:</i> 01-8251010
<i>Descriptive project title:</i> Tobacco Smoke		
<i>Keywords (see attached list):</i> strategies, standards, evaluation, ETS		
<i>Project start:</i>		<i>(Evisaged) project end:</i>
<i>Estimated man power:</i>		<i>Estimated cost:</i>



**CONCERTED ACTION "INDOOR AIR QUALITY AND ITS IMPACT ON MAN" (COST 613)****PROJECT INVENTORY**

<i>Institute, address:</i> Bundesamt für Gesundheitswesen Lebensmittelkontrolle Haslerstrasse 16 <u>CH - 3008 Bern</u>		a
		b CH 16
<i>Name of principal investigator:</i> B. Zimmerli		<i>Telephone No:</i> 031-619577
<i>Descriptive project title:</i> Air Pollutants-Contamination of Foodstuff		
<i>Keywords (see attached list):</i> exposure, pollution, concentrations		
<i>Project start:</i>	<i>(Evisaged) project end:</i>	
<i>Estimated man power:</i>	<i>Estimated cost:</i>	
<i>Institute, address:</i> Kantonales Laboratorium Luzern Vonmattstrasse 16 <u>CH - 6002 Luzern</u>		a
		b CH 17
<i>Name of principal investigator:</i> A. Tuor		<i>Telephone No:</i> 041-246103
<i>Descriptive project title:</i> Indoor air contamination by technical substances		
<i>Keywords (see attached list):</i> pollutants, HCHO, VOC, concentrations, biocides		
<i>Project start:</i> 1.5 M/Y	<i>(Evisaged) project end:</i>	
<i>Estimated man power:</i>	<i>Estimated cost:</i>	
<i>Institute, address:</i> Department of Hygiene and Applied Physiologie Federal Institute of Technology Zürich <u>CH - 8092 Zürich</u>		a
		b CH 18
<i>Name of principal investigator:</i> Hans-Urs Wanner		<i>Telephone No:</i> 01-256 3973
<i>Descriptive project title:</i> Indoor air quality and indoor climate depending on the heating- and ventilation-system in dwellings and offices		
<i>Keywords (see attached list):</i> air movement, complaint, offices, SBS, ventilation		
<i>Project start:</i> /1988	<i>(Evisaged) project end:</i> /1990	
<i>Estimated man power:</i> 1 M/Y	<i>Estimated cost:</i>	

**CONCERTED ACTION "INDOOR AIR QUALITY AND ITS IMPACT ON MAN" (COST 613)**  
**PROJECT INVENTORY**

<i>Institute, address:</i> Department of Hygiene and Applied Physiologie Federal Institute of Technology Zürich <u>CH - 8092 Zürich</u>		a
		b CH 19
<i>Name of principal investigator:</i> Hans-Urs Wanner		<i>Telephone No:</i> 01-256 3973
<i>Descriptive project title:</i> Measurement of NO <sub>2</sub> -concentrations in dwellings and respiratory symptoms in children		
<i>Keywords (see attached list) :</i> children, epidemiological study, NO <sub>x</sub> , NO <sub>2</sub> , respiratory effects		
<i>Project start:</i> /1987	<i>(Evisaged) project end:</i> /1989	
<i>Estimated man power:</i> 1 M/Y	<i>Estimated cost:</i>	
<i>Institute, address:</i> Department of Hygiene and Applied Physiologie Federal Institute of Technology Zürich <u>CH - 8092 Zürich</u>		a
		b CH 20
<i>Name of principal investigator:</i> Hans-Urs Wanner		<i>Telephone No:</i> 01-256 3973
<i>Descriptive project title:</i> Measurement of carbon dioxide and odours of the indoor air to control the fresh air supply		
<i>Keywords (see attached list) :</i> air movement, complaint, offices, schools, ventilation		
<i>Project start:</i> /1986	<i>(Evisaged) project end:</i> /1988	
<i>Estimated man power:</i> 1 M/Y	<i>Estimated cost:</i>	
<i>Institute, address:</i> Department of Hygiene and Applied Physiologie Federal Institute of Technology Zürich <u>CH - 8092 Zürich</u>		a
		b CH 21
<i>Name of principal investigator:</i> Hans-Urs Wanner		<i>Telephone No:</i> 01-256 3973
<i>Descriptive project title:</i> Strategies to avoid negative health effects of passive smoking		
<i>Keywords (see attached list) :</i> control, ETS, strategies, offices, ventilation		
<i>Project start:</i> /1986	<i>(Evisaged) project end:</i> /1988	
<i>Estimated man power:</i> 0.5 M/Y	<i>Estimated cost:</i>	

**CONCERTED ACTION "INDOOR AIR QUALITY AND ITS IMPACT ON MAN" (COST 613)****PROJECT INVENTORY**

<i>Institute, address:</i> Department of Hygiene and Applied Physiologie Federal Institute of Technology Zürich <u>CH - 8092 Zürich</u>		a
		b CH 22
<i>Name of principal investigator:</i> Hans-Urs Wanner		<i>Telephone No:</i> 01-256 3973
<i>Descriptive project title:</i> Measurement of microorganisms in the indoor air		
<i>Keywords (see attached list):</i> pollutants, biological aerosols, control, offices, residences, source		
<i>Project start:</i> /1980		<i>(Evisaged) project end:</i>
<i>Estimated man power:</i> 0.2 M/Y		<i>Estimated cost:</i>
<i>Institute, address:</i> Department of Hygiene and Applied Physiologie Federal Institute of Technology Zürich <u>CH - 8092 Zürich</u>		a
		b CH 23
<i>Name of principal investigator:</i> Brigitta Danuser		<i>Telephone No:</i> 01-256 3975
<i>Descriptive project title:</i> Passive smoking: Acute effects on lung function in sensitive persons		
<i>Keywords (see attached list):</i> asthma, effects, ETS, risk groups, physiological reactions		
<i>Project start:</i> /1987		<i>(Evisaged) project end:</i> /1989
<i>Estimated man power:</i> 1 M/Y		<i>Estimated cost:</i>
<i>Institute, address:</i> Institut für Energietechnik ETH-Zentrum <u>CH - 8092 Zürich</u>		a
		b CH 24
<i>Name of principal investigator:</i> Prof. Dr. P. Suter		<i>Telephone No:</i> 01-2562738
<i>Descriptive project title:</i> Numerical determination of air movement in single rooms		
<i>Keywords (see attached list):</i> air movement, ventilation (natural, mechanical), models		
<i>Project start:</i> 07/1986		<i>(Evisaged) project end:</i> 01/1991
<i>Estimated man power:</i> 9 MY		<i>Estimated cost:</i> Sfr 1,438,000

**CONCERTED ACTION "INDOOR AIR QUALITY AND ITS IMPACT ON MAN" (COST 613)  
PROJECT INVENTORY**

<i>Institute, address:</i> Laboratoire d'Energie Solaire GRES / EPFL <u>CH -1015 Lausanne</u>		a
		b CH 25
<i>Name of principal investigator:</i> Dr. C. A. Roulet		<i>Telephone No:</i> 021-474557
<i>Descriptive project title:</i> Measurement of air exchange between rooms and environment		
<i>Keywords (see attached list) :</i> ventilation, test methods, validation, buildings (multi-zonal)		
<i>Project start:</i> 07/1987		<i>(Evisaged) project end:</i> 12/1989
<i>Estimated man power:</i> 4 MY		<i>Estimated cost:</i> Sfr 478,000
<i>Institute, address:</i> Basler & Hofmann AG Forchstrasse 395 <u>CH - 8029 Zürich</u>		a
		b CH 26
<i>Name of principal investigator:</i> Dr. C. Filleux		<i>Telephone No:</i> 01-551122
<i>Descriptive project title:</i> State-of-the-art analysis of ventilation systems for buildings of various use-types		
<i>Keywords (see attached list) :</i> ventilation, buildings, strategies, standards		
<i>Project start:</i> 08/1987		<i>(Evisaged) project end:</i> 12/1988
<i>Estimated man power:</i> 4 MY		<i>Estimated cost:</i> Sfr 450,000
<i>Institute, address:</i>		a
		b
<i>Name of principal investigator:</i>		<i>Telephone No:</i>
<i>Descriptive project title:</i>		
<i>Keywords (see attached list) :</i>		
<i>Project start:</i>		<i>(Evisaged) project end:</i>
<i>Estimated man power:</i>		<i>Estimated cost:</i>

## **6. COMPLETED PROJECTS**

### **DENMARK**

#### **Radon in dwellings**

##### **SMI-Booklet**

Teknologisk Institut, Byggeteknik, Oregersensvej, 2630 Taastrup

#### **Development of a measurement method for the monitoring of indoor allergens - Pilot Study**

Laboratoriet for medicinsk allergologi

#### **Micro organisms in the indoor environment and their relation to the level of cleaning - pilot project**

Teknologisk Institut, Afdelingen for Bioteknik, Oregersensvej, 2630 Taastrup

#### **Ventilation requirements in buildings - Compilation of a rational basis for regulations demands issued by authorities. Phase 1. Offices and meeting rooms . Part 2**

Institute of Environmental and Occupational Medicine, Aarhus Universitet, Universitetsparken, Bygn. 180, 8000 Aarhus C

#### **Impact of off-gasing from materials on indoor air quality**

SBI - Danish Building Research Institute, P.O. Box 119, 2970 Horsholm

#### **A/S Dominia - Improvements of ventilation techniques for existing buildings with gas kitchen and evaluation of the effect**

Teknologisk Institut, Byggeteknik, Oregersensvej, 2630 Taastrup

#### **Emission of nitrogen oxides from a gas oven in a gas kitchen and from movable oven.**

##### **Addition to the report "Nitrogen oxides emission, occurrence and impact on health in dwellings with unvented appliances"**

Teknologisk Institut, Byggeteknik, Oregersensvej, 2630 Taastrup

#### **Ventilation requirements in buildings - Compilation of a rational basis for regulations issued by authorities. Phase 1: Offices and meeting rooms. Part 1**

Laboratoriet for Varme- og Klimateknik, Danmarks Tekniske Højskole, Bygn. 402, 2800 Lyngby

#### **Easy method for measuring dust on surfaces and the effectiveness of cleaning**

Ole Holm Petersen, Danish National Institute of Occupational Health, Baunegaardsvej 73, 2900 Hellerup

#### **Outdoor air fans - positioning and function**

SBI - Danish Building Research Institute, P.O. Box 119, 2970 Horsholm

#### **Nitrogen oxides emission, occurrence and consequence health in dwellings using unvented gas appliances - literature review -**

Teknologisk Institut, Byggeteknik, Oregersensvej, 2630 Taastrup

#### **Database for indoor pollutants**

SBI - Danish Building Research Institute, P.O. Box 119, 2970 Horsholm

#### **Reporting of experiences and results of consulting activity in the field of indoor climate at the Occupational Medicine Clinic during the period 1982-1985**

Arbejdsmedicinsk klinik Aalborg sygehus nord

## **FRANCE**

### **Air and surface quality in two day-care centres in Paris: physico-chemical and bacteriological aspects**

B. Festy, Dr Lambert, Laboratoire d'Hygiène de la Ville de Paris (L.H.V.P), 1bis rue des Hospitalières St Gervais, 75004 Paris

### **Bio-contamination and control of refuse shoots in residence buildings**

B. Festy, F. Squinazi, A. Mouilleseaux, Laboratoire d'Hygiène de la Ville de Paris (L.H.V.P), 1bis rue des Hospitalières St Gervais, 75004 Paris and Ministries of Health and Construction and Housing

## **GERMANY**

### **Determination of minimum ventilation rates warranting hygienically unobjectionable indoor air quality: the example of formaldehyde and other organic substances (Phase III)**

Dr. Jürgen Wegner, Institut für Wasser-,Boden-, und Lufthygiene des Bundesgesundheitsamtes, Corrensplatz 1, 1000 Berlin 33

### **R & D Programme "Ventilation in residential buildings" Sub-project 2150.**

#### **"Minimum ventilation rates as a function of use pattern and intensity"**

Dr. Jürgen Wegner, Institut für Wasser-,Boden-, und Lufthygiene des Bundesgesundheitsamtes, Corrensplatz 1, 1000 Berlin 33

### **Experimental animal analyses for risk assessment of indoorair pollutant mixtures**

Dr. Ulrich Glaser, Fraunhofer-Institut für Umweltchemie und Ökotoxikologie, Postfach 12 60, 5948 Schmalleberg-Grafschaft

## **GREAT BRITAIN**

### **Development of a Predictive Model for Air Movement and Heat Distribution in Factories**

Dr. P. J. Jones and Prof. P. E. Sullivan, Welsh School of Architecture (R&D), UWIST, 20/22 North Roas, Cardiff CF1 3DY

## **GREECE**

### **Determination of mercury levels in the atmosphere of workplace and the biological samples of dental practitioners**

Prof. A. X. Apostolopoylos, Department of Community Dentistry, School of Health Sciences, University of Athens, 2 Thivon str., 11527 Athens

## **NETHERLAND**

### **Air-tight houses**

W.F. de Gids, Hoofdgroep Maatschappelijke Technologie TNO, Afdeling Binnenmilieu, Postbus 217, 2600 AE Delft

### **Heat**

H. de Waal, Hoofdgroep Technisch-Wetenschappelijke Diensten TNO, Technisch Fysische Dienst TNO-TH, Stieltjesweg 1, 2600 AD Delft

**Assessment of the health risk of the soil pollution Steendijkpolder at Maassluis, the Netherlands**  
J. H. van Wijnen, Gemeente Amsterdam, Gemeentelijke Geneeskundige en Gezondheids Dienst, Sector Volksgezondheid en Milieu, Nieuwe Achtergracht 100, 1018 WT Amsterdam

**Integrated exposure of (risk) populations to some air pollutants and correlated health effects**  
B. Brunekreef, Department of Environmental and Tropical Health, Agricultural University, P.O. Box 238, 6700 AE Wageningen

**Integrated exposure of (risk) populations to some air pollutants and related health effects**  
J. S. M. Boleij, Landbouwniversiteit Wageningen, Vakgroep Luchthygiene en Veronreiniging, De Dreijen 12, 6700 EV Wageningen

**Organic air pollution in living-rooms**  
H. J. v.d.Wiel, Rijksinstituut voor de Volksgezondheid en Milieuhygiene, Antonie van Leeuwenhoeklaan 9, 3721 MA Bilthoven

**Indoor air pollution**  
H. J. v.d.Wiel, Rijksinstituut voor de Volksgezondheid en Milieuhygiene, Antonie van Leeuwenhoeklaan 9, 3721 MA Bilthoven

**Causes of CNSLD in children and adolescents, with special regard to air pollution**  
P. J. van der Maas, Rijksuniversiteit Rotterdam, faculteit der Geneeskunde, Instituut voor Maatschappelijke Gezondheidszorg, 3000 DR Rotterdam

**Organic solvents in a car-body repair shop, a offset printing factory, silk screen printing factory and surrounding houses**  
A. Verhoeff, Gemeente Amsterdam, Gemeentelijke Geneeskundige en Gezondheids Dienst, Sector Volksgezondheid en Milieu, Nieuwe Achtergracht 100, 1018 WT Amsterdam

**Allergens of plants and their effects**  
M. J. M. Martens, Katholieke Unversiteit Nijmegen, Faculteit der Wiskunde en Natuurwetenschappen, subfaculteit Biologie, vakgroep Botanie II, Toernooiveld, 6525 ED Nijmegen

**The relation between soil pollution and indoor air pollution with volatile organic compounds**  
T. Fast, Gemeente Amsterdam, Gemeentelijke Geneeskundige en Gezondheids Dienst, Sector Volksgezondheid en Milieu, Nieuwe Achtergracht 100, 1018 WT Amsterdam

## 7. MEMBERS OF THE COMMUNITY-COST CONCERTATION COMMITTEE

### BELGIUM

Dr. Eddy **MUYLLE**  
Institut d'Hygiene et d'Epidemiologie  
Bruxelles

### DENMARK

Prof. P. Ole **FANGER**  
Laboratoriet for Varme- og Klimateknik  
Danmarks Tekniske Hojskole  
Lynby

Dr. Lars **MØLHAVE** (vice chairman)  
Institute for Miljø-og Arbejdsmedicin  
Århus Universitet  
Århus

### FRANCE

Prof. Bernard **FESTY**  
Laboratoire d'Hygiene  
de la Ville de Paris  
Paris

Prof. Claude **MOLINA**  
Hopital Sabourin  
Clermont-Ferrand

### GERMANY

Dr. Bernd **SEIFERT** (chairman)  
Bundesgesundheitsamt  
Institut für Wasser-, Boden- und Lufthygiene  
Berlin

### GREECE

Prof. Panayotis **SISKOS**  
Laboratory of Analytical Chemistry  
University of Athens  
Athens

Dr. Athanasios **VALAVANIDIS**  
Department of Chemistry  
Laboratory of Organic Chemistry  
University of Athens  
Athens

### IRELAND

Dr. James P. **Mc LAUGHLIN**  
Department of Physics  
University College  
Belfield  
Dublin

Mr. Patrick A. **WRIGHT**  
EOLAS  
Glasnevin  
Dublin

### ITALY

Prof. Marco **MARONI**  
Istituto di Medicina del Lavoro  
Clinica del Lavoro "Luigi Devoto"  
Università di Milano  
Milano

Prof. Antonio **REGGIANI**  
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COMMISSION OF THE EUROPEAN COMMUNITIES, JOINT RESEARCH CENTRE, ISPRA  
**CONCERTED ACTION "INDOOR AIR QUALITY AND ITS IMPACT ON MAN" (COST 613)**  
**PROJECT INVENTORY**

<i>Institute, address:</i>		a
		b
<i>Name of principal investigator:</i>		<i>Telephone No:</i>
<i>Descriptive project title:</i>		
<i>Keywords (see attached list) :</i>		
<i>Project start:</i>	<i>(Evisaged) project end:</i>	
<i>Estimated man power :</i>	<i>Estimated cost:</i>	
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