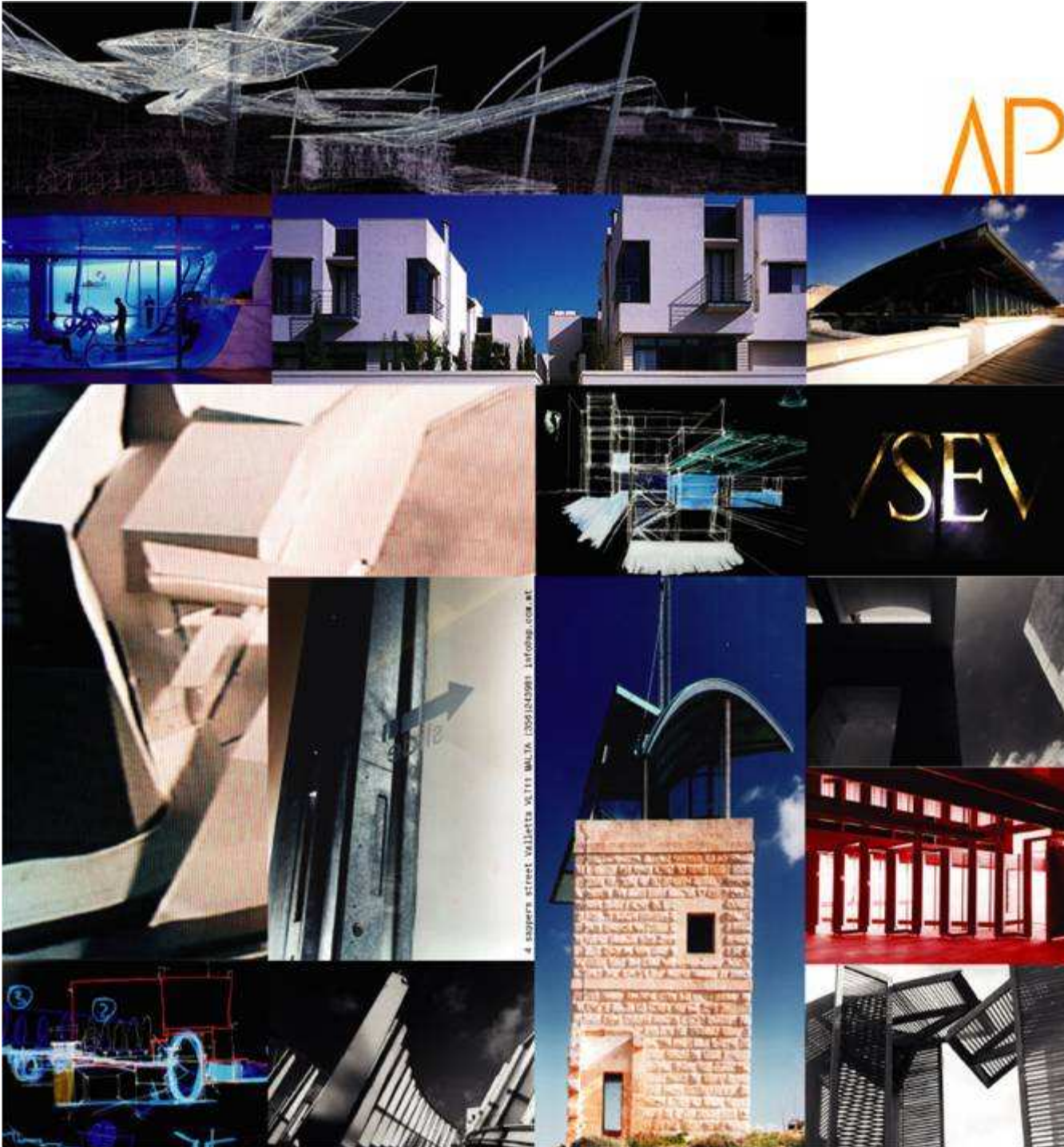




participating in FP 6

Joanna Spiteri Staines

12 JUNE 2008





Project Title:

Promotion and Dissemination of Passive and Hybrid down-draught Cooling in buildings (PHDC)

Contract with:

DG TREN “ Thematic Promotion & Dissemination”
Specific Support Action

Contract No: TREN/07/FP6EN/S07.70683/038418

DG Tren: Directorate- General for Energy and Transport

Specific Program:

“ Integrating and Strengthening the European Research Area”
(2002 -2006)



Coordinator:

The University of Nottingham (UNOTT),
University Park, NG7 2RD, United Kingdom

Other partners:

- Mario Cucinella Architects (MCA), Bologna, **Italy**
- Architecture Project (AP), Valletta, **Malta**
- Davis Langdon LLP (DLC), London, **UK**
- REHVA (Federation of European Heating and Air-Conditioning Associations) Brussels, **Belgium**
- AICIA (Asociacion de Investigacion y Cooperacion Industrial de Andalucia), Sevilla, **Spain**
- Abhikram (ABK), Ahmedabad, **India**
- Shanghai Research Institute of Building Sciences (SRIBS), Shanghai, **China**

STEP 1

*Strive to establish European Connections
within your area of interest*



Our value as a potential partner came about as a result of our collaboration with Brian Ford of Nottingham University on the project of the Malta Stock Exchange in 1998



STEP 2

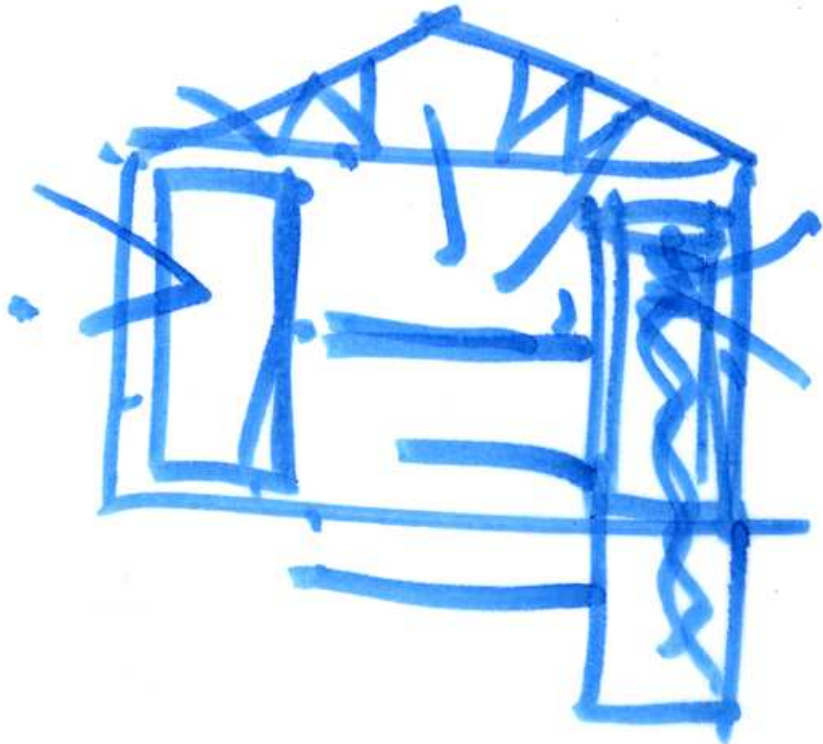
*Strive to carry out research and
development in your field*



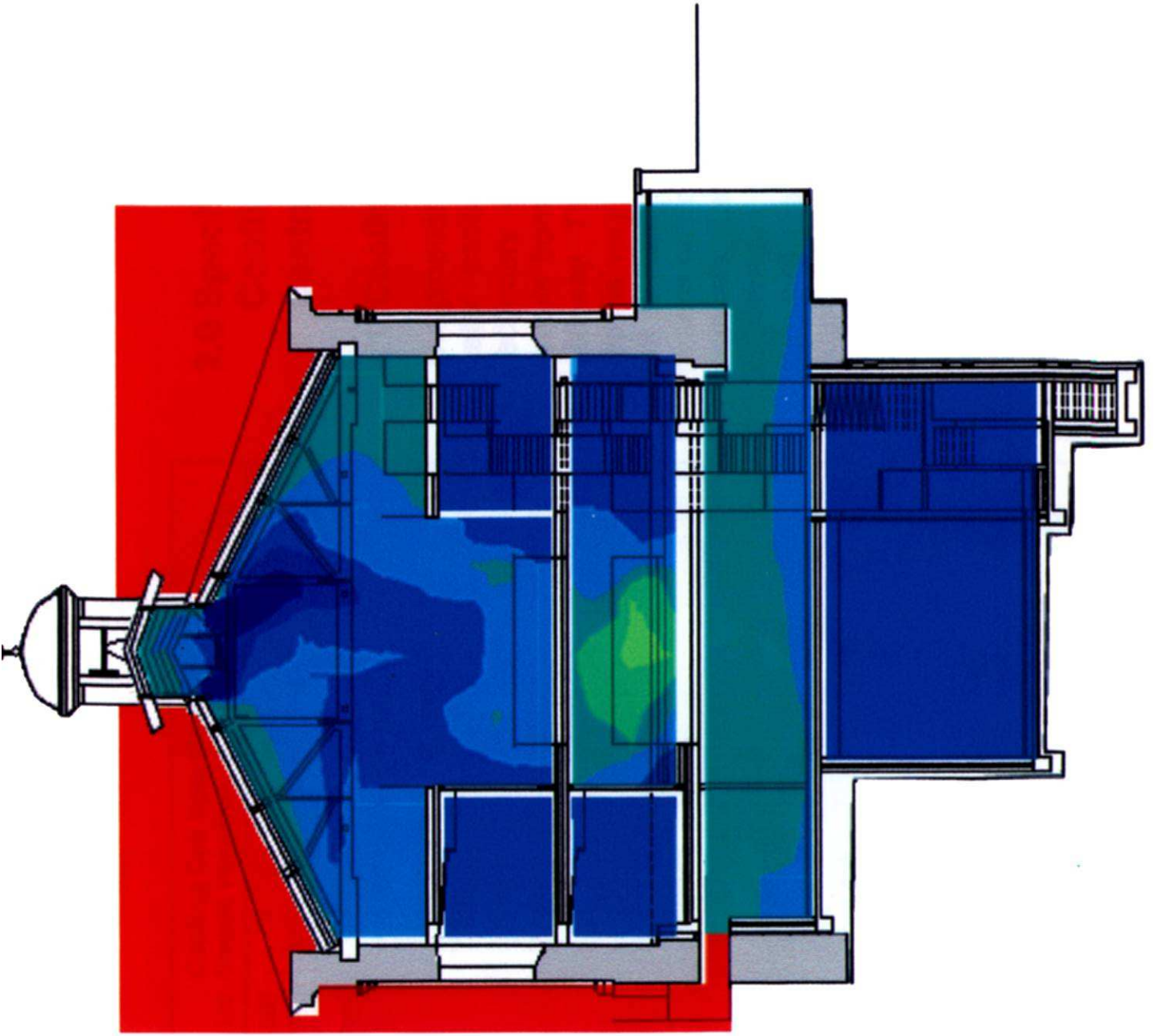
Malta Stock Exchange

AP

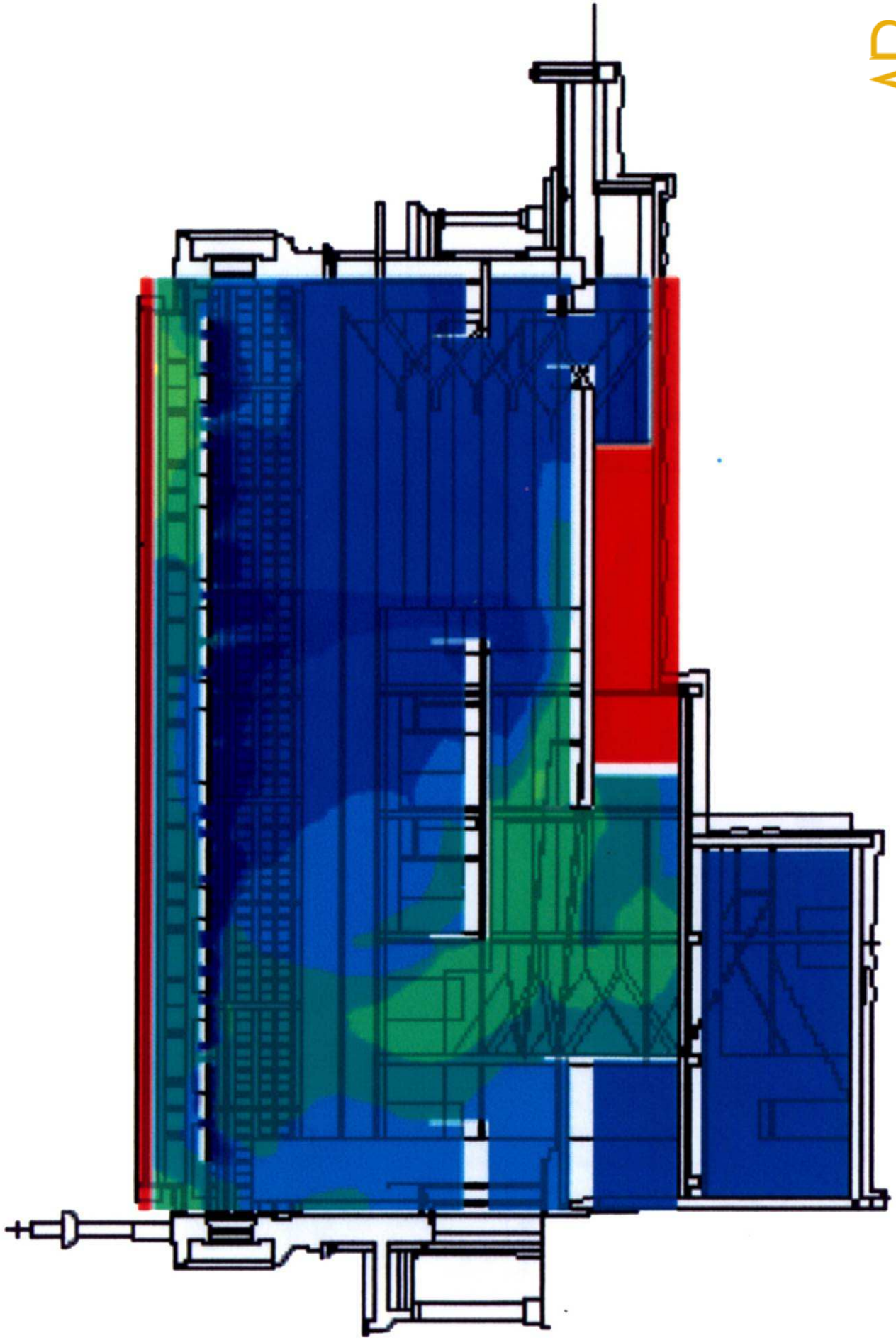
AP



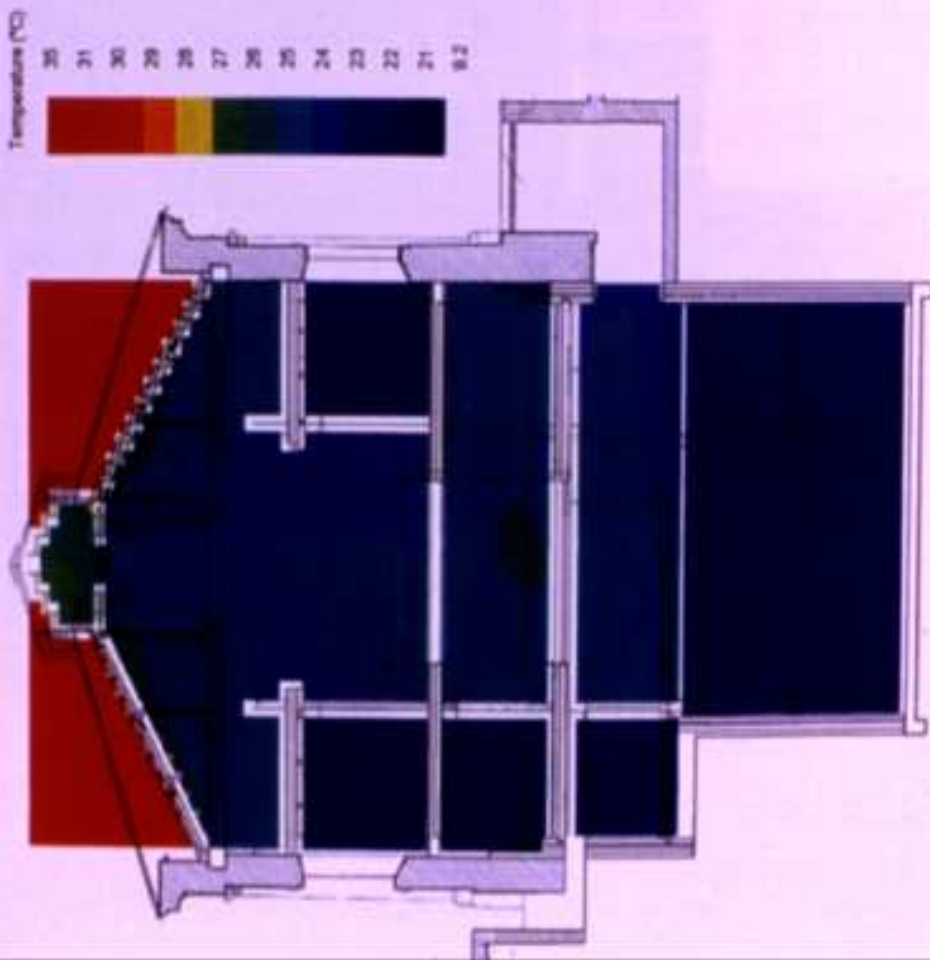
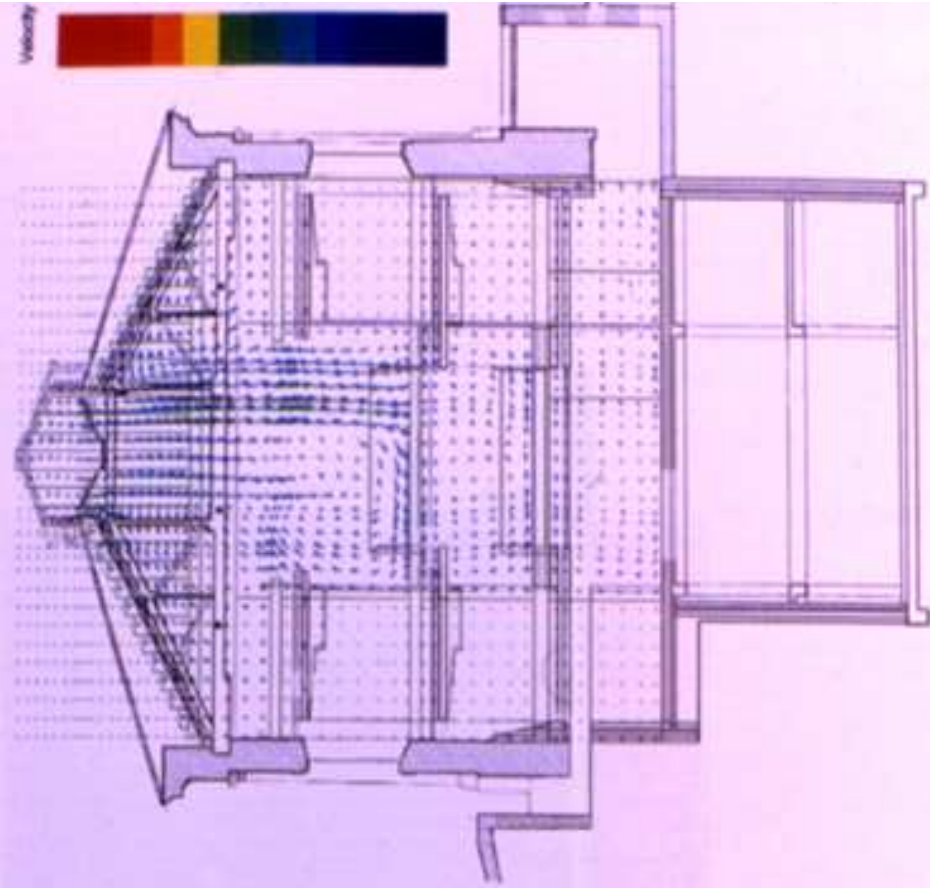
AP has always been interested in exploring the possibility of environmentally friendly solutions for cooling or heating buildings.



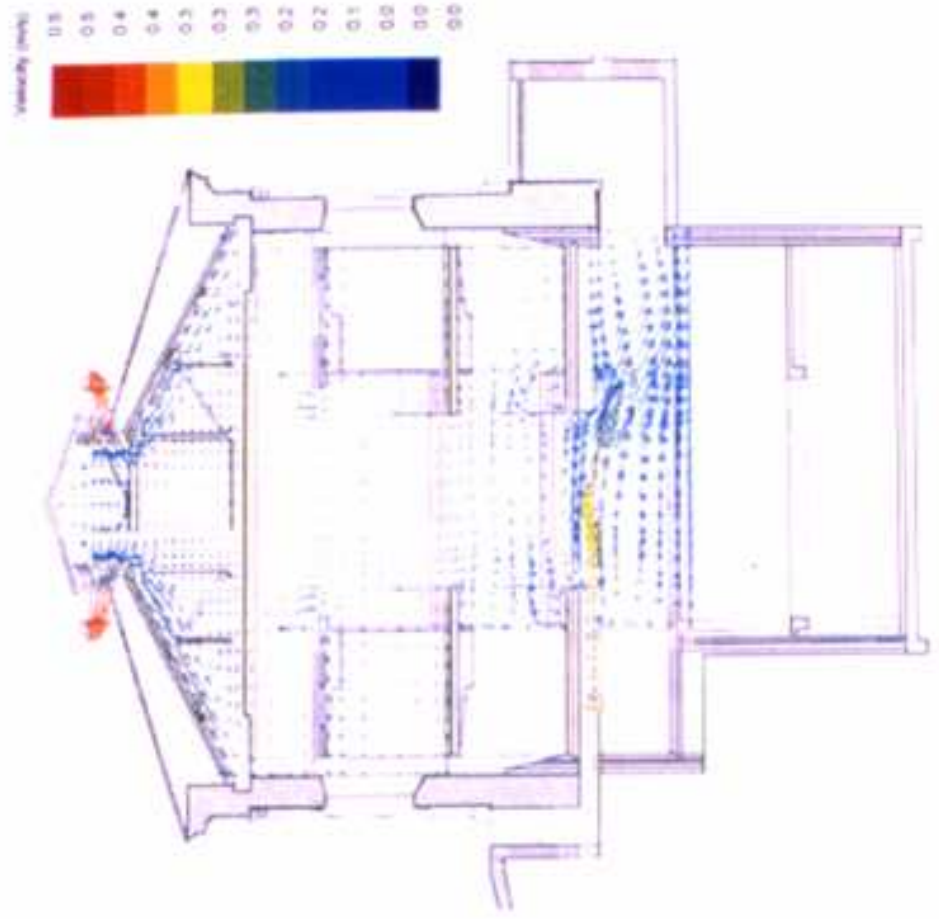
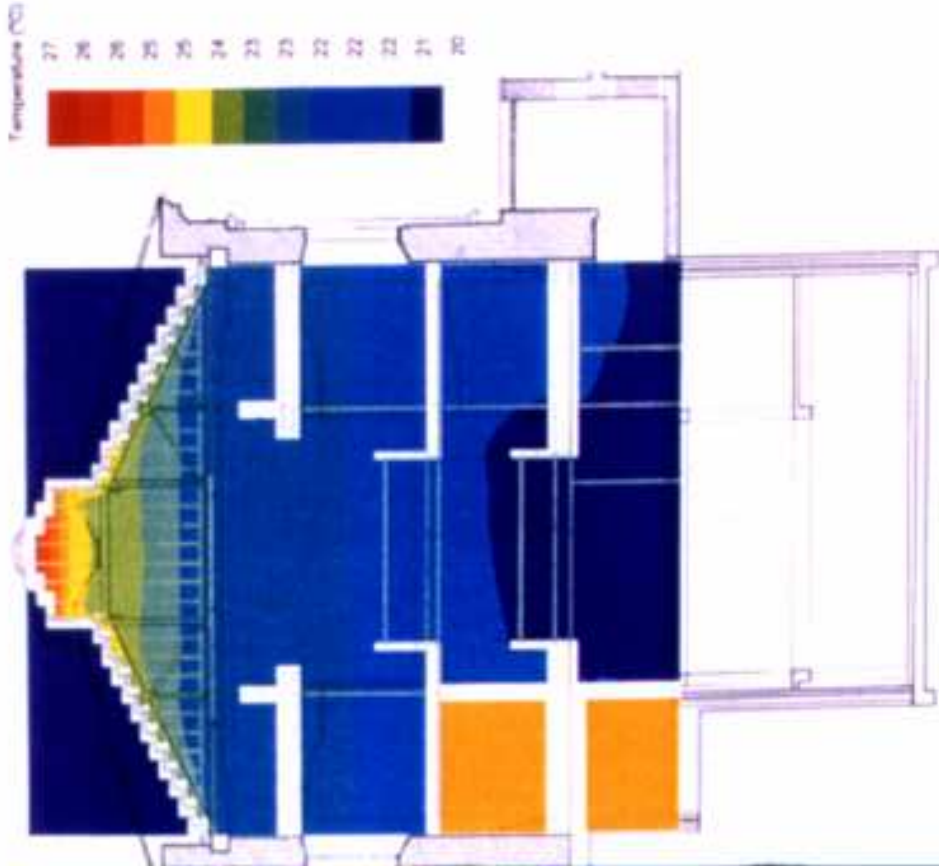
AP



AP

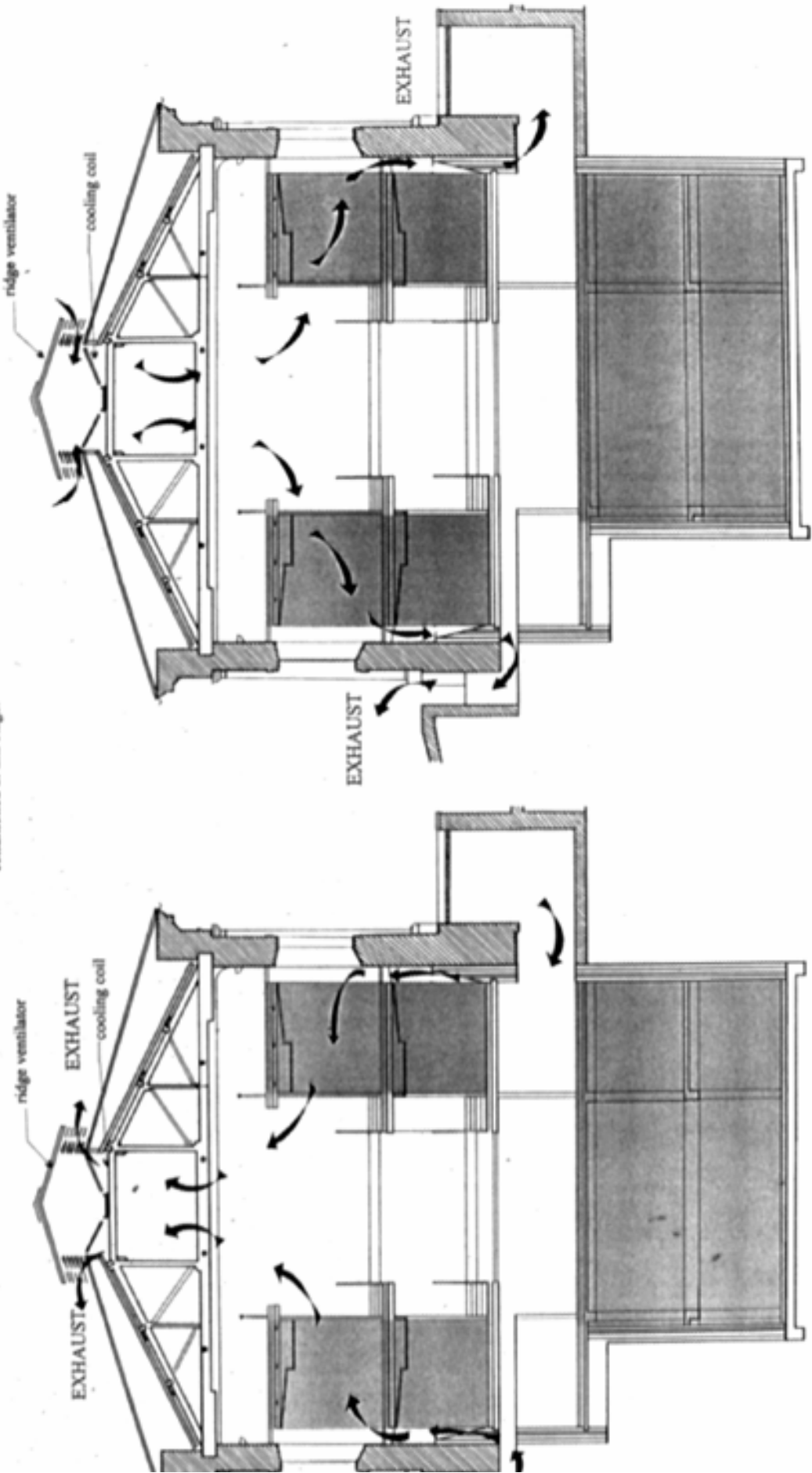


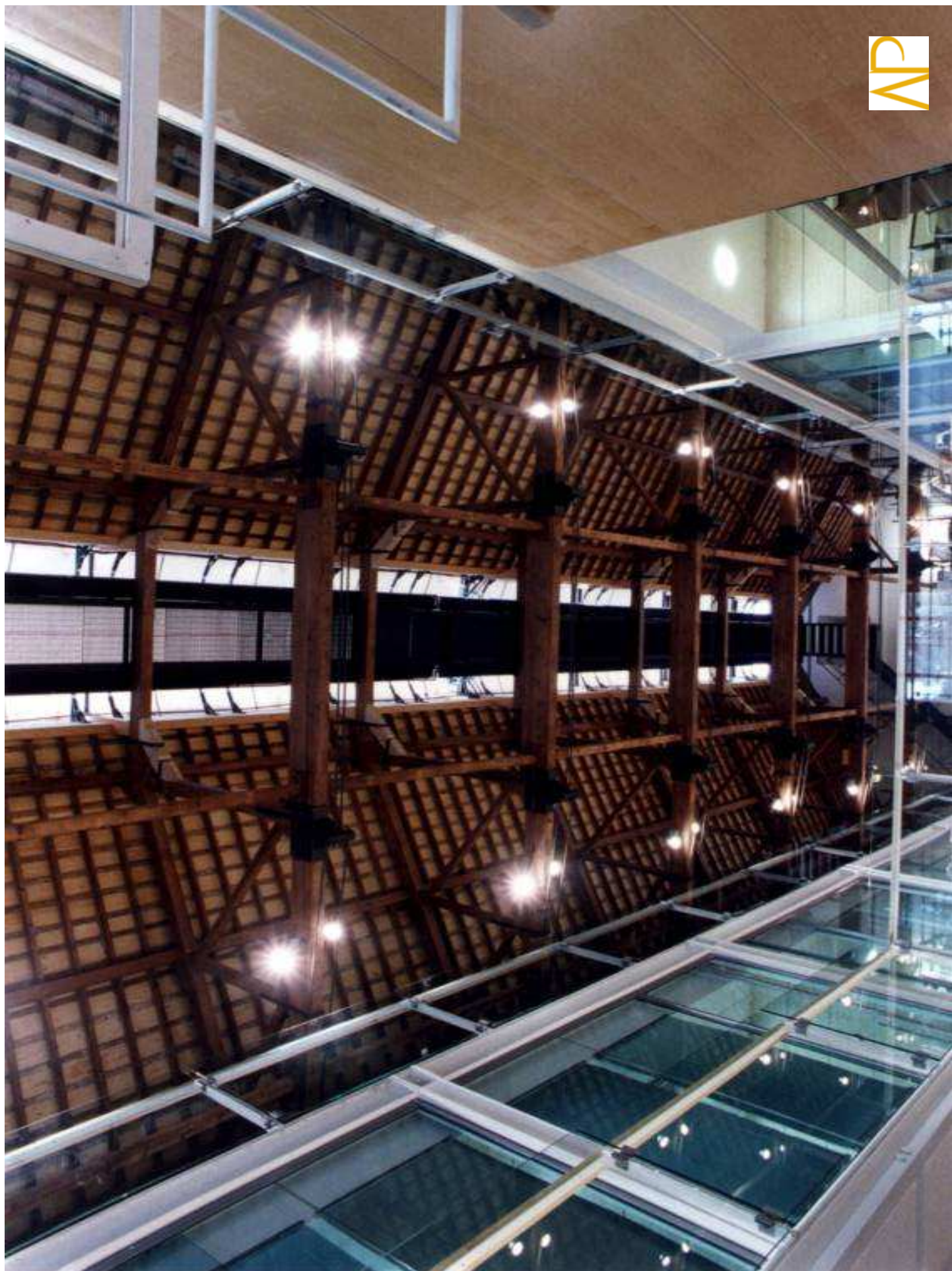
AP



AP

Hatched zone assumed to be air conditioned at this stage.











AP

Step 3

Call for proposals

- The coordinator, the University of Nottingham (UNOTT), have experience in searching for programmes and applying for funding
- AP were not involved in the search for the actual programme
- UNOTT constantly search for programmes within the CORDIS website

Cordis

Community research and development information systems

*The official portal for participating in FP7
and following related developments in
European science and technology*



You are here: FP6 Home

Home

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Highlights

- Call for evaluation of SME participation in framework programmes
- New Competitive Call for Selecting New Potential Malaria Vaccine Candidates
- CORDIS launches Slovenian Presidency R&D and innovation information service
- Tender: critical mass of public R&D programmes
- Tender: research expenditure on labour and infrastructure

[FP6 expert evaluators](#)

[Calls for experts](#)

[FP6 News](#)

Astronomers, focus your telescopes!

[Date: 2008-06-05]

Telescopes from the four corners of the earth have been successfully linked up to create a real-time virtual telescope, enabling astronomers from the EU-funded Express Production Real-time e-VLBI Service (EXPRES) project to simultaneously observe galaxies in the distant universe... [Read more](#)

© Shutterstock



[New middleware enables access to grid power from your desktop](#)

[EuroGentest already helping patients across Europe](#)

[MEPs give go-ahead to Fuel Cells and Hydrogen JTI](#)

[...More FP6 News...](#)

Forthcoming Events

- 05-06-2008: [Conference on Women shaping science](#): Vilnius, Lithuania
- 08-06-2008: [SEAFOODplus open conference](#): Copenhagen, Denmark
- 16-06-2008: [ASTRONET Symposium](#). Liverpool_UK; Liverpool, UK

[...More FP6 Events...](#)

[Glossary](#)

This week: **Kyoto Protocol**

Adopted in December 1997, this Protocol to the United Nations Framework Convention on Climate Change (UNFCCC) highlights the international community's new attitude towards the phenomenon of climate change. Under the Protocol, the industrialised countries have undertaken to reduce their emissions of six greenhouse gases (carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons and sulphur hexafluoride) by at least 5% during the period 2008-2012 compared with 1990 level.

Activity Areas

Integrating and strengthening the European Research Area (ERA)

- Thematic areas**
 - Life sciences, genomics and biotechnology for health
 - Information society technologies
 - Nanotechnologies and nano-sciences, knowledge-based multifunctional materials and new production processes and devices
 - Aeronautics and space
 - Food quality and safety
 - Sustainable development, global change and ecosystems
 - Citizens and governance in a knowledge-based society

Cross-cutting activities

- Research for policy support
- New and emerging science and technology (NEST)
- SME activities
- International co-operation activities
- JRC activities

Strengthening ERA

- Co-ordination of research activities
- Development of research/innovation policies

Structuring ERA

- Research and Innovation
- Marie Curie Actions - Human resources and mobility
- Research infrastructures
- Science and Society

EURATOM (Nuclear energy)

- Controlled thermonuclear fusion
- Management of radioactive waste
- Radiation protection
- Other activities in the field of technologies and safety



FP 6 Website

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>> FP6 Quick Links

CORDIS

Sixth Framework Programme

You are here: [FP6 Home](#) > What is FP6?

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Activity Areas

What is FP6?

At the Lisbon summit in March 2000, EU governments called for a better use of European research efforts through the creation of an internal market for science and technology - a 'European Research Area' (ERA). FP6 is the financial instrument to help make ERA a reality.

FP6 at a glance

Activity Areas

Instruments

Budget

Frequently asked questions (F.A.Q's)

[> Text version](#)

Essential documents

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Step 4

Submitting a proposal

- Ensure that the project addresses objectives
- Discuss with your National Local Partner
- Choose partners that have experience with applications for funding
- Ensure partners represent three European countries balancing new accession countries with countries that are founding members
- Contact the scientific officer in Brussels before final submission
- Follow guidance notes

Step 5

Application & Negotiation

- AP were requested to be partners in 2004
- Proposal presented to Scientific Officer in Brussels in Dec 2005
- Final signature of contract July 2007
- Competition is high
- For example: 600 proposals were submitted in response to the first Environment Call – FP 7

Step 6

Contract

- Project duration 30 months from signing of contract
- The contribution for the entire project consisted of €836,000 (LM360,000)
- This represents 80% of the original funding requested
- Reporting periods verify that deliverables are happening
- Funds are paid out according to costs and activities as per detail
- Pre-financing up to 80% available
- Bank guarantee set by the Commission is required for pre-financing
- Local banks do not accept this form of bank guarantee
- Law of Belgium governs this contract

Step 7

Project Description

- Abstract
- Objectives
- Relevance to the objectives of the Priority
- Potential Impact
- The Consortium and the project resources
- Project management
- Detailed implementation plan

Step 8

Implementation – July 07

Promotion and Dissemination of

Passive & Hybrid Down-draught cooling in buildings

Objectives:

- *To promote Passive and Hybrid Down-draught Cooling systems in the building sector amongst professionals, contractors and potential users*
- *To disseminate the results of previous EC-funded research projects on PHDC, and knowledge arising from the pioneering built projects*

Background

Dissemination Project

Assessment

- ▶ Post Occupancy Evaluation
- ▶ Market Assessment
- ▶ Market Research
- ▶ Performance Assessment

Dissemination

- ▶ Design Sourcebook
- ▶ Website
- ▶ Symposia

Bibliography



Project description

PHDC Promotion and Dissemination of Passive and Hybrid Downdraught Cooling in Buildings 2007 - 2009

Contract No.: TREN/07/FP6EN/S07.70683/038418

Objectives

1. To promote Passive and Hybrid Downdraught Cooling systems (PHDC) in the building sector amongst building design professionals, developers, building owners and potential users.
2. To disseminate the results of previous EC-funded research projects on PHDC, and knowledge arising from the pioneering built projects.

Background

Passive cooling and energy efficient design can substantially reduce reliance on fuel based heating and cooling, contributing to the European target energy saving of 35Mtoe by 2010. Passive and Hybrid Downdraught cooling, in different forms, is now technically viable in many parts of the world. This has been established through a combination of research projects supported by the European Commission and built projects around the world.

Technology

Passive and hybrid downdraught cooling systems use the negative buoyancy of cold air to drive the airflow through the building. One of the primary mechanisms used is the evaporation of water. To change from liquid to vapour, water needs energy. During the evaporation process, the water takes this energy, in the form of heat, from the air, thereby reducing the temperature of the air and causing it to flow downwards. The use of PHDC can potentially produce substantial energy and CO2 savings in existing and new domestic and non-domestic buildings.

Research activities

The research work has two themes: **assessment** and **dissemination**. The assessment activities are:

- Post occupancy evaluation of existing PHDC buildings (10 buildings in 6 countries)
- Market assessment on the applicability of PHDC
- Market research on PHDC components
- Systems performance assessment methods

The dissemination activities are:

- Website (online by end November 2007)
- Symposia and workshops (a total of seven to be held, one in each partner country)
- Design manual

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- Website (online by end November 2007)
- Symposia and workshops (a total of seven to be held, one in each partner country)
- Design manual

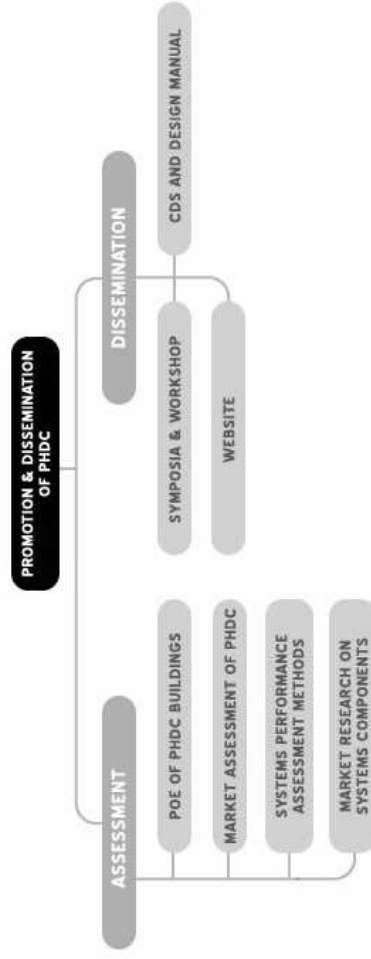
Previous research projects

Research in this area which has been supported by the European Commission includes the research project on 'Passive Dwindraught Evaporative Cooling in non-domestic buildings (PDEC)' and the project on 'Passive Dwindraught Evaporative Cooling using porous ceramic evaporators (EVAPCOOL)'. A market assessment study of the potential application of PDEC to both existing and new non-domestic buildings was completed in 2003 as part of the ALTERNER II project on Solar Passive Heating and Cooling.

Timing

The research project began in July 2007 and will run for 30 months. The first symposium will be held in Malta in July 2008 followed by other symposia every 3-4 months in Spain, Italy, India, China, Greece and the UK. The website will be updated regularly with the results of the research activities which will continue for the duration of the project.

GRAPHICAL PRESENTATION OF THE WORK PACKAGES



Promotion and Dissemination of Passive and Hybrid Draught Cooling Systems in Buildings

UNOTT	
MCA	
AP	
DLC	
REHVA	
AICIA	
ABK	
SRIBS	

PHDC | **Partners**



Partners

This research group brings together professionals and academics who are experts in the fields of architecture, engineering and cost management from seven countries world wide. Their combined experience at the cutting edge of research and design constitutes a wealth of knowledge that will contribute to exploring an exciting and innovative technology.

- University of Nottingham, UK – **UNOTT** - Coordinator
- Mario Cucinella Architects, Italy – **MCA**
- Architecture Project, Malta – **AP**
- Davis Langdon Consultancy, UK. – **DLC**
- European Federation of Heating & Air-Conditioning Associations – **REHVA**
- Association of Research and Industrial Cooperation of Andalusia, Spain – **AICIA**
- Abhikram Architects, Ahmedabad, India – **ABA**
- Shanghai Research Institute of Building Sciences, China – **SRIBS**



AP

Deliverables included

- participation in workshops
- contribution to website
- Availability of data through research and development for the project of the Malta Stock Exchange
- Organisation of seminar in Malta in September 2008

Funding available:

- €86,000 (LM37,000) covering 80% of time and all costs incurred
- Payable at the termination of the project
- Detailed costings required for payment identifying salary cost, consumables, subcontractor costs, travel and subsistence



News

PHDC | News & Events | News | **News detail**

Events

News detail

16 April 2008

Malta Symposium dates announced

The First PHDC symposium will be held in Malta on **September 5th and 6th 2008**. The venue for the symposium is **St James Cavalier**. Presentations and discussions will take place for the first day and a half culminating with a visit to the Malta Stock Exchange.

Attendance is limited to 100 participants. The fee for the whole seminar, including the conference pack, coffee and lunch, is €100,00.

Registration will soon be open on this site.



Valetta Malta



Malta Stock Exchange

News detail

03 June 2008

'Cooling without Air-Conditioning', Malta Symposium Programme

DRAFT PROGRAMME

DAY 1: SYMPOSIUM 'COOLING WITHOUT AIR-CONDITIONING'

9.00 Arrival & Registration

SESSION 1: PASSIVE COOLING IN THE GLOBAL AND LOCAL CONTEXT

9.30 - 11.00

9.30 **Welcome and introduction** - Joanna Spiteri Staines, *AP Associate Partner, Malta*
 9.45 **Opening speech** - The Hon. Dr. Laurence Gonzi, Prime Minister of Malta (To Be Confirmed)
 10.00 **Environmental, Architectural and Development Context** - David Felice, AP Senior Partner, Malta

10.30 **A low carbon strategy for Malta** - Local Planning Officer (TBC)

Refreshments

11.00

SESSION 2: DESIGNING FOR PASSIVE AND HYBRID DOWNDRAUGHT COOLING (PHDC)

11.15 - 13.00

11.15 **PHDC: What is it and why** - Brian Ford, *University of Nottingham, UK*

11.45 **PDEC: research and practice** - Elizabeth Francis, *Partner, Mario Cucinella Architects, Italy*

12.15 **Applicability of Passive and Hybrid Draught Cooling** - Servando Alvarez, *AICIA, Spain*

12.45 **Questions and Discussion**

Lunch

13.15 - 15.00 (Including a display/exhibition of PHDC components manufacturers)

SESSION 3: CASE STUDIES AROUND THE WORLD

15.00 - 17.15

15.00 **PHDC buildings in the US** - Rosa Schiano-Phan, *University of Nottingham, UK*

15.20 **PHDC buildings in India** - Brian Ford

15.40 **PDEC: Example of the Malta Stock Exchange** - Joanna Spiteri-Staines

Refreshments

16.00

16.15 **Market for air-conditioning in South of Europe and Cost of PHDC Systems** - Alex Amato/Paul Thomas, *Davis Langdon Consulting, UK*

16.45 **Questions and Discussion**

17.15 Close

ADDITIONAL EVENTS

19.00 **Public Lecture** by Konrad Buhagiar, AP Malta

20.30 **Evening reception**

DAY 2: WORKSHOP 'DESIGN AND PERFORMANCE OF PASSIVE AND HYBRID DOWNDRAUGHT COOLING IN BUILDINGS'

FP 7

1.9 Billion Euro.....

for environment and climate change

CORDIS: FP7 Homepage - Windows Internet Explorer

http://cordis.europa.eu/fp7/home_en.html

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CORDIS: FP7 Homepage

Seventh Research Framework Programme (FP7)

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English (en) 2007 - 2013

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In the spotlight

Projects launched under FP7 now profiled on CORDIS.

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[Register as independent](#)

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Ideas

People

Euratom

Capacities

JRC

What type of user are you?

The Seventh Framework Programme (FP7) is designed to support a wide range of participants... [read more](#)

- Private company
- Public organisation
- Individual researchers
- Outside the EU

Latest News

EUREKA strengthens ties with EU
[Date: 2008-06-09]

As Slovenia prepares to hand over the chair of EUREKA to Portugal on 1 July, it can do so with the confidence that it will be leaving a lasting legacy. [read more](#)

[-> more news](#)

Highlights

- The updated version (2008-05-08) of the [Negotiation Guidance Notes](#) is now available in the documents' [directory](#) under the "Guidance documents" section
- The updated version (19 March 2008) of the [Guidance](#)

Forthcoming Events

start

Microsoft Po...

Internet

100%

23:03

AP

What will be funded?

- **Climate change, pollution and risks**

- Pressures on the environment and climate
 - Environment and health
 - Natural hazards

- **Sustainable Management of Resources**

- Conservation and sustainable management of natural and man-made resources and biodiversity
 - Management of marine environments

- **Environmental Technologies**

- Environmental technologies for observation, simulation, prevention, mitigation, adaptation, remediation and restoration of the natural and man-made environment
 - Protection, conservation and enhancement of cultural heritage, including human habitat improved
 - damage assessment on cultural heritage
 - Technology assessment, verification and testing

- **Earth observation and assessment tools**

- Earth and ocean observation systems and monitoring methods for the environment and sustainable development
 - Forecasting methods and assessment tools for sustainable development taking into account differing scales of observation

*We look forward to collaborative
research under FP 7*