

Low carbon cities

A message from ISOCARP about its 45th World Congress to be held in Porto, Portugal between 18 -22 October 2009



Old Porto riverside

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Message from the Presidents

2009 will be an extremely important year in terms of the political decisions that are needed to combat climate change. The world's governments will be meeting in Copenhagen this December to discuss and, we sincerely hope, agree upon a successor to the Kyoto Protocol, which in 1997 started the faltering attempts to curb emissions of greenhouse gases. The summit, COP 15, will be the most important global climate change meeting ever because there is so much at stake for the future of our planet, its human populations and all the other life forms that live on it.

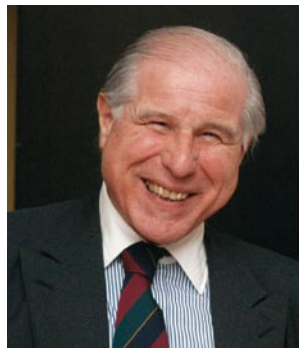
The science is now clear about the link between man's activities, the build up of greenhouse gases and the warming of the climate system. With their increasingly sophisticated modelling systems, climatologists are now able to predict, with a reasonable degree of confidence, the likely future effects of this warming within the different regions of the world. However, the effects are already becoming clear, as is evident from the massive shrinkage of polar sea ice, the rapid retreat of the world's glaciers, and the rising mean sea levels which threaten many of our largest cities. They are manifest too in the extreme weather patterns and events that are being experienced in dif-

ferent parts of the world, for example, the devastating drought in south eastern Australia.

We have reached this present position in just 10 human generations. The sober scientific evidence suggests that we have a maximum of 10 years to stabilize greenhouse gas concentrations at a level that would avoid potentially catastrophic climate change. We face this threat at a time of continuing population growth that is coupled, on the one hand, with rising material expectations but, on the other, with growing concerns about the ade-

quacy of food and water supplies, as well as other key resources. At the same time, the deforestation that reduces the earth's capacity to absorb carbon dioxide continues on a massive scale. The present trends are in the wrong direction.

There is thus a huge weight of responsibility on the leaders who will be attending COP 15. To achieve the drastic cuts in greenhouse gas emissions that are needed, we will have to act on a range of fronts combining technological solutions with the pursuit of new and less



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resource intensive paths for human development. We must move rapidly towards a low carbon economy in which those emissions are a fraction of what they are now.

An emphasis upon the cities

Over half of the world's population now lives within cities. Because they concentrate people and activities, they place a particular burden upon the world's resources. Their future is crucial in the search for sustainability and, if we are to put the world on a lower carbon path, action based upon the cities will form a major part of the solution.

Spatial planning and effective city management will be crucial in bringing this about. ISOCARP's 45th World Congress to be held in Porto, Portugal this October explores the role of planning and of all those involved in the planning and development process, in the drive to achieve less resource intensive, low carbon cities. As this special supplement describes, the Congress provides a major opportunity to disseminate and share experience about strategies and practical approaches to the planning and design of low carbon cities. This will be achieved through a combination of keynote presentations, technical seminars, workshops, technical tours and other events, providing much scope for debate and the reaching of conclusions regarding best practice.

As a final note, we are delighted that UN-HABITAT has agreed to play a major role in our Congress.

We look forward to welcoming you to Porto this autumn!

Five critical themes

Porto 09 builds upon the results of ISOCARP's Congress on urban sprawl held last year in Dalian, China. In sustainability terms, the unrestrained, land consuming patterns of much urban growth – the manifestations of sprawl – are the opposite of what we need to achieve. Encouragingly, speakers at that Congress were able to point to numerous examples of schemes where planning has been able to shape cities that are more respectful of the environment in its widest sense. Through its five discussion themes and its plenary sessions, the 45th Congress continues the debate. It asks how in practical terms should low carbon cities be planned, designed and delivered?

Theme 1: Tackling the effects of climate change on our cities and urban regions – today and tomorrow

According to the climatologists, there is a high level of confidence that already dry areas – for

example the Mediterranean Basin, the western USA, southern Africa and north eastern Brazil – will suffer a further decrease in water resources due to climate change. By contrast, areas in high latitudes that are already wet will receive even more rainfall. Worldwide, sea level rise threatens the integrity of many coastal cities while extreme weather events will increase in their intensity. On the other hand, some regions might benefit in the medium term, in terms of crop yields, for example, before negative effects become more general.

The Congress seeks to address the realities for cities and urban regions in different parts of the world. What is the right way forward for specific cities? Should they adapt to observed and anticipated climate change, or should the emphasis be on mitigation, to tackle the causes of climate change, as part of the collective effort to reduce the build up of greenhouse gases? The view of the Intergovernmental Panel on Climate Change (IPCC) is that, globally, a mix of strategies that includes both mitigation and adaptation is required, but which ingredient should be prioritized in any specific city, or are both equally important?

There is also the challenge of how we can best foster and plan for new technologies aimed at saving energy or reducing resource depletion. In particular, there are immense opportunities for the development of renewable energy industries, amongst which wind power is the most mature. Renewables, energy efficiency and green industries generally have the potential to create many millions of jobs worldwide and to transform city economies. Will green industry be the sign of a successful city in the 2020s?

Theme 2: The role of strategic land use planning

The link to planning for low carbon cities is through the concept of sustainable development. However, while we can readily recognize urban sprawl as the antithesis of sustainable development, it can be more difficult to define city structures that work well in those terms. So a key question for the Congress is how at the strategic scale we should shape our cities and urban regions as sustainable, low carbon places and how we should formulate and implement our plans to that end.

In any one place, there may be a number of options. From a European perspective, the conventional planning wisdom is that a reasonably high density, a mix between housing and employment uses, and a degree of self containment are among the pre-requisites for low carbon areas. But how universally valid is such a vision? Also, given that sustainability has economic and social, as well as environmental dimensions, how should we set the priorities, or are there genuine 'win win' strategies



Integrated public transport in Zurich, Switzerland
PHOTO © CHRIS GOSSOP, ISOCARP

that provide clear routes to low carbon cities?

There is then the question of how necessary growth should be channelled. Is land recycling automatically the best option in terms of carbon emissions or can planned urban extensions or new settlements perform as well, given the right designs? What does practical experience tell us? And where the needed emphasis is on restructuring or upgrading of older places, how can we best achieve this in ways that also lead to improved energy efficiency and reduced carbon emissions?

Theme 3: Integrating transport, community energy, and waste/recycling strategies

Land use planning cannot on its own guarantee low carbon cities and high environmental quality; a spatial planning approach is vital, whereby land use considerations can be integrated with infrastructural planning. Thus, efficient public transport systems, and measures to manage or restrain the unbridled use of the private car, can play a major role in limiting carbon emissions. Local energy planning, providing for energy efficient building layouts and designs, efficient local electricity and heat generating plant, and the widespread use of renewable technology, has also a substantial part to play. And effective waste planning, through waste minimization, recycling, and composting, as well as energy recovery in appropriate cases, makes better use of resources, and limits landfill disposal and emissions.

The Congress will look at planning approaches for these sectors. Thus, on transport, it will address demand management to reduce the need to use the car, for example through pricing and car parking policies, while Porto's award winning metro system indicates what can be done to foster the use of public transport. On energy, Porto 09 will explore the concept of community energy ▶



Solar housing in Freiburg, Germany
 PHOTO © CHRIS GOSSOP, ISOCARP

strategies, as well as action to combat the growing incidence of heat islands in dense cities where the priority is to keep the city cool. Porto's own sustainable energy action plan will provide an important case study.

Theme 4: Design for low carbon cities

Planning, by itself, has often been too 'broad brushed' to cope with the necessary detail for a quality living and working environment. That is the domain of urban design. Good design is the key to creating successful places that are sustainable in the broadest sense. There is a growing recognition of what constitutes good design and there are numerous examples from around the world of successful places that both function well and are attractive in architectural and landscape terms. But the new dimension is the need for those places to be low carbon as well.

The Porto Congress will address the ingredients of low carbon design. As a key question, what are the characteristics of an energy efficient, resource conscious, building layout and how can these best be secured within both new developments, and within existing ones, often the more difficult challenge? And, underlying this, what standards of energy efficiency should we be aiming for?

Good, low carbon design also implies places that are well connected but where there is a reduced dependence upon the car. Also, open space and landscaping are vital as a balance to intensive built development; they are crucial to human health and well being, to biodiversity and to moderating the urban climate. There is another dimension too, in terms of local food production; this can have both economic and social benefits as well as reducing 'food miles'.

Theme 5: The management and delivery of low carbon cities

The move towards low carbon cities will place immense burdens upon those responsible, from the public authorities and related agencies, to

the developers who will carry out the work, and to the communities that will be directly affected. Spatially, there will be two elements to this, the new developments that will be planned and designed following low carbon principles and the remodelling of older areas. There is also the question of skills, in what for many will be an entirely new area of work.

So who should take the lead in this process, central or local government or other agencies? How should the low carbon city be financed and who should be the financiers? What monitoring schemes are needed to measure environmental performance over the longer term? The switch from present practices to low carbon cities is going to require considerable management skill, and a great willingness to innovate. We believe that participants in our Congress will gain many useful ideas.

ISOCARP – knowledge creation and sharing

ISOCARP is a global association of experienced professional planners. It was founded in 1965 to bring together recognized and highly qualified planners. Today, the ISOCARP network consists of both institutional and individual members drawn from more than 70 countries. It is a non-governmental organization recognized by the United Nations (UNCHS) and the Council of Europe and it has formal consultative status with UNESCO.

The objectives of ISOCARP include the improvement of planning practice worldwide. ISOCARP encourages exchange between planners, promotes the profession in all as-

pects, stimulates research, and improves awareness on major planning issues. Its main event is its World Congress held annually in a different city each year. Other activities include its Urban Planning Advisory Team and Young Planning Professionals programmes. The Porto Congress will include presentations on both of these (see below).

The Society's publications include the ISOCARP Review which is produced annually in conjunction with the Congress. This attractive book features many of the most notable case studies presented at that event. Other publications include the International Manual of Planning Practice (IMPP), a unique compendium of, and commentary upon, the world's planning systems. The Society also runs a number of awards; these include its Awards of Excellence which are conferred annually in recognition of exceptional urban initiatives.

Advisory teams

The Urban Planning Advisory Team (UPAT) Programme seeks to assist individual cities and regions in the pursuit of specific planning projects and programmes.

A UPAT gathers a select group of expert international planners, members of ISOCARP, in a multi-skilled, fast response team that works on a specific urban or regional planning issue. Within one week, the UPAT generates a report that provides the commissioning local authority or other body with recommendations that may serve as a basis, or as guidelines, for design strategies for the target city or area. A group of students and/

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UPAT Sitges II: Urban Mobility

"Happiness and Quality of the Urban Space"



PHOTO © ISOCARP-SITGES II

or young planning professionals from the locality complements the team.

The UPATs hosted so far are:

- 2004 La Rioja, Spain *Regional, social and economic development*
- 2005 Sitges, Spain (I) *Urban regeneration along the railway corridor*
- 2006 Cancun, Mexico *Disaster management*
- 2006 Schiphol, The Netherlands *Masterplan for neighbouring authorities*
- 2006 Sitges, Spain (II) *Historic centre pedestrianization*
- 2007 Rijswijk, The Netherlands *New functions for an urban hub*
- 2007 Schwechat, Austria *Airport area masterplan*
- 2007 Sitges, Spain (III) *El Garraf regional plan*
- 2008 Cuenca, Spain *Upgrading of the historic centre*
- 2008 Lincoln City, USA *City masterplan*
- 2008 Guadalajara, Mexico *Appraisal of the 2001 Panamerican Games Masterplan*
- 2008 Zurich, Switzerland *Regional plan*
- 2009 Szczecin, Poland *Metropolitan region development*

There will be a presentation of the results of the most recent UPATs at the Porto Congress. ISOCARP would welcome further invitations for UPATs from individual cities and regions.

Young planners

The Young Planning Professionals (YPP) Programme is a crucial component of ISOCARP's dedication to promote and enhance the planning profession. The objective is to provide emerging professionals with an opportunity to work in a multi-cultural setting and share their experiences. Since 1991, ISOCARP has been organizing YPP Workshops, bringing together young planners from all parts of the world. The workshops are brief, but very intense, brainstorming planning and design exercises in which our young colleagues work on real-life planning problems in the host city in an area defined by the local authority or university departments.

Over a concentrated period of three to four days, the YPPs work in closely-knit international teams, exchanging ideas and learning from each other. The workshops, thus, provide a synergetic platform where new ideas and creative solutions to complex and multifaceted urban issues are produced. The tangible results are then published in a Workshop Report. The intangible ones, however, stay in the hearts and minds of the participant YPPs, who not only learn from each other but make life-long friends.



YPP Workshop in Dalian, China

PHOTO © JIANG LING, CHINA

The Douro YPP Workshop will take place just before the Porto Congress. As befits the theme of the Congress, it will focus upon the benefits of using sustainable energy in the built up areas of the Douro Region, the world's oldest demarcated wine region, now listed as a World Heritage Site by UNESCO.

The YPPs will then present their main findings to a special plenary session of the Porto Congress. Just after the main Congress, there will be a second presentation and public discussion back in the Douro Region. This will involve Portuguese experts, technicians and politicians.

Young Planning Professionals from all over the world are invited to take part in future YPP Workshops which are planned in conjunction with the annual ISOCARP Congresses. For further information please visit: www.isocarp.org

More about the Congress

The Congress will be held at the University of Porto, which is well served by the city's metro system. The programme is a very rich one which includes the following:

- Plenary speeches by:
 - Professor Jean-Pascal van Ypersele, Vice Chair of IPCC
 - Richard Rosan, President of the Urban-Land Institute
 - Professor Eduardo de Oliveira Fernandes, President of Porto's Energy Agency
 - Professor Jacqueline McGlade, Executive Director of the European Environment Agency
 - Paul Taylor, Head of Urban Development, UN-HABITAT
- Technical seminars covering:
 - Energy, transport and the environment
 - Low carbon cities – today and tomorrow
- Parallel workshops addressing the five critical themes
- Technical tours, choices to include:
 - The metro project



The Porto metro

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- Urban regeneration
- Environmental improvement of Porto's waterfront
- Contemporary architecture and cultural events
- UPAT and YPP presentations
- Porto planning presentation

For more information about the Congress and about ISOCARP's many other activities, visit www.isocarp.org ♦

How to register



ISOCARP

ISOCARP welcomes city and regional planners from all over the world. The Congress is open to any interested individual, party or organization, young planning professional, expert and interested professional from other related disciplines (ISOCARP members and/or non-members).

Carbon offsetting

We have calculated the anticipated emissions from this event and are offsetting these through Climate Care. The cost of the offset is included in the registration fee. Climate Care will fund projects in energy efficiency and sustainable energy around the world to reduce global carbon emissions on our behalf.

Registrations are handled online at www.2009.isocarp.org, via the link to 'Registrations'.

Early bird registration is open until 31 July 2009.

Late registrations can be accepted until arrival at Congress.

ISOCARP accepts all major credit cards and/or bank transfers.