

## **SPEECH BY DAN NORRIS MP AT THE MET OFFICE: THE EUROPEAN CLIMATE CHANGE 'ENSEMBLES' PROJECT**

Thank you very much for inviting me here today to join your discussion of the ENSEMBLES programme.

This is a genuinely important research agenda, which is generating new insights into one of the biggest challenges we've ever faced.

I joined Defra in June – exactly a week before the latest UK Climate Projections came out. Right from day one, I've been aware of – and been able to benefit from – the expertise at the Hadley Centre and the brilliant work being done here, together with other researchers and international colleagues, to understand the scale of the climate challenge and its impacts – not just for the UK or the EU, but for the planet as a whole.

As scientists and as patient, careful generators of new evidence – which certainly doesn't materialise overnight – your work has greatly advanced our understanding of the climate challenge.

And although it's not straightforward or simple, the ENSEMBLES programme is also helping to develop a much more convincing and common understanding of the processes and consequences that long-term change may involve – and to quantify some of the uncertainties that remain.

Regional case studies are a good example of this. They provide growing evidence of the long-term climate challenges facing some of our great European capitals. And they are helping us to recognise how climate change alongside changes in society – in terms of demographics, economics, technology and behaviour – will interact as drivers to shape the future of urban areas where the majority of the EU's population lives.

I'm very pleased that the Met Office is hosting this symposium. It reinforces the leadership role that the UK and other member states are playing in international climate science and policy. Just as important, it's a chance to take stock – to discuss the science you've developed, the advances you've made, and to look at the priorities and the next set of questions we need to address.

The importance of your work comes into even sharper focus as we approach Copenhagen – now just days away.

Gordon Brown and other EU leaders are continuing to stress the extraordinary importance of reaching a deal on carbon emissions – to avoid the catastrophe of unchecked climate change and a future of heatwaves, floods and droughts which is the all too terrible consequence.

The challenge in Copenhagen will be to put aside major differences in national self-interest, and negotiate a binding agreement for reducing future emissions of greenhouse gases. We're all in the

same leaky boat. So we need an agreement that takes us towards a safe and affordable transition: from the carbon-heavy economies of the past to the truly sustainable, low-carbon economies that we need for the future.

Unfortunately, we still have some sceptics out there. Some slower boats in the emissions convoy, which are taking time to turn themselves around. Even some big emitters are in denial about their actions and the toll they're taking on our planet.

It's an old joke but how many climate sceptics does it take to change a light bulb? Answer: None. It's too early to say if the light bulb needs changing.

Well, thanks to you, it's not too early. The ENSEMBLES programme is directly responsible for boosting the evidence base. For showing that real change is already happening. For shining a light on where the problems are and the real-world impacts that we're facing.

There are many obstacles in front of us, including sceptics. But the fact that a deal at Copenhagen is now within the realms of the possible owes a huge amount to the scientific contributions of programmes such as this.

Having got to this point, we also increasingly understand that whatever we do in Copenhagen, the next 30 to 40 years will involve unavoidable changes in the climate to which we must adapt.

And here again the evidence is stark. The cost of doing nothing outweighs the costs of acting now. We need to adopt an even more dynamic approach.

The extraordinary summer heatwave of 2003 in Europe resulted in over 35,000 extra deaths. Within the lifetime of our children and grandchildren those intense temperatures of 2003 could become the average temperature experienced throughout much of Europe. Those temperatures along with major changes in the distribution of rainfall will put massive pressures on our society.

Understanding the situations that we face and the tough decisions that we'll have to make to manage change and adapt to what we can't avoid has required great advances in climate science. We're getting there, but along with the insights from your research we're also conscious of a whole host of new questions.

Increasingly, decision makers want finer-grain, more specific information on what climate change really means. Exactly when will the impacts be felt? Exactly which parts of the UK or the world will be most affected? How can we reduce the uncertainties? How can we improve our understanding of the social and economic impacts of climate change? How can we target the right ways to adapt and the right priorities to focus on?

One of the most valuable things about this Symposium is the chance to consider this question of “what comes next” – what further research and tools are needed, what are the real priorities, and how can we organise ourselves most successfully to deliver?

A great strength of the ENSEMBLES programme is the way that you are bringing a range of expertise to bear – using integrated, collaborative thinking to steer the next set of research priorities we need to tackle. Your programme is a platform for bringing in international expertise and involving other scientific disciplines. And it’s by far the best way to address the more challenging and detailed questions that policy-makers are asking.

There is growing awareness that your approach is delivering and you have some impressive supporters.

A couple of weeks ago, my Department’s Chief Scientific Adviser was asked by the House of Lords’ Science and Technology Committee to come up with the 3 greatest successes of the Defra R&D programme in the last 10 years. The Hadley Centre’s work on climate modelling and the development of the UK Climate Projections came top of the list, and he described it as “one of the most important pieces of research in the world”.

This is just one aspect of the work which has gone into the ENSEMBLES programme. Your research is developing broad and robust insights about the places, sectors and systems right across

Europe which will be affected by climate change. It is a world-class way of working that shows how different countries can join forces successfully to deliver policy-relevant science, with results that can influence and shape our future actions and priorities.

Together with other EU programmes – such as the CIRCLE programme and the Climate Change Clearing House Mechanism, which will help to share information on climate change impacts across Europe – ENSEMBLES shows that we can take a common understanding and common ambitions into the international arena. It provides a way for us to develop and push the arguments for mitigating and adapting to climate change. And it allows us to tackle our increasing vulnerability to change on the basis of strong new science and a growing understanding of how, when and where the impacts will fall.

I suspect that if we didn't have the ENSEMBLES Programme in the EU we would probably have to invent it, or something very like it.

And so I wish you both an enjoyable conference and some important and successful outcomes for the future.

Thank you.