Ms Helbig,
Mr Lenzen,
Mr Tilche,
Ladies and Gentlemen,

At the end of last year the European Environment Agency published its report entitled “Climate change, impacts and vulnerability in Europe 2012”. This report is the foundation for the European Adaptation Strategy which is being developed by the European Commission and is to be published in 2013.

There has been a German adaptation strategy since 2009.

It is now about two years since the North German coastal states held a regional conference here in Hamburg to discuss adaptation to climate change and ways to cooperate in taking precautions before it is too late. Projects such as KLIMZUG-Nord help to develop action strategies.

And of course researchers, policy-makers and government bodies in our city are also keeping watch on the possible changes. A Hamburg Strategy for Adapting to Climate Change will especially need to work towards the goal of keeping the industrial city and the metropolitan region on safe ground.

As far as strategies and action plans are concerned, we already seem firmly focused on climate change. But will we get it under control? The question may sound provocative, at least to those sceptics who say, “We have ignored the limits of growth and consumption and will now discover the limits of our own abilities to cope with the consequences.”

This scepticism is to be respected and in many cases it is well founded, but I am nevertheless fully convinced that Barack Obama’s words are true:

“We will respond to the threat of climate change, knowing that the failure to do so would betray our children and future generations.” And he goes on to say: “We cannot cede to other nations the technology that will power new jobs and new industries – we must claim its promise.”

This sums up everything from which we too - on this side of the Atlantic - can and must take heart. I am convinced that engineering offers possibilities for environment and climate protection. Hamburg’s experiences in this field have been very good. And so I expect the chances that we can counter the ever more apparent consequences of climate change to be good too - always with the “caveat” that we are humbly aware that we have often known less
and been able to predict less than was sometimes thought.

Climate research, which is the foundation on which our action strategies build, is a science that has made enormous progress and is extremely well represented in Hamburg. But it is not immune to errors and we must remain receptive to discussion.

Having said that however, it is also true that climate research is in Hamburg’s genes. Established in 2007, the KlimaCampus brings together top international scientists in a unique network formed by numerous university institutes and famous non-university partners, such as the Max-Planck Institute for Meteorology, the Helmholtz Centre and the German Climate Computing Centre (DKRZ).

KlimaCampus has grown from CLiSAP - the “Integrated Climate System Analysis and Prediction” cluster of excellence; its special quality is revealed in the fact that it was successful in both the first and in the second programme phase, now in progress, of the Federal Excellence Initiative (the total funding for the 2nd phase of the programme which runs until 2017 is 29.5 million euros, of which 7.4m comes from Hamburg). The Senate is supporting this development with a 20,000-square-metre new building for climate research and geosciences at the Campus on Bundesstraße.

In this connection the Computing Centre is making an important contribution via its high-performance “Blizzard” computer, one of the most modern super computers available to climate research - although of course the word “modern” has to be applied with caution to this rapidly-evolving technology. Therefore, we are especially pleased that in 2014 an even more powerful successor will start operations in Hamburg.

Ladies and Gentlemen,

To date European and German climate policies have concentrated primarily on ways to reduce climate-altering emissions and even avoid them altogether in certain sectors. Quite rightly, considerable funds have been invested in practical climate protection measures; in the 1990s Hamburg also spent large amounts of development funding to drive technological innovation, aiming to make energy-saving measures and the use of renewable energies more economical propositions.

Hamburg’s five-year Climate Protection Concept, which is now coming to an end and was funded with over 100 million euros, has succeeded in achieving a structural reduction of 2 million tonnes of carbon dioxide emissions originating in Hamburg compared with the figure for 2007. A “Climate Protection Master Plan” will carry on from there.

Voluntary cooperation between business and state is and always has been important, whether that be in the environmental partnership UmweltPartnerschaft Hamburg, with its tried and tested subsidies for companies - Unternehmen für Ressourcenschutz - or in the form of voluntary undertakings by industry. These schemes have led to impressive and measurable successes in the reduction of emissions.

Here in Hamburg we are approaching the impending “Energiewende”, the energy turnaround – currently the biggest challenge facing Germany as an industrial nation – with the same courage and elan. And of course, its success or failure will also have an impact on the climate, even though the initial concerns are reliable supplies and routes for new power lines
- in the wake of the Federal Government's overdue but spontaneous and somewhat unplanned abandonment of previous nuclear power policies.

Only recently has there been a greater focus on possible courses of action to adapt to the past and future dynamics of the climate. I do not see these as an alternative, but as a necessary complement to our other policies. It is an important and difficult topic.

“*To govern is to predict*”. This saying is attributed to a 19th century French journalist. In a popular comic, the chief of a Gallic village says the same. But unlike today, he has to consult a “seer” who unfortunately turns out to be a fraud. Today we have elaborate climate simulation models, but we still have to keep checking the various scenarios - there are always several corridors - to see if they are plausible and reflect new facts.

What scientists take as a matter of course is hugely challenging to the political community, because people rightly expect their politicians to plan appropriate measures now and take precautions for events that will not happen until later, perhaps much later. The current residents in the city and region have to find that sensible.

I believe that it is important - and serves to create a democratic consensus - to state the time scales involved more clearly than in the past and to communicate this information better.

Two examples: starting now, we must plan and build new residential areas and the city districts close to the port in such a way that even in a hundred years the people living there remain dry-footed - this is always an overriding concern in Hamburg, which has suffered so many devastating floods in the past.

On the other hand: do we have to know now, and can we know now, how many emergency vehicles we will need and how many people the police, emergency response and hospital services will need in 2050, if by then the average annual temperate has climbed to how many degrees? Practical issues in health care and emergency services are things we deal with every day, and I believe we must set ourselves sensible priorities for long-term plans.

I should like to name some of the things we have prioritized so far:

The current flood defences building programme that started around 20 years ago will be completed by 2016. An expertise by the Environment Agency UBA concludes that Hamburg’s coastal defences will be just as effective in 2030 as they are now - for all we know. Only after that date does the Agency see a need for action. The Senate has already responded; in October 2012 a new flood defence programme was adopted and the requisite funding included in budget planning.

Most of the additional work will concern the earth dykes. Only a few of the complex structures in the central city will need to be upgraded, because they were built to last.

The RISA project - Rain-InfraStructure-Adaptation - is designed to ensure that rainwater can seep away where it falls and be returned to the natural water cycle. The goal is a Rainwater Structural Plan 2030 (working title). It will recommend binding rules for how government, experts and property owners treat rainwater in Hamburg. The fundamental demand is that water management measures should be integrated into town, landscape, and traffic planning.
RISA will prevent the flooding of entire streets when there is an unusually heavy downpour. Rainwater retention basins are not a new idea in Hamburg, but a large number of minor and not so minor aspects can be taken into account when planning residential areas. Flooded cellars will then be a thing of the past.

Ladies and Gentlemen,

The decision to protect HafenCity from flooding by adopting the “Warft concept”, i.e. building on artificial mounds, was part of a long-term town-planning strategy to expand Hamburg’s city centre without being forced to encircle the area with a dyke. Roads and settlements at a height above flood levels have no adverse effects on the tides and high water rhythms of the Elbe, leaving the essential, basic hydrological and ecological functions of the Elbe estuary intact.

This planning makes a virtue of necessity. Everyone can observe there how the interaction of flood gates and the remaining low-lying areas that are occasionally flooded, the promenades and squares with wide steps to the water, all combine to create a unified ensemble of attractive open spaces by the water. This is exemplary town planning; it is as if HafenCity were baring its teeth to smile at climate change.

And the climate model neighbourhood of Wilhelmsburg is equally modern. Situated in the tidal Elbe this, the largest inhabited river island in Europe, is the ideal district to demonstrate how creative the approach to living in times of climate change can be. Especially in the context of the International Building Exhibition this will be a source of many stimulating and innovative ideas.

You will be holding professional talks about many other programme items and details. Hamburg's green roof strategy will be a topic for discussion, as well as our urban climate model and the climate change scenario 2050. For the first time, a comprehensive representation of parameters that have a bearing on the urban climate, such as temperature, flows of fresh air and the bioclimate, has been compiled for Hamburg. I am hoping that the present results will enable us to develop an urban climate concept that will form the basis for updating the landscape programme.

I should not like to forget to mention the improved early flood-warning service for inland areas, because even in future it will not always be possible to avoid every form of flooding as a result of torrential rain. I remember the flooding in June 2011 after a terrific thunderstorm over the centre of Hamburg. This storm caused considerable damage. Around 11,000 inhabitants are exposed to the risk of flooding from inland waters and the State Corporation for Roads, Bridges and Water Bodies has responded by setting up an early warning service for Hamburg which has been available online to the general public since January.

Ladies and Gentlemen,

When all is said and done it will still be important - partly because on a world wide scale, avoidance strategies have limited success so far - to embrace the less than simple dialectic between avoidance and adaptation measures. Adaptation has technical, economic and environmental potential that we should use. Their impact is felt as local and regional effects. Costs and benefits of adaptation measures, unlike those to avoid emissions, are closely linked and usually readily understandable.
The motto of your conference is “Integrating climate into action.” We are all looking forward to the Climate Adaptation Roadmap for the Metropolitan Region of Hamburg in 2014. I hope we shall all enjoy the success of integration. Thank you very much.