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## **The Challenge of Open Access**

Launch of OpenAIRE, the European infrastructure for open access publishing of research results

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Ladies and Gentlemen,

I am very grateful to the Ghent University and the OpenAIRE project for inviting me to address you today. It feels appropriate to talk about open access to scientific information next to this impressive tower of knowledge called Boekentoren. With its outline visible from far away and with its millions of books it symbolises knowledge sharing as the engine of the scientific process.

Free online access to peer-reviewed scientific publications has emerged as a potent ingredient of this process of sharing. This is because knowledge grows when shared. Thus wider participation means better science. This principle is widely accepted in the scientific community, although many individual scientists are still slow to put it in practice.

I like to see open access as an opportunity. It is an opportunity to enhance the communication within the scientific community, and especially across disciplines. It is also an opportunity to disseminate the results of research more efficiently. Isn't it an excellent example of Information and Communication Technologies in the service of scientific progress?

I don't want to go into technical details but I want to stress that this means much more than just downloading articles in PDF.

It also means new ways of indexing, annotating, ordering and linking research results – and new methods to automate all this. I am convinced that we will see new services developing on top of the information infrastructure open access provides.

Open access can also encourage and enable greater engagement of society in science. Contributions by amateur scientists are already greatly valued in some scientific domains. These “citizen-scientists” provide valuable observations in astronomy and biodiversity research. For example, thousands of volunteers are participating in biodiversity monitoring. They are contributing their observations using platforms like the Swedish Species Gateway.

Open access also helps reaching the wider public whose access to the results of science is difficult - if not impossible -without it. For example, research results on rare diseases become available to patients and their families. By the way, this may well give an extra boost to the dissemination of knowledge among professionals such as doctors.

Open access can also foster innovation even beyond the scientific community. Access to basic research by creative enterprises and individuals is yet another example.

But above all, open access to scientific information is important because it helps citizens to their right to have access to knowledge produced using public funds. It is the responsibility of all those holding a public office to protect this right and to take all the measures required to maximise the return on public funding that open access can deliver. The open access Pilot in the EU's Seventh Framework

Programme for Research is one such measure, and the OpenAIRE infrastructure has been created to help ensure the success of this measure by making it easy to deposit articles.

The right to access freely the results of science does not only benefit citizens but also the public funding bodies. I believe public scrutiny of research results will improve how we allocate research funds. It will also increase the citizens' confidence in research spending. The long-term effect will be to help governments to make the investments we need to secure a sustainable and inclusive future. open access can thus be understood as supporting the Open Government principle, helping to bring about better public services.

Open access is a legal and technical reality today. The question is no longer 'if' we should have open access. The question is about 'how' we should develop it further and promote it.

This "how" is indeed a challenge. It is an organisational and business challenge as the internet revolution disrupts the established models for scholarly dissemination. open access is also a social challenge. *As with all revolutions, the privileges of gatekeepers are revealed and put in doubt. Both knowledge producers and gatekeepers— the publishers and those doing the science - are forced to rethink their roles.* All stakeholders will need to participate in this change. Also the funding bodies have an important role because they must ensure that deposit obligations are honoured.

We should not get bogged down in unfruitful debates emanating from the remnants of the past; we should rather see the vast opportunities on offer.

We are talking about open access to scientific articles. But we should not ignore that open access to **scientific data** opens a further wide spectrum of opportunities. New information and knowledge applied in new ways is the very heart of innovation after all.

I am not naive about this. There are many challenges, especially when data is included in the picture. Ownership, efficient access, trust, interoperability, security and long-term preservation of data are just a few examples of the many complex challenges we will need to address in the near future.

We must also realise that truly free access to scientific data is not possible without a coordinated effort of European and global stakeholders to build and sustain an underlying seamless and trusted infrastructure.

Open access to scientific information - data and publications - will be one of the main topics addressed in a Communication by the Commission in 2011. The Commission is ready to take a leading role in coordinating the required efforts on a European level.

We have reasons to be confident: the history of e-infrastructures in the European Union is a success story. Many projects funded by EU Member states and the European Commission have made it possible for European scientists to use

increasingly more powerful networking and computing technologies. To give just two examples, GÉANT provides European scientists with high speed networks that allow them to cooperate effectively; and PRACE makes available supercomputing capacity for highly demanding scientific applications.

I hope that OpenAIRE will be another building block in this approach. The continued cross-border co-operation should help international coordination of open access repositories, seeding a future robust platform for sharing scientific information.

To conclude: The beauty of open access is that it is not *against* anybody. It is *for* the free movement of knowledge. With already more than 6000 open access journals in publication it will move ahead since the search for knowledge cannot be stopped. I think we should ride that wave.

Scientists, libraries and society will clearly benefit from wider access to science, so I say today that open access is undoubtedly a win-win game. We need great scientific publishers in Europe, that is for sure. And, let's face it, no publisher can ignore the fact that the internet is the most powerful information dissemination tool ever. Many have already started to reinvent themselves. I applaud these efforts because I am convinced that they have a chance to continue playing a leading role in the new era of Open Science, serving European scientists and European libraries - and society at large.

Newton once said that he was able to see further by standing on the shoulders of giants. We have now the possibility to see even further by standing on solid towers of knowledge. The challenges our world faces today in all scientific domains are so many and complex that we should not fail to seize this opportunity.

Thank you.