Ladies and gentlemen, dear friends and colleagues! On behalf of the Visual Interface Technologies Division at the OECD Halden Reactor Project, I have the pleasure to welcome you to our third workshop on virtual reality. We will be gathered here these two days to discuss VR in the future industrial workplace.

So what kind of industrial workplace challenges are we talking about? Well, let us have a look at some of them.

In the nuclear industry, future reactor concepts will challenge the way the work is organized. In particular, this might affect the roles for field operators and control room operators and lead to new ways of organizing the work.

The oil industry is facing new challenges with tail production and production in arctic areas. As the production is reduced, the costs will have to be reduced accordingly. One way of achieving this is to move functions and work tasks currently located off-shore to on-shore operation centres.

We see the same challenges in the space industry. Today, one person in space is controlled by hundreds of people in the mission control centre. But how will these centres be organized when we some time in the future have hundreds of people up in space?

In all these examples, there will be a need to bring in expertise in virtual organizations – regardless of physical location. New tasks may simply be too complex to handle in one physical location. Expertise from all over the world will have to assist in the decisions. And the main question that we will be discussing these two days will be: How can virtual reality technology be used in the future industrial workplace?

The history of the virtual reality activity in the Halden project goes ten years back in time to the mid nineties. Throughout these years, we have experienced that virtual reality technology is a very powerful tool for improving communication. If a picture says more than a thousand words, we claim that a virtual environment says a lot more than a picture.

Furthermore, VR technology is a very powerful tool for visualising training and maintenance procedures in the industry. Hence, we believe there is a great potential for utilizing the technology as a interface for knowledge management tools for storing the knowledge in the organizations, and even more important, to increase it. An example of increasing knowledge can be to “see the invisible”, this be either to visualize radiation distribution, risk information or new oil fields.

So what are the technological challenges? One obvious candidate is the hardware technology. It has developed at a tremendous speed over the last ten years. Examples of this are the latest development of PC graphics cards, the wireless and wearable technologies. The software technology has also developed in this period, with more focus on open file standards and the open source movement.

Furthermore, there are challenges associated with organisational issues for the acceptance of the new technology.

Last but not least, we know that introducing a new technology does not necessarily solve more problems than it introduces. This is a very important aspect that we are addressing in our research in the OECD Halden Reactor Project, looking at usability and new application areas.

Throughout these two days in the third VR workshop here in Halden, we will try to address these challenges. We are happy to see that the workshop attendees represent different countries, industries and research disciplines. We believe that future research will not only build on knowledge in the organizations, but also on knowledge between organizations. That means new knowledge will arise between different disciplines like computer science, architecture and process experts. Just like in the audience here today.

I will encourage everyone to actively take part of the discussions these days, and in particular to help the presenters by asking questions to their presentations.

And last but not least, enjoy the social activities, in particular I would recommend the 1700s dinner tonight. And maybe we should add a subtitle to the workshop to compensate for the lack of physical distance between us these two days “Being together – in spite of the workshop title”