



Keynote address – European Geothermal Congress

Good morning. I am honoured to be here today with you. You are here in The Hague from all over Europe to exchange views about day-to-day practice, but above all about the future of geothermal energy. Hopefully it will be more than just words, and you will succeed in setting clear signposts to mark out the future and the place of geothermal energy in the overall energy transition.

After all, we all share the dream of helping geothermal energy reach maturity throughout Europe so as to enable it to play a serious role in the energy transition. That is why we are all here today. Generating support in society for geothermal and ensuring maximum safety in projects are two further things we can all agree on. How could we not?

Geothermal energy is one of the alternative sources of our future energy supply. Ultimately, the energy transition will encompass a wide range of usable energy sources and energy carriers, from green gas to hydrogen and from carbon capture and storage to geothermal energy. However, one thing we do need to recognise more is that the energy transition will also entail new risks for people and the environment. And given these new risks, I think one point should be very clear to all of us: the support of the public to these new activities and the safety of these new activities are, right from the outset, key interests. If we do not safeguard these interests the energy transition will falter. Without widespread support in all layers of society, the energy transition will simply not happen. Additionally, none of us want the transition to introduce new risks that we will not be able to manage properly. If this were to happen the initial support would evaporate as snow before the sun.

Although there is still a lot to learn when it comes to generating support for geothermal energy, one thing is for certain: You. Will. Cause. A. Nuisance. To. Local. Residents. The Netherlands as well as other parts of Europe are densely populated. Let's take the Netherlands as an example. The scenarios presented by the Dutch government involve the drilling of more than 700 doublets by 2050. It is inevitable that homes and geothermal sites will be in close proximity to one another. Furthermore, heat will need to be generated in the vicinity of homes in order to avoid the cost of expensive transport pipelines – not only at the time of drilling the well, but also when maintenance is required. This will involve the presence of large-scale equipment.

In view of these facts, it is important for everyone – local authorities, interest groups, local residents, water boards and local businesses – to understand why we are drilling, why we are doing it at *that* site in particular, and what exactly is being done. Time after time, you will need to put yourself in the shoes of the people who live near that specific site and imagine its future development.

Operators like keeping their cards close to their chest for as long as possible. Authorities, too, are sometimes reluctant to share information at an early stage, especially if some of the variables remain are still unknown. However understandable this may be, it is a recipe for mistrust and resistance.

Be as smart as possible when it comes to preventing noise, traffic disruption and aesthetic incongruity. Be big-hearted. Avoid nasty surprises. Give it to people straight, even if this is not always easy. Take criticism on board. Ask for feedback. Do something with it. Involve stakeholders, citizens in finding solutions. You are now in a period where there will be widespread willingness to engage in finding solutions. Doing the opposite by neglecting the perspective of citizens, by focussing mainly on the interests of the project, limiting transparency and avoiding the difficult story as well as criticism, will kill off this period quickly. It will leave you where the oil- and gas producers are right now.

The sector is only ever as good as the last well drilled. Keep that responsibility in mind during the preparatory phase, the operational phase and when it comes to dismantling the site in say 30 years' time. Draw up a code of conduct and hold yourself to account. This is no mean feat and a tricky puzzle. For example, defining a better and durable standard for well designs should be part of such a code. Perspectives may well differ on such a topic. And yet, my advice is to solve that puzzle.

You want speed, you want innovation, you want growth. But you also want your staff to go home in one piece at the end of the day and for the flora and fauna in the vicinity of your project not to come to any irreparable harm. In addition to support from the public, safety needs to be a key interest inherent in our actions and our way of thinking, as I mentioned earlier. A culture of safety is something that needs to be built and embedded. And yes, that probably means in the early phases costs will be higher. However, in the long run, costs will be lower and range of opportunities larger.

It will be your job to conduct a careful analysis of the safety of your projects in advance, which is why you should be thinking about the long-term risks *now* and not further down the line. This includes unlikely risks as well. In short, you should be answering the question: do we have a clear picture of the grey areas in our knowledge base?

Anyone charting and managing the risks in advance will save time and money during the operational phase. In the Netherlands, I envisage an attractive future if operators learn more from each other when it comes to all aspects of technology, funding, maintenance and heat supply.

In other words, let us join forces to solve the puzzle of maximum safety and support for geothermal energy. Draw on our collective knowledge and insight. We are stronger when we work together! That is what I would like to see today and tomorrow at the European Geothermal Congress 2019, in our wonderful city of The Hague.