

Modern technologies offer a chance for the future of coal and the coal mining regions

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For centuries, coal has created the foundations of modern civilisations around the world and in Europe in particular. Its importance for economic development is fundamental. Development of the mining industry exerted an existential impact on the lives of those in societies directly related to winning coal. For coal mining regions, coal has provided and continues to provide the backbone to socio-economic development. Over many generations and in many societies, a symbiosis with coal has created culture, customs and traditions that are still cultivated today. Coal has provided us economic development, particularly through the development of electricity generation, which in turn has had an impact on the development of industry as a whole and, more generally, on our prosperity.

A growing coal industry also influenced the development of science. A scientific discipline was established in the field of mining. Co-operation between the mining industry and scientists made it possible to improve coal mining technologies and increase operational safety, adopt mechanisation and enable automation. A powerful industry has been created, with many working in the mining industry. Hundreds of thousands of jobs were created, all associated with this useful mineral. Faculties of science associated with mining have been created and continue to be founded. However, a question arises on whether we should speak about all this in the past tense?

Does coal end its mission, having been the economic driver of the European Community? There is a concern and a question mark over the future of coal, of mining regions and of the economy. Many decisions, some even taken *a priori*, point to the elimination of coal from the energy mix. Is that right? I doubt it! The question remains whether enough suitable opportunities for coal use have been created, within the limits of environmental expectations? Instead, natural gas, green energy – such as wind and photovoltaics – or nuclear energy are all often preferred. It is good that we develop a wide range of energy production possibilities. Yet, we do not always take into account all the social and economic consequences associated with these innovations. It would be worthwhile to establish an initiative on projects focused on developing more advanced technologies related to the wider use of coal. Before we say a proverbial “no” to coal, let us give it a chance: the decent chance of a highly developed society concerned with sustainable development. This is important for Europe and it is essential for Poland. We are accustomed to saying that Poland is based on coal. And this is true: Poland has both hard coal and brown coal resources. It also has the respective infrastructures for winning coal and lignite from the ground. These resources provide energy security – they are essential for integrating the energy systems of the European Union. Coal is thus an important element of energy security for the European Union which is otherwise poor in energy resources. But, is there a will to push for a visionary treatment of coal? How and where to inspire a better image of coal? Today, we have reservations about the excessive emissions of CO₂ emitted during the process of coal combustion. But have we done enough to reduce the emissions to acceptable limits? We follow initiatives for energy innovations too quickly and then, with the passage of time,

we must cool down our over-optimistic aspirations. How does one wish to see a strong emphasis on sustainable development? In the form of acres of agricultural land planted with energy crops and soaring food prices? Does a competitive manufacturing industry, energy security and economic activity – all based on coal – relieve us from thinking about the future? One can ask a lot of such questions, but it is not just the rhetoric that matters. There is a dilemma over energy security, ecology, climate and jobs. I cannot articulate this problem any more clearly than with jobs: in Poland, the coal mining industry directly employs over one hundred thousand people, the Silesian region, historically linked to coal, has thousands more jobs in suppliers to the mining industry. Coal mining has left a lasting mark on the culture of the region and its socio-economic development. The example of Poland is significant, because wherever coal lies the picture is similar.

To avoid mistakes that will exert a negative impact on our future, it is worthwhile to seriously consider the following:

- coal is the most abundant fossil fuel occurring in nature;
- coal effectively competes with other energy sources;
- coal is safe in transport and storage; and
- coal still remains an essential fuel for the rapidly growing power sector.

EURACOAL always presents positions that envisage a future with coal in the energy system. It perceives a need to “support” coal with novel clean coal technologies. Indeed, coal’s challenges today are exemplified by the need to implement solutions that enable CO₂ emissions to be reduced through:

- the implementation of innovative, highly efficient technologies for generating electricity from coal; and
- the demonstration and practical application of carbon capture and storage.

In order to face these challenges, one must have:

- faith in the future of coal for global power generation;
- belief in the effective implementation and development of innovative technologies to produce environmentally friendly energy from coal; and
- a determination to modernise power generation to reach the full potential of coal.

Therefore, I believe that we should set out a programme – starting today – to improve and modernise existing power generation facilities. For tomorrow, we should develop projects and research programmes focused on sequestering CO₂. Above all, we should refrain from taking actions that exclude coal from our power generation fuel mix until all the innovative solutions suitable for its ecological use have been fully explored.