



Bundesministerium
für Bildung
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Speech

by Anja Karliczek,

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Your Excellencies,

Ladies and Gentlemen,

How can we use natural resources without depleting them entirely? This is one of the great challenges facing mankind. And it is not new. In Germany, the basic principle of sustainability was already laid down in writing almost 600 years ago – in 1442 in the Forest Regulation of the Bishopric of Speyer.

The aim was to protect wood as a natural resource which was becoming increasingly scarce. Even then, those responsible realized that they could not use more of this valuable resource than could grow back. This rule still applies to our ever-scarcer resources today.

In obeying it we are following nature's example. Nature has created an almost perfect cycle, which allows everything to thrive. We are using this cycle in the bioeconomy – every country in its own way. We will be talking about the

different approaches in different countries here in Berlin today.

I am delighted to welcome you to the second Global Bioeconomy Summit. We are here today because we know how important the bioeconomy is for our future and because we appreciate the opportunities it offers us.

A further seven countries – including France, Italy and Thailand – have introduced ambitious bioeconomy strategies since the first Bioeconomy Summit was held in November 2015. This means that almost fifty states have placed this topic on their political agendas. I am delighted with this dynamic development. We must continue along these lines in future.

Human society is living beyond its means. Emissions of harmful greenhouse gases, shortages of raw materials, increasing environmental pollution, water scarcity, species extinction – the list of urgent challenges is long. We need to find solutions to enable our

continued co-existence and economic activities on this planet.

The bioeconomy presents huge opportunities. The enormous progress made in the life sciences combined with the introduction of digital and other technologies is providing us with new tools which we would never have dreamt of only a few decades ago. New products and processes are emerging as we combine innovations from different fields.

It is our task to make wise and efficient use of these opportunities in order to reach our goal of a bio-based, sustainable economy which follows natural cycles and material flows.

This form of economic activity can make a huge contribution to mastering the challenges of the 21st century – ranging from scarce resources to ongoing climate change and food security. We can also use our new biological knowledge in the fight against major common diseases.

We are, of course, aware that the bioeconomy will not sell itself. It will not simply fall into our laps, nor can it be decreed from above. It is a societal transition process which will need time.

Ladies and Gentlemen,

I would like to explain three principles of the bioeconomy:

1. The bioeconomy is local, but must also think globally.

2. International cooperation is an absolute must for the bioeconomy.

3. Research and development are the basis for the proposed transition process on the road to the bioeconomy.

I.

Of course, there is no “single” right road to the bioeconomy. To quote the saying: “All roads lead to Rome.” Different regions may have different biological resources or be strong in different research and technology sectors, depending on local conditions. The bioeconomy will therefore always demonstrate different characteristics. Some countries will make predominant use of agriculture – others of forests or marine resources.

But even if the bioeconomy is regional – and this is where I come to my first point – we must think globally.

Our traditional production chains and trade routes are networked globally. And we must network the value chains of the bioeconomy accordingly. It is a matter of establishing new value creation paths. What used to be waste materials from the production of one product will in future be valuable raw materials for other products.

Rapeseed oil is just one example: The press residues used to end up as waste but it is now possible to isolate valuable proteins which serve as the basis for innovative basic materials or additives in paints, cleaning agents, building materials and lubricants. My Ministry is funding a research alliance working in this area. And this is just one of many examples.

We must combine these strengths with strengths in other regions. Only if they are perfectly matched will we be able to score the best results globally – for the sake of both society and sustainability. I now come to my second point.

II.

We can only exploit the full potential of the bioeconomy through close cooperation. Ladies and Gentlemen, the fact that you have come to Berlin today shows that you are all aware of the importance of international exchanges and networking.

The Bioeconomy Summit really deserves to be called “global”: Two-thirds of the more than 800 registered participants are from abroad. They represent over seventy countries. Many other people will be following the discussions via live webcasts. This provides a good starting point for taking a further step on the road to an “international bioeconomy agenda”.

We have ambitious aims. Take, for example, the question of ensuring global food security, for which we all share responsibility. We must take a look at all the facets of this problem if we are to succeed. We must improve our knowledge about soils, intensify crop and plant breeding, design our agricultural systems to be sustainable – and much more besides. But we can only do so by pulling in the same direction. Our research and activities must be open to all technologies.

III.

There is still plenty of unexploited, undreamed-of potential for a sustainable, bio-based

economy. The question is: How can we uncover and make use of these opportunities?

This is where my third point comes in: A key factor in this context is research and development. After all, we can only optimize and fully exploit those biological processes and relationships which we understand.

Germany has long been active on a big scale in funding research into the bioeconomy. It was one of the first countries with a dedicated bioeconomy research strategy – the National Research Strategy BioEconomy 2030, published in 2010.

This strategy includes systemic approaches alongside traditional biotechnology research. It is not only a question of technological developments such as resistant seed varieties, robust crop plants, new enzymes for biobased industry or new biorefinery approaches.

Findings in the social sciences and political and economic research are just as important. These findings teach us how the transition process can

succeed, what societal effects it will have, what types of infrastructure will be needed – and much more besides.

Systemic approaches have one disadvantage compared with technological approaches – they are rarely studied by commercial companies. This means that the onus is on governments. Germany has been promoting research into the social, political and economic aspects of the bioeconomy since 2014 under its “Bioeconomy as Societal Change” programme.

The Federal Government is currently introducing bioeconomy monitoring as part of this programme. This is important in order to be able to determine whether we are on the right path or whether we need to correct our course.

After all the bioeconomy is like so many other areas in life: Good intentions are not always enough. The bio-based economy will involve complex, sometimes unintentional and unforeseen interactions, which do not stop at national borders. Some such developments are

already becoming apparent, others will emerge in the course of time. Ladies and Gentlemen, you will have an opportunity to discuss these questions and exchange ideas with Stefan Bringezu and Pedro Machado later.

IV.

The Federal Government intends to continue along the path it has chosen for the transition to the bioeconomy. As part of our strategy, we will be publishing the second round of our “*Tailor-made bio-based ingredients for a competitive bioeconomy*” funding measure today. In doing so, we want to encourage research and development projects aimed at innovations in the field of tailor-made bio-based products – ranging from the original idea, to proof of feasibility through to experimental development. We are continuing to consistently develop the National Research Strategy BioEconomy 2030. As part of this effort, we have had external

evaluators assess our research funding over the last six years – with a very positive result.

However: We are aware that such massive changes to the economy can only succeed if we have society on our side. We must talk to key stakeholders and representatives of civil society. We will be doing so in the summer. But there is still more to do. The next step is to draw up an interdepartmental Federal Government agenda – “From Biology to Innovation” – in collaboration with science, industry and civil society.

Our aim is to step up efforts to integrate the potential of biological knowledge and biotechnological processes in all areas of life and the economy. This interdepartmental agenda will provide the bioeconomy with a new political framework.

Research is a major key to the bioeconomy – but evaluating research results and applying these results through relevant policies is essentially a societal and political task – not just at regional

or national level but also at international level. This is particularly true with regard to the bioeconomy and calls for continuous coordination and discussion.

The two summits on the bioeconomy – the Global Bioeconomy Summit 2015 and tomorrow’s event – provide a sound basis for an international exchange. We must now work together to ensure that the bioeconomy is given a more prominent place on the international political agenda, for example at meetings of the G7 and G20. It is up to all of us to support this topic and lend it substance.

We also owe the fact that we are meeting here today to the German Bioeconomy Council, the Federal Government’s independent advisory body on the bioeconomy. I would like to thank all the members of the Council for their great commitment to the bioeconomy and for organizing today’s summit. Germany is pleased to host the Global Bioeconomy Summit.

I am delighted that you are all here today. I wish you good talks and hope that your interaction in research and economic policy will provide a contribution to world peace.