



## **Sustainability tomorrow: Identifying challenges, analysing approaches and assessing future strategies**

### Audio Transcript

#### **Sustainability Today 4: Discussing the Pros and Cons**

[Journalist Carrie Aikman] There are numerous concepts of sustainability. The question is: how do we choose which one to apply? What is the appropriate concept of sustainability in a given context? My name is Carrie Aikman and we will discuss these questions with our three experts: Paul Burger, Patricia Holm and Frank Krysiak. We will talk about the advantages and disadvantages of different concepts of sustainability.

Professor Burger, in this course, you have explained the concept of a capability-based approach to sustainability. What are the main advantages of this concept?

[Prof. Dr. Paul Burger] It is based on a multidimensional eudaemonic understanding of well-being. It is universal but adjustable to different cultural and social settings.

Furthermore, it avoids any comparison across generations. It is non-paternalist concerning future generations, that is, it does not prescribe how future generations will live and what decisions they have to take.

Finally, it provides a so-called threshold approach. The capabilities frame a minimum that has to be achieved today and in the future. This is great, because it also allows for a reduction of the material endowment.

[Carrie Aikman] Professor Holm, you have chosen to explain a very different concept of sustainability – namely that of resilience. What is great about resilience?

[Prof. Dr. Patricia Holm] Resilience is a very general concept that can be applied to many dynamic systems, from natural ecosystems to social systems and the economy. It is inherently dynamic – in other words, it looks at sustainability not as a state but as the ability of a system to dynamically cope with shocks and unforeseen events. Also, it highlights the importance of robustness in the context of sustainable development.

This is important, because most of the variables in our socio-ecological systems are constantly changing, and often in unpredictable ways. It is therefore of enormous advantage if a system is resilient and can



buffer these changes – in other words, that it can return to its initial state or to another state in which a new equilibrium is established.

[Carrie Aikman] Let's turn to a third concept of sustainability. Professor Krysiak, what makes capital-based approaches to sustainability, such as weak and strong sustainability, useful from your perspective?

[Prof. Dr. Frank Krysiak] These concepts focus on the one thing that we can actually do for future generations: preserving capital, be it natural or man-made capital, which enables future generations to live a good life.

The concepts of weak and strong sustainability therefore have a clear link to intergenerational justice, which is an important basis for sustainability. Finally, they can be measured. Existing measurements might still be imperfect, but we can improve them and thus have a concept of sustainability that provides clear and transparent information on where we are regarding sustainable development.

[Carrie Aikman] Let's now discuss the disadvantages of these concepts of sustainability. Professor Krysiak, what are the limits and problems of capital-based approaches?

[Prof. Dr. Frank Krysiak] They capture an idea of intergenerational justice – in other words, they focus only on what we pass on to future generations. But they are blind to intragenerational justice – that is, justice that occurs between members of one generation from different places. This is a substantial problem.

Furthermore, we do not know how much natural capital can be substituted by man-made capital and knowledge. It is therefore hard to decide whether we should be closer to strong or weak sustainability.

Finally, they do not account for thresholds or non-linearities. If a change to a system, let's say deforestation in the Amazon, does not change capital by much, but induces an ongoing process of environmental change that alters ecosystems substantially, this is not captured in these approaches.

[Carrie Aikman] This sounds as if resilience would be the way to go. But it is clear that this concept also has its drawbacks. Professor Holm, what are the problems of a resilience-based approach to sustainable development?

[Prof. Dr. Patricia Holm] It is a great concept for looking at system dynamics. However, it does not capture many things that are important in the context of sustainable development. For example, there is no clear link to intergenerational justice or intragenerational justice. Even more importantly, there is not really a strong link to human well-being.



Obviously, resilient systems can be important to human well-being. However, there are also examples where this is not the case. For instance, we have a socio-economic system of using fossil fuels that is apparently resilient in the sense that it is hard to move away from these energy sources. Does this improve human well-being? Most likely, this is not the case.

[Carrie Aikman] This brings us to the question of society and social dynamics. Professor Burger, what are the problems of the capability-based approach to sustainability?

[Prof. Dr. Paul Burger] It is difficult to measure capabilities. You can look at stocks of different capitals, but the term «capability spaces» is quite an abstract concept. You can instead look at «realised functionings», that is, what people concretely value out of the capability spaces. However, this is only the subjective, not the objective part and also not an option when it comes to future generations.

In addition, it is not easy to empirically include environmental framing conditions into the scheme. Finally, the concept is supposed to inform policy. But most countries have so far not tried to use this concept in their policy assessments.

[Carrie Aikman] So we do not have the one perfect concept of sustainability?

[Prof. Dr. Paul Burger] No. Such a concept does not exist and will most likely never exist. We have to choose among different offers, each of which has its pros and cons.

[Prof. Dr. Patricia Holm] However, it is important that we choose in a way that makes sense – that is, we have to choose a sustainability concept whose pros and cons make it suitable to the task at hand.

[Prof. Dr. Frank Krysiak] For example, if we want to analyse the sustainability of an energy transformation, we have to use a concept that is suited to this task. It has to be able to address distributional concerns, which are highly important in the energy context, as well as environmental problems, such as climate change or land use change.

[Carrie Aikman] But so far, we have not seen a concept that can achieve this.

[Prof. Dr. Paul Burger] You are right. This is why we will start our analysis at a more fundamental point. In this course, we will introduce a framework that includes the aspects that are important. This framework will be loosely connected to a capability perspective, but is more general in many aspects.

[Prof. Dr. Patricia Holm] And this is an important point that we want participants to learn in this course. You have to do sustainability assessments with a framework that fits the task. Existing sustainability



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concepts, like the ones we just talked about, are a very helpful guideline. But in the end, you have to adjust them to the task at hand.

[Carrie Aikman] Thank you all for your insights into the advantages and disadvantages of these three different concepts of sustainability.