



## Transcript of the “*Wenden bitte!*” podcast

### Episode 21: Why do we need a circular economy?

Introducing the subject and today’s contributors	2
Sound clip (brief subject overview)	3
What is the circular economy?	4
Circular economy – key to climate action and biodiversity and resource conservation	5
Findings from the “Model Germany Circular Economy” study	7
Sectoral measures for the circular economy	8
Cross-cutting policies for the circular economy	10
Germany’s National Circular Economy Strategy	11
The EU’s Circular Economy Action Plan and global efforts	11
Challenges and trade-offs for different stakeholders	13
Why implementing the circular economy is worthwhile	15
Outlook and conclusion	16

## Introducing the subject and today's contributors

### **Nadine Kreutzer:**

Hello to all our listeners for a new episode of “*Wenden bitte!*”. Here on the podcast, we are always joined by scientists from the Oeko-Institut to look together at how we can shape the route to a sustainable future. And once again, today's subject is a big and important one, namely the circular economy. I'm Nadine Kreutzer, and beside me as always is Mandy Schossig.

### **Mandy Schossig:**

Yes, hello from me, too. After the short episode we made last time, today we'll give ourselves plenty of time and we're talking about the circular economy. It's an important element of better climate action and resource conservation. And today as usual we want to take a closer look: What do we actually mean by “circular economy”, and what is it about our current economic practice that is so bad for the environment and climate?

### **Nadine Kreutzer:**

We want to bring clarity to that. Mandy, you've brought another expert with you from the Oeko-Institut. Who is it today?

### **Mandy Schossig:**

Indeed. I've invited Clara Löw. Clara is a researcher into the circular economy and global value chains, based in our Freiburg office. So definitely the right person to talk to. Hello Clara.

### **Clara Löw:**

Hello. That's right. Thank you for having me.

### **Nadine Kreutzer:**

You're very welcome. I'm just as glad you're on board. You people at the Oeko-Institut do such a variety of amazing things and come from so many different backgrounds. You originally studied chemistry but then you gravitated towards economics, or got interested in it. How did that come about?

### **Clara Löw:**

It's good that you say “*Chemie*” [chemistry]. Here in Freiburg, where I am, everyone always says “*Kemie*”. But I haven't given up my own accent since I've been living here. Right. I did a chemistry degree, a huge amount to memorise, reaction mechanisms and all sorts of things, and I always thought that can't be everything there is to it. Later I got interested in environmental analytics. In other words, where in the environment do we find which substances? And from there, it's not far to the question: “Where do these substances actually come from?” Very many of them are anthropogenic in origin, as we say, chemicals that do not occur naturally in the environment. They

really often come from products and from our technological cycles, from those processes; there are chemicals in everything imaginable.

That's how I eventually came on to the whole issue of products, and from there it's not a huge leap to ask ourselves how we can design them well, to make them long-lasting, to move towards the circular economy. It's the subject of much debate, which is why we at the Oeko-Institut have developed in the direction of researching and advising on it in more detail. And that's how I became part of the team.

**Mandy Schossig:**

Right, but you'd already come across the circular economy during your studies in Brussels. Do you want to tell us a bit about that? I think it was quite interesting.

**Clara Löw:**

What I was actually interested in was doing analytics on the substances found in cosmetics. By a very circuitous route, I ended up on an internship in Brussels. There I worked for the Permanent Representation of Germany to the EU, which is the representation of German ministries in its Environment Unit. That in turn is in cooperation with colleagues from the Environment Ministry in Germany.

There were several things on the agenda in Brussels at that time, including the first Circular Economy Action Plan of 2015. The European Commission there had published it and all the relevant ministers and working groups were called upon to adopt Council conclusions, stating what the Member States think of this Commission strategy. So back then I was involved in these discussions as an intern.

**Mandy Schossig:**

Eight years ago, wasn't it?

**Nadine Kreutzer:**

Before we go into even more detail, how about a quick explanation of the circular economy for everyone: where does this term actually come from?

**Sound clip (brief subject overview)**

Excessive consumption of raw materials is one of the main causes of unduly high greenhouse gas emissions and takes its toll on the environment and biodiversity. In Germany alone, the per capita consumption of raw materials was over 16 tonnes in 2018. But the Earth's resources are finite, especially those we need for the various transitions such as the transport transition. Emissions have to be lowered and further environmental degradation halted. A circular economy can be a key driver for successful transformation towards a liveable, clean and climate-neutral future. In a circular economy system, the value of products, materials and resources is preserved in the economic cycle for as long as possible by minimising waste and resource consumption. Yet the

circular economy is much more than just waste management. It represents a fundamental change in the way we go about production and consumption. It has the potential to reduce the consumption of raw materials, while at the same time contributing to the conservation of natural resources and biodiversity and the reduction of global greenhouse gas emissions. But what changes does it entail specifically? What should society do? What about business and politics? What challenges might the different stakeholder groups face, and how can they be solved in order to implement a circular economy successfully?

## What is the circular economy?

**Mandy Schossig:**

OK, then let's get down to specifics. What does circular economy mean to you?

**Clara Löw:**

Every product uses up resources and often these end up landfilled, incinerated or, in Europe I'm glad to say, largely recycled. The aim is to ensure that resources, materials and products are not turned into waste. This is what makes the circular economy a super important transformation. It means a different system of consumption.

**Nadine Kreutzer:**

You just said a bit about how the cycles have normally worked until now, or that basically there is no cycle. What exactly is the difference from the traditional linear economy?

**Clara Löw:**

I think maybe a few of the listeners will know this. We have the linear take-make-waste, this triad. So a first step would be to recycle more. That was how circular economy used to be understood. But today we understand much more. Now it's still an important compass for us, the waste hierarchy, and it has been around for a long time, that's why the circular economy is not so very new either.

We're just trying to put more support into the upper levels of this waste hierarchy, which are avoidance and recovery. More attention must be paid to those. And in doing so, we hope that we can not only close cycles but also slow them down.

**Nadine Kreutzer:**

Now what if we look at certain economic sectors: which ones would be affected by changes if we implemented a circular economy?

**Clara Löw:**

Well, actually it's all-encompassing. It affects products that we all know in everyday life, textiles and furniture, but also entire industries. The food industry, for instance, because after all, food waste is another issue that plays into it. The construction industry uses many extremely greenhouse-gas-intensive building materials. New production of these could be avoided in the circular economy if we reused more building components. In actual fact it concerns everything, including international material flows – many of our resources don't even come from Germany or Europe – and the economy, as the term "circular economy" clearly states.

**Mandy Schossig:**

You just mentioned the hierarchy of waste. Maybe you can go back and tell us what that means and what makes it different from this other structure of the circular economy?

**Clara Löw:**

Right. We see several starting points. For example, slowing down resource flows and intensifying the use of products. These both lead to a total reduction in our resource consumption. Another element of it is closing material cycles. That means making use of more secondary materials, meaning more recycled raw materials. Also, the circular economy is associated with a change in the material composition of products and production materials. This also means eliminating certain substances that are either harmful, like nasty chemicals, or contaminants that disrupt recycling. Some of those have no major environmental or health impacts, but from a technical viewpoint they are still substances that disrupt the closing of cycles. So somehow we have to remove them from the cycles. That's another important aspect.

## **Circular economy – key to climate action and biodiversity and resource conservation**

**Nadine Kreutzer:**

So what is the great potential of the circular economy?

**Clara Löw:**

From our perspective, the circular economy should contribute to environmental protection. And it does, because the extraction, processing, use and disposal, everything we do with raw materials, all the goods we produce either create environmental problems or exacerbate them. Greenhouse gases or pollutants are emitted, for example in the mining of certain rare earths. In some cases mercury is used and ends up in the environment. Water consumption is an issue for special raw materials such as lithium. In agriculture, we overuse soils.

With the circular economy we manage to consume fewer resources and contain these environmental problems. That is the great potential. In Germany, for example, 40 per cent of greenhouse gas emissions can be ascribed to the extraction and first stage of utilisation of raw

materials, the Federal Environmental Agency says. And that is a huge chunk of emissions, where we must do something to bring them down if we want to become carbon neutral or climate neutral.

**Mandy Schossig:**

OK, 40 per cent less greenhouse gases thanks to a circular economy. You mentioned other problem areas. What will we gain there if we adopt circular economy practices? Have you got figures for us?

**Clara Löw:**

Yes, we did a study in which we went back and investigated that more thoroughly. It was called the [Model Germany study](#) working jointly with the Fraunhofer Institute and the FU Berlin for the WWF. For that, we did the full calculations. With the sectors we looked at, we have a potential of approximately 26 per cent. So we couldn't confirm the 40 per cent which the Federal Environmental Agency says can be ascribed to the raw materials. But that has partly to do with the methods and the research angle that we chose.

In 2045 we could make savings of 26 per cent of greenhouse gases. We could also save on raw materials consumption, which is calculated in terms of "resource equivalents". In 2045, that would be minus 27 per cent approximately. And in comparison to today, it is even more still. If we don't look at 2045 alone and compare a "business as usual" scenario to one with the circular economy, but instead we compare it with today, on that analysis we could save 44 per cent. That is very important.

But to get there, lots of people will also have to change their lifestyles. There are even more additional benefits for society, apart from the environmental aspects. One is the fact that we import essential raw materials, and if we need less of them or can obtain our supplies of them from recycling, then we are less dependent on raw material imports. For the processing of all the raw materials, we use a relatively large amount of energy, and with a circular economy we can reduce that energy consumption, too. That's a good message because renewable energy and hydrogen are scarce resources, as other colleagues have previously explained here on the podcast.

So a circular economy would also help to avoid an energy crisis, for example, simply because less energy is needed. And we're also avoiding costs, because society has to bear the costs of the environmental disasters that sometimes result from these environmental problems we've already mentioned. Costs we won't have to pay if we avoid them, and if we introduce a circular economy.

**Mandy Schossig:**

This term, the circular economy, is already coming into quite inflationary use. It's become a kind of buzzword for a better economy. What's your view of that? Is it hype or is it a real change?

**Clara Löw:**

Yes, you're right about that. The term has become a bit of a buzzword. As I said, this issue of waste avoidance within the hierarchy of waste has long been a topic for us. So it wasn't new at that moment, but now it's an important concept, and that's why I would suggest understanding it as a

transition. Alongside the other major transitions, this is one where we talk about raw materials and the resource transition. And in any case, it's an issue of structural transformation, not a hype in the sense that it can safely be ignored, but rather, something that must actually give rise to a structural transformation.

**Nadine Kreutzer:**

Then it's a perfect fit for our "*Wenden bitte!*" podcast! The resource transition we're discussing with you today. Your team recently produced a very extensive study for WWF Germany. It pointed the way towards a circular economy and you even call it Model Germany. What's the background to that? Can you explain it to us in a bit more detail?

### Findings from the "Model Germany Circular Economy" study

**Clara Löw:**

Yes, that is the very study that came up with all the figures I mentioned just now. There was another study called "Model Germany" back in 2009, where this was talked about with a similar constellation of partners: how might climate change mitigation look in the future? And at the time, it was an important study. When we saw what we were being asked to do for WWF in this new study, we realised it had the potential to be a similarly important one. WWF took the same view. Hence the analogy to the predecessor study in the title.

**Mandy Schossig:**

In the study, you broke everything down by sectors. You've already touched on this briefly. But maybe you can come back to it and go into more depth in the different sectors. Such as which instruments are necessary where? And how will we manage to make savings of raw material consumption and greenhouse gas emissions?

**Clara Löw:**

Right, well we had selected eight sectors. Maybe I don't need to talk about all of them now, because it would take too long. But just as an example, let's pick out the issue of textiles.

Textiles are problematic because we have this fast-fashion culture, and that entails lots of greenhouse gases, chemicals and water extraction. The sector will go on causing these environmental problems, and human rights issues as well. We've thought out some measures which focus particularly on reducing the number of garments on the market. That means either using them for longer or repairing them if need be, and buying less for those reasons. That is something people do as individuals. And the second aspect was the idea of borrowing and sharing textiles and buying less for that reason. Because, for instance, if a dressy outfit for an event is needed two or three times a year, it can be borrowed from friends, or hired from commercial stores. Not everyone needs to have two or three dresses hanging in their wardrobe all the time. Those are the measures.

Other sectors we looked at are vehicles, for example. Here the promising measures are actually local public transport and car sharing, ultimately the reduction of individual road traffic. And another issue that comes up is car size, as you can well imagine. The bigger the car, the more raw materials it takes to build it. One measure that we looked at: how would it be if cars were generally smaller and if vehicles were used for longer because they were easier to repair? Software updates are also an important issue today because the battery can then be reused or recycled. That was something we looked at in that sector.

I had already mentioned the construction sector. That's a very important subject in the circular economy because it involves huge tonnages and important raw materials, sand and gravel and so on, which are scarce and laden with environmental problems. There we looked at measures from the categories of more efficient management of residential and commercial space, including reduced floor space. Some companies are doing it already by renting fewer offices. Or the reuse, the recycling of building materials or the use of environmentally sound building materials, such as wood construction techniques.

**Nadine Kreutzer:**

Right. So as you've now talked about the measures, we also want to ask about the implementation. How would that ideally work? What has to happen?

## Sectoral measures for the circular economy

**Clara Löw:**

We've taken a close look at what needs to be done in each sector and what the policy options are. There are also some policy strategies and instruments which are cross-cutting, meaning important for multiple sectors. But what is especially needed is a great deal of political will, and for initiative to be taken. And as I said before, an understanding of the issue as a transition and as a structural transformation.

**Mandy Schossig:**

OK, overarching political will, that's certainly important. But maybe we can take another look at textiles, vehicles and house building, one at a time. Coming on to textiles, how will we make our way towards producing fewer textiles?

**Clara Löw:**

Well, right now we're fortunate to have the [European Textiles Strategy](#), which already puts forward a number of things that can be done. For example, it's important that we design textiles in a way that also makes them durable. We can only use textiles for longer and keep them for longer if the trousers don't rip or the seams don't split. And that's why design is so important. In the relatively near future, policy criteria will also be defined, for example on designing textiles for longevity and reparability and making them recyclable when they can really no longer be worn, which is still super-unusual today. That is something called the Eco-design Regulation, which is in ongoing development at EU level.



Furthermore, we have other instruments that deal with the export of textiles, which means defining criteria: when is something waste and when is something still a second-hand product? It is only worth exporting used textiles when they can really be put to use. The bottom line is, it does nothing for the environment if they are simply exported and end up as waste elsewhere – because far too much is exported, for example, or maybe because someone in the importing countries has an extreme desire to wear clothes sourced from European and American countries. This is something we must regulate better, there are enough reports about what happens to the waste. That means export regulation is an issue.

**Nadine Kreutzer:**

Is it possible to make an analogy between that and the vehicle manufacturing industry, for example? Suppose we agreed that for the sake of conserving raw materials, we would no longer produce big, enormous cars for Germany. What if customers abroad still wanted SUVs, or other countries had pent-up demand and ordered from us, and we then supplied cars abroad?

**Clara Löw:**

Germany is an exporting country and the circular economy is an issue we have to deal with not only nationally but also within Europe and internationally. It applies to all of the trading flows. That's why we've said that, for example, international trade agreements should address the issue better. It's a bit like the question: should Germany commit to being climate neutral while other countries are still releasing very high emissions? I just think that somebody has to go first. Europe is on the advance in that respect. A lot can also be learned from other European countries. In no way are we front-runners, who have the whole circular economy issue figured out and are super ambitious. But rather, we are tackling the issue alongside numerous allies.

**Mandy Schossig:**

Yes, absolutely. We'll come onto the international networks in more detail in just a moment. On instruments, you had already shed some light on the textile sector just now. What is the situation in relation to vehicles, then? That was the second sector that you and your colleagues examined very closely.

**Clara Löw:**

Currently there's already an important dossier at European level in which the End-of-Life Vehicles Regulation is being revised. There again recycling is to be improved, so that the materials from the vehicle better, or really, contribute to the sector's readiness for a circular economy. We carried out a study on it for the European Commission in which we've assessed everything that would need to be done to make the sector readier. But in Germany, of course, the automotive industry is a huge topic.

**Mandy Schossig:**

Politics seems to play a big part in the transformation to a circular economy. Am I right in thinking so?

**Clara Löw:**

Yes, absolutely. If we say that the circular economy is a transition, a transformation and structural change, then our question is, who is steering it? I don't think it will steer itself. Change is something that has to be worked towards, and sometimes isn't easy for everyone.

And that's why we believe politics has an important steering function, in three ways. The first is about designing the instruments, some of which I already mentioned, and the eco-design and so on, more ambitiously. That's one thing. But it also applies to other instruments, such as the labour market or social issues. They play a role in the economy, too. It must all be thought through together. That means making really concrete policies.

The next point on our list would be campaigning for acceptance in the population, but also among policymakers. To secure that, and this is the third point, it is necessary to bring the debate to society, and if we say: "Yes, consumption can go on in the same way as before. We'll stick with a bit of recycling and otherwise we'll have mostly linear economies", then we must realise that we won't come anywhere near those huge potentials I stated earlier for saving CO<sub>2</sub> or resources.

Something needs to change. And for that to happen, it's necessary to communicate with people and hold a societal debate about it, which fortunately we are contributing to.

**Nadine Kreutzer:**

We are indeed. But all these great measures you've just listed, clearly it isn't such a simple matter. Why don't we actually have a circular economy yet? What are the problems, in fact? Why isn't it plain sailing?

**Clara Löw:**

The economic policy system we have right now has been more or less carried over from the last millennium. Because of other issues that were maybe more urgent in recent years, we have not evolved our economic policy in a direction that allows us to accomplish a socio-ecological transformation at the economic level, too. And for me, at the moment it's as if there's music on the jukebox, but I have no idea what piece is being played. Can I put it like that? The music is on, because everything is starting to judder. In many places it bursts through and people talk about it. Until now, this transition has not been a governance priority. On the climate issue, for example, we have a high priority and rightly so, but that's not the only transition we have to accomplish.

## Cross-cutting policies for the circular economy

**Mandy Schossig:**

At one point earlier on, you briefly spoke of the need for overarching political framework conditions. I'd like to pick up on that again now. What do we need in overarching terms across all the sectors in order to set the ball rolling?

**Clara Löw:**

We definitely need binding commitment. Part and parcel of that is a target. We have one for the climate, for example, with the 1.5 degree target. Some individual European countries have already set one for themselves. For example, Austria has set a target of 7 tonnes per person per year. In Germany we are in the process of maybe developing this with the [National Circular Economy Strategy \(Nationale Kreislaufwirtschaftsstrategie, NKWS\)](#). Although its exact content is not yet known, it might also contain such a target. At European or international level, there is no such target yet.

A few basic things that would move things along would be, for example, placing more responsibility on manufacturers, which is known as Extended Producer Responsibility. But public procurement is another important concept, which is relevant across the sectors and could make a major contribution to meeting any such targets.

## Germany's National Circular Economy Strategy

**Nadine Kreutzer:**

Just now, you mentioned the National Circular Economy Strategy. Can you maybe go into a tad more detail on that so that we understand it properly. What is happening there?

**Clara Löw:**

Germany plays its part in all the legislative initiatives at EU level, but has set itself the goal of having its own circular economy strategy. That was written into the coalition agreement of the present government. And it was launched in April of this year. We are practically midway through it. The stakeholder process runs until roughly year-end. Many stakeholders are being consulted and listened to. And that means, the same questions we asked ourselves in this Model Germany study are being asked here, too: Which sectors are to be covered? Which instruments yield which value added? How do they need to interact with each other? That's the general direction of it. And what possibilities exist nationally, compared with the amount already happening at EU level? That's an important question.

**Nadine Kreutzer:**

And you're in on that, too?

**Clara Löw:**

Yes, along with colleagues. We're advising the Federal Environment Agency and also the Environment Ministry on the content of this strategy as well as the instruments, and also on the potential of individual instruments, how they could be configured and what the stakeholders can contribute to that.

## The EU's Circular Economy Action Plan and global efforts

**Nadine Kreutzer:**

We live in a very globalised world and it certainly makes sense to look beyond our own borders from time to time. You've already briefly mentioned that the [Circular Economy Action Plan](#) exists at EU level. These things always have such great titles. What can this one achieve?

**Clara Löw:**

It's the European strategy, the targets Europe has set itself in the circular economy. It dates from 2020. It's already the second plan. The first was the one I was lucky enough to be part of discussing in 2015 during my internship in Brussels. And the second is definitely a very important one. It is part of the Green Deal. The Green Deal has opened up strategies and action plans in a large number of sectors, for example the Farm-to-Fork Strategy or the Fit-for-55 Package, which other colleagues are sure to have described previously.

The Circular Economy Action Plan is the one that tackles the questions regarding products and resources. And it has given the matter some momentum. Really numerous legislative projects like the ones I had already mentioned, for example the End-of-Life Vehicles Directive, Eco-design, the Textile Strategy, but also on the issues of packaging, batteries and so on. It tackles a great many things that the Oeko-Institut also does. This breadth is why the area has gained more momentum, for sure.

**Mandy Schossig:**

It doesn't sound too bad at EU level. But how about the global picture? Do we not need such regulations there, too?

**Clara Löw:**

Yes, absolutely. Internationally, people frequently think that it is a matter of improving waste management. In principle, that's just what we thought in the 1980s, which was of course very important at the time.

But today we can say that it's not just waste we should focus on but the problems around the design and production of products for short service lives and product lifespans. Everyone has these problems, wherever in the world they live. And therefore to work on lengthening the lifespan of products is relevant everywhere, in our opinion, because the products are sold in many countries. And there are huge differences from place to place. It is an issue everywhere and many governments are taking steps to do something about it. But the discourses vary enormously.

**Mandy Schossig:**

Can you name a few examples, how far have other countries come?

### Clara Löw:

For example, on this issue of packaging reuse, in other words reusable packaging which is on the increase here, too, we found it super interesting to see that in Indonesia they are called “returnables”. That aspect was especially valued, not emphasising that the packaging has already been used, for example for hygiene reasons, but that it gets returned. It is more of a lifestyle product, the way the returnables system works there, rather than putting so much emphasis on the environmental benefit, although that is there too.

We also had a lot of discussion about the meanings of terms like upcycling, downcycling, recycling, advanced recycling. There is still no common understanding of them. Whether upcycling means that something must have been waste beforehand, or not. There isn't any great discussion about this in our country, anyway. But talking about downcycling and advanced recycling and so on, in the end nobody knows what is really meant.

What is certain is that great effort is being dedicated to this, including the Global Plastics Treaty that's being negotiated. These processes continue to require a lot more explanation and support. That's why we are definitely keeping up the work of connecting the worlds in our international projects.

### Nadine Kreutzer:

During the [last episode of the podcast](#), Jan Peter Schemmel, CEO of the Oeko-Institut, expressed the opinion that we in Germany must get used to the idea of learning from other countries. Do you maybe have another positive example from abroad, where certain instruments for a circular economy are already being implemented successfully?

### Clara Löw:

France's Anti-Waste and Circular Economy law is certainly an interesting example. That is not far away. They are our neighbours, from whom we could rapidly learn, and from whose experience EU processes could also benefit. In France, it is no longer permissible to package fresh fruit and vegetables in plastic. That would mean the end of the plastic-sealed organic cucumber. They also proposed the Repair Index which is now likely to come in at EU level. They have bonuses for the repair of electronics, and from October, for textiles as well. That's another piece in the puzzle.

I think learning from other countries would also mean actually recognising that the transformation is already in full swing. And this political will, which I mentioned at the start, realising that it's already there in other countries and in the discussions they are having.

The EU Parliament, for example, is also far ahead with driving the discussion by holding a major conference. Although it's not a legislative proposal, we see this discourse being opened up in many places, and for us, learning would also mean realising this and getting involved in the discourse, joining in and moving it forward.

## Challenges and trade-offs for different stakeholders

**Mandy Schossig:**

Apart from the policymakers we also have other important actors. So where must business and society make their respective contributions?

**Clara Löw:**

Yes, those are important points for sure. The consumers play an important role, but in our opinion they are not the ones who can drive the transformation forward because they need incentives, and many of them make choices based on product prices. As long as the environmentally friendly products are more expensive, there is no incentive to buy them. Consumers also play a role due to their understanding of consumption. And that's why it matters to engage in debates – gladly involving different alliances – about how consumption should change. Later, this may come to include the willingness to have fewer clothes or other items in one's wardrobe, for example. That's something that people recognise as the logical consequence, and it's a case of leading more with strong examples and also making use of business models, for lending, sharing or neighbourhood volunteering.

**Mandy Schossig:**

And business?

**Clara Löw:**

Yes, business. That also plays a super important role. There are a few myths, or maybe prejudices, claiming that the kind of transformation I've been describing parts of would have negative consequences. We looked at this in the Model Germany study as well, and we found that the effects have to be considered per industry. There are industries that have high environmental impacts, that consume a vast amount of resources. If we aren't willing to lose jobs and gross value added there, then nothing is going to change. In which case, we won't be able to realise the potential of the circular economy on the environmental side.

At the same time, there are also areas that benefit from it – the secondary resource economy, for example, or retailing, I mean in unpackaged shops. If we save on packaging in that way, then more staff are needed. And that gives us another aspect.

The modelling in the study showed that we would ultimately have lower expenditures under a circular economy, and that if we distribute this income that is saved or freed up to different sectors – for example, sectors with lower environmental intensities, sectors that could benefit from it such as the health sector, the cultural sector, the education sector – the ones that don't have high environmental impacts. When we take that into account, our modelling analyses showed an increase in gross value added.

So we were able to refute this argument that the economy doesn't benefit. But the reality is, it means a transformation, and that has to be prepared for. I think it will also be a matter of shaping this change together with companies. Of asking: how shall we shape it? And that's where they have a role to play, making their input, and an opportunity to think things through: what is my business model as a company? One in which profits are paid out as bonuses, so to speak, or one

where profits are reinvested back into the company? There is also a whole array of debates about what a company of the future might look like in the circular economy. That is something else companies can certainly think about and contribute to and strive towards.

**Nadine Kreutzer:**

Can we say that in the end, everything boils down to sufficiency? The idea that less is ultimately more. And that we have to say goodbye to a perpetual rise in material consumption?

**Clara Löw:**

Yes, we definitely have to accept and strengthen the role of sufficiency. Until now, we've tried extremely hard to achieve advances in society by boosting efficiency and making use of technology and scientific findings, but found that we could not decouple economic activity and resource use with these strategies alone. For that reason I certainly agree with you. The issue needs to gain more relevance. But it's quite a difficult one to discuss. And a no-go topic in some circles.

Without sufficiency it won't work, in our opinion. That isn't immediately to say that it's not compatible with economic efficiency. People have to realise that it means a reorientation of company objectives and practices – ultimately, a rethinking of corporate action. Returns or overproduction are only a small component; it's also about taking care of the well-being of employees or introducing innovations regarding longevity. And it's about the question of: how are we investing capital? It is indeed a major economic transformation and we still have no idea what the outcome will be. I mean, we're trying to contribute to the debate without knowing the solution to it, because there's no blueprint in that sense, and there's no country that has already taken really big steps.

All of this becomes clear from thinking it all through, as we did for example in this study for WWF, grappling with things in the minutest detail and then arriving automatically at these big questions. That's why we believe that more and more parties will get involved in the debate, and that that must be the conclusion of many studies from this area. And for those where it is not, it will be necessary to check whether certain things have perhaps been overlooked.

Obviously you can still ask questions about the circular business models: how will companies in future really earn money? But on that note, I think I had mentioned a few industries in which things will go on evolving. And that's why everything goes hand in hand, in our opinion. These consumption patterns that have to change, this willingness to lend and share, the business models, but also the political impetus and the will to make it happen. They can't be seen as separate from each other.

**Why implementing the circular economy is worthwhile**

**Mandy Schossig:**

In view of all the challenges that we've now discussed, maybe you can sum it up one more time. Why is the circular economy desirable for companies, consumers and society as a whole?

## **Clara Löw:**

Well, high resource consumption in Germany exacerbates environmental problems, but also other problems, human rights risks, health, psychological problems. And a “business as usual” approach is untenable. So in our opinion the circular economy is a way out. We have many instruments and measures with which something can be done.

We have investigated the potentials, and the circular economy is desirable because ultimately it offers solutions and contributes to climate change mitigation. The benefit of the circular economy for society is greater than the associated costs. Of course, at times costs can also be higher at the individual level, but we have to pay for things like waste collection fees, for example, or pay taxes, some of which are spent on environmental problems and cleaning them up. If we look at the bottom line, overall the costs are lower, with less being spent also on the consequences of environmental problems.

To my mind, the circular economy offers us a healthier, more liveable and more inclusive future. That’s why I’m looking forward to things like being able to say my belongings won’t fall to pieces any more.

## **Outlook and conclusion**

### **Nadine Kreutzer:**

You sit on committees in your advisory function, you told us. You’ll be wishing for progress there, too. Now we come to the last and all-important question, Clara. If you were the German Chancellor, what’s the first thing you would implement to get the circular economy up and running once and for all? Being quite specific now: you’re sitting at your desk, what would be at the very top of your agenda?

### **Clara Löw:**

I know one very important thing that we would need, namely a law that makes resource reduction a binding obligation. Germany’s Climate Change Act, at least the version that was in force in 2021 before we had had any amendments, did so by making these targets binding at the top level and then making each ministry responsible for achieving the targets in its own sector.

Something like that would also be conceivable for the resource conservation law, if it specified an overall target and sub-targets that individual sectors or ministries had to meet. In our view, the result of this would be that the policy instruments I mentioned, most of which already exist, would become more ambitious, because of this binding requirement to use these instruments to achieve a reduction in resources. Or use them to make sure that they are really working, because only then will there be an environmental impact.

And then there are these issues to be debated, acceptance to be generated and a debate to be had about the fact that change is needed, and not seeing that just as an environmental issue but also as an economic, social, labour market and financial policy issue. When we talk about making



products that last longer, the worry is that everything will get more expensive. I think that's why we can't implement such instruments without socio-political flanking; it's a whole-of-government task.

**Mandy Schossig:**

Yes, it's not exactly a small task. Many thanks, Clara.

**Nadine Kreuzer:**

I'll elect you.

**Mandy Schossig:**

Many thanks for the policy brief for the German government.

**Nadine Kreuzer:**

Yes, thank you very much. That was very informative, in the hope that this transition will then actually go ahead.

**Mandy Schossig:**

But if listeners want to become better informed, where can they find further reading or viewing?

**Clara Löw:**

There are lots of things to look at – our study, for example, that I've already mentioned a few times, is super long. Whether people will want to read it, I don't know. I had a book that really excited me at the time. I think that's also something, before we read long scientific treatises, that the Oeko-Institut can provide plenty of information about. But back to the book, I'd like to put in a word for a novel alongside all the academic papers. It was written by a partner of the Oeko-Institut: Phyllis Omido. Colleagues of mine have been collaborating with her for a super long time. And it inspired me to think about what happens to things when we throw them away. [The book is called "With the Rage of a Mother"](#) and was my introduction to the issue in a small way, and it excited me. From that point of view, I'm happy to recommend it.

**Mandy Schossig:**

Thanks very much. Thank you. And thanks for the whole overview and the insight you've given us into the subject. Thank you.

**Clara Löw:**

It's been fun. Thanks very much.

**Nadine Kreutzer:**

Very good. So here on the podcast we've now polished off the first course of the resource transition, and whatever happens, we'll keep abreast of developments.

**Mandy Schossig:**

That's right. And we'll keep on top of other issues as well. In our very first episode, we talked about hydrogen. Nadine, that was almost two years ago now.

**Nadine Kreutzer:**

Yes, incredible. Quite a lot has happened there, too.

**Mandy Schossig:**

That's precisely where a lot has happened. And that's why I thought we'd invite a colleague from the Oeko-Institut to come back next time, and he'll update us on all the issues, from the market to the hydrogen ramp-up, hydrogen from abroad and sustainable generation. And I can hardly wait.

**Nadine Kreutzer:**

Same here, and I hope for you as well. And if you say, "Oh, I love your podcast", then leave us lots of stars. There's also a virtual kiss.

**Mandy Schossig:**

From you, Nadine?

**Nadine Kreutzer:**

From me and from you and from Clara. Right, Clara?

**Clara Löw:**

Absolutely.

**Nadine Kreutzer:**

And we'll be delighted with that and of course with your continuing interest in these gripping topics. All these transitions that we discuss here. Until then, we'll say goodbye, fare you well, have a good time and come back very soon.

**Mandy Schossig:**

Until next time.