

Territorial Development and the Great Transformation: What to consider when strengthening cities and rural areas in the future.

Interview with Prof. Dr Dirk Messner, Head of the German
Environment Agency (20 July 2020)

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Introduction

In this interview (and [videocast](#)) we will be talking with Prof. Dr Dirk Messner about a question that has been keeping us busy for a while now: In our work, how can we promote a more sustainable and transformative way of territorial development, and what systemic perspectives have to be taken into account to contribute to a more sustainable development path in smaller cities and regions?



Frank Wältring (FW): Dirk, you know that we as Mesopartner have now worked for about 17 years in supporting cities and regions to become more resilient by increasing their economic opportunities. In our own practical work we also started the promotion of a more sustainable and transformative way of local development. But we also feel the challenge of walking the talk in that direction, for us as well as for our partners. But before we get to the question of what transformation requirements you see at the territorial level, I would like to start with a more generic question:

While metropolitan areas are often getting a lot of attention, how important are more rural medium-sized cities and smaller towns, and what role do you think they have to play in the realisation of a more sustainable future development trajectory?

Dirk Messner (DM): *Firstly*, most people are still living in small and medium-sized cities. This is not only true for Germany but also globally. There is a huge debate on mega cities, but we are neglecting the fact that in the future most people will still live in medium- and smaller-sized places. For empirical reasons we should look at locations that are relevant. And medium- and smaller-sized cities are definitely relevant.

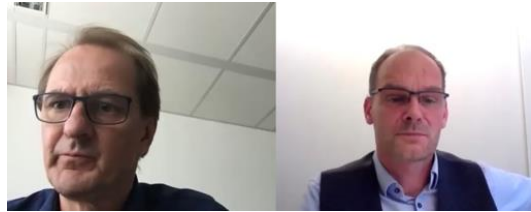
Secondly, it is true that larger cities drive innovation. The headquarters of big companies are based mainly in large cities, and financial capital is centralised only in large cities.

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But what we also see, historically and more recently, is that medium- and smaller-sized cities have highly relevant innovative capacities. Take for instance the German city of Weimar when

Prof. Dr Dirk Messner headed the German Development Institute (DIE) as one of the leading think tanks for development policy worldwide for 15 years (2003-2018). He was also a member of the German Advisory Council on Global Change for 15 years and co-headed the Council for six years (2013 to 2019). Since the beginning of 2020, Dr Messner has been heading the German Environment Agency, Germany's main environmental protection agency, with its 1 600 employees, most of whom are scientists. In the 1990s, Dr Messner co-developed the systemic competitiveness framework with the founder of Mesopartner, Dr. Jörg Meyer-Stamer. It is a framework that received international attention and has shaped our systemic way of working on bottom-up economic development. In 2019, Mesopartner organised, together with Dr Messner, an event with former co-research colleagues on how to contribute to a more human-centred development approach in our work. Here we also started to jointly enquire into the question of the overriding emphasis on competitiveness.

looking into the past: it became the city of Johann Wolfgang von Goethe and Friedrich Schiller. It was not Berlin where they wanted to live. They chose a smaller place which had its own specific advantages. Or take the German city of Dessau. This was the centre of the Bauhaus movement, which tried to imagine how cities, architecture and modern styles of living could be combined and shaped in a different way. Dessau was at the heart of this movement. Again, this is a small-sized city but which had a movement with global impact. Nowadays it is still an attractive city with a high quality of life. We as the German Environment Agency have one of our main offices with 1 000 employees in this city. Or consider the industrial districts in Italy where both of us have worked. These districts are located in small-sized cities that have become very innovative, competitive and dynamic.



“Smaller and medium-sized cities drive highly relevant innovation and knowledge processes, also for the transformation.”

My credo in that respect is that decentralisation promotes strong smaller and medium-sized cities, which in turn drive highly relevant innovation and knowledge processes, also for the transformation.

Thirdly, it is important to take a polycentric view that brings together the given capabilities of larger cities and the innovative capacities and potentials of smaller cities. It differs from other patterns which we often observe in many countries. Two negative patterns that stand in the way of a polycentric development perspective are centralisation and fragmentation. What I do not like to see in countries is centralisation. We have both done research in countries such as Chile. Chile is governed in a very centralised way with obvious disadvantages. If you do not live in the capital, you do not have access to culture, education, universities, knowledge and to power networks. So centralisation is not the pattern I like. The second pattern I do not like is fragmentation. This occurs when we have different-sized cities which are not well connected, but are rather fragmented. If you are not well connected, you do not learn together. You only develop your own island, your own space. To overcome centralisation and fragmentation a polycentric perspective is needed. This focuses on the development of systems between the cities, the larger and smaller cities, and connects the dots and pieces between them. One example is the mobility systems that connect larger and smaller cities. In this perspective you then also invest in cultural, R&D, innovation and educational development in smaller and medium-sized cities. This is what does not happen in many countries. Therefore I am a fan of polycentric perspectives.

FW: *When you now look from this polycentric perspective, where do you see the main requirements and opportunities for sustainable transformation in these smaller cities, territories and locations?*

DM: Sustainability transformation is of course about innovation. Innovation is also about technology. So technology is one entry point.

“Sustainable transformation needs to move beyond technological innovations.”

But my main point would be that sustainability transformation needs to move beyond technological innovations. It ultimately needs to shift entire societies. We want to build circular economies. Nowadays in Europe we only recycle 14% of our used resources, but what we would like to see is a complete circular economy. So there is still a lot of room for improvement. We want to decarbonise our economies towards 2050 by the latest. This implies halving emissions decade by decade everywhere, and this is beyond incremental change. But it requires fundamental change. For analysing transformation change in societies I use the actor-oriented institutionalism which has been developed by the Max Planck Institute in Cologne.

“We have to look at different dimensions to understand the shifts in patterns of entire societies ...”

It explains well what you have to look for in different dimensions to understand the shifts in patterns of entire societies. Four dimensions are mentioned:

The first dimension: Look at actors! From a decarbonisation perspective, we ask whether the number of actors such as firms, universities, etc. with a focus on decarbonisation and climate-oriented development are growing? How can we support the number of these actors? It is about power play actually. We need more and more actors who support decarbonised development. So actors are one of the key dimensions.

The second dimension: Develop new cognitive concepts! To reduce complexity in our societies, we use cognitive concepts such as heuristics. Mesopartner has worked for many years with the concept of Systemic Competitiveness, which is also a heuristic model. But for a sustainable future development direction we need new cognitive reference points that drive our thinking, investments and consumer decision making.



I would like to focus here on only one of these: decarbonisation. A zero-carbon economy in 2050 is very different from the old development models we worked with. It is a new cognitive concept which has emerged only in the last 15 years. During the first years of the climate debate in the 1980s and 1990s, researchers talked about reducing emissions without linking this to new business models. Only after the failed climate negotiations in 2009 in Copenhagen did the debate get a new twist. The reflection started about how a climate-compatible sensitive economy would actually look. The German Advisory Council on Global Change which I had the pleasure of heading, and the OECD and the World Bank in 2010 and 2011, published the first wave of studies on decarbonising our economies with the objective of a zero-carbon

economy. It is a new cognitive concept, a new heuristic. I see progress here. If you look at the Coronavirus crisis now, there are strong linkages between the question of how we are going to recover our economy and how we are going to decarbonise it at the same time. This did not happen ten years ago during the financial crisis of 2008 and 2009. When this crisis started, all talk of climate orientation and environmental policy actually disappeared. This time it is different. So we have progress here. This is the second dimension I see which is relevant.



The third dimension: Integrative policy regimes!

You have to build new cognitive concepts and new objectives of development into the policy regimes. And I see hybrids here. Nowadays, we still have €350 billion subsidies for burning fossil fuels and at the same time strong investments and incentives for renewable energies. It is a hybrid situation. We are still not there. There is still a lot of work to do.

The fourth and last dimension: New normative perspectives for our societies. This is becoming highly relevant. In the EU we had the welfare state. Social justice and reducing inequalities in our societies was very important during the past 60 years after the Second World War. From a sustainability perspective we now need to go beyond social justice. This requires a set of new normative aspects. Here *I would like to mention three most important ones:*

“It requires a set of new normative aspects: earth system stability, cost and benefit sharing, consequences of our present decisions for future generations”.

Earth system stability has to be an imperative for our decision-making processes. No one has thought about earth system stability during the past 250 000 years. But now we have to.

Then if you think about global decarbonisation, you realise it is about *global justice problems*. Who is going to pay for these transformation processes? These are linked to cost and benefit sharing.

And third, we need to understand in our societies that what we decide during the next two decades about a more rapid or slower decarbonisation will have an impact on all generations to come. All three normative aspects require a new normative horizon.

FW: What is the role of the territory and a bottom-up approach in supporting change along these four dimensions you mentioned?

DM: Of the four dimensions, three of them are directly highly relevant at local level. It is important at any level to have actors who are driving in this direction. And many decisions need to be made in cities, e.g. when it comes to mobility systems and buildings. So actors at any level matter! To strengthen the normative dimension, it is important that this does not become an elite project at local or national level. Also new cognitive concepts need to emerge, and to be supported and strengthened at different states of our societies. When it comes to

policy regimes I still think that the systemic competitiveness framework helps. At the national level we need main incentives, macro level incentives and policies which drive the transformative processes from an educational perspective, from a technology perspective, from a “shaping cities” perspective. This must be based on and anchored strongly in regions and cities with support policies and supporting organisations. In the systemic competitiveness framework, the meso level perspective with its targeted policies and its implementation orientation requires strong context and bottom-up orientation, while the main macro incentive schemes are relevant to be set at the national level.

FW: Do you see the different roles in “developing” countries and “industrialised” countries to be driving this agenda?

DM: “Developing countries” is a broad term and categorisation. We are talking about countries which are very poor, e.g. in sub-Saharan Africa, and countries with emerging markets including Mexico or Brazil. But having these different realities in mind, I have observed a shift in perspective in many developing countries during the last ten years. Up to the early 2000s, countries such as India and regions such as Africa have not promoted the climate agenda because their major feeling was that this is an issue that has to be solved by developed countries. Do your business. It is up to you! But then, step by step, many of these countries and their experts and university systems understood that they were really being threatened by the impact of climate change. Nowadays India and African countries have become drivers of change in the climate negotiations. I observe a strong shift in perspective here.

“Saying “good-bye” to a wealth creation machine is difficult for people ...”

When it comes to transformation opportunities in *developing countries*, I see opportunities and challenges. In some countries it is easier to leap-frog than in OECD countries, which are very path dependent. If you look at renewable energy systems in rural areas in African countries, many of them have already been very successful. The same is the case with the mobile phone revolution. Several African countries jumped directly into the new technologies. So leap-frogging is easier when you are not tied to the old industrial structure of the past. This can be an advantage, but there is also a huge challenge for these countries. Sustainability transformation and building a sustainable economy is about building a knowledge-based economy, a technology-based economy. It requires investment in education and R&D. As we know, in most developing countries we find weak systems and weak investments in this regard. Beyond technology, innovation and education, it is also about governance. You will not get a transformation towards sustainability without effective governance systems. So these are the challenges for many developing countries.



In the *OECD* world the major challenge is to move away from a modern and successful past in terms of wealth creation. Saying “Good-bye” to a wealth creation machine is difficult for people who live in and build these structures. The resistance of people in Germany to move

out of the fossil-fuel and coal-based energy system demonstrates the challenge to walk new paths when the old is still very dominant. We are having the same debate in the automobile industry. Germany has been the global master in building the best cars in the world in the past. But we are not driving the main transformation processes towards sustainable mobility. The drivers are located in different parts of the world, not in Germany.

FW: You know the reality in Germany but also that outside of Germany. Now you are heading the German Environment Agency as a driver of this transformation. In your new post, how important do you regard support for the sustainable transformation agenda at the international and local level as well?

DM: The German Environment Agency has *four major areas of work*. I will discuss them before coming to the relevance of this work at the different levels. First, we do research to better understand environmental challenges and to develop solutions. Thus our work is research based. Secondly, we do policy advisory work at different levels. Thirdly, we build actor constellations for change.

“We build actor constellations for change along sectors, in cities and at the national and European level ...”

This change constellation focuses on actors in specific sectors as well as in cities and even at the European level. Fourthly, the agency itself implements science-based environmental policies. For example, the European emission-trading scheme is carried out for Germany by our agency.

This is how the organisation works. Now when it comes to your question, the answer is strongly related to our work with different relevant stakeholders. We try to build *actor constellations and dialogue processes* and work with actors to trigger and shape relevant transformation processes. We do not only do research and publish our papers. We do not only talk to decision makers in ministries. We work with cities and ask them what they could deliver and what proactive role they could play. We do the same relevant to business sectors. For example, we recently had a meeting in our agency in Dessau with the agricultural sector to think about the transformation processes of the agricultural industries and the sector as a whole. We brought together all the different actors from this field who were trying to build consensus about the main limitations of the eco systems and about business models within these ecological guard trains.



“We are trying to build consensus about the main limitations of the eco systems and about business models within these ecological guard trains.”

This is how we try not only to understand, develop and publish our solutions, but also to build communication strategies and to shift future patterns.

FW: We often say that for sustainable economic development trajectories we need strong bottom-up dynamics, and we need to encourage top-down support for the territories. The latter provides conducive framework conditions and supportive policy and funding schemes that encourage actor networking, space for experimentation and the opportunity to create knowledge and thinking “out of the box”. Where do you see three entry points to encourage this interplay in favour of a sustainable transformative development in the territories?

DM: We obviously need activities at all levels. National states are driving climate policies and negotiations, and this also needs to become embedded in a global framework. Nations and governments need to decide upon the degree of decarbonisation in coordination with international agreements. But when it comes to the implementation of the agreements, the investment in local and regional development efforts is key. Climate scientists are demonstrating that 70% of all our emissions are directly related to urban areas and cities. If you wish to change decarbonisation perspectives, you cannot only consider the capital cities and the mega-cities, but you need to mobilise all cities and regions around urban areas and make them drivers of change.

“...four aspects that we need to bring together to motivate people for this fundamental change ...”

The second aspect I would like to emphasise is a more general but also important one. How can we motivate citizens at different levels to become drivers of fundamental change? No one likes fundamental change; it destroys our routines. Incremental change is easy, and we know how to do that. But fundamental change? We are living in a period in which many people are already suffering from a change acceleration. Digitalisation, globalisation, the debate about refugees and populist trends in the world demonstrate how change is accelerating. With the emphasis on decarbonisation, we are now arguing that we need even more acceleration, but towards sustainability. No one likes that either, because it is an additional challenge. I think there *are four main aspects that we need to bring together to motivate people to accept this fundamental change:*



First, problem realisation: You need to convince people, citizens, mayors and CEOs that there is a real problem. If you cannot explain that there is a real problem, you cannot convince anyone to change fundamentally. In some sectors and in some countries we have been making progress in this regard, but in other countries it is different. So the dimension of the problem and making it as clear as possible is very important.

Second, realistic strategies: You need to develop strategies and convince people that your sustainability and decarbonisation strategies can really work. If you can convince people that a huge problem exists but not about your strategies, you cannot make much progress. This has to do with uncertainty, as people do not like uncertainty. Germany is a good example of bringing renewable energy systems forward. We are a very bad example of bringing forward more sustainable and decarbonised mobility systems. In Germany when I talk about the needs for and possibilities of mobility transformation, I provide good examples from places where it worked very well. This is necessary to reduce uncertainties. Uncertainty produces fear and fear is a barricade to transformation processes. Therefore demonstrating that it can work is the second relevant aspect of motivation.



Third, fairness and justice: Even if you can demonstrate that it can work, people will ask you if the process of implementation was fair and just. There is a large group of citizens who already feel that we are living in societies that are becoming more and more unjust for many reasons. When I talk about mobility or meat consumption, what I often experience is that people perceive this as a process of de-democratisation of consumption. The impression stays with them that sustainability is not just. Thus we have to be careful not to tackle climate change and destroy our understanding of welfare and justice concerns. For me it is therefore highly relevant to talk about a socio-ecological transformation with fairness at the centre. If we do not get this right, we will not be able to identify the required motivation and the synergies for climate-driven and climate-compatible development processes.

Fourth, imagining attractive futures: This aspect is perhaps the most important. History shows us that fundamental dynamics of change were always driven by an idea or by a utopia of how the world might look. For instance, the success of social democrats in the last century, the “social democratic century”, was based on their different idea of the future. Having a good idea of how the future might look, more just and with a higher standard of living and now with a stable earth system, is something that makes a huge difference. Many people forgot or are no longer capable of imagining attractive futures. But this is decisive. We will not be able to convince citizens and interest groups with numbers and procedures. What drives fundamental change and motivation is to transfer and develop jointly with citizens and actors attractive futures also at the territorial level.

These are the four major aspects which need to come together to invest in the motivation structures of cities within companies and also nations.

FW: *Your lines of argument are very motivating for our work. We realised that we had to create new coalitions of partners, integrating other stakeholders who in the past were normally not*

so much the agenda of our local economic development perspective. Who are the economic and knowledge-sharing drivers, but also who are those who are driving the decarbonisation or climate-resilient discussions? Who are the outliers in that respect, and how do we create new actor constellations and attractive new futures with them in regard to a more transformative territorial development path. When we met last time we also very strongly reflected about how we could encourage dialogues with different kinds of change drivers and interest representatives at the national, international and local level. I hope that we will have the opportunity to look further for synergies in that respect.

Thank you, Dirk, for this rich reflection.

DM: Thank you very much for the opportunity to have this chat and all the best for the future for you and the team.

The Videocast of this interview with Prof. Dr Messner can be find at
<https://www.youtube.com/watch?v=NgDN8THAlm0&feature=youtu.be>

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