

Conversations

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Discussion with
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Vice President, Energy Transition
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MAPPING THE JOURNEY TO NET ZERO

Ann Mettler from Breakthrough Energy and Florent Andrillon from Capgemini Invent discuss the journey to climate neutrality and its impact on business and IT strategies.

Ann Mettler is Vice President, Europe, at Breakthrough Energy. Previously, she was Director-General and Head of the European Political Strategy Centre (EPSC), the European Commission's in-house think tank. In 2019, Ann was recognized as one of the top five women shaping Brussels by politics- and policy-focused news organization, Politico.

Florent Andrillon is Vice President, Energy Transition Global Leader, Capgemini Invent. Having begun his career in the energy sector, Florent has spent many years helping companies deliver their strategies for energy transition, acceleration, and global transformation, notably leveraging digital technology (e.g., smart buildings, e-mobility, and smart energy).

What does it mean to be net zero?

— **Florent Andrillon:** Net zero means achieving a balance between the greenhouse gases put into the atmosphere and those taken out in order to reduce global warming. Companies can contribute to this trajectory. Many companies have announced carbon neutrality targets, which they plan to deliver through offsets and minimum real efforts towards reducing their footprint, but they must go beyond that and engage a real plan to reduce their emissions all along their value chain.

What impact could unchecked climate change have on the private sector?

— **Ann Mettler:** Well, first of all, it will have a very negative impact. This is really an existential threat, which is very much the way that public policy is viewing it now. There is a consensus that we have perhaps 10 to 12 more years to really turn this around. This is why the European Commission recently made the emission reduction targets for 2030 more ambitious, raising them from 40 to 55 percent. This is done in view of the fact that anything we want to happen in 2030, we essentially need to do today. We need to start today. We really need to step up our ambition. Interestingly, the private sector is waking up to this and that has been very conducive to public policy because before, it was oftentimes a stumbling block to bolder climate action – so, it's good that the private sector is coming around and finally taking action.

2030

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What concretely has changed today in the way the world, and the private sector in particular, views climate change?

— **Ann Mettler:** I think that we are all experiencing climate change in a way that maybe we didn't five years ago. From the point of view of citizens, this has made a real difference. For companies, the reckoning has come simply because it's now showing up on their balance sheets. They're seeing what climate change has done, whether that's in terms of stranded assets that they are now sitting on or climate disasters that they have been exposed to, or seeing the gradual decline of the fossil fuel industry. I have studied global trends for most of my professional life and there is something that is definitely different this time around. The energy transition is now an overriding global trend that is unstoppable, in my opinion, and the private sector, as I said, has come to realize this and is now finally coming on board.

— **Florent Andrillon:** What's changed is that sustainability is the new digital. It's becoming the core business. Companies are aiming for net zero for several reasons – first, because clients are asking them to, so there are clear client expectations. Soon, if you look at the B2B space, having a clear net zero target and roadmap and being under a certain level of emissions will become a must-have. Second, because investors in the financial sector are now looking at sustainability with deep scrutiny. As a result, companies' financing model is also changing if they are not committed and if they do not show efforts to reduce the negative impact of their activity. The finance world is making it much more of a requirement than before. Third, the regulatory movement toward net zero around the world will put GHG emissions reduction as a prerequisite to maintaining a license to operate. Last, this also creates new opportunities and companies are (re)inventing business models for a sustainable world that will give them an edge in this new era.

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Are companies now realizing that getting to net zero can also be cost-effective?

— **Ann Mettler:** Companies are seeing that early leaders in sustainability are now the winners. I read recently that the largest energy company in the United States today is actually a clean energy utility and not a fossil fuel company. This is a global trend, and those that were early adopters are now doing better. Companies are starting to realize this and that's why they are quickly trying to reorient. Getting to net zero is becoming part and parcel of the business model. This is a systemic change that's occurring in the business community that is genuinely different from, let's say, a decade ago.

What is required to make the journey to sustainability a reality?

— **Florent Andrillon:** Timing is key. We saw exactly the same trend 15–20 years ago with the digital transformation wave. It started with a few leaders and a few top managers seeing it, and it took many years to be rolled out massively. With sustainability, we have no choice because it's more than a business issue. What is critical is that we need to speed up and go beyond big announcements of carbon neutrality. We need to go beyond the race because it's not a race – it's a common goal. So, what needs to be done when you're a company is that you need to really engage in transformation across all your activities and to engage all your people in it, because it's not only a top-down issue but a company-wide issue. That's why, engaging the staff and engaging stakeholders is critical for companies to really change their operations and to adapt their business model to new sustainability frameworks.

— **Ann Mettler:** Essentially you need a productive interplay between the role of the public sector and the role of the private sector. In the public sector, we're seeing that the European Green Deal is now really the overriding policy objective of the European Union. That means a "whole of government" approach to meeting these targets, leading to climate neutrality in 2050.

What is interesting, and this has always been a challenge hitherto, is that one nonetheless faces a massive collective action problem. Even if Europe were leading, what would happen if the rest of the world didn't go along? That is the world we have faced to date because Europe was always ahead

of the curve, but with the result that, if others were laggards, we were not achieving the ultimate climate goals. What is different this time around is that countries such as China, Japan, South Korea, and soon hopefully also the United States have all made their own pledges for either carbon or climate neutrality, either in 2050 or 2060.

This means that now a large part of the world and those that are the biggest emitters have come to a consensus that climate change is an overriding challenge, and that something must be done about it. And that gives me hope that this time around it will really be different. However, the public sector cannot do it alone either. That's why the private sector is absolutely needed because there are still many clean technologies that either still need to be developed or that already exist but haven't scaled.

Thanks to the International Energy Agency, we know that more than 50% of the CO₂ reductions that we need to become climate neutral by 2050 will need to come from technologies that are not yet commercialized. That means they may exist, but they're too expensive, too marginal, and are not being used. So, a lot of our thinking needs to be around how we unleash these technologies.

What is needed to bring clean technologies to the forefront and to help them scale?

— **Ann Mettler:** There are a number of aspects here; number one is that research and innovation need to be front and center. This is not a good time to cut research and innovation budgets; if anything, they need to be



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scaled up. Second, these technologies exist, but they are too expensive. This is why we need to bring down what Bill Gates likes to call the green premium. This is the difference in price between a product that emits CO₂ and a product that doesn't emit CO₂. Oftentimes, the price differential can be substantial, so a lot of our thinking should be around how to bring down the green premium. The European Commission is thinking about what is called a "Carbon Contract for Difference," which is essentially about bringing down the green premium, and therefore making it more attractive to use these low-carbon or no-carbon products.

Are we seeing the dialogue on sustainability between the public and private sector converging?

— **Florent Andrillon:** There is a clear need for investment to accelerate and scale innovation. But this investment doesn't have to be all public funding because there won't be enough. Public funding is really more of a trigger to increase and attract some private investment. We're now seeing a very good level of dialogue and I know that the European Commission is organizing a lot of meetings with the private sector to understand the roadblocks to finance this innovation, and what they can do in terms of regulation to de-risk the investment and make it easier. Is it growing fast enough? Probably not. And to accelerate that, public support must go beyond funding, to easing regulations and adopting a sandbox approach to enable innovations to be tested before they are regulated. And the private sector is really keen to engage in such a transformation.

Where should businesses start in order to reach their net zero goals?

— **Ann Mettler:** Every company needs to have an idea of their carbon footprint. It doesn't just need to be the company's own carbon footprint. We also need a better understanding of Scope 3 emissions – these are all of the emissions that occur throughout the value chain – and that's quite difficult. From a public policy perspective, I believe we need better reporting mechanisms. Companies will need to report on their carbon footprint, including on the Scope 3 emissions. Perhaps, we even need new frameworks that measure carbon avoided or carbon reduced in a much more productive way than is currently the case.

A lot of what companies do today to reduce their carbon footprint are offsets and a lot of these offsets are nature-based solutions, which is



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planting trees or investing in renewables. I'm not per se against that, but we also need to think about what companies can do to accelerate new clean technologies that we know we will need – and that would be a good starting point.

It is my hope that because European companies, on balance, didn't embrace the digital revolution very well, they will be more receptive to embracing this clean tech revolution and really seeing the opportunity that it holds in creating new markets and being a first mover and enjoying the advantage that that brings, because the writing is on the wall. This is unstoppable. This will happen and companies need to find the internal strength to do what must be done.

What are some examples of clean technologies available today that are ready to be scaled?

— **Florent Andriillon:** In a recent report¹ we identified 55 high-impact technology projects in Europe that are applying technology to use cases across different sectors. Clean hydrogen is something we took a deep look at, where there are 12 technology projects leveraging green hydrogen for transportation where we believe it can have a very big impact, or in shipping, or in decarbonizing hard to abate sectors like steel or cement. Smart technologies can be very impactful. For instance, in the transportation sector, mobility-as-a-Service rolled out and deployed massively across Europe can reduce emissions. Smart buildings are another high-impact area where we looked at the acceleration of construction and renovation leveraging 3D printing, geomodeling. Finally, a sector that must not be forgotten is agriculture and land use, where we can apply technology to grow food in a way that has less impact on the soil and identify low carbon alternatives to meat.

¹ Capgemini, "Fit for Net-Zero report," October 14, 2020.

How are countries managing the transition to net zero? Which countries are leading the way?

— **Ann Mettler:** Europe has been leading the way and early successes, both in wind and solar, have come out of Europe. It has always been very noteworthy that the countries that were both economically most successful, and also the leaders in environment, were the Nordic countries – in particular, Denmark and Sweden. In many ways, they have been the most successful economies in Europe – consistently, and over a long period of time. They have managed to essentially combine economic, social, and environmental objectives in their model of governance. The hope is that all of Europe can do this.

However, I will say that others have also woken up to the opportunity. China is currently working on its next five-year plan, which will commence in 2021. I know that clean technologies and environmental objectives will be very central to that next five-year plan. I also believe that the United States will see a step change now in embracing clean technologies and the energy transition under a new administration.

It is my hope that Europe, as one of the most advanced economies in the world, will continue to lead the way on the transition to net zero, not only politically as we have been doing, but also economically and through innovation by really developing the next generation of technologies that are needed to reach these net zero goals. •

This is an edited version of a podcast that was published on December 2, 2020. **To listen to the full conversation, please visit:** www.capgemini.com/resources/mapping-the-journey-to-net-zero

FIT FOR NET ZERO

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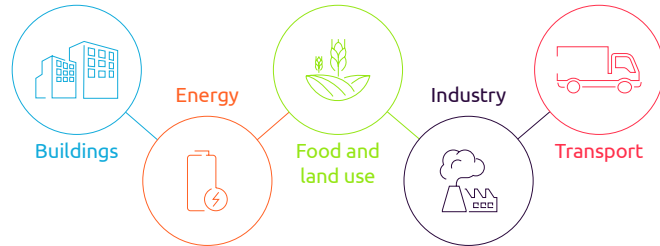
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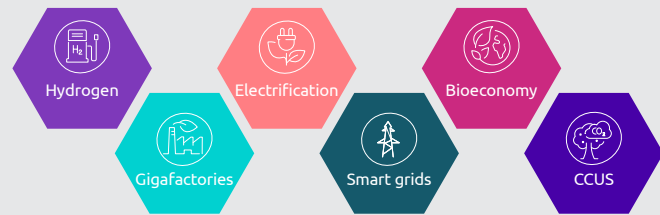
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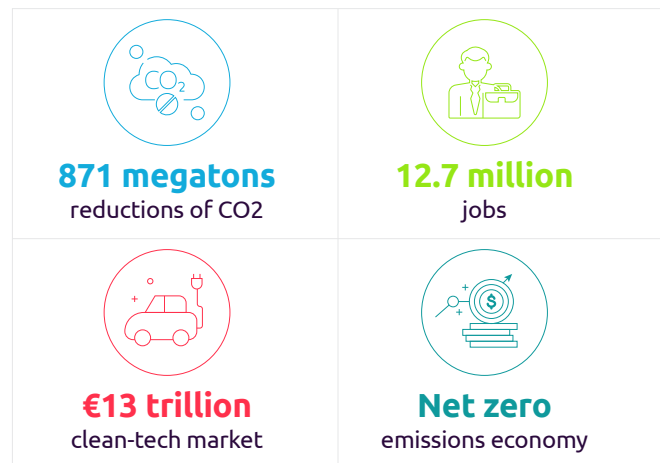
55 QUESTS ORGANIZED IN FIVE ECONOMIC AREAS



IN SIX CROSS-CUTTING THEMES



TO DELIVER BY 2050



WHICH WILL GENERATE A MAJOR RETURN ON INVESTMENT

Every **€1** invested in the clean-tech portfolio

=

€9 of future turnover in European markets by **2050**



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