EPISODE 2 | Climate AND Corporate Responsibility

with Jean-Pascal van Ypersele

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Passion for science

Ilham Kadri: Today. I'm delighted to be speaking with Jean-Pascal van Ypersele, who is one of the world's top climatologists and the former Vice Chair of the United Nations Intergovernmental Panel on Climate Change. He is a professor of Climate and Environmental Sciences, and Co-Director of the Specialized Master in Science and Management of the Environment at the Université catholique de Louvain. Jean-Pascal's passion for science started early. When he was a boy, he built a telescope out of gutter scraps and eyeglasses lenses, believe it or not, that he got from opticians' offices. He quickly became interested in climate science, and at the age of 22, he attended the very first world climate conference in Geneva in 1979. Later at the IPCC meeting in Madrid in 1995, he contributed to a sentence - and a famous one - in the IPCC analysis that states, "The balance of evidence suggests that there is a discernible human influence on global climate." And he was so right. So he has truly been at the very heart of some of the most influential scientific research. I was lucky enough to meet Jean-Pascal a few weeks ago at a special dinner. I have always been fascinated by his work. I live here in Belgium, his name is all around, he is very famous, and I said, you must come on my podcast. I'm really looking forward to hearing his thoughts about how businesses can make a difference as we strive to achieve the AND, A-N-D. That is to be both sustainable AND profitable. Jean-Pascal, thank you so much for being here today.

Jean-Pascal van Ypersele: You are most welcome. And it's a pleasure and an honor.

Ilham Kadri: So Jean-Pascal in this podcast, we really want to discuss the important role of businesses, right, and how businesses can play in the fight against climate change. But before we get to that, as a scientist myself, I'm deeply interested in your research and your relationship with science. I want to start by simply asking you, is there a moment, Jean-Pascal, in your life? Like an AHA moment, right? Very authentic, very simple, that really made you passionate about climate science and climate action?

Jean-Pascal van Ypersele: Yeah, it's a hard question so my initial answer is, every day, I have such a passion for the subject that every day I find something that is really interesting, happening around climate change, whether it's while reading a

newspaper or reading a scientific article, or talking to colleagues, or talking about themes, effects of climate change.

Ilham Kadri: That little boy, Jean-Pascal, you know? I mean, the bit in the telescope, you were already in love with science from day one, right?

Jean-Pascal van Ypersele: Yes. Yeah, that's right. I was in love with science, that's true. I had a passion for astronomy, but the passion was transformed into a passion for our planet a little later when I was studying physics at the Université catholique de Louvain here. I realized that I was as interested by the space, and the stars, and the astronomy, as by human issues and issues related to development, you know? Human development at the surface of this planet. And I learned about a research group that was starting or which had started a few years before, starting to do climate modeling to study past climates, but also looking at future climate and the influence of CO2 emissions on future climate. And I was about to leave for Liège, the University of Liège, to study astrophysics and then I decided well if I do climate science, if I specialize in climate science, I'll be able to combine my interests for astronomy and physics, and my interests for human issues. So that's why I stayed in Louvain-la-Neuve and became a climate modeler.

IPCC science (from November 2021)

Ilham Kadri: Yeah, that's great. That's the north star. And you have been, in fact, actively involved in many IPCC reports, right Jean-Pascal? After the latest report was published the UN Secretary General said it provided a code red warning for humanity. And it was also a bit alarming to read that some effects of climate change are now irreversible. But there seems to be a lot of reasons for hope, certainly from the scientific point of view. Can you tell us a bit more about the science behind these findings?

Jean-Pascal van Ypersele: Well, you know, the fact that the IPCC reports are red warnings. I mean, I wouldn't say it's only the last one, it was severe warnings before as well. And even if you take the very first IPCC report, even before I became involved in IPCC, if you read the 1990 report, the very first IPCC report, you see that the warnings it contained about the changes, the significant changes in the inhabitability of the planet were present in that report already. So we have been warned for a long time that if we continue to emit so much greenhouse gases in the atmosphere, CO2 in particular, which has a big default, and that it's invisible. Of course, it's also a heat trapping gas, greenhouse gas, but maybe the fact that it's invisible is another big default because we don't realize the huge amounts of CO2 we emit in the atmosphere and we are really changing the composition of that atmosphere. We have increased the amount of

CO2 in the atmosphere since the pre-industrial time by 50% basically. So, we thickened the thermal insulation layer that we have around the planet and obviously under that insulation layer, it becomes warmer. And of course we can adapt to a warmer climate up to a point. They have been over the last 10,000 years, climate fluctuations for about plus one or plus minus one degree Celsius on the average. But we are heading, if we don't really change our development pattern, we are heading towards several degrees actually. Actually, I don't believe those numbers that were quoted during Glasgow. I think they are very optimistic saying that in Glasgow, we put the world on a 2.7, or 1.8, or 1.5 degrees trajectory; I don't believe in those numbers. They are based on very optimistic hypotheses. That being said, the IPCC doesn't only diagnose the problem, it also assesses the many solutions that exist. There are many solutions in each sector of human activity actually, and that's one of the reasons for hope, actually, is that we know what we know on paper, at least what the solutions are. And many of those solutions are in the hands of business actually.

Ilham Kadri: Yeah. And indeed, Jean-Pascal the IPCC reports actually gives us five scenarios of what could happen from the very high to the very low. Which one do you think is the most likely?

Jean-Pascal van Ypersele: Well, you know the IPCC never answered that, refuses systematically to answer that question. And if I was speaking for IPCC, which I am not doing right now, since I don't right now have a function in IPCC, I hope to have one again one day. But that's another story. Maybe I can be a little freer to answer. Well, I'm an optimistic person. So I think we could if we wanted, be on one of the low scenarios, maybe the very lowest scenario would be extremely difficult to achieve and to realize. But maybe not the very low scenario with the low scenario which would still keep us in the vicinity of slightly below two degrees warming above the pre-industrial, could still be realized and we should really aim for the scenario that is the lowest one. And that means the emission reductions, which are the largest.

Climate impacts in different parts of the world

Ilham Kadri: Absolutely. Let's talk a bit, Jean-Pascal, about the world we are in. I mean, I was born in Morocco and then I had the luxury to travel around the world and live in the Middle East, in the United States of America, back to Belgium. I know you know there are different climate changes right, and it's not equal across the globe. And you've been to COP26 and we've seen, you know, the president frankly apologizing almost, right? I mean, he did on India and China, and explaining that you know, the phase out is the phase down now from coal. So that's you know, it must be different in Belgium than it is in Morocco for instance.

Can you help us elaborate on that? And what do you think it means for global businesses?

Jean-Pascal van Ypersele: In terms of impact, you mean the impacts of climate change? Yes, of course. Every part of the world will experience, unfortunately, some impacts. But the impacts will be quite different from one location to another. In Morocco, for example, to a certain extent, you will suffer from the drying of the entire Mediterranean basin. So as well, the southern part of Europe as the northern part of Africa, including significant parts of Morocco will unfortunately become drier. So on average, there'll be a decrease in rainfall. That will not take place in the same way in the Northern part of Europe, which, on the contrary, will become wetter on average. But what would certainly happen in common because that's happening basically everywhere, is that the intensity of rain when it rains has a tendency to become higher with extremes that are higher and that can lead to floods as we have seen this summer in Belgium and in Germany, but has been experienced in Morocco as well by the way. So that's certainly one category of impact. But the simple fact that temperature is rising is posing problems in terms of health, because the body is adapted to a certain temperature range. The fact that sea level is rising, is also affecting, and will affect more and more the countries which have coastlines, including Morocco and Belgium, even if the coast of Belgium is much shorter than the one you have in Morocco, sea level rise will be a big problem. You know, if we were staying on the highest scenario, we could be close to two meters above the present sea level by the end of this century in the next eighty years. And then if you look further, which is very important in case of sea level is to have a long-term view because the ice sheets started to melt and they contribute in the very long-term to a very significant increase. There's a novel aspect of the last IPCC report published last August. And that is for example, in 2300, that's not tomorrow morning, but it's a timescale, in 2300 in the worst case for the high scenario, the sea level rise could reach 15 meters 1-5 fifteen meters, 10 plus 5. So you know, the risks associated to climate change are really very, very serious.

COP26 and what was achieved

Ilham Kadri: Yeah, and this is huge and important for companies like ours where we used to do our enterprise risk management metrics, but climate change was not part of it just 10 years ago, and now it is. And you're right, it's not the problem of the others. We've seen with the floods that occurred in Belgium, Germany, and the Netherlands last summer, we saw firsthand the effects of climate change. And I know that you visited - you personally - many of the victims in some of the hardest hit areas in Belgium. And thank you for that. So,

Jean-Pascal, you just came back from COP26. Would you say that the people out there have achieved more than just blah, blah.

Jean-Pascal van Ypersele: Oh, yes, significantly more. And at the same time, it's far from enough, you know? And it has been more or less the same for all the COPs I have attended. And this was my 25th COP. So I have seen many of them. So a lot was achieved, but it's short of what's needed at the same time. So that's very frustrating. But some progress was made. I mean, there's a clear recognition of the urgency of acting much more. Of course the atmosphere doesn't understand that, the atmosphere doesn't understand any written, clear recognition of the science or whatever. It only understands emission cuts and emissions. And the call to end subsidies for fossil fuel, to phase down coal, et cetera. If those calls are listened to, they should have important positive effects in the coming years. But it's really urgent to do much more.

Multiple crises, the green recovery and the SDGs

Ilham Kadri: Yeah. And as business leaders, Jean-Pascal, and this is you know, a topic in the C-suites these days, we have to manage the climate crisis, right? We are mostly aware of what's going on top of other crises, like the unprecedented COVID crisis and its aftermath, including supply chain disruption, chip shortages, you know, inflation, gas prices as you can see them in Europe. Yet there is a lot of hope in this green recovery led by Europe in Europe, and there are so many opportunities for business growth. In other words, there is a very strong business case for becoming more sustainable in creating more sustainable solutions for our customers and their customers. And we've seen amazing growth in circular solutions or clean mobility. Nobody would have bet on EV, you know and that many OEMs in Europe will just declare the intent to abandon, the ICE, the Internal Combustion Engine cars for EVs and hybrids, for instance. What are your thoughts? How to manage all of those evolving crises? What about the yellow vest syndrome? Let's take care of the end of the month, not the end of the world. At the same time, we business leaders need to have an eye on the microscope and the eye on the telescope.

Jean-Pascal van Ypersele: Absolutely. You know, this is basically why I wear almost permanently, this pin here with…

Ilham Kadri: I've seen it…

Jean-Pascal van Ypersele: Which is the logo of the 17 sustainable development goals, which, and it's interesting, have been adopted two months before the Paris agreement was adopted in 2015. So these goals were universally adopted by the UN General Assembly. And the first of them is eradicating poverty for example.

The number 13 is climate action where there's also biodiversity protection, ending hunger, education for everyone, gender balance, et cetera. So I think part of the answer to your question is drawing the attention to the importance of stopping at looking at problems in silos, you know? Climate change on Monday, biodiversity on Tuesday, profits on Wednesday, and soil pollution on Thursday, or whatever. I mean, synergies are really very important. And it's probably, even though it doesn't look that way, I maintain that it's probably easier overall after maybe a difficult initial period to attack different problems at the same time even if they are complex, than to attack one problem after the other without looking at the opportunities to develop synergies between the solutions to each of those problems. So that's part of the answer. So for example, you mentioned the yellow vest. It is very important when we talk about carbon price, I mean we know that this will have some impact on the price of products, where energy is used. There is no other way, that will increase the price of many products, at least those who at the moment use a lot of hidden carbon in their production. If the money or at least part of the money that's collected, either through the ETS or through carbon taxes, or whatever, is not used by governments to help the less privileged, those with the most difficulties to meet the end of the month, to make the ends meet at the end of the month. If some of that money is not used to help them, you will have yellow vest everywhere and you will not have support for any kind of environmental policy. So that's one example where looking at SDG, Sustainable Development Goal number 1, related to poverty, and SDG 13 on climate, or 7 on energy - they need to be looked at together, because otherwise there will be difficulty and disruption, which will finally affect everyone as well.

Carbon price

Ilham Kadri: Absolutely, absolutely. I mean you spoke about carbon pricing, Jean- Pascal. Obviously, there is one in Europe. Are you in favor of one in the US? I mean federal price carbon pricing? We know there is an emerging one in China, but still shy. Because many companies like ours, you know, we are competitors globally, and many are afraid about carbon leakage and innovation leakage, what are your thoughts?

Jean-Pascal van Ypersele: Well, you know, I've worked with economists many times during my career. And I learned with them that it was one of the most efficient, overall policies that you could set up. And that is to increase the price of pollution. And after all, you don't care so much about something which is free or basically free. So as long as the atmosphere as a dust bin is free to use, well nobody will care. And the more expensive it is to use that dust bin, the more expensive, the more everybody will think twice before putting an additional ton of CO2 or other greenhouse gases in the atmosphere. So yes, any policy which

succeeds in increasing that price, which has been very low for too long. I know it's of the order of 60 euros now in Europe, but it's very low in many other parts of the world, is good. I was on a teleconference this morning organized by the Chinese government. So I was in Beijing this morning and they focus very much on the importance for them to help them reduce the emissions on their carbon price system. So it's not only in the EU, it's expanding and that's good. And the system also that the EU is thinking about implementing in its fit for 55, with the CBAM, the border adjustment mechanism, will help in that perspective because it will help to create a level playing field.

Risk of greenwashing

Ilham Kadri: Obviously, companies need to walk the talk, right? To not be accused of greenwashing and really do it. We need frameworks, we need non financial KPIs, that are not coherent between markets, industries, and between continents. How do you think businesses can best achieve these goals from a scientific point of view and in the right legal framework?

Jean-Pascal van Ypersele: You know what you mentioned about the risk of greenwashing is really important. And I think that many companies are seeing that confidence of their customers in their product, in their activity is more and more in many sectors related to the confidence those customers have in their declarations and their actions in the area of environment and sustainability. So it's really key. And there is, it's not only the risk of greenwashing, there is in many sectors, and I'm not targeting Solvay. We should recognize that there is a lot of greenwashing happening, and this is really bad. I mean it may deliver very short term benefit for those who are playing that game, but it will get back to them. They will lose in the medium to long-term. So eliminating greenwashing by all useful methods, by improving the reporting, the guidelines on reporting, on carbon disclosure, but disclosure also on other aspects like human rights and other aspects of sustainability is really very important.

Circularity

Ilham Kadri: I'm going to just deviate a bit from climate, CO2, greenhouse gas emissions to talk a bit about circularity, right? And there is a lot of attempts now to look at the way we can become more circular in the way we produce, we manufacture, and we recycle. What do you think about circularity? I mean is it something you see as an enabler for climate change and in general for sustainability? Do you see this partnership because we believe we cannot do it alone. How can we nurture more partnership to go faster, to accelerate, but also

to re de-risk projects, and how much of an impact do you think such partnership can have?

Jean-Pascal van Ypersele: Well, it's certainly very important. But there's a but - I think we should be very realistic and honest, and not make people believe that a hundred percent circularity is possible so easily. I mean there are limits to the number of times many products can be recycled and reused. And sometimes when I read declarations from companies about circularity, they give the impression that they would like their customers to believe that they are heading towards a situation where there will be no impact at all of their activity, that we will achieve a hundred percent circularity. And I'm talking to colleagues, experts in minerals and recycling of minerals, I came to understand that it's not that simple, and there are issues. It is very difficult to reach very high level of circularity. So I think honesty and avoiding greenwashing there is very important as well. I think it's better not to mislead customers by pretending that we would reach a hundred percent circularity with no impact on the environment, because that's probably not going to happen.

Ilham Kadri: No, absolutely. And I think we need to have more science, you know, from cradle to cradle or cradle to grave type of life cycle assessment to ensure that you are right, we can measure the recyclability or the circularity, but it's a journey.

Message to the younger generation

Ilham Kadri: We are coming almost to an end here of this fabulous conversation. I know you have two young sons and I also have a teenage son, Jean-Pascal. At the end of the day, everything we are trying to achieve for the climate is to make the world a better place for our kids and for them. What would your message be to the younger generation?

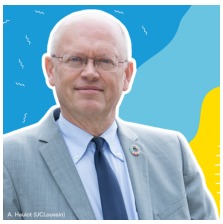
Jean-Pascal van Ypersele: You know, I would like to start with the a parenthesis. Maybe something that struck me at COP26 is the number of times the delegates at COP, you know, the top delegates, talking on behalf of their country, whether the vice president of the European commission, Frans Timmermans or others, spoke about their children or small children. That was striking. I mean, it was the first time it happened at such a scale from countries of all kinds. That was really striking. So indeed, as you said, what we are doing or what we should do is indeed about the future of young people who are there today and those who will come. And I think we need to tell them that there is hope, and that hope comes from action. Actually, I think it's something Greta has said, and I think she's right when she said that hope comes from the knowledge that we have, that we can

act, we can reduce emissions, we can pollute less, we can go to pollution zero, or almost zero if you want. We can change consumption and production patterns, we can share resources better at the service of this planet for everyone, it is possible. So, I think that's what I think we need to say. But then it's not only a matter of talking, otherwise, it is blah, blah, blah, quoting Greta Thunberg as well. It needs to be demonstrated that these talks are really translated in action and that people who talk, walk as well. And walking the talk is really what's needed.

Ilham Kadri: And there is no better way to end this fascinating and insightful conversation than with the hope. And that hope is important, it's key. And I'm sure you would join me by saying that science will fuel that innovation, which will make this hope a reality. I want to thank you so much for joining me today, Jean-Pascal. Thank you, your provoking thoughts are an inspiration for all of us as we strive to make business both sustainable and profitable.

Jean-Pascal van Ypersele: Thank you very much.

ABOUT THE GUEST



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ABOUT THE HOST

Ilham Kadri is a purpose-driven business leader, scientist, optimist and world citizen who is passionate about making businesses sustainable AND profitable, science-based AND human, daring AND caring. Full bio

ABOUT THE PODCAST

AND is the future is a podcast hosted by Solvay CEO Ilham Kadri that brings together great minds to address the opportunities and challenges of making businesses both sustainable AND profitable. The podcast will gather thought leaders across the globe to discuss how businesses can profitably reach carbon neutrality and sustainability goals, ensure that innovation is at the service of humanity and its progress, protect biodiversity, transform the value chain, unleash peoples' full potential through diversity, equity and inclusion, and much more! Find more on solvay.com.