Hello On The Way I'm delighted to be here. I'm Catherine Leleu, Business Development Director at The Future Is Neutral. I'm an engineer by training. I'm 53 years old, I have three children and a 30-year career in the automotive industry: 28 years in the linear economy and two years in the circular economy. My career's had three main stages: I started out in the supply chain, where I spent around 20 years in the automotive industry, working in both very operational roles - because I worked for eight years in a Renault Group plant - and also in much more strategic roles such as industrial planning for the Group's European plants.

Then, during the second stage, I was more involved in the business aspect and was in charge of the Clio Monde programme. The aim was to ensure that the model grew while remaining profitable. And finally, for the last two years, I've worked in the circular economy. It was a bit of what you might actually call an "environmental turn", a questioning of what I wanted to do for the next 10 to 15 years that I had left to work, in any case... I've seen the car industry change enormously over the past 30 years, with electrification, new challenges and so on. And there has also been a definite societal change, with people putting a lot of pressure on the automotive sector in terms of the environment.

As I said at the beginning, I have three children. I remember that the first thing I did when I turned 18 was to get my driving licence. My eldest is 23, he doesn't have a licence and he's perfectly fine about it. So there's a paradigm shift between generations that raises a lot of questions.

However, I still really wanted to keep working in the car industry, because I find the product fascinating. I wasn't a car fanatic when I joined the Renault group at all. I have however learnt to love this product that is an extremely complex product. It's mass produced, everyone needs it. There are many challenges involved in making a car. Sometimes it's almost like magic, putting 2,500 parts together so that at the end of the day we have a quality product that runs and that can safely carry between four and seven people, and so on.
I couldn't really see myself changing industries. But there was also this small societal and environmental challenge and a certain pressure. The Future is Neutral came at just the right time, since it was created two or three years ago. That's when I joined the team.

The Future is Neutral is a very young company dedicated to the circular economy in the automotive sector. The company currently has two main shareholders: the Renault Group, with its automotive expertise and Suez, a waste recovery expert. What's also important to bear in mind is that we are an independent company, despite Renault obviously being part of our DNA. What we would like to do is offer circular economy solutions to all the players in the automotive industry, from manufacturers, to our suppliers, to all the after-sales service providers and also to the insurers who are involved in the sector.

To sum it all up, our slogan is "From car to car." How can we make the most of a car that is reaching the end of its lifespan by reusing as many of its parts as possible in repairs, or

how can we give them a longer life, rather than just stop using the car? For example, we're going to recover parts from vehicles that are being dismantled or vehicles that are no longer roadworthy, for whatever reason.

And we're going to offer these parts to the after-sales service, i.e. to garages and repairers, so that they can repair cars that are still actually on the road. Here's a pretty common example: you've managed to smash your outside rear-view mirror. This mirror is pretty essential, so in principle it's replaced whether the car is five or 20 years old. There are only two options: either replace it with a new part, or replace it with a part that has been dismantled from the same kind of car. In the end, it means using second-hand parts, which is quite common in sectors such as textiles, and it works very well. It's a win-win situation, because reusing a part is obviously less CO2-intensive than producing a new one, and will be cheaper for the consumer. And in terms of quality, there's no reason why it shouldn't work. That's one kind of thing we can do.

Another one relates to how we dismantle and deconstruct a car. We can recover parts and reuse them or we can recover parts to use for materials.
For example, we can recover plastic bumpers, recycle the plastic and use it for new cars. This is also part of the circular economy and the last link in the chain. There are also other, slightly different activities, known as "remanufacturing".

They mainly concern the rather expensive parts in a car, such as the engine, gearbox or steering column. We can also recover the engines, gearboxes, etc. that are no longer in service or are no longer working. But instead of repairing them, because if they come to us, it means that they can't be repaired, we can dismantle them, deconstruct them, recover all the components that are perfectly viable and that can be used again, and send all the components that are broken for waste recovery so that the materials can be recovered, like we mentioned earlier. And we can use the parts we recover to manufacture a new engine or gearbox, for example.

This is what we call "remanufacturing", because it consists of deconstructing in order to reconstruct, and we can guarantee the same quality as a new vehicle. The customer is guaranteed the same quality as with a new car but the price is 30% lower. Here again, there are clear savings in terms of CO2 between this option and manufacturing a new engine.
So these are the kind of activities we're engaged in today and that we offer to the entire automotive industry.

These are industrial-scale operations. It's important to understand this, because we often think of the circular economy as something that's done on a small scale in a garage, for example. We operate on an industrial scale. So to give you a few examples in terms of figures, when I talk about dismantling vehicles, I'm talking about approximately 400,000 vehicles a year. That's a third of what is dismantled in France. So we're talking about France. We produce 350,000 remanufactured parts a year, and this is more on a European scale. And in terms of recycling materials that are reused for new cars, we currently have four loops: plastics; platinoids - these are the rare earths used in car

exhaust pipes, which were introduced to comply with depollution standards; copper, which is very important; and very recently, we started a closed loop for flat-rolled aluminium.

Partnership is one thing that's very important in our model, because what we need to understand is that the circular economy can only work if we combine different skills. And our structure, built around Renault and Suez, is a good example of this, because we need both automotive expertise, since we work with the automotive industry, but also waste recovery expertise. And car experts are not experts in waste recovery and vice-versa. On the other hand, if we want to build a whole value chain that fits into the circular economy, we really need to work on these combinations so that we can offer complete solutions.

Partnerships are therefore the most important element for us. And to give you an example and because we were just speaking about rolled aluminum, going beyond our shareholder structure, we recently signed a partnership contract with Novelis, a major supplier of rolled aluminium to the automotive industry. For us, this involves recovering the flat rolled aluminium from dismantled vehicles so that it can be re-inserted by Novelis into the coils that will then be used to make new cars.

This is very recent, it only happened a few weeks ago. A few months ago, we also formalised a partnership with Continental, a major supplier to the automotive industry, which will enable us to begin remanufacturing electric engines, or e-engines. We are the first in Europe to be able to remanufacture electric engines.

To summarise, The Future is Neutral is truly present across the entire value chain of our products: from reusing recycled materials to manufacture cars to remanufacturing - using second-hand parts and making the most of cars that have reached the end of their lifespan.

What's important to note is that the automotive industry has actually been involved in the circular economy for a very long time, because we repair and maintain our cars. It's something that's already been there without us realising it. What we now want to do is to expand and go further. Regulation has posed a great challenge to this.

At the beginning, it was obviously mainly related to the depollution aspect, and so on. But now we're starting to see new regulations that require manufacturers to reintroduce a certain level of recycled materials into new products. And that's not just in Europe, to be clear. In other words, other countries are also beginning to introduce this type of regulation.

This can be seen as a constraint, and it is one. But our mindset is to say that this is something that we need to turn into an opportunity. So what we want to show, and what we do show simply by virtue of the fact that we exist, our business and works well, is that you can have a circular economy and run a profitable business.

We’re not part of the circular economy just for the sake of appearances. That’s all our company does, and what we do has to work, otherwise the whole model falls apart. Regulations are pushing us and it’s a good thing, to ultimately be more and more circular in the way we build cars.

The Future is Neutral may be a young company but it’s one that has quite a few activities today. So how do we do it and how are we structured? Today, we have a small corporate team of around fifteen people that is mainly responsible for corporate strategy, business development, human resources, finance and communications.

However, all our operations are carried out by subsidiaries that each have their own area of expertise. We have four subsidiaries, three of which are 100% The Future is Neutral and one that we share with Suez. The first one is Gaia. Gaia has two main areas of expertise: the first is battery repair, and Gaia is our expert in terms of organising a closed recycling loop, in other words, the famous material recovery. They organise the whole chain so that at the end we can recover a recycled material that we can reintroduce into our cars. So it is Gaia in particular that is currently organising the copper and platinoid loops that I mentioned earlier. We are currently facing two challenges. The first is technological, because all the materials used in cars have very specific requirements and very precise specifications. The recycled material also has to comply with these specifications. So that's the first challenge that needs to be overcome. The second challenge is the economic aspect. In other words, at the very end, when the whole loop is complete, the material we offer to our suppliers - not directly to manufacturers, but rather to tier 1 or even tier 2 suppliers - has to be economically attractive compared with virgin resources, otherwise the model doesn’t work.
And these are really the two most important aspects that need to be combined in order to create this closed loop. So either we are blocked by the technology, or sometimes the technology is ok, there are solutions, except that it’s not viable financially. So that’s Gaia.

Then, we have our second subsidiary, The Remakers, which specialises in remanufacturing, i.e. mechanical parts that we take apart and rebuild, making 'new out of old'. The Remakers is a plant that currently employs almost 250 people, and it's quite a large operation, producing 350,000 remanufactured parts a year.
The company has been around for 70 years, so it's not brand new. This was a business that the Renault Group set up just after the Second World War because we were short of resources. So we started with the engines. Engines remained our flagship activity for quite some time, and then we diversified as other parts started to arrive around the 1990s.

So now we're actually rolling out all the parts that are interesting from both a technical and financial perspective, because there's always that aspect that we have to consider. We have very recently started remanufacturing electric engines, because this is going to be the future.
We are the first in Europe to do this.

The third subsidiary we have is Indra. This is our subsidiary that specialises in dismantling cars. Indra is also around forty years old. It's not all new either. The company has its own dismantling centres: currently six, although our aim is to have about ten by the end of the year, but more importantly, it works with a network of 350 centres in France.
This network is extremely important, not forgetting our own centres, of course. But the network is what extends our reach across France and enables us to collect materials and parts. It also works as our sourcing for other activities too. That is why Indra's expertise is so important to The Future is Neutral, because it closes the circular economy loop.

The last subsidiary, which we share with Suez, is Boone Comenor Metalimpex. It's an even older subsidiary. It's as old as the motor car - over 100 years. The company recovers stamping offcuts from car manufacturing plants, whatever the make.
Boone Comenor Metalimpex works for 20 different brands. I think this was one of the first steps towards a circular economy that was taken in the automotive industry, right from when the automotive industry became industrialised, because everyone realised just how much scrap there was in sheet metal, steel and aluminium, and that it was completely absurd not to do anything with it.
So Boone Comenor Metalimpex positioned itself in this sector and is now recovering its scrap and selling it to steelmakers so that it can be immediately reinserted into cars.

So The Future is Neutral may be a young company, but our subsidiaries are much older than we are. Gaia was created 30 years ago, Indra 40 years ago, The Remakers 70 years ago and Boone Comenor Metalimpex over 100 years ago.

The idea was really to say: actually, each of these companies plays a part in the automotive circular economy value chain, we should bring them together and create synergies.

So the idea behind The Future is Neutral is simply to bring these skill sets together, and bring them to the forefront. First and foremost, the automotive industry designs and manufactures cars, so all the parallel or collateral activities are not necessarily at the forefront, despite the fact that they are a major source of deployment and business activities.

The idea was to bring all these subsidiaries together in a single company, to create these synergies and to roll out these businesses to the entire automotive industry, because there are still a lot of things to do. Honestly, we're only at the beginning of what we're can do in this field. The birth of The Future is Neutral is clearly linked to the fact that our CEO Luca de Meo, who was working for the Renault Group at the time, made the circular economy a strategic focus for the company, up there with electrification, for example.

The subject was really positioned at such a level that it effectively gave a boost to the organisation, to the decisions that were made, and so on. It was really considered to be

a strategic future area of business deployment for the automotive industry, obviously driven by regulation, because once again, we are in an industry that's facing an increasing number of regulatory challenges, and so much the better for it.

We knew that things were going to happen that at that point may have seemed very far away. When we talk about using recycled materials in our batteries in 2032, we might think that 2032 is in a long time, but in fact, 2032 is tomorrow for the automotive industry, especially when it comes to these kinds of very complicated issues. It's really tomorrow.

So if we don't deal with it now, in 2032 we're going to wake up in tears. We're going to be in big trouble. So we really need to work now. This is actually how this came about, and also because we realised that we couldn't do it alone, hence we decided to bring Suez on board.
Because, once again, you need several types of skills to be able to really control the entire value chain.

One of the advantages of bringing these four subsidiaries together under The Future is Neutral is that it creates synergies between them. Let me take the example of copper. Copper is found in our wires. The idea was to recover as much wiring as possible from dismantled cars - that's Indra - then collect it from all over France and create a closed loop with various service providers and partners to recover recycled copper - and that's Gaia's job. So there's an obvious synergy between Indra and Gaia.

The other synergy that had to be put in place, because it didn't exist before, was to recover engines, gearboxes and anything that could be useful to The Remakers, also from Indra's dismantling centres.

That was something that didn't happen until then, and one of the ongoing challenges of circular economy activities is sourcing, i.e. remanufacturing, dismantling and reconstructing. For this to work, you need to have something to dismantle. It sounds obvious, but it has to be stated out loud.
That kind of sourcing is highly sought after, there's quite a bit of demand for it on the market for a variety of reasons. And that's a problem, because you can't make something new out of something old unless you've recovered the something old beforehand. So bringing The Remakers together with Indra also allows us to collect this kind of material and will be an important sourcing stream for The Remakers.

We have a pretty clear goal for the coming years, which is to double our sales in five years. Today, we have sales approaching 1 billion, and our goal is to reach 2.3 billion by 2030. How do we achieve this objective? The first step is to deploy the activities we already have and that are already in place.

Deploying them means working on other parts, for example for remanufacturing, or for other customers. Working on other closed loops, and so on. So it's really about

deploying the existing core activity. The second is to expand our geographical area. Today, if I take the example of dismantling, it's very France-focused.

Indra has 350 centres in France, so we have a strong presence here. On the other hand, we feel that we could scale up much more by establishing a presence in neighbouring European countries. This is also one of our objectives, which is to increase our activities, still in the areas we know well, but to expand them geographically. I'm talking about Europe here, but it could also be outside Europe, in countries where regulations are beginning to be very strict, particularly on recycling.

When this happens in a country, it encourages this kind of business. We are currently working on India and Brazil. India has a very recent regulation that’s based on a sort of EPR - extended producer responsibility - which is what we have in Europe, and which requires manufacturers to reintroduce recycled steel in new cars. This is very new, and the percentage will increase every year, forcing manufacturers to be responsible for their batteries, for example. You could say that India is not a marrket for electric vehicles, but in fact it is, because the two-wheeler market, which is very important in India, much more important than here, is already 50% electric.
So cars are not far behind. And there have also been regulations aimed at making manufacturers more responsible. So when you have a country like that, that is a sizeable automotive market, on top of it all, which is actually implementing these kinds of regulations, even if they're still in their infancy, we feel that we have something to contribute in terms of knowledge.

And there is a third issue, which is, as I said earlier, that we believe that the circular economy will ultimately become a benchmark economy when everyone joins in, meaning that it will be scaled up across all sectors. Obviously, I'm talking about the automotive industry because I work in it, but it's not just the car industry, far from it.

What's more, we can have activities that are very closely related between industries. And our mindset is to say that the more industries start to adopt the circular economy, the better for all of us. That's why we've developed a consultancy business based on our expertise, which is of course aimed at the automotive industry, but more than that. Remanufacturing can be applied to many products other than cars.

And our credo is to say that the circular economy is a profitable business, because that's what holds things back every time. It's not easy, it doesn't always work, but it can work and there's no reason why it shouldn't work in other industries too. And finally, what you also need to bear in mind is that there aren't really any rules. You really have to adapt to your product. You can't copy and paste. So you have to adapt every time by asking: what is my product made of? What can I do with it? What is worth doing? One of the problems, as I was saying, is sourcing - how do I collect old material? That's a real challenge.
Sometimes we already have the solution, other times when it doesn't exist, it can be a barrier, because we don't know how to collect the old material. You really have to adapt

to each case and then see what you can and cannot do. But I think you have to start thinking about it and then build on it, and not fall into the traps.

That's what we offer when we talk about providing advice. We're industrialists, not consultants, so we're going to do industrial consulting.

We all know that the future of the car is going to be electric. It may not happen as quickly as we'd hoped or thought, but little by little, in Europe at least - but then again, it's not just going to be Europe - we're going to have electric cars everywhere and we won't be able to drive anything else.

Electric cars mean batteries. It's important to know that today all batteries must be recycled, it's an obligation. The manufacturer is required to use a company to recycle the battery. That's what happens today, but it's extremely expensive. You have to be aware of the fact that when you buy an electric car, you also pay for the manufacturer to recycle it.

Part of the cost is linked to this. I'm not going to say that it's the total cost, but we need to be aware of it. And so one of the areas that we, at The Future is Neutral, absolutely want to work on is how to develop a European recycling solution for batteries that applies to the whole value chain.

We already know how to repair them. Batteries can be repaired, they have repairable technologies.

It's also important to realise that today's batteries are very reliable and last an extremely long time - in any case, they can last longer than a car.

However, at some point they can lose power. To be a vehicle traction battery, you need to have a certain level of power. At some point you may no longer have that level. What we would like to be able to develop is what we call a "second battery life".

To do that, we're looking for innovative people to come up with solutions for using second-life batteries. Batteries may very well still work, just not for a car. That's part of what we're trying to build in terms of innovation with start-ups. We're not going to propose solutions. We're looking for people who are working on these solutions so that we can work with them to give these batteries a second life. And then, after a while, the battery will reach the end of its lifespan. Today, it's recycled, but we don't really know how. Tomorrow's regulations will require us to reintroduce recycled materials - lithium, cobalt, nickel - into new batteries.
So we're going to have to find a way of using these batteries at the end of their lifespan to recover the material and reintroduce it into new batteries. What we want to do is to be able to control this value chain, because this is already very expensive. We really want to keep this cost under control. So we need to come up with solutions so that we can control this chain right to the end.

There's also the chemical aspect that’s important and that will make it possible to reintroduce this material into new cars to comply with the regulations. It's extremely complicated. That is also when we will automatically need to enter into a partnership with a chemical specialist, as we’re not experts in chemistry ourselves.

There is a question of volume, of scaling up. It can only work if a lot of people work together and we manage to set up a partnership, a consortium. In any event, if we manage to scale up and reach the end of the chain, which is complicated because it requires huge investments, but if we want to have some sovereignty in Europe, at some point we have to take the plunge. It's very risky and very expensive, so not easy.

As I said, the automotive industry has already been part of the circular economy for a long time. Every consumer who has a car has it repaired and serviced, but there is maybe something that is not sufficiently well known and maybe not sufficiently promoted by each and every one of us: these famous parts from the circular economy.

It could be second-hand parts, remanufactured parts, refurbished parts, there are different options. It means getting into the habit of asking your mechanic for a second-hand part every time you have your car repaired because the bumper is slightly loose or your headlight is damaged. This is normally something they’re supposed to offer you. But whatever garage you go to, even an independent one, whatever the make of the car, that’s not how things are done right now. But actually, you should get into this habit as it can save you money on repairs. But it can also save cars.

Manufacturers are required to supply new parts for up to ten years after a car has been discontinued. So if your car is 20 years old, and it's already been ten years since it was discontinued, you won't find any new parts. Often the mechanic will say to you "I don't have the part, I don't know how to fix your car, you’ll have to take it to the scrapyard".

Most of the time you're in a bit of a bind, so it's a good idea to go online. There are some very good platforms out there and you should be able to find lots of second-hand parts.

Try to get into this habit, because it will also force all those involved in pre-sales to adopt the circular economy, which is honestly not automatic or something that comes naturally today. So please buy second-hand parts!