Q: How would you briefly define circular economy and sustainable consumption in one sentence each?

A: Circular economy means that products or materials are not wasted but re-used, and sustainable consumption is consumption that has a minimal impact on the environment.

Q: How do you explain the key characteristics of the future circular economy to others, relatives and friends, and what would the future look like if we achieve the circular economy?

A: When I think about circular economy, I mainly think about recycling, reusing materials so you no longer have waste, but instead of discarding a product you are reusing it again so I would imagine that in the future there will be much more products made from recycled materials. We will be separating our waste much more than we are doing right now.

Q: So, if friends and relatives would ask you about circular economy you would talk about recycling and about reusing products and materials is that correct?

A: Yes, that is correct.

Q: How much have you been thinking about the future circular economy, and when you think about it, how would consumption change in the perfect circular economy?

A: I have been thinking a little bit about it, with regard to my work but not specifically, so when you asked the question about how I think about what the society will look like when it is a circular economy I hadn’t really thought about it.

Q: Imagine a truly circular economy, how would consumption change compared to the current linear economy?

A: I think that we will be more considerate about which product we buy or that certain products are changed in such a way that it can’t go back into the circle, for example: certain packaging materials will be a bit different so that they can be separated more easily, so I don’t think that that has a very big impact on consumers, but it will look a bit different. And I think we are much more recycling our waste to make sure that materials will stay in this circle basically.

Q: Okay so minor changes for consumers for what it looks like and that the materials are treated different at the end of their life.

A: Yeah well it depends of course on how you think about it. I mean if you take it much further, if you think about the fact that we are much more sustainable we also pollute less, then of course in the end it can have much bigger impact. We also emit less greenhouse gas emissions, so maybe the places where we live will be a bit more healthy. So, it depends on what level you look, also I think how big the impacts actually are.

Q: The sustainable business model has three aspects or three parts that is first value proposition, then value creation and delivery and finally value capture. The question to the first aspect, value proposition is: The value proposition of a business model is composed of the product or service companies offer, customer segments and relationships, and the value for customers, society and environment. What do you think is the role of these elements for companies and implementing circularity and sustainable consumption? So the three elements that we are talking about in this section are the product or service, customer segments and relationships, the value for customers, society and environment.

And the question to these is: What do you think is the role of these elements for companies in implementing circularity and sustainable consumption.

A: I think companies are of course always looking for how to create value for customers right? How can they make products or services that people want to buy so I think that for customers is the main starting point and I think although it's much more a focus of companies that they try to minimize their environmental impact or benefit the environment. It often still is secondary of course, because you have to make money. So, you’re mostly focused on what can we offer our customer and then can we make money out of that, and the environmental impact is important but that comes later.

Q: And it would still stay the same in transition to the circular economy?

A: Yes, I think that is always the reason why companies exist right, they are here to make money, it's not their role to save the world basically.

Q: Okay so that was product service and also customer segments and do you think the relationships will change? Like the relationships that companies have, I mean of course they are trying to satisfy customer needs, but do you think the relationships in the transition will change between companies and their customers?

A: I think what you see now is that much more companies are offering much more services instead of only products, so in that sense it may be a bit different that the relationship at least seems maybe a little bit less business focused, but that is because it focuses on services, that it also focuses on the relationship itself. In that way, I can imagine it changes. I’m not sure if it will actually change or if the perception of the relationship will change, it could also be that you think it’s more about relationship but in the end, what is behind it is still this more business-like transaction.

Q: When we look at product or services, in the transition to the circular economy, how do you think can product and services be used to actually achieve sustainable consumption? So not only to make it circular and have resource loops, but actually to really achieve sustainable consumption?

A: Sustainable consumption to me is that your environmental impact is minimal, so usually it actually means that refraining on buying things is very sustainable consumption, so I think it’s still always focused on consumption, but of course it's a difference whether you buy a locally produced organic apple or one that's flown in from New Zealand for example, so I think and that's also what you see, there is this sort of trend I guess that is far more focused on local and also environmental friendly. So, in that way it can help.

Q: How do you think the value proposition or the element value for customers’ society and environment will change? Or how will the companies change the value for the environment, as part of the value proposition, value for customers, society and the environment?

A: I think they can change, if they realize that consumers are interested in sustainable products, so if they produce them and people buy them instead of less sustainable products, then they will see that it actually has an impact.

Q: We’re already coming to the second part and this part has five elements, this part is about value creation and delivery. It’s about companies’ activities, the resources they utilize, as well as the distribution channels, partners and suppliers, product features and technology that feed on to this, and the question is, how do you think companies should develop these elements in the transition to the circular economy, and these five elements are the activities of the company, the recourses of the company, the distribution channels, partners and suppliers, and the final one is technology and product features. How do the companies have to change in order to achieve circularity and sustainable consumption?

A: If I look at it more from a psychological perspective, then for example we know from research in our group, that if people perceive their organization, they will be more environmentally friendly, for example, they think that their corporate environmental responsibility of their organization is high, then people are also more likely to engage in pro-environmental behavior for example sustainable consumption so in that sense if a company would signal or express that they care about the environment and it's part of their mission, that could stimulate sustainable consumption.

Q: But of the employer's primarily and not off the consumers?

A: Yes, well that’s the question, that’s what we are studying right now, if that also work for the consumers, so it depends on how strong you identify with that brand, or how important that company is to you as a consumer but I can imagine they work similarly.

Q: How do the resource use and the recourse application change? So we are talking about human resources and material resources.

A: Well if material recourses are circular then they should come from where they can’t use new materials basically. So they should also focus on getting the reused materials. And with regard to human resources; if you take sustainability really broad, that it’s not just environmental but also prosocial then I would think about that they have fair conditions for their employees and those kind of measures.

Q: This question is about the distribution channels. How do the companies distribute their products in transition to a more circular economy?

A: Actually I’m not really sure about this question.

Q: The next aspect is partners and suppliers, how should it change in regard to this element?

A: Well I guess all the partners should be more focused on sustainability and suppliers should also focus on sustainability in a similar way.

Q: The next aspect are technology and product features, so how can these technology and product features lead to sustainable consumption in context to the transition to the circular economy?

A: I’ve done some research on recycling, and that is I think were circular economy is most relevant, the example that they always mention in the waste channeling industry is that crisp bags are now made out of two materials, but if you would only make them out of plastic then it would be much easier to separate it and it could be reused again. So with technology of course, some food products may need certain materials to be kept in order to stay good. So, there you need technological innovation to see if you can use other materials that can be separated and still ensure the quality that is needed, but can also be separated afterwards.

So I think that's one part of technology that should be used, and then of course there is a lot of technology in place but that’s more maybe for municipality to have different collection systems for our waste, of course if you have invested in this kind of technology then you will be using it for a couple of years so they would preferably have newer technology that will help them to separate waste much better. That needs to be developed and that is costly and it takes a while before these older systems are replaced.

Q: Okay, then we have one part of the business model left, that is the value capture, so how do companies capture value? This has three elements to it, the first is the construction and revenue streams, value capture for the environment and society, and finally the growth strategy or ethos of the company. And the question is: how should companies shape these elements in the transition to the circular economy and also in light of achieving sustainable consumption? A revenue stream is how you generate income, so how is the money generated and what are the cost factors?

A: What your product is really determines also where the money comes from, so if you decide to produce a more sustainable product, then this is where the money comes from, so I'm not sure if I fully follow the question.

Q: Well in this case it’s whether you think about it in general, whether it’s going to be a change in how the cost structure is, whether there are different models that might come or that are going to be implemented or that might dominate the market in where the costs are and where the revenue is generated from. So, for example focused on products and services.

A: That's related to what I said before, that it’s indeed this kind of switch that is more focused on services and less on products per se, and then of course maybe, but I'm not sure if that’s going to happen of course, but if you want to be more sustainable, people should also consume less, so instead of making money from the new products all the time it could be shifted to services or product services or maybe even fixing, with the fair phone for example, the idea behind it is that you buy it once and you can use it for many years, so when something breaks, it will be easy to fix, and the company won’t be focused on selling as many phones as possible, but also on fixing the products they sell.

Q: That relates very well to the growth strategy and the growth ethos. So at the moment companies are just aiming for maximum growth, and making more profit. How do you think is that going to change? Or how should it change?

A: Well I think they still want to make money, but maybe in a different way, so if you take the Fairphone example maybe it won’t be just focused on making money and selling the phone itself as much as possible but also the services that are linked to it. So, the elements that break that you sell those. I think that the main profit should come more from the parts that could fix your product or the services that come with it.

Q: So that there is simply a shift, from the growth strategy being just focused on making as much money as possible, to selling different things, and more functionality and performance?

A: Yes that's correct.

Q: So, this is the last question of this model and it’s about value capture for environment and society. So how should the company capture value for environment and the society?

A: Well, in an ideal world they would include that in their business model and make sure that the products or services that they sell have minimal influence on the environment but that's again, I guess, related to the value of the consumers, if they want to spend money on that, so I think it’s not that easy to say “this is how they should do it”, but it really depends, because a company still wants to make money and there is of course a group of people who are willing to pay extra when a product has environmental benefits. What we find in our research is that also financial considerations can be really important when there are big barriers for people to buy or do something, but you also see that for many people environmental factors are also an important motivator so the people do not only engage this sort of behaviors because it’s financially attractive they may also do so because they believe it’s good for the environment and that it’s important to do it or it gives them a good feeling. So, for some people, that can be an incentive. So then also if you know about a product that it has a positive environmental impact, that may be enough for people to be willing to pay more. That is what you see in researches that it's often a bit underestimated or people often think that people are mostly motivated by financially senses, but we see that it’s actually not always the case.

Q: Can you think of one outstanding example, in which some of these business model elements played a role in the transition to the circular economy and sustainable consumption?

A: If I think about specific products then I think about the Fairphone for example, the idea is that people buy it and keep it for many years and fix the phone instead of throwing it away buying a brand new one. You also see that there is a specific market for it. Some people are interested in it. I think you also see that in recycling for example, that's not really a product, but many people are willing to do it even though it can be a bit effort full or coslty sometimes. So, also those kind of behaviors show that if you introduce something like that, they often think that people wouldn’t like it, but in the end it’s actually not that bad. That is also what studies have shown, there was this congestion charge in Stockholm, that introduced a pricing policy for transport. Before, people thought that it was going to be a hassle, that they would have to pay a lot of money, but when people experienced it, they realized it was not that bad, and I think that is more often the case, that some policies that promote sustainable consumption or behavior, that beforehand people and policymakers may think we shouldn’t do it because people won’t like it but actually many people are willing to change their behavior.

Q: Do you mostly work with companies in your research? Or mostly with consumers?

A: I am a psychologist, so I focus on human behavior. It’s not always consumers, but it can also be a household that consumes energy for example. I don’t really collaborate specifically with companies, I do work with organizations, energy companies or recycling companies, but they don’t make specific products.

Q: You talked about recycling and bout how consumer behavior can be influenced. What do you think are the next steps to achieve that truly circular economy and sustainable consumption? Little steps have already be taken, but what should happen next?

A: I think governments or organizations could be a bit more bold, and not assume that people are not willing to do certain behaviors or buy certain products, because many people are willing to change behavior, but they should of course have the opportunity to do so.

Q: And from a company’s perspective? What do you think companies should to do stimulate more sustainable consumption and achieve that circular economy?

A: I don’t think you can expect the biggest change to come from companies per se, but that might depend on the company. If you look at energy companies, for example Qurrent in the Netherlands offers only green energy and you can see that their business model is completely different than the business model of a “normal” energy company who also offer fossil energy. Their business model is not focused on making the most money out of energy, but on promoting energy saving among their customers. So, business models focused on sustainable consumption and circular economy, they can work. This would be easier for smaller companies than bigger ones.

Q: How do you think circular business models can lead to sustainable consumption?

A: Energy companies give feedback on households on their energy use, what are they currently using and how could they further improve. So, they give them the opportunity to participate in sustainable consumption. If you remind people of the fact that they often already engage in pro environmental behavior, you see that people get motivated to engage in more sustainable behavior. It also works the other way around. People become aware that they sometimes do not engage in sustainable behavior and they realize they are less pro environmental, but then they engage in even less pro environmental behavior.

Q: Can you think of anything big that from the perspective of the consumer that will be different in the circular economy? Do you think that there is anything is going to change for the consumer?

A: Yes, the packaging might change, but also the way that you dispose of your products. The products should be more sustainable and probably more locally produced but that doesn’t necessarily change much for the consumer.