* *My first question for you: How would you briefly define circulation economy and sustainable consumption in one sentence each?*

Circular economy I would define as a system that keeps resources in the system in a way that is both environmentally and economically sound. So closing the loop in both ways.

And sustainable consumption is tricky because that has two different interpretations. Only when people actually buy something or also when they use old things and I would be inclined to the second. Purchase and use of goods and services.

* *And sustainable consumption?*

Consume in a sustainable way, but that’s a circular definition. In a way that is environmentally and socially sound.

* *Ok, then my next question is: How would you explain the key characteristics of the future circular economy to friends and relatives who don’t know about it?*

Well, that’s my presentation that’s how I start. Is closing the, closing the loop in economic and environmental terms. So keeping materials and resources and value in the eco- system. And to keep as much in as possible. So as by destroying as little value in both economic and environmental terms as possible. I would talk about technical and biological options and use an example. What example I would use to describe. At the moment I would be inclined to talk about coffee in think. A coffee machine would be in a technical system and the coffee that either biological or that is somehow combined with technical nutrients. I think that’s a good one to use as a basis for explaining it.

* *How much have you been thinking about the future circular economy? Imagine a truly circular economy – how would consumption change? Why?*

A truly circular economy? I’m not sure that truly circular is possible. I think you always have leaks in your system. But an economy that becomes so circular that it becomes sustainable and that we might be able to manage the limited losses that we have. That could be achievable. And then that’s the definition that you have to get to a very high retention rate of your value and resources to make sure that it works.

* *And what does that imply for consumption?*

That’s the big question because if you believe that you could have a perfect system then that would mean that you continue with limitless consumption but I don’t believe that you can so that would mean that it has to change in some way in the relationship we have with products and services we have access to. The notion of ownership would have to chance and that is also in many of the ongoing discussions of circular economy about companies retaining ownership and that’s just as problematic. Because I don’t want all the resources in the world to be owned by a limited number of multinationals. That say now it’s ours and we will retain our ownership so that’s also not a sensible solution. But that needs to be developed. In consumption terms it has to do with civic duty but maybe we need something to develop something like consumer duty in which it is also in the hands of consumers to make sure that resources stay in the system. That’s to large extend where it is now. But that’s a problem because even in cases where there is ownership with companies that gives a different notion of a relationship to products and services. That might be just as problematic because I don’t own it so I don’t have to care for it. That’s a challenge.

* *The next part is on the sustainable business model: the business model has multiple aspects to it. Elements: product or service, customer segments and relationships, value for customers, society and environment The question is: how should the company shape these different elements? If you want examples of companies that would be great. Or maybe if it helps to talk about specific sectors.*

So how would that change in a circular economy?

* *How should companies shape their value proposition when implementing circularity and sustainable consumption?*

I think all companies that are good in value propositions are already moving beyond delivering functionalities. And are claiming that that’s what they do. They provide services, experiences and benefits to consumers as in that sense that need not be to different it’s about having access to certain things, it’s about convenience and that will largely remain the same I think.

* *Do you think products and or services should change?*

They should change because in cases where there is ownership without duty with consumers, like with smartphones, well that’s under debate and it differs from country to country and we now have this issue in the Netherlands that you can’t have your phone purchase included in your subscription because then it qualifies as a loan and that’s tricky. Anyway you get a phone and after two years it’s yours but then you take a new subscription and you get a new phone and that doesn’t work because they all end up in drawers. So in that sense, that is a product-service offering that needs to change in some way. Either the ownership needs to be somewhere else so that that causes the product to stay in the system or the sense of duty needs to be integrated or the trust. You need a solution that will keep them in the system and the current product-service system doesn’t do that. So yes, it needs to change to much isn’t staying in the system but how that should be depends a lot on the situation and it’s almost impossible to give generic direction of how it would change. Depends also on, for one it depends on the current situation, on the different rules about what is allowed and what isn’t allowed per country, but that can also change. And in that sense, that would be good if that’s changed. It would be more homogenous. So that it is easier to come up with a solution that works in such a system. But on the other hand, if you synchronise legislation in Europe and you do it the wrong way, or in a way that obstructs a new innovation then it becomes even harder to change it again. So it’s dangerous as well. So smart legislation that allows for a new business model to emerge.

There are multiple directions you can take in smartphones to try and resolve that and we don’t know yet what works well and what not. It’s steps toward circularity it’s not circularity yet.

It’s very hard to give a generic answer to. I think in general we are in the process of exploring what might work successful and then trying to see generic insight in there that you could generalise. But I don’t think we’re there yet.

* *So do you have some ideas for different product categories? Where there’s a tendency? What kind of product service-offering could work? Or how it should change?*

I don’t follow how your question follow the pervious.

* *I was going back to the product-service and because I mean the legislation will come along.*

It always goes to slow. They will change legislation to fit last year’s idea and by the time that’s implemented, we’re way ahead of that again. So I’m not sure that that’s quickly going to create an incentive to come to different solutions. What needs to happen is that an holistic approach in developing both your system and your product and your service in one set and probably even more meta level than that. I will be talking about packaging later this afternoon and then you can think of potential systems that would be most environmentally and economically sound for your products. But then, having a system that allows materials or resources and value to stay in the system, has its own costs. So you need to have a limited number of parallel systems. And that is going to mean that for some individual product packaging combinations it’s not going to work. And even more meta level and one single company can do only so much within the current structures.

* *Standardisation would be needed for that?*

No, it’s emerging I think. Because there will be systems that develop slowly and now we have many different ways in which post-consumer materials are collected and separated again. That differs at the very least at a country level, maybe even on a city level and that’s something that needs to emerge and if that is standardisation? I don’t know. The system needs to clarify its self so that you can then adapt your products to it.

I was in Switzerland last week and there we had a short visit at Nestle, which is also is doing the Nespresso I think. And they were making some claims about their cups and their circularity and their sustainability. So I tried to follow up and do some reading and you see that there are collection systems everywhere. In some countries it goes into the government system like in Germany, where you pay your Gruene Punkt fees and then you can consider it recycled, whether it actually happens, that is the question. Part of the recycling maybe “We’re burning it and we’re capturing energy and that’s it”. But you can at least claim that it’s recycled because you paid the fee, which is a bit strange. And in other countries there is the option of people collecting it separately or handing it in. Having an option doesn’t mean that it happens. So they’re both stating a 100% capacity, not actual numbers of how much is recycled but that they could in theory do everything and that doesn’t really make sense in my eyes. But you have to optimize and you can only optimize for a limited number of systems. Trying to come up with something that works well in each different country, that is probably going to be impossible, so there is going to be some optimization anyway. Because even within a country if there is a single system you still have the leakage of what is going out they were claiming, for Switzerland and I couldn’t verify that, so it’s just their claim that I’m now repeating, that they had an 80% collection rate of cups in Switzerland. Which is surprisingly high in my view, but that means that 20% is disappearing! What is happening to that 20%? And should you optimize for that alternative waste-stream as well?

* *They’re talking about those Nespresso-cups, what Nespresso-cups are those?*

Well, there’s two forms: there are the ones that look like a top-hat and the ones that are more like patches. It’s more an aluminium patch, because they have the home machines, which have the caps and the pods, they go in to the professional machines for business-canteens and corporate canteens and what not. And if they have a separate return system for those, then that might be what gets them to the 80%. But the interesting thing is that they use that, then they use the energy of the coffee to recover the aluminium. So that way the aluminium is recycled and the coffee is not, it is incinerated. You also have the cups that are claimed to be biodegradable by Peeze in the Netherlands. And they went the other way. Coffee should go into the biological cycle and they adapted the packaging so that that can’t go wrong. As long as you stick to having a capsule-system, you have to make one of those choices or trying to develop something that allows you to separate the coffee from the capsule and then there’s cleaning involved and that’s also going to be difficult. So you might have to rethink the whole motion of the capsule system. But then you’re touching people’s coffee and that’s possibly a “no, no”.

* *If you talk about customers, for example if you change things that makes them maybe inconvenient, they would not accept it? What do you think at a higher level, the relationships with customers and customer segments, how are they going to change, or how should companies shape these in the transition to the circular economy?*

We either need customers to accept that they will not have actual ownership and therefore someone else has ownership and the responsibility to keep things in the system or they would have a stronger sense of customer-duty to keep the resources in the loop. Then in both cases what needs to be strengthened is trust between brands and consumers. And then things like bragging about capacity instead of your actual recycling performance is not going to help. So I wasn’t too happy when I found that in their reporting: “we have 100% capacity for recycling”, because that is not really an honest story. That is what would have to change. Trust comes from transparency is part of that and I think that is going to be essential.

In public policy there is a notion of a reliable government, rules, something you should be able to depend on them, to invest and to develop something and then it shouldn’t be different tomorrow. So that’s also involved here I think, it’s not only trust, but also endurance, reliability that if you buy into something that it will be supported and not terminated. Companies can go bankrupt. There was a news item somewhere in the last 12 months, that Sony was terminating the production of the BETAMAX-videotape, which is totally surprising to me because the BETAMAX, or well video as a whole system is outdated and then the BETAMAX lost in the early of mid-1980’s to the VHS-system but because people had them, and people were still using them Sony felt responsible for still supplying the tapes. Only now they decided that it was OK for them to terminate the production of those tapes, because people had the systems. But that, perhaps very Japanese sense of corporate responsibility towards your clients that you need to sustain a system that might be important if you want people to accept less control or at least the perception of less control than they had before. In that sense, it will be different but then that reflects on value delivery but also on value capture that you will have to anticipate that there might be costs at the end because you have to sustain something to maintain your trust and the relationship with your consumers. It’s not that it therefore changes for all companies, because in some companies there is already such a culture, but there are so many companies where that is not the case and that might have to change.

Going back to the Nestle report, so much talking about capacity without also sharing where you actually stand, and telling a transparent story that this is the trajectory and that you’re working on improving. But is also related to value capture. They were reporting, proudly, their costs for the recovery and the recycling-system at about 24 million Swiss franks, last year, which is basically 24 million euros. But if that is how they feel, that this is a cost, then it’s not going to work in the end, so they need a system in which the overall thing is seen as value. So you have to have a holistic perspective on value. “We deliver the best coffee”, that is what they believe. “we cannot go biodegradable, because then there will be degradation of the coffee and our sensory panel that tastes the coffee will never accept that, so we have the best coffee”. I don’t think Peeze will agree but that’s their perspective and this is our value preposition and then it has to be a holistic thing and you can’t just say well we are making money here and having costs there, you have to have a holistic perspective on “this is what we’re delivering” and overall, this is what value we can capture in such a system. In the eco-design times, there has been many examples where something that would overall be good for the environment and would save in the overall costs of a product solution, would not happen because in one piece on the chain there would be an additional cost and that piece of the chain would then block that. The example I’m thinking of is a very old example of Philips televisions where they could change the packing material which would have resulted in savings in transport, savings in the fees that had to be paid by the German Sales Organisation for the Gruener Punkt and to all other European systems that mimic the German system but it would have encouraged additional costs for the factory in China, purchasing the material, because in purchasing it was somewhat more expensive but you would recoup that more than once along the value chain, but it didn’t happen because somebody’s budget would be negatively effected. And that’s how companies are now structured in different divisions and have different responsibilities and have different budgets and are now being assessed on a quarterly basis on their performance there and then all kinds of things that would work are not working. So that’s perhaps not really the value side, it is more the cost side, the internal side but I think you cannot see them separately, you have to have this holistic view of the overall costs and the overall value and then try to optimise that. If you have a pseudo-linear system where you are trying to get your materials back but this closing of the loop is seen as a cost years after you have captured your value then that’s not going to work. So that needs to change.

* *A different attitude? Or understanding maybe?*

I’m not sure that attitude is strong enough. It needs to be in the corporate DNA, the corporate character if you google that people must have used that term before. Attitudes change to easily.

* *We talked now about activities how they would change. Now can you tell me a bit how the partners and suppliers, how will the roles be? Or should companies save the role of partners and suppliers in the transition to the circular economy?*

There’s not a problem because you designers can think of whatever they want in the quality of materials but then it goes to purchase who will actually have to secure it and they are currently being assessed on how cheap they can purchase what they are looking for so again the same problem with different parts of an organisation not having the same corporate character, so to say. If you want to have a relationship with consumers that is long lasting with value capture trough time so that that works. I think you have to have that trust and you can only have that trust if you also have an intensive, long relationship with your supply chain if you switch suppliers every time and once in a while you make a preannounced visit to check whether things are okay in the factory, that doesn’t work so you have to really engage with them. And that’s not in line with classical MBA-thinking and how you should reduce your costs and always try to optimize and switch if somebody can do it a few cents cheaper, if you do that at some point a scandal is going to pop up that is going to destroy your trust. I’m not even sure if it’s in English or in Dutch but: “Like trust comes on foot and leaves on horseback”. If it’s gone it is going to take a very long time before you regain it.

* *What about distribution channels? The way a firm goes to market and how it reaches its customers how should companies shape this element?*

The terminology you’re now using: distribution channel towards customers, that sounds rather linear. If that needs to go to a business model that captures the model over time, then you are going to have to have a relationship management and it’s not a one-way thing, it’s not pushing it through the distribution channel. The very least it’s going to involve more service maintenance and reversed logistics. So the classical notion of a distribution system, which is one way, that will have to change. There are multiple options, I don’t think we know yet what will be the best. And maybe there are multiple systems that are suitable for different kinds of businesses and or geographical locations.

It could be a third party parcel delivery organisation, it could also be service centres and you see early examples where that seems to be happening with the geeks (or experts) in the apple store. But then they’re designed in such a way that you can’t do very much yourself. But a relationship where that works and then also at the moment, companies who do provide that, it’s usually hugely expensive and that doesn’t help the trust if something’s wrong, you should resolve that.

* *What do you think should be the role of technology and product features and how should they be applied or utilized in the transition to achieve the circular economy?*

That’s a very generic question, what is very hard to give an answer to. If you want to transition towards a circular system, there needs to be at least one route that will allow keeping the value and the resources in the system and then the objective is to make sure that the product performs as optimal as possible in the circle if it stays in and that the product has the highest possible chance of staying in that loop and there might be alternative options that if it does go in a more outer loop then it still is doing well. But those would be the two main challenges: keeping it in as much of an inner loop as possible and at least if we’re talking about the technical side. And optimizing for that loop and both technology and features can play a role in line with design for sustainable behaviour etc. there must be options for both persuasive technology and or not-automated features to help and instil this sense of duty and try to keep a product in the system or to allow an owner to keep track of where their products are so they can make sure that it stays in the system. And also know when it’s time for maintenance or repair or replacement and refurbishment. So that is one option. Keeping track as the owner but I also think that there are options if you are on the other side if ownership is still going to be with consumers. Practical ownerships sounds very clear but it is a very complicated concept as I recently found out. In the literature there is legal ownership, there is emotional ownership. So even if things legally stay the property of the company then still it needs to stay in the system. So that means that either you have to actively come and get it at some point or somebody has to come and bring it back to you. And in all of that features and technology might play a role. So I think that’s the main role and then it depends also on whether your loop is fully in your own control or semi open. If your products go into a system where there are first party repair services then it is different than if it stays in your own system. And then there might be transparency in technology in finding the specs of a product so that third party repair or person can actually do something. That’s absolutely not the current state. There is a potential for technology to play a role.

* *What do you think are the key resources to create and deliver value and how should the key resources be differently applied or used in the transition?*

Also from a corporate perspective there is going to be a different way of financing systems if products or resources are out in the field and are still your own if that’s the direction we’re going in. Or if there are some common or state properties that the company first has to lease and then lease on. So that means that there are whole different financial structures that will definitely be very different from what we have today and in material resources I fully understand that for industry its most interesting if we go to the system or an economy where they retain ownership but I don’t think that that is going to happen because I’m not the only one who is going to object to the notion to a limited number of multinationals owning the planet. Somehow that is going to work out differently but I have no idea how. And in the financial sense because products are going to be out and we’re going to make that be longer than they are now and that will require more of a long view we need to get rid of this quarterly obsession of

* *key resources are in this case , but also human resources for example the accountants but also the top management will have to change their mind-set.*

I think such a change in mind-set where you are more longitudinal in your financial and material resources will probably also result in a different mind-set towards human resources. I’m not too sure about the connections there but it seems that a company that they have a more long view that they also have longer lasting relationships with their human resources. This requires more understanding of a more complex system that you’re operating in to understand why your value delivery, value proposition and value capture are the way they are. In building trusts also having this longer relationship with people seems to be more sensible. But that’s well, I never thought about that aspect before in that sense so this is just my first response to what will probably be a good development.

* *Can you expand a bit on the revenue streams? Should they change? What do you expect?*

Well in any revenue stream that mimics a linear economy in which there is a push of a product through a distribution channel and then a financial compensation for that at one single moment in time that is never going to work in the circular set-up because at a certain point there will be return stream and that’s going to incur costs. And you could say: “well, we need to design everything so that it will be also generating money in the return stream.”. We need to put more gold instead of less gold in the smartphones so that we want to get it out and we want to get them back because that is going to be a major source of gold. Might be, but I don’t think it will ever balance out within an organisation. So if you have a single monetary transaction moment in which you’re really capturing your value then that’s really going to be problematic. The ones that come closer to a circular solutions will probably have different set-ups where there is value capture over time. But again, you only engage with such a system if there is trust.

* *And also the trust is about the growth strategy and the growth effort depending on how a company grows and how their strategy is and that company consumers trust more or less.*

On the one hand it’s inevitable that some companies grow and others shrink but if we have this continuous idea that all companies need to grow. Then the way they grow is a result of possibly fanaticism.

* *So how do you think how they should change their growth strategy?*

*I don’t know. That’s really not my academic expertise, but I do think it needs to change if we want to reach a circular economy in anything close to the visionary ideal describes.*

* *Do you think it should or would change in the way we define growth? At the moment is mostly on financial or market share. Or is it bases on those indicators, do you think that should change? Or maybe the scale? What do you think?*

It’s very much based on where your money can turn into more money the quickest and that’s where people invest. We had two resent cases where American companies tried to buy Dutch companies. The first attempt to buy Unilever and now and attempt to buy AxoNobel. And the first one, I don’t remember who tried to buy it, but it bounced of really quickly. It’s a very different culture, at least what we get from stories mainly from the news. But the American companies say they do sustainability but that’s not the long view that Unilever and AXONOBEL are trying. And then you can still say that they need to do more but it’s a very different corporal culture and UNILEVER has been trying to create a more long view toward sustainability and the American companies are more hedge fund-owned and pressed to have quick returns and quick value for shareholders. That needs to change somehow but that’s beyond me and I think that’s beyond the power of designers - changing the way how multinationals operate. You can try to create small scale alternatives and trough those slowly influence how bigger systems work. As long as these mechanisms work, in the news items around UNILEVER the line was basically “Unilever is interesting to buy because you can quickly cut the costs by eliminating all of these sustainability activities”. So how these efforts create value that is recognised by investors, so that is valuable, that’s something that needs to be resolved. And one of these solutions, and again this is absolutely not my expertise, I’m just pointing that there are ideas, like that people who retain shares longer will have stronger voting rights than people who just bought their shares and hold them for a very short time so that you try and create more this long view. And somehow that needs to evolve in a different direction and you want to have an overall economy that works differently and the forces of the old economy are still too strong to prevent this from happening, I think.

* *Shall we move to the next part. My question for you is first to give me an element that is missing in this sustainable business model?*

I think there is two forms of flexibility that might be relevant one is that you might need very different business models in different settings, where it’s in a densely populated country like the Netherlands with a relatively high level of education etc. you might need different business models than if you’re in rural Canada or Wisconsin, longer distances, different collection systems in place and therefore probably also different circular solutions and also different business models. So you need flexibility and it’s not like there is one best solution that everybody that wants to be circular wants to implement everywhere, because I don’t believe that that works. And the other flexibility is over time, it might well be that you need to be more flexible in adapting as we now see how much effort the transition from linear to a form of circular takes, then if we set the next one in stone if we’re successful at all then that’s going to be problematic somewhere along the line, already thinking through how we will be able to adapt this one as well is important as well. Most of what I get from this circular economy debates are these question marks that I put next to corporations owning everything. In the end it might also be the mining companies owning everything and those are not the most sustainable organisations. So there’s a whole notion of ownership both on the macroeconomic level and on a personal level and then in the different forms of legal ownership, I think that is underemphasised at the moment. I’m thinking through the 3 versions of value proposition delivery, capture whether there is something else what comes to mind. I’m not sure, not at the moment.

* *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?*

That’s not easy because every example has a reason to include them and reasons why that is not yet. There are the obvious often mentioned examples like Fairphone that tries to do something about the ownership and repair side. The Peeze coffee company with their attempts in making biodegradable cups. But I don’t know how good they are both in biodegrading and quality of coffee. We have the Swedish licence holder I think because we have the same cups and Peeze invented them, I’m not sure. And I’m perfectly happy with the quality of the coffee but it might not be good enough, I don’t know. It seems to work. They’re also working, or at least communicating that they’re working on the remanufacturing and refurbishing of the coffee machines so they also try to look at the other end. From the outside, it seems like someone is making an effort. They’re both, well Fairphone is very niche, and Peeze is fairly high end. So that’s perhaps not a good example, a good example would be really mainstream.

* *But I think many of them who implemented circularity are still niche. It always depends on how wide you take it. So can you choose one and tell me what should be the next step to achieve circularity from where they’re now. What should they change?*

Though question. There’s always a next layer, so if you stay with Peeze as a coffee company they choose to develop a cup that allows packaging and coffee to go jointly into a biological loop and to compost it. But then on a global level there’s still a problem because we’re taking nutrients from Colombia, or Kenia, of wherever their coffee beans come from. We’re transporting them to Europe and we’re composting them here, so there’s a nutrient imbalance on a global scale and we look outside of coffee than that’s apparently an issue, that there is this nutrient imbalance and that would be next level if we can say: “we somehow, either by ourselves, or joint, try to build a system where there is also a comparable nutrient flow going the other way and only if we can take Dutch onions and sell them to (I don’t know if they’re nutrient comparable), probably not with coffee but in some way you can balance that and then still make it work on an environmental and economic level then that would be the next step. But these global nutrient streams - I haven’t heard any corporate people talk about that yet, so that might be too far out. But only if we can balance that. The carbon might be no problem with that circulating the air, but the other nutrients that seems to be an issue.

* *How can circular business models lead to sustainable consumption?*

Well, first of all there is the risk that they might do the opposite because if you try to implement a system where you don’t have the ownership yourself or you pay for access then the relationship people have with products might change and they might develop different use patterns. Probably the thing you can say is that they will change use patterns if you have a different business model and that can go both ways. People can be far less careful with their products if it’s automatically replaced if they break it and without additional costs. Or they might be the other way in 20 year old studies on car sharing, they found that if people switch from owning a car to sharing a car, they will be far more conscious when to use the car because they’re paying by the hour and they will cycle more and I think that was compensated for the fact that they’re more sustainable and cycle more and cycled more in the first place. For those specific users the usage of the car was reduced when they exchanged the ownership of a car to a shared scheme. So that would be good if that makes peoples lives less resource intensive so that will be a good direction of sustainable consumption. But as I said, it could go the other way as well. So the system needs to make sense and your design in that system needs to make sure that the behavioural facts or practice effects depending on which theoretical framework you’re using develop in the right direction.

* *One last question and that’s going back to the first. What do you think will be the key differences in the way business will be done in the circular economy from a user/consumer perspective? What would you notice as differences?*

I think it would only work if we would go back to corporations as they were originally intended in the 18th century, as this book and the documentary on the corporation that tries to portray how it happened that they are now legal entities that seem to be better protected, especially in the US than actual people but originally they were intended for a social purpose. And they still are - they provide employability etc. but only if that social purpose is strengthened we can have a relationship with them based on trust. You know that everything they do is just aimed at making short term profits then that’s never going to work. I think that also part of why people like local, small companies because they seem more honest.

* *If you maybe know the person?*

The story they tell you will feel is actually the real story and the impression of authenticity is not developed by a designed agency in New York that has created this kind of graphics that make it feel really authentic and local without it being so. So that’s part of the answer, but I think that is not entirely answering your question.

* *No, not yet entirely. It’s also about what are the differences for users/consumers in the circular economy. But if you imagine a circular economy…*

But that goes both ways. If companies are more honest then consumers would have to be more loyal. And this idea of dropping around seeing if you can cut a penny would also have to be different. They would have to build relationships with companies, I think, that only for relationships can you have business models that capture value over time. So that also depends on whether consumers are willing to engage in such a way. Probably they are for some types of value and for others they’re not, so that is a challenge. Mobility, probably, yes.

* *As a challenge?*

No, as something that is delivered. If mobility is provided, what I want is to get in a comfortable way and preferably in a flexible way from A to B. And if I know for sure that I can do it comfortably and conveniently and flexible with public transport then there is no reason to do it with a car that I then have to set in a traffic jam and then find parking for is. A service could well work as we saw with Uber and trust is where it went wrong. People having whole social media campaigns on “Delete Uber” because they felt the company was behaving poorly. But they were building relationships with people. It doesn’t necessarily mean that Uber is an example of a potentially circular economy. At least new economy but probably not circular because a car is a car but as a case study on what the relationship between value providers and customers would have to be to work in a circular way. That sounds awfully fluffy and leftish but if you have a friendship with a brand, I don’t know if that’s what you want, but if you have a good, long lasting relationship with a brand you’re also much more likely to help out and you feel civic duty to make sure that things stay in the system if you buy into that so that is a very different relationship. I don’t believe too much in totally automated long relationships where everything happens automatically. Maybe that is what is going to happen but it doesn’t seem the likely way to go.

* *Any comments?*

Well, your project being in a Marie Curie means that there is just this much describing what you need to do. So you have a lot of flexibility and then now judging by the questions of the survey I would be inclined to try to convince you to reflect more on actual product design. But I have no idea what your background is.

* *I’m going to tell you in a minute.*

So that will be something to reflect on I think. There is a risk, part of what I’m talking about this afternoon is about sustainability and marketing. There is the operational level: we’re now developing this top for margarine Unilever and it needs to be targeted to these consumers. And there’s the strategic level, the corporate level where you have a strategy, where they said “we’re going circular and we have these targets long-distance”. There is actually a sustainability target, marketing combined target for Unilever that says, which they formulated in 2014 that by 2020 they want to double their turnover at half the impact. So that is both a marketing target and a sustainability target. And then you have the operational level where you’re doing one design for next year’s launch that is somewhere in this trajectory. And these translations are very difficult and you see at least on the operational level, that marketing often trumps sustainability so there are trade-offs. So we want to move from a circular shape to (not a UNILEVER example anymore) to an oval shape because that is good for the market and we want to reduce the material. If that’s half a litre inside then you need more material to make an oval shape for a circular choice and then marketing wins. And that can happen because it’s trade-off’s and it’s small detailed decisions. In circularity I think, that is less the case. It’s holistic and I think you need to make choices early on and if you want to implement that on an operational level, you first have to implement the circular bit and then see what you can do on the economic side, on the operational level, but that’s my hypothesis. I don’t know if it’s true, but I would say if I’m doing a packaging I would first have to make sure that it’s circular and then I can try, in the positioning and graphics etc., I can try to do what I want with marketing but it cannot let marketing determine things that destroy circularity. Because either it is circular or it is not. And there’s the risk in now developing this, Circ€uit is a really big project, so that should even it out a bit, if you let the business models be leading and then implement the design afterwards, then that could be tricky. I think it needs to be a holistic iterative process where you see what it would mean for the design and what you can do and have to go back and forth. So looking at circular business models in isolation or circular design in isolation it’s probably not the best way. That I think is useful to mention.