

# New Business Models

*Sustainable. Circular. Inclusive.*

**Prof. dr. Jan Jonker**

Inaugural talk delivered at the acceptance of  
the Chair Emile Francqui 2017-2018

**ORATION**

9th of March 2018, Free University Brussel (B)



**Radboud Universiteit Nijmegen**



The oration is presented in the context of the appointment of Professor Dr. Jan Jonker (Nijmegen School of Management, Radboud University, Nijmegen, NL) at the changing chair Emile Francqui at the Vrije Universiteit Brussel (VUB), 2017 - 2018. This oration is based on the work of the laureate of the past decade. At the core of this work is the question of how to embed sustainability in companies and organizations. What does it mean for business strategy and in particular for business models? What does it require, for example, from tax rules, the legal framework and quality assurance? In recent years Jonker has developed the WEconomy model. This macro model demonstrates a number of long-term trends that determine the design of the economy of tomorrow. Against this background, he outlines how a broader range of new business models (NBMs) arises that pursue different – sometimes seemingly contradictory – values. Central in these NBMs, in his opinion, are the values of sustainability, circularity and inclusiveness.

### *Who was Emile Francqui?*

The Francqui fund is named after the Belgian Emile Francqui. Francqui was an engineer who was sent to China by the Belgian king at the end of the 19th century to help develop railways which became a profitable business. During these negotiations, his main rival was Herbert Hoover, the later president of the United States and a bond developed between them. During the First World War, Belgium received (nutrition) aid from the United States for the people who were hungry due to the occupation. After the war Francqui had the forward thinking idea of making a contribution for the long term with the surpluses of his profits (?) by deciding to invest in the (promotion of) science. At this time this was extremely unusual, as no public funds for scientists existed at the time. Francqui's progressive way of looking at and seeking to shape the future is reflected in this chair.

### *Chair Emile Francqui*

The Emile Francqui Foundation was established by a Royal Decree of 25 February 1932 as a Foundation for Public Utility. The purpose of the foundation is to encourage 'the prestige of the unselfish fundamental investigation' and to this end it grants moral support to scientists. The regulations state that its objective is to promote the development of higher education and scientific research in Belgium. Implicitly, this also means that inter-university cooperation is encouraged. Each year, two chairs are awarded to each full university in Belgium. The board of directors of the Francqui Foundation decided in 2008 that one of these two may be awarded to a foreign professor, who is affiliated with a foreign institution. The chair consists of ten lecture hours including an Inaugural Talk. For more information see: <http://www.francquifoundation.be>.

### *Chair for Social Entrepreneurship (VUB)*

The swivel chair Emile Francqui is affiliated with the 'Chair of Social Entrepreneurship (VUB)' of the Solvay Business School of the Free University Brussel (VUB) that was founded at the end of 2015. This chair brings the academic and business world together in the search for sustainable business models for social entrepreneurship. A number of founding partners support the research into social entrepreneurship. The chair addresses questions relating to: How can innovation be better support-

ed by society? Which business models work for social entrepreneurs? How does one find finance and how do you, as a social entrepreneur, ensure professional management? In addition to leading scientific research, the chair seeks to create a platform for social entrepreneurs giving them access to a lively network which brings together social entrepreneurs, companies and academics providing advice and support for implementation. The chair holder of the 'Leerstoel Sociaal Ondernemerschap is Prof. Dr. Nikolay Dentchev, professor Innovation and Entrepreneurship. For more information: [platform.vubsocialentrepreneurship.com](http://platform.vubsocialentrepreneurship.com).

We are very honoured with the appointment of Professor Jan Jonker as Emile Francqui Chair Holder at the Free University Brussel (VUB) in the academic year 2017-2018. There are at least three reasons for this. Firstly, Jan Jonker's Francqui Chair focuses on the subject of sustainability, with sustainable entrepreneurship and sustainable business models at the centre.

We are therefore honoured that these subjects are in the spotlight by awarding such a renowned chair from the Emile Francqui Foundation. Secondly, Jan Jonker is particularly distinguished. Professor Jonker is Professor of Sustainable Entrepreneurship at the University of Nijmegen, and a world authority in Sustainable Business Models. He travels the world with these subjects, and has a huge network of academics and practitioners. For me, therefore, Jan Jonker is a great representation of what is generally called a 'Flying Dutchman'. Thirdly, our society urgently needs new, sustainable business models. Both high-level theoretical knowledge, but practical insights about their application are equally important for this. Only through action can we take important steps towards sustainability as words alone are insufficient. Professor Jan Jonker is well known for his rigorous academic knowledge and attention to the practical application of sustainable business models.

For these reasons I look forward with great pleasure to Professor Jan Jonker's lecture series of in the context of his Francqui Chair at the VUB and to our further cooperation on sustainable entrepreneurship and sustainable business models!

*Prof. Dr. Nikolay A. Dentchev  
Chair holder Social Entrepreneurship  
Faculty ES, Department of Business  
Free University Brussel*

# Introduction

**Dear Proximus Prof. Dr. Nikolay Dentchev, dear Prof. Dr. Jan Danckaert, dear ladies and gentleman, attendees, friends.**

I feel honoured that the Emile Francqui foundation appointed me to this Chair at the Free University Brussel. Special gratitude goes to my proximus, Prof. dr. Nikolay Dentchev, who, like no other, committed himself to realizing this.

I am very grateful to the foundation Emile Francqui for appointing a 'flying Dutchman' to a Chair which is named after someone I think was the first 'flying Belgian'. Early twentieth century, Francqui travelled the world to lead, what we would call now, 'commercial missions'. The most interesting, as I have read in his biography, was that he wanted to spend the money he had left after these missions on the transfer of knowledge and due to this a fund in his name was created. It is a great honour to me that I, after more than hundred years, may stand here as one of the two laureates of this fund this year.

This is my third Chair, I am Professor of Sustainable Business at the Radboud University Nijmegen, Nijmegen School of Management. Two years ago, I was appointed to this chair for life – which is exceptionally rare and I am extremely happy that my university attaches so much value to sustainable business. In addition, between 2014 to 2016, I was a professor in France at the Toulouse Business School as the chair Pierre de Fermat (1601-1665), the French jurist, mathematician and Member of Parliament.

I have been thinking about and working on social issues from a management perspective for about thirty years. Central to this, is the chal-

lenge to realize 'sustainability' within organizations – or even better: organized environments. Over time this has resulted in a whole series of studies and publications which are far from finished. If you publish a lot, it is also important that people publish about your ideas – as it is just as important to reach people and organizations. In my case this also means to have the honour to hold an extra chair. At the VUB, the chair Emile Francqui is linked to social entrepreneurship which in my opinion means entrepreneurship with a focus on consciously addressing social questions and challenges or put more strongly: entrepreneurship in which social challenge is the starting point.

In my vision, there are two types of chair holders. The first type is mainly concerned with the academic debate. That is a good thing, that debate must certainly be held. However, this debate is often held by a few specialists, and is not always even understandable or accessible for others. The second type of chair holder is more concerned with the necessary social debate. I belong to the second type; I think that you also have to discuss your research with society. It is therefore not surprising that, if we compare these two perspectives we find a tension. For some this may not be academic enough, yet for others this is too academic. So, given I operate at this interface it is very special that this university and this chair have appointed me.

For me as a scientist and as a publicist, this is a serious matter. For me, science means 'structured searching'. In this search we try to discover patterns, critically examine them and then write legibly and communicate about it. Perhaps most importantly results, findings, and patterns are always temporary. Doing research is therefore like a permanent construction site – it is never finished. One may discover after the fact that something built is not structurally sound

– anyone who is familiar with the idea of ‘evolving thinking’ will understand that this is like the Sagrada Familia in Barcelona. It will also not be finished for a while and it is almost a pity when skilful building work is finished in the future.

Over the last twenty years I have been doing research against the background of sustainability thinking. My first publication about sustainability was in 1994 and was somewhat of a coincidence. Inherently I am a quality rather than sustainability expert. Until then I totally missed the Brundtland-report ‘Our Common Future’ (1987) and other landmark-publications. Until someone said to me: “Quality should be about sustainability”. It was this comment with which I crossed a line and discovered a whole new universe.

Now I am a quarter of a century further. After the unexpected start, I began to engage the sustainability debate more intensively. It became the centre of my academic and to an important extent also my personal comings and goings. Various people have influenced sustainability thinking. For me, to begin with, the Brundtland report’s infamous definition of sustainability: ‘sustainable development is development that connects to the needs of the present without jeopardizing the ability of future generations to meet their own needs’. This definition, and the way of thinking behind it, was a real wake-up call for me. Thereafter, so much has appeared that I do not have the time to comprehensively summarise the discourse. Thus, I limit myself to mentioning three relevant publications that ‘frame’ the current debate.

Firstly, Rockström (2009), who, with a great team, does excellent research into the limits of growth in terms of planetary boundaries. This research is in turn informed by a partly simultaneous, partly older debate fuelled by the work of Jackson (1996, 2009 en 2017). I think this is

*We need a new generation of business models to shape the way we think about sustainability in relation to economy.*

important although for me it is a bit too broad. Regardless, it is paramount that we work on realizing sustainability and do not hide behind a sometimes-difficult operationalization. A third current influential thinker is Kate Raworth who, building on the work of Tim Jackson who wrote Prosperity without Growth (2009) introduced the concept of the Donut Economy (2017). These types of work have challenged heterodox economic circles. This is an important cause, as we need models to shape the way we think about sustainability in relation to economy. We still have to look at this with a critical perspective; as today it is this model but in five years it may be another incarnation of this model. Nonetheless, the relevance is: we need to have a debate which is focused on the relationships between our economic and our social acting, and the way we, mankind, interact with our natural environment. More specifically, we need to reflect on how badly we do this currently and on how much we destroy through our actions. This debate is becoming increasingly prominent and urgent and we need new forms of thinking and resources to make clear what the real issues are.

### **Three Central Themes**

This afternoon I will explore with you at three interrelated themes that have occupied my attention for a couple of years already.

The first central theme is the changing economy. I want to introduce you to a model of an economy in transition that we have developed referred to as the WEconomy. Against the back-

ground of thinking about an economy in transition, I will talk about the generation of new business models which is the second central theme. Lastly, I will give a moment of thought to the fact that if we successfully transition to another economy we also have to consider our transaction systems which implies looking at our banking systems –thus Hybrid Banking is the third theme. As a whole I want to demonstrate to you how a changing economy, including new business models, made possible by hybrid banking together enable to create a different, a more sustainable economic system.

*I want to show you how a changing economy, including new business models and also made possible by hybrid banking, together form a system.*

# WEconomy

The discussion about sustainability started in the late sixties of the previous century. Despite a heavy debate in certain circles, and the discovery of the environment and the care for it, it has definitely been a so-called 'add-on'. There was the economy, with her negative excesses, but something could be done about that with so-called 'end-off pipe' solutions. Sustainability, however, is not about better, but rather about doing things differently: it is about system change, about new ways of working. Since the turn of the century, around 2003, 2005, a new economy has started to emerge, an economy that calls for new ways of doing thing. An economy in which care for the environment is of primary, rather than secondary, importance. We, or many of my age, have grown up in a post-war economy, with institutions from the sixties and seventies that together have formed socio-economic structures. In the course of time these socio-economic structures have undergone challenging criticism, yet until the late nineties these institutions – and the economy they maintained – have survived. However, thereafter increasingly cracks have developed and discussions have become more intense. The core message now is: the old economy no longer satisfies, there are too many disadvantages, yet we do not have the right answers to the question of how it should be done. Here too, a strong dose of reality is needed, because for a lot of people this is still not a current debate yet. We have a good running economy, right? Notwithstanding we are, whether or not it is acknowledged, we have arrived in a transition, a major social organisational renovation.

The old economy no longer satisfies, there are too many disadvantages, yet we do not have the right answers to the question of how it should be done.

## What do we see in the current economy?

In this transition, we see three big shifts:

### *From products to services and...*

Over time we have become very smart in producing things however, this has now turned against us. We live in a society in which the production of things determines the gross national product, not the effects of those things, let alone the recyclability of them. Fortunately, we are discovering more and more that in many cases it is not necessary to own things, as long as we have access to the function of it. After all, who owns a train, an airplane or a public utility like a highway? The process of relinquishing ownership of things but being able to use them is called 'servitization'. So, we are now working little by little on shifting from an economy of stuff to an economy of 'servitization'. Please note: this is not always possible, but it is in more areas than we sometimes think.

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### *... from organizations to networks...*

We are going from classical production organizations to network-organizational forms. This does not mean that we get rid of production organizations, but rather a network-oriented economy is arising in parallel. Related to this is a debate is arising about the disadvantages of the linear production-economy and the use of raw materials, energy and water, about waste production, et cetera. Sometimes it seems like we want to remove the linear economy but that is a romanticised notion. Despite the increasing trends of co-production we are unlikely to put peas in tins ourselves, make our car tyres, or produce all of the other hundred thousand products we have access to through linear production. That said, we must do something radical about the negative aspects of linear production – which means focusing on the way we make and use things.

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### *... from a linear to a sustainable and circular economy*

The need to make and use goods differently expresses itself in the call to make the economy more sustainable and circular. In the Netherlands and across Europe, the word circular is extremely fashionable. The Dutch government will not let another week pass without coming

out with new policies and budgets concerning the circular economy. Despite the fact that I am in the middle of this debate, I am importantly a constructive critic. Sure, my plea is that we have to transition to a sustainable and circular economy – but which part of this economy is appropriate to be made circular? What does this mean for our way of producing, for our metrics or payment models, for the debates about added and residual value? A circular economy is far from being implemented; it is much more an aspirational vision. If we want to make real progress in the next ten to twenty years, we still have a very long way to go.

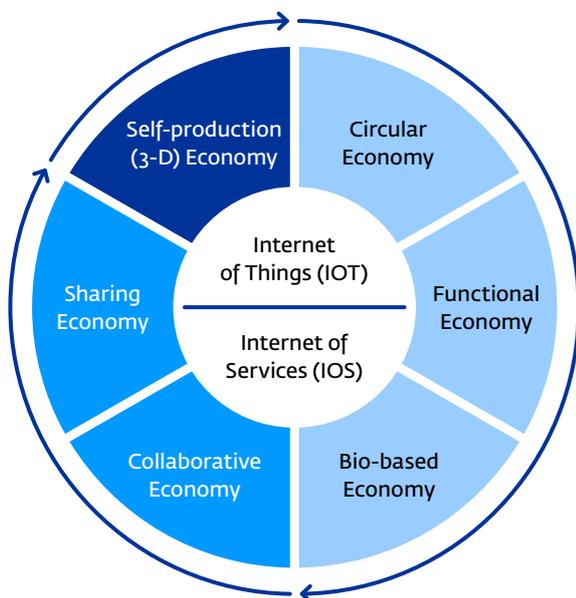


FIGURE 1 The seven WEconomy trends

## Seven trends of a new economy

Against the backdrop of these three shifts, we see a landscape that consists of a few 'slow' trends. These trends will still exist in the coming years, being fundamental for shaping another economy. I distinguish seven trends, which together we call the WEconomy. These trends are: the circular economy, the functional economy, the bio-based economy, the collaborative economy, the sharing economy, and the self-pro-

duction or 3-D printing economy. The increasing connections between people, their devices and the processes and networks between it are called the 'Internet of Things' (IoT). Closely related and derivable is the 'Internet of Services' (IoS). I will briefly describe each of these trends below.

### 1 Circular economy

The circular economy is an economic system focused on maximum reusability of product, components and raw materials. Core is organizing for material value retention. This means that we want to use the things we make smarter, longer, and more efficiently and that we want to be able to reuse the components and raw materials we make the things from. The aim is minimizing value destruction by redesign, maintenance, reuse, refurbishment and substitution. The circular economy offers all new and additional kinds of economic possibilities at the same time. However, to realize this promise, we have to organize things differently: we also have to review the collective and / or individual way of thinking about things and their function. Realizing the circular economy is therefore an organizational task as well as a mental task.

### 2 Functional economy

In the society around us a debate has emerged regarding the functional economy whereby we do not sell products anymore, rather we sell their functionality. This is not new per se as we have done this for a long time for certain goods – for example I assume that no one possesses a own highway or their own train (barring exceptions of multi-millionaires of course). Interestingly the idea of servitization is being applied to many products – ranging from cars, chairs to MRI scans. Many cars drive approximately two hours a day, standing still and unused for the other 22 hours. Chairs on the other hand are used for approximately ten hours a day – and so you can continue endlessly. We see new con-

cepts and thus new business models emerge, with which utilizing the functionality and the access to goods are being further developed. This has the potential to lead to the preservation of environmental value, but has been known to still lead to environmental value destruction (see Tukker & Tischner 2006; Tukker 2015). So, full utilization is not necessarily sustainable; using the same car more often is, on balance, only sustainable to a limited extent.

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### 3 *Bio-based economy*

We see the rise of an economy that is about the replacement of raw materials. In some countries, this trend is called the Bio-based Economy, in others it is referred to as the substitution-economy. Key question is: can we obtain raw materials in another way, not by mining them but by growing them? What can you do with Elephant grass, hemp fibre or algae? This approach has advantages and disadvantages. Think about 'crops' that fit in a certain context, preferably in a way that they also use space that was previously useless, such as the middle banks of roads, flat roofs or fallow ground. However, as a lot of space is required to grow crops a disadvantage is that these substitute bio materials can compete with growing crops for food consumption e.g. unsustainable biofuel production. An additional question is whether we can make things that we can then (re) use again in a circular fashion. While the bio-economy debate is prominent in many places, it is yet to achieve sufficient scale but is a hotbed for promising experimentation.

### 4 *Collaborative economy*

We see an economy in which new forms of collaboration, to achieve collective value creation in networks, is emerging. Communities gather around initiatives and challenges, in which participants become 'prosumers': people produce and consume at the same time and multiple issues are addressed simultaneously. This also creates a breeding ground for social entrepreneurship. This is entrepreneurship where addressing social issues is embedded in the development of a business proposition. As a result, we are primed to consider other forms of collaboration between old and new parties such as: between citizens and companies, between companies and governments, between governments and NGO's all with the potential to lead to different forms of collaboration and arriving at new forms of value creation.

*Between the functional economy, the sharing economy and the collaborative economy arise all kinds of connections. Exactly in this area new business models emerge.*

### 5 *Sharing economy*

In addition to the previous trend the concept of the sharing economy is also evident. The sharing economy does not necessarily mean 'can I borrow your drilling machine', but rather can we organize around an 'asset' (such as a building, a heating installation, a parking garage, a hospital or a car) to create a smart concept that enables us to make better use of it? As far as I am concerned, it is pivotal that we already think of these considerations in the design phase of a product. While the sharing economy is very close

to the functional economy the sharing economy is mainly about the questions of: how do you organize these ideas? What kind of organizations and/ or network concepts, what kind of logistics and technology do you need to make it work? The challenge is therefore to think about these considerations in the design phase of an asset because making something goes hand in hand with using it. It is not surprising that all kinds of connections arise between the functional economy, the sharing economy and the collaborative economy – it is exactly in this area we see all kinds of new business models emerge.

### 6 *Self-production (3D) economy*

When talking about the WEconomy, we are talking about an economy that is increasingly focused on making products smart. The linear economy is one of scale and volume, which in turn leads to stock, transport and therefore a lot of logistics and large warehouses. We are now seeing the emergence of an economy in which, on certain products, we are making less and less inventory and are making more tailor-made products when we need it. We can now print almost everything with metal, with plastics and with waste. So, we can get printed houses, or a piece of an airplane, a car in parts or a weapon. However, it can be even smarter: customers could supply their own material and / or raw material of which their product, one item, is made. Call it pure 'customization' convenience – where high quality single pieces are made.

This works very well in a number of – rather contradictory – sectors. I highlight three front-runners in particular. Medical printing is emerging in healthcare, body-parts are printed on the basis of a scan, and then placed back as an implant. This is possible on both on the hard side, the bones, and increasingly the soft side, the tissues. Another sector is printing jewellery. With this one can produce your own designs

in high quality. Other intermediate forms are, for example, the printing of houses with waste material. Self-production through 3D printing solves a lot of problems, we use less raw materials, we bring down emissions related to logistics and if we choose our materials smartly, we can also reuse the used raw materials.

These are very interesting and promising developments. In a 3-D printing economy, we can then look very seriously at other models of value creation and the related transactions. Imagine that from now on you no longer buy new garden furniture at Ikea, but rather you choose a design on the website that you want and order your own chairs to print based on the stock of plastic you are entitled to and you deliver your old furniture in advance so that your allocated amount of raw material is maintained. This creates a new business model on the cutting edge of circularity, 3D printing and collaboration.

### 7 *Internet of Things*

The six developments outlined above are linked by the *Internet of Things* (IoT) and the *Internet of Services* (IoS). We live in a time in which we have long discovered automation and where this has become commonplace. In the past decades, we have mainly automated what we already had. We are now seeing that we are going fast beyond the automation of the existing. We are on our way to a situation in which the possibilities of connections – and the data involved – yield their own products and services, in a multitude of ways and applicable to a myriad of sectors. This leads to the discovery of all kinds of services. A good example of this is the growth in the number of software applications or colloquially referred to as 'apps'. The app phenomenon is barely ten years old and we are now probably heading towards 300 billion downloads. The IoT and IoS form a kind of Siamese twins and maybe a significant game changer.

They could stimulate a huge acceleration of the six above mentioned 'slow' trends and it is extremely interesting to link them. For example, it has already led to the emergence of the use of applied technologies to guide the flow of goods, to alternative transaction models or the use of smart grids for the distribution and management of locally generated electricity.

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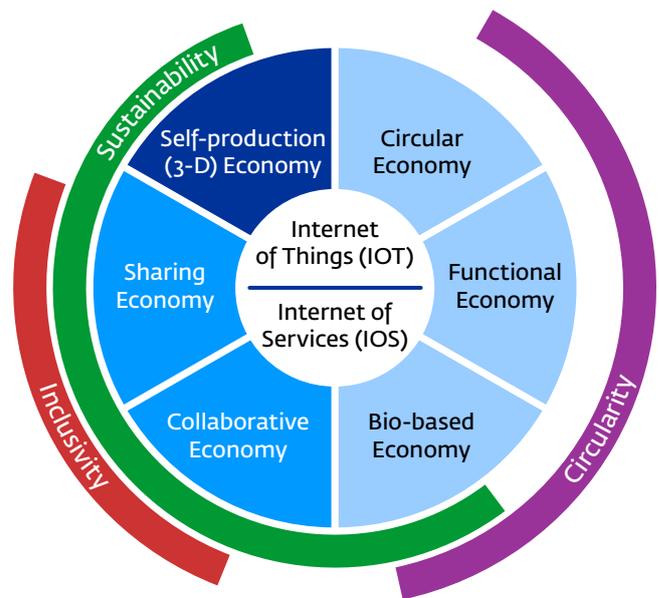


FIGURE 2 The WEconomy: sustainable, circular and inclusive

## Sustainable, circular and inclusive

Considering the six trends together illustrates something of the economic and social future that we are discovering along the way. For about the last five years we have studied this idea of these seven trends as the basis for a new economy. At my 'home' university, every year students interrogate the validity of this model and thus far, they have not been able to take it down. Academically speaking this is a favourable development, however, I cannot say how this will develop further. What we have learnt after five years is that some of these trends are now really coming to the foreground. In the Netherlands, the circular economy, the energy transition and the IoT are currently the leading trends. After years of waiting and perhaps lethargy, the Dutch government is finally working on a catch-up manoeuvre when it comes to the climate challenge as endorsed in 'Paris'. That manoeuvre can rightly be called a threefold transition. After all, it is both about the climate challenge, and about a system for sustainable energy and about reducing the use of virgin materials by 50% (2030) and 100% (2050).

In terms of elucidating the concept of the WEconomy as briefly outlined above, there are a few additional caveats which must be mentioned. The model does not represent material or technological absoluteness. In the description outlined above hardly any attention is paid to the institutional context (including laws and regulations, mores, taxations etc.) and to what role this context plays or can play a role if we want to get out of the current context. It outlines developments in technology and possible other forms of collaboration. It thereby underpins the earlier theses that we go from product to service, from linear production to networks and that we need to move towards a sustainable and circular economy. But in developing a different a more sustainable economy, no shared principles or values are at stake yet. It is precisely in trying together, in searching for those new forms of organizing and for another economy that it is of great importance to have such shared values. I think there should be three: sustainable, circular and inclusive.

I hope the foregoing has given meaning to the Siamese twins sustainability and circularity.

Sustainability is the pursuit of being radically economical with raw materials, nature and the earth – in such a way that there is no damage, let alone exhaustion. Circularity raises the question of how we can use matter longer and more intelligently. The core of the circular task is to organize smartly from the design phase with a focus on preserving value. Sustainability and circularity are emphatically familiar, yet are not the same. Something can, after all, be made extremely sustainable, but is not necessarily circular (think of all kinds of consumer products in this context). Conversely, a product can be made perfectly circular, but there remain significant ‘costs’ (energy, new raw materials, transport, etc.), so there is no case of sustainability. Making a product sustainable and circular will often involve a double task – or at least a task that involves thinking through the life cycle of a product in all its facets.

*The successful realization of the task for the next ten years is not possible without the involvement of government and companies, but it will simply not get off the ground if citizens are not involved.*

What is striking is that in these two interrelated debates the human, the social element is missing. We can therefore apparently strive for sustainability and circularity while only concentrating on the technology. That is something like an economy without people, or a transition that is only technological in nature. In the current debates, this is certainly going on. I plead with passion and with conviction that we give the social dimension, let us refer to as ‘the human doing’, as clumsy as it is, a prominent place in these two debates. This plea is fuelled by the

fact that technological transition goes hand in hand with a social transition and that the proportion between these two is somewhere near 25:75. The successful realization of the task for the next ten years is not possible without the involvement of government and companies, but it will simply not get off the ground if citizens are not involved. For me, inclusiveness is the pursuit of a society in which people can participate in both economic and social life in a meaningful way. Inclusion stands for the right to full participation. Together, the concepts of sustainability, circularity and inclusiveness form a set of guiding principles with which we can assess the outlined trends for their value. For me they form a sort of compass, telling us also where the boundaries are.

## **Spider webs versus starfish**

The overlapping technological and social development are not sufficient in themselves to realize a different economy. The trick is to translate these emerging opportunities into organizational models that do justice to the innovations that they offer. Making a distinction between an organizational model such as the ‘starfish’ and the ‘spider web’ (Brafman and Beckstrom, 2006) helps with this. Historically we have tended to organize linear and centralistic or ‘top-down’. A spider web organization is a nice metaphor for this – it is centrally organized and if a problem arises somewhere, the management starts to restore the old situation. The basic idea is that the organization is a ‘construct’ with a certain stable status quo, which as a result has the realization of a desired function. In contrast in the other organizational metaphor, the starfish, nobody cares about losing a tentacle as it will automatically grow back – or not. Meanwhile, the rest of the parties calmly continue what they were doing. The organization is rather a flux of movements, a bundling of pro-

cesses. It is therefore better to speak of 'organizing' than of 'organization'.

*organizing fundamental changes to sustainability consists of working hard, drudging, experimenting, falling, getting up and starting over. There is no a 'master plan'.*

The question is which of these two forms of organization can best contribute to solving the many social issues we are struggling with. We call the spider web 'functional organizing' which originated in a time of industrialization and mechanization and is rational in nature, smart, efficient and convenient. Organizing-with-change-as-a-goal is called 'transitional organizing'. The essence of this is to change existing practices by and in the organization and / or to realize new practices. A functional organization model is not suitable for this, because it was developed with a view on realizing a design in advance. The question remains

how we should organize transitions with each other, and whether it is actually possible, we do not really know that either. Certainly, there is no question of transitions organised in advance. But what then? What are building blocks and how can guidance be given, if it is possible at all? Is 'small really the new big', and do the many micro-initiatives really show that there is a shift? Or maybe it is too early to be able to say anything definite about it? This suggests that organizing fundamental changes to realize sustainability consists of working hard, drudging, experimenting, falling, getting up and starting over. There is no question of a 'master plan'.

## Transition period

We argue that the previously built up elucidation that we are on our way to another economy is actually an indirect proof that we are in a social transition. A colleague from Colombia, Carlotta Perez, published an inspiring story in 2002 that everyone should read. Her thesis is that transition is of all times -we always come from a certain period and are on our way to the next. Thus, it is critical to look at the developments

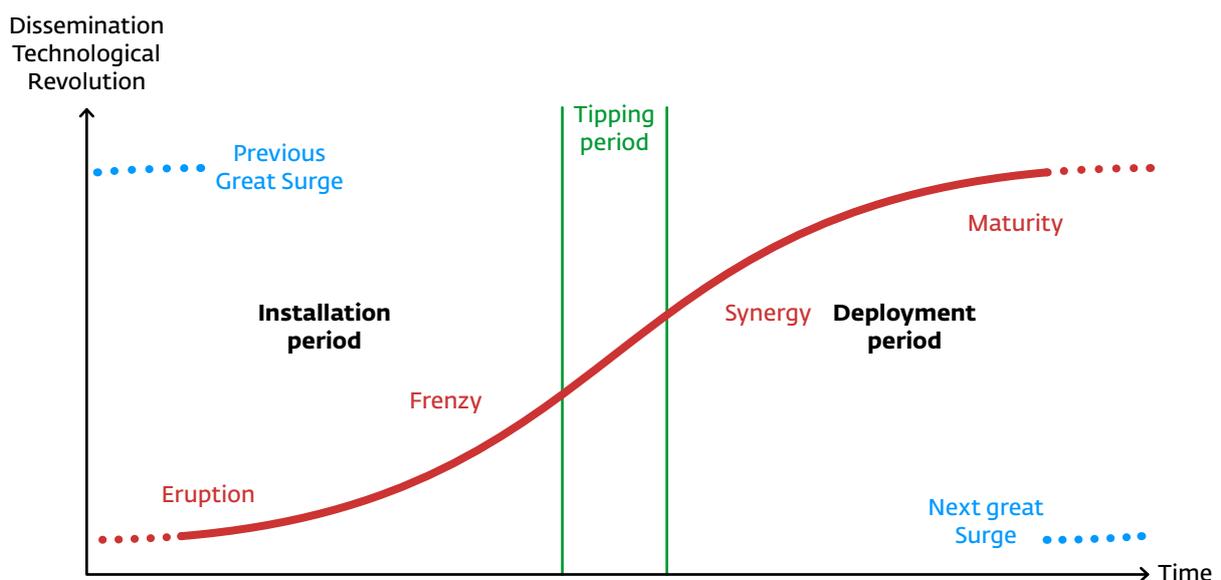


FIGURE 3 The transition period (Source: Inspired by Carlotta Perez (2003))

around us with 'slow' eyes as then you see the transition, because the coming and goings of such a transition takes a long time. If you look back on history, you will see large blocks of 20-30-40 years in which we build up a certain institutional weaving which after a while no longer suffices turning against itself. Slowly and with the necessary reluctance we break it off and not everyone is happy with this because it eventually calls into question the established order or status quo which involves major interests. So, there is resistance, there is rebellion, which is expressed in contempt, ridicule, to show the contrary and a lot of counter movements. The call for radical sustainability and the pursuit of circularity is actually a call to say: that way we cannot continue in our current way. We see the traces of a different future in the present, but that does not mean that the combination of different trends develops in a desired way.

We are now in a period in which we are trying out different ways to shape a new economy. This is both exciting and also the beauty of our time. Do not think that what is indicated in figure 3 as the transition period' actually lasts the shortest. Going through a transition period is not a matter of moving a few beacons. In the Netherlands, the energy challenge, the climate challenge, is now prominently on the political agenda. How long did that last? Colleague Derk Loorbach (Director of DRIFT, Erasmus University Rotterdam, NL) puts it this way: "that means we have to use fewer materials (for example, avoid food waste), that we use other materials (biomass and recycled plastics, metals and construction materials), that we make optimal use of materials (e.g. Through repair and refurbishment) and use materials more intensively (sharing, exchanging, renting and lending platforms). (Loorbach, D. Cruquius Lecture Haarlemmermeer 24.01.18., The Netherlands).

Now that we have started this triple transition, it will take a minimum of ten, but almost certainly twenty years to arrange properly, if not even longer. Even then, we cannot say how it will develop. The period that has now started offers many possibilities, but also gives a lot of uncertainty with both old and new risks – as there are not only winners in this transition, there are also losers. People are sometimes excluded and certain things that have been screwed up in the past, do not necessarily just take another, let alone, positive turn. Looking at the debate, the metaphor of the purple elephant applies: citizens, companies, politicians, NGOs all see a small part of the conversation, of the puzzle and contribute to this – yet what is needed is integration of the big puzzle, a so called 'social revolution', a transition.

# New Business Models

It is against the background of this thinking about an economy and a society in transition, that for over eight years I have been working on new business models, closely linked to sustainability, circularity and inclusiveness. Business models are constructs and offer a logic to arrive at patterns of action. These patterns help to achieve value creation. The tricky word 'value creation' refers to a process in which parties come together to achieve a result on the basis of a transaction that is considered worthy at least by one party, but usually by both parties. The origin of value creation lies with people themselves. The goal is not classic 'profit', but rather the creation of a world that gives meaning and value; a world based on what we call collective and shared values. That which is of value is subjective, interpersonal and time-, place- and context-related.

*New business models enable the search for new value creation logics.*

In the past two centuries, we have left the organization of this value creation more and more to organizations – rational-functional structures, designed for goal achievement. As a result, value creation can be arranged unilaterally (from inside to 'outside'). Over the course of time, organizations have operated almost exclusive-

ly on money as the central and only means of exchange. The transaction model that results does not include many costs (ecological, social, et cetera). Certain values are also not included in the cost-benefit analysis. This has created a very lean and shabby transaction model, which only has an eye for value creation that is monetarised and of which the benefits only apply to those who have invested.

*If we are in a transition period, then the conventional business models that we have should also change in the process. Otherwise, one is seeking to shape the future using an organizational instrument from the past.*

New business models thus enable the search for new logics of value creation. New logic lead us to think about how we can organize resources and capacities differently. The old logic arose from the decision in the 1970s to create organizations that are separate from people and to see organizations as individuals/ legal entities in their own right. This individuality has made it possible for these legal 'persons' to purely focus on financial value creation. Unsurprisingly, organizations have only been concerned with financial value creation, or to put it more bluntly, return on investments for shareholders. Everything that cannot be converted into euros in that model, anything that does not contribute to returns, just does not count.

In recent years, we have become increasingly aware that this unilateral accentuation of mere financial value no longer suffices and has backfired on us. People in society are fiddling around, discovering how this could potentially change in

a dominant institutional and regulatory context. However, in the light of the developments discussed above, we now see a (re)valuation of values and there is more and more an emphasis on how organizations demonstrably organize these values. This can be described as the pursuit of transparency and corporate responsibility. New business models deal with the question of how, in an economy in transition, other values, such as ecological and social values, are embedded in business models. How you arrive at other, richer forms of value creation? I think you always do that with people, with a configuration of parties, because you cannot create value on your own.

This is when it becomes interesting – what are these configurations? Originally, they are companies that create value in collaboration with other companies, because after all, something has to be earned. Yet now we also see that citizens are starting to work together to achieve value creation. Ranging from community owned energy cooperatives, or a shared car system for the neighbourhood, or collective food purchases. There is also cooperation between citizens and businesses and sometimes even with the government. We have to be careful with the word 'earning'. We are talking about 'revenue models', because they are a key part of it, but you can also earn other things with one another. For example, creating the value that there is less loneliness in a certain area, or electricity, or that it is getting quieter somewhere, or that people are starting to grow vegetables themselves. Earning can therefore be viewed as more than just money.

If we are in a transition period, then the conventional business models that we have should also change in the process. Otherwise, one is seeking to shape the future using an organizational instrument from the past. If we do not change

our business models we are confronted with a paradox in that, one gets what you already had – and we just do not want that. For this reason, I believe we are starting to abandon conventional business models and that new business models will emerge that incorporate the aforementioned three values much more emphatically.

## **Conventional business models**

For those who are not familiar with the mainstream literature on business models, I refer to the archetype of a conventional business model invented by Osterwalder (2004) during his PhD dissertation and developed into the now infamous 'Business Model Canvas' (BMC). This model assumes that a company is 'in control' of making value. At the core is organizing a value proposition for a specific target group. However, the bottleneck of this model is at the bottom – only one way of thinking is tolerated: where is the financial return? Your success is measured by revenue. So automatically this means that you 'outsource' everything that has a negative impact, so called 'externalizing'. Now I am not claiming that one should not think about finances, but this model overlooks the costs involved or the damage that one does now or in the future. According to the BMC if you can produce as cheaply as possible and as much as possible for a certain target group and ultimately have more turnover and thus more profit, then you have done well. Students today learn this from this publication, but also from American management books from the seventies of the last century where there is no mention of sustainability. So, I plead with you to discard this model – and all other models that stem from it, consciously or unconsciously. We need more than just a bit of adjusting and making a few things 'sustainable', we require another model with a different logic and with different values.

Fortunately, we see developments that point in this direction. Here I introduce and distinguish between three new groups of business models, namely:

- 1 platform business models;
- 2 community-based business models;
- 3 circular business models.

### Platform business models

This first group includes models that make a number of things possible at the same time. The essence is not that products are by definition already sustainable (even if that would be very nice), but rather it is about making better use or exploitation of the existing resources or capacity. For example, the allocation of existing overcapacity (idle capacity) is often facilitated on the basis of digital networks. We see a category of business models emerge in which the logic is to make the function of what is already available more readily accessible. This allows product-service combinations to arise which, in turn, lead to eco-efficiency. An interesting development is the use of the Blockchain in such models so that reliable, decentralized, peer-to-peer engagement can be further stimulated.

### Community-based business models

These are business models based on a form of community – people who work together to achieve value creation. We have done a lot of research and developed activities about this in recent years (see, among others, Jonker et al. 2014). The basic idea is that people together set up such a community because they can achieve multiple value creation. This means that people can realize multiple forms of value creation by investing in time and money. For example, a need for mobility leads to car sharing, or people set up a cooperation to generate energy together. There are endless examples in the Netherlands, Belgium and many other countries in Europe, under all sorts of denominations and in all kinds of variants. In my view, this is one of the main reasons that I can stand here today, because these models form the link between social entrepreneurship, the community and multiple value creation.

### Circular business model

The third and most recent group are circular business models. Very honestly this is a group of business models that can best be described as 'in development'. The expectations of the cir-

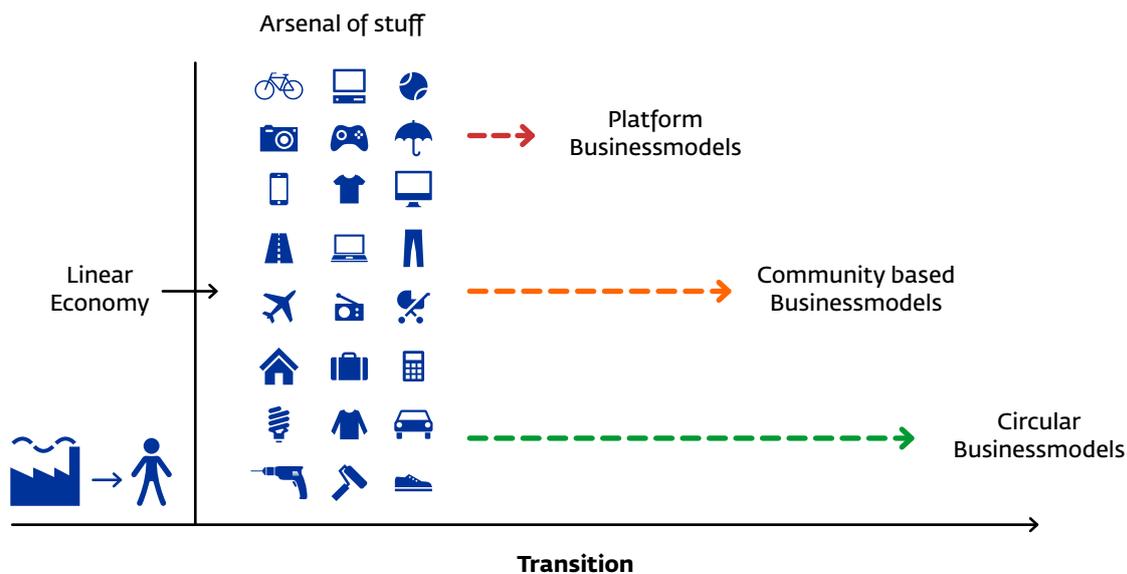


FIGURE 4 From linear to circular

cular economy are high, but the social and economic reality is still very limited. In 2016-2017 we conducted a Dutch national survey on this topic (see Jonker et al., 2017). We must, however, continue to examine this idea critically. The crux of circular business models as we see it is organizing value retention whereby parties must come to a collective business proposition. For example, how can we organize a certain material such as car tires, bricks, paper, concrete, plastics, glass, etc. in such a way that the value it represents lasts much longer and is therefore retained? In addition to the national study we have done extensive research to develop a basic conceptualization of different groups of circular business models, which while distinct have some overlap with the previous two business model's types. We hope to publish these insights in the first half of 2018.

We now see a landscape emerge where these three types of business models have become demonstrably visible. Yet, of course, in many places we also still see conventional business models. While I may disagree with their unilateral focus on financial value creation at the expense of other forms of value. The reality is that they are still there. The question then becomes how we can make existing, conventional models more sustainable, and not just a little bit, but radically? What does this entail? How can it be done? Which criteria do you use to measure success? That is an interesting task, both for research and for practice. Unfortunately, the time to explore this further is limited.

# Hybrid Banking

In the past five years, we have also conducted research into our banking system.

By that I do not mean the system of 'the banks' but the system of transactions that banks arrange for us. The starting point is that business models entail transactions and that value creation comes about in that transaction. We now think, among other things, about the nature of these transactions. Why do they always have to be made with money? Could it possibly be arranged differently? If so, what are the implications?

*Do transactions always have to take place with money? Can it be arranged differently? If so, what are the implications?*

We see a society that is looking for new forms of 'money' in all sorts of possible ways. For example, there is a project in which payment is made with Jouliettes. Here a kilowatt hour is used to carry out transactions; paying with electricity. There are also many examples of time banks whereby people donate time to a bank that becomes available in a project. This can be done digitally but also very simply with a timeshare booklet. In Belgium, the phenomenon of community currencies is on the rise where a city, village or neighbourhood then develops its own local currency. Banknotes are issued that apply as local, 'legal' means of payment, thus strengthening the local economy. A basic trade



FIGURE 5 Hybrid Banking

action is set up, for example according to Amsterdam's example, a euro equals one 'Makkie'. In certain neighbourhoods, you can pay with Makkies, comparable to a 'Bristol Pound' in the UK. One also can observe examples of people paying in kind. For example, interest is then paid in cauliflowers, pork chops or mobility. Five years ago, we had barely heard of crowd-funding, yet in the meantime, it has grown into a billion-dollar business.

*In many flourishing projects people are actively seeking other forms of payment instruments to be part of a transaction. So, it is more than just a means to an end.*

Many of these projects also illustrate something else: many flourishing projects are underpinned by people looking for other forms of payment instruments to be part of a transaction. So, it is more than just a means to an end. However, we come from a situation where there is a mandatory, not to say compulsive, conversion model to euros. This is fully aligned with the conventional business model canvas. We are gradually discovering that it is possible to develop a hybrid model in which we can work with different values, side by side. We want to revalue some values and organize them differently, but we want these values at the same time, because nobody only lives on water or beer or bread.

Variety is therefore an important property of a system making it possible to work with more than one value.

Can we make a value-driven model hybrid? Yes, this is possible.

We do not abandon money entirely because it is a very useful transaction tool, but it is important to know its place in this world. We can also throw time 'in the pot' or energy because we are increasingly generating our own energy. We are likely within the next few years to have a lot of residual energy that we might be able to sell. We have a car that is stationary, an asset that we can use to create mobility. We can start thinking about what we do with waste. By this I do not mean our bin at home, but rather a building that has 30,000 tons of rubble. In short, we have assets that we can use to realize things in smarter transactions. If we add these different values together, we get a system with hybrid values, a system that can be typified as 'hybrid banking'.

It is therefore possible to come up with a system in which people can contribute other values in order to realize transactions in addition to money, time, energy and mobility. This in itself is also of value because not everybody has enough money. One could fill a deficit with time and then you are more likely to get a more stable model that leads to democratization and participation. In this model, even people who have less money can then participate with their own abilities, their own skills or their own time.

We are strongly committed to developing this and have called it 'advanced money', but we should actually call it 'money for everyone'.

*It is possible to make a value-driven model hybrid, in which different values coexist.*

### *Hybrid banking typology*

We have attempted to develop a typology for hybrid banking. The next step we want to take is to connect hybrid banking with the Internet of Services. Then we will really take steps, because then we can also link that idea to business models in which we connect value creation, transactions and hybridity. That also means that we end up with the most common crypto-technology of the moment, the block chain. This technology makes it possible to realize transactions in a decentralized, peer-based manner, without the intervention of a central system that also forces us to first monetize all transactions. We are now taking the first steps with the development of a hybrid banking app that enables multiple transactions. We then step into another world. After a trial in 2018, we hope to start a real project next year and I think it's great that we're realising our aspirations.

*The next step we want to take is to connect Hybrid Banking with the Internet of Services. Then we will make a real move forward.*

### **Continous renovation**

While I may work for a few more years it is likely that the story will be in no way 'finished'.

Maybe that is a good thing too, because in my footsteps someone else will come like Raworth after Jackson and Rockström, and we continue to create the story. If a part of my legacy is that a number of people say, this is Jonker's model – this is a way you could think about an economy, one that includes three types of business models, a platform business model, community-based business models and circular business models – then I think we have taken concrete steps in a positive direction.

*The crown on the work is a community in which people also utilize what they organize together.*

At the core of a new business model is a detailed transaction model based on principles and design rules. People are increasingly working from a coherent set of social, ecological and economic values. These values are guiding their daily comings and goings and give direction. Three principles apply here: sustainability, circularity and inclusiveness. People work together because they want to, because they can create change and because they aspire for things to be better. History has shown in good time and in bad, that we can achieve more together than alone. The models that emerge as a form of collective value creation are the ones that have been shown to contribute to solving pressing social questions and challenges.

The starting point is always a number of people between whom an idea in its infancy arises. These people organize a complex value that is given a collective character. Helping to make, invest and realize this value also means to carry and share the risks and communicate the revenues. Parties find each other on the ba-

sis of common interests, solutions and issues. The values people bring together in transactions can also consist of hours, energy and other transaction means. These values are not a by-product or the result of good intentions, but rather consciously organized. The crown on the work is a community in which people also utilize what they organize together.

## Ongoing Research

In the coming years, we will continue to invest heavily in research. For example, we are conducting research into the city as an object for a business model. This research is stimulated by the City of Nijmegen where I work from, the city that this year is the European Green Capital of Europe. The questions we have asked are: can you think about the city in a completely different way? Can you look at a neighbourhood as a business model? If so, how would it work? In October, a European conference will take place in Nijmegen at the Radboud University in which various cities will participate, including Paris, Amsterdam and Milan.

As previously discussed, we have done a lot of research into business models for the circular economy. Thanks to our generous sponsors we have been able to take the insights and create a workbook for developing circular business models that will be available free of charge. Later this year in May, we will present the workbook at a conference and thereafter it will be available for download free via [www.circulairebusinessmodellen.nl](http://www.circulairebusinessmodellen.nl). I think making these insights accessible is really important because it contributes to the transition towards sustainability.

We are also working on developing a typology for hybrid banking. We want to visualize in an orderly manner which means can be paid, such as electricity, Barter or mobility. We have already

made three attempts to come up with such a typology, and we think that we have it clear now. Our intention is to publish a White Paper on our findings also in May this year (perhaps launched at a modest seminar).

We also intend to conduct research in Belgium. We are working with a select group of Belgian companies and how they are implementing the circular economy. We have completed a literature review and mapping of all CE-projects in Belgium, i.e. over 140 and selected a number of iconic projects. Shortly, we will be conducting field research with students from Saxion University of Applied Sciences.

Not to mention in collaboration with VUB since 2016 we have been busy with a series of international conferences about new business models. The first conference took place in Toulouse, the second in Graz and this year we meet in Sofia. In 2019, the conference will take place in Berlin and in 2020 in Nijmegen. At these conferences, both scientists and PhD students tell their story. There is also room for students who are writing their masters or bachelor thesis in this area. At these conferences, we also seek to attract as many companies as possible to join the debate with us.

The fact that I am able to present here is thanks to many people who help me endlessly in the development of theory, in writing and editing, in research, the students, the colleagues, the people in the team, the PhD students, my sponsors and over the years by the OCF 2.0 foundation which decisively and carefully finances my research. My gratitude goes to all these people and parties.

The chair that I now hold is intended to transfer knowledge as knowledge transfer was the intention of Emile Francqui. While the time that I can occupy the chair is too short to set up a research agenda it provides a number of publicly

accessible lectures. Until the summer of 2018, there are three lectures about three closely related themes, namely: trends and developments leading to the WEconomy, (2) about business models: sustainable, circular and inclusive and (3) Hybrid Banking – about dealing differently with value. You are most welcome to join me for these public lectures.

# Epilogue

If we consider the chronic and interlocking crises of our time, we are living in a time of change.

*Are we in a transition?  
It is more than plausible.  
So, it is a great time to be a  
researcher and a teacher.*

The existing dominant social-organizational reality or status quo establishment lives up to its name and will protect that establishment, which is of great value to a dominant coalition, with rules and practices. The unspoken agreement is that tinkering with another society is fine, so long as it does not become a credible alternative because that would be a threat. So much of the new is adapted as an administrative variant of 'the bed of Procrustes' within the existing framework, or it is not counted. Nevertheless, and at the same time, people are discovering and organizing that which is of value to them. Sometimes this will certainly be amateurish; the wheel is being invented again and again in many places. An African proverb says: 'on your own you will go faster, but together you will get further'. Discovering new forms of organizing together, based on principles and resulting in the creation and sharing of value, is what in this inaugural talk has been called 'new business models'. These are hopeful signs of an age in which the search for other forms of cooperation, other forms of transactions become visible. Are we in a transition? It is more than plausible. I believe it is a great time to be a researcher and a teacher.

Thank you for your attention.

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**JONKER** is Professor in Sustainable Entrepreneurship at the Radboud University, Nijmegen (NL). In 2015 he was appointed to this field of study for life. In addition he was appointed for 2017-2018 at the alternating chair Emile Francqui at the Vrije Universiteit Brussel in Belgium. Previously, between 2014-2016 he was laureate at the Pierre de Fermat chair at the Université de Toulouse.

His work focuses on the transition to a new economy designed around sustainability, social inclusiveness and circularity. The core of this is formed by the 'slow' trends that help shape the economy, the business models that emerge and the transaction systems that go with it. He now has 35 books and more than 200 publications to his name. He is known as an activist researcher who wants to stimulate social change with a practical approach. For him, working together on another society is a central task and thus entrepreneurship is always about changing. Together with a great team of people he wrote the bestseller 'New Business Models' (2014) which has been translated into English and has been converted into a Massive Open Online Course MOOC (see website Iversity, D). In 2016 – 2017, he conducted a nationwide survey of Business Models for the Circular Economy (BMCE). This resulted in the publication 'Closing the Value Cycle' (<http://bit.ly/2qYM1h6>). During 2017-2018 the insights from this research have been developed into a BMCE Toolkit which parties can use to design their own circular business model. From May 2018 onwards the Toolkit can be downloaded for free via [www.circulairebusinessmodellen.nl](http://www.circulairebusinessmodellen.nl).

He is chairman of the national research program of the Dutch Organization for Scientific Research (NWO) Sustainable Business Models (2016 - 2020). In June 2017 a second grant program was launched to a value of 2.2 million euros and the intention is that two new programs will follow thereafter. Together with a number of European colleagues, he has been organizing five international conference on Sustainable Business Models since 2016 in Toulouse (2016), Graz (2017), Sofia (2018), Berlin (2019) and Nijmegen (2020) respectively. These are conferences that, in addition to academics, also offer room for young, starting scientists and practitioners. Furthermore, around these events a community of circa 100 participants has arisen.

Jonker was knighted in 2016 with the national 'Green Ribbon', as sign of recognition for his work in the field of sustainability. Contact details: Prof. Dr. Jan Jonker, Professor of Sustainable Entrepreneurship, Nijmegen School of Management, Radboud University, Mailbox 9108, 6500 HK Nijmegen (The Netherlands), email: [j.jonker@fm.ru.nl](mailto:j.jonker@fm.ru.nl) (or) [janjonker@wxs.nl](mailto:janjonker@wxs.nl)

## COLOPHON

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