INTRODUCTION - A CIRCULAR ECONOMY CREATES CIRCULAR SERVICES

If we would continue to produce and consume in the way the western world is doing now, our ecological footprint would greatly exceed the biocapacity available per person on the planet (WWF 2006).¹ There lies a great challenge in achieving a minimum level of welfare for the world’s population while reducing our ecological footprint. Circular economy aims at accelerating the transition from a linear to a circular economy: a systems change in thinking about our current economic system. The model moves away from the ‘take, make, and dispose’ model. It is a restorative model to businesses and the economy.

Clean technology, sustainable value chains and innovation alone cannot provide for the solution when dealing with this tremendous challenge. We need all industries to redesign the current capitalistic linear economy towards a circular economy. So far, circular economy has mainly addressed the redesign of industrial economies. It reasons from a closed loop model²: natural ecosystems serve as an example of how human beings should produce and consume. Therefore, circular economy is in the first place directed at the physical regeneration of materials and energy. If we look at some of the schools of thoughts on which circular economy is based, such as performance economy (Walter Stahel) and Cradle to Cradle (Michael Braungart), we see that also the professional service industry can learn a lot from its principles.

As we will see later in this paper, one of the derivatives of circular economy is the notion of a service model, whereby consumers do not buy products but pay for service³. In this light, new business models are inevitably to be developed. Circular business models are based on the notion of value retention and on offering service solutions instead of products. Particularly the rise of circular business models can be applied to the professional service industry as well. We identified five sectors in which circular economy can be applied: the financial sector, insurance companies, pension funds, employment agencies and head-hunters, and the IT sector. This paper describes in what way circular economy thinking is conducive to these professional service sectors.

¹ World Wide Fund for Nature (WWF), 2006
² Walter Stahel, 1970s
³ Performance Economy - Walter Stahel, 1970s
THE CIRCLE ECONOMY & DUTCH GROUP B.V.

PRINCIPLES

The Ellen MacArther Foundation and The Circle Economy refined the ideas of these schools of thought into main principles of circular economy. Most of the underlying notions can be applied to industry types broader than merely the industrial economy. The relevant principles are:

1. **Circular economy is a non-linear economy.** Non-linear goes further than optimization of isolated parts of the value chain. This striving for efficiency, which has been the status quo since Michael Porter\(^4\) introduced the concept, does not touch on the alteration of production and consumption habits, and disregards other aspects such as human development. Efficiency alone does not reach the resilience needed to deal with shocks. A non-linear economy does not assumes a value chain, but a value cycle instead.

2. **Thinking in terms of (eco)systems is key.** Circular economy is based on schools of thoughts such as the Blue Economy (Gunter Pauli) and biomimicry (Janine Benyus), which takes natural ecosystems as an example. Physically, all materials serve as nutrients: technological materials for new products and biological components for nature. The natural balance between all components has to be restored. Systems thinking is the understanding of things within the context of a larger whole. Everything is connected and consists of a quantity of nodes, and diversity within these systems ensures the resilience of external shocks.

3. **Pricing must tell the truth. Distribution of value must be honest.** Our economic model is based on a pricing scheme where externalities are not incorporated in the price of products and goods. The damage that is done to our ecological system should be translated in the prices we as consumers pay. Moreover, the distribution of the created value worldwide is highly unequal. To find a way in that we can all share the resources and strive for welfare, this distribution must be honest and flow back to all parties involved in the economic cycle.

4. **Thinking in value creation is key.** Value creation refers to the new type of business model that discards ownership. Instead of focusing on value maximization for the own good, circular economy is very much focused on value creation.

**UNDERLYING VALUES**

Taking these principles as a departure, circular economy thinking touches on some important core values. First of all, it restores the thought of striving for well-being instead of wealth. Our planet does not have enough resources to provide all human beings with the wealth that Western societies entitle to themselves with the current economic model. In light of ecological and social sustainability, collective welfare is more important than the right of the individual. We need to restore this well-being by taking responsibility for our actions and help others to achieve the most fundamental basic needs.

Associated with this thought is the idea of reciprocal relations based on trust. Trust in the current economy and professional service industry is lost, mainly due to the way in which the service industry has acted. If we are to take resources from our planet, we have to ensure that we give something back as well. Only than are we able to survive: ‘nice guys finish first’.

Schools of thoughts such as the Blue Economy and Walter Stahels adopt knowledge from natural ecosystems, which has led to circular economy thinking. In that sense, restoring the connection with our environment is one of the main values that drive circular economy thinking. In our capitalist world, we have drifted apart from the very nature of all processes. As human beings, we are part of the ecosystems we live in and this balance has to be restored.

All circular principles come together in what can be called blended value, or the creation of value for society and ecology all together. One-dimensional, fragmented thinking is transformed towards a more holistic and integrated way of doing business. Measuring the impact of the created value contributes to mainstreaming the idea of creating shared value.

Peter Senge\(^5\) states that a learning environment must be created to enable true systems thinking. A linear model does not allow for those learning processes to take place, as transactions just move up in the value chain. A circular model on the other hand is the ultimate model to continuously stay in contact with the environment, to anticipate on the interconnectedness and to detect constantly changing processes.

**HOW THE PROFESSIONAL SERVICE INDUSTRY IGNORED THOSE VALUES**

Transition towards a sustainable future is not only taking place in the industrial economy and in the social domain. The service industry is directly related to the economic crisis and is very much part of this transition. We are facing a revolution of the necessity to change current systems.

The opportunistic idea of everlasting economic growth and wealth has come to an end. In the past 30 decades Western capitalism has taken a form that is currently showing cracks. The need for more and greed for money has led to complex systems that are being created and maintained by ourselves. Prosperity that people are experiencing, consumers as well as the professional service industry, kept them from controlling what the

service sector was doing with our investments\(^6\). Unrealistic optimism led to the idea that economic growth is the norm\(^7\). The free market is by many perceived as the most enlightened economic model. This perception gave every sector within the services industries the opportunity to create oligopolies, resulting in enormous power of the market. Services such as financial products have become so complex that consumers can hardly scrutinize the risks that their service companies are taking.

The financial sector is stated to be the ‘mirror’ of the economy. Yet the financial sector is far bigger than the real economy\(^8\). The financial crisis shows how the collapse of the virtual economy has a tremendous impact on the real economy. A virtual economy has emerged: Large parts of the financial sector for example merely exists of internal trade in derivatives. These form an unstable source for the real economy\(^9\). Moreover, American and European scientific research has indicated that size and efficiency negatively correlate, meaning that larger banks perform worse than their smaller counterparts\(^10\). Transaction-oriented banking, such as trading and financial market activities, has cost frictions with the regular relationship banking\(^11\).

Going back to the essence of the service industry, service companies’ goals are to service their customers in their best interest. The current economic situation and culture of greed show that the customer is all but served. Besides being a facilitator for customer needs, the service industry has become an independent business sector, making profits for their own accounts. Perverse incentives to maximize profits for shareholders induce excessive risk-taking at the expense of long-term value creation for customers, or even viability of companies. Managers are incentivized by compensation in the form of bonuses to reach financial targets that are too often focused on short-termism\(^12\). Moreover, the hedging of risks instead of focusing on long-term value creation prevents sustainable innovation to take place. As everything is connected in systems, we need the service sector to come along in the transition towards a circular economy.

**CIRCULAR SERVICE THINKING IN PRACTICE**

By adopting circular economy principles and values, the professional service industry can overcome the issues and challenges it is facing. Circular economy reasons from the fact that new business models are required as resources are depleting and current consumption patterns are not tenable forever. One-off consumption of physical resources has to be transformed to recycling resources and paying for use instead of ownership. If we look at the service industries, these principles can be applied in a similar manner: The relationships with customers, employees and suppliers is violated as customers are used to sell one-off products, employees are incentivized to deliver certain performances and suppliers are merely chosen based on lowest prices. The values of trust, reciprocal relationships and being in touch with the environment are therefore among the main starting points for circular services.

In practice, the circular economy has two different implications for the service sector. First of all, new circular business models in the industrial sector require new service models. The leasing scheme type of business model that the circular economy is moving towards requires the service sector to provide service products conducive to these systems. Financing and securing circular systems is a totally new approach than the approach where deals are solely closed on a bilateral basis. This requires long-term vision and reciprocity within the system. Value creation is the ultimate goal, and this goal has to be leading at all times. One can

\(^7\) Chandran Nair, in *Tegenlicht: Cleantech: de schone toekomst* (23 april 2012).
image that this is quite a paradigm shift for the service sector, which is used to hedge risks as much as possible and aims at short-term returns. The Ellen MacArthur Foundation also determines two other possible developments: New businesses will arise that facilitate the circular service provision of production companies. These new companies need funding and insurances. Moreover, it is expected that corporate lending will exceed consumer financing, which means that more robust types of products and services are needed.

Secondly, the service sector itself has to adopt circular economy thinking as well and take the principles and values as a starting point to restore the system. The above implementation is secondary and mostly facilitative of industrial circular systems. Changes in the banking system are already implemented to prevent banks of being too vulnerable: banks are omitted to trade for their own account. Moreover, the ‘Commissie de Wit’ pleads for the separation of business banks and consumer banks, the so-called ‘nuts’ banks, whereby the public transactions such as deposits and payments are separated from activities on the financial market. Supervision is becoming more rigorous. However, we need to go beyond rules and regulations that try to overcome these issues. The sector has to completely alter its culture and way of doing business. This requires the sector to not only look at individual institutions, but to re-evaluate the system as a whole.

We have to go back the very nature of service companies: delivering certain types of service for its customers. This servant role has to be restored. Why do we allow banks in our society? We need institutes that can safeguard our savings for the future and grant us loans to enable us to buy things in the present. Moreover, we need them to provide for efficient payments. This means that the service sector has to take its stewardship responsibility by reasoning from the customers’ and society’s point of view. Hence, many committees and individual economists or politicians recommend to split business parts from service parts of banks. Circular economic models are all about value retention. Profits that are made can therefore be reinvested in innovation or society, instead of added to the bank accounts of the companies themselves.

The service products that the service sectors, in particular the financial sector, are offering have become highly complex. The customer lacks the knowledge to judge how this product is actually going to benefit him or her. Taking these products back to basic will restore trust and satisfy the basic needs of individuals. Service products have to meet certain conditions and necessary requirements: clear and simple products that cut to the chase and deliver what they promise. People understand these services, and by being transparent, peoples’ trust is being restored. Education is an important aspect in this light. The back to basic principle also accounts for the profile of the organization: recognizable specialization, either on type of services or geographically, can deliver added value for customers.

The service sector is too much shareholder driven. Shareholders are threatened as the only relevant stakeholders. To alter towards circular service, all stakeholders must be taken into account. Not only shareholders, but also customers, suppliers, employees and society at large are part of the circular economy. All together, they form closed cycles where everyone has its share and commitment, and contribute based on trust and reciprocity. The service industry is part of these systems and cannot be ignorant to other stakeholders. This means another way of dealing with stakeholders:

- Employees receive a fair share and are treated from a reciprocal relationship based on trust,
- Customers receive actual value and share in the system’s profits,
- Shareholders are involved and stimulated to act in the long-term interest of all stakeholders,

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15 See for example publications of authors within the Sustainable Finance Lab.
16 *Ontmaskerd: Hoe de financiële wereld echt werkt.* Einstein Books: Amsterdam

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- Suppliers are involved in chain responsibility and become partners,
- Society is the main focus of all activity and the strategic course of the company, and costs that are made at the expense of society are internalized.

The above two practicalities closely align with the notion of restoring the connection with the environment. By being in close collaboration with its environment and by offering basic products, simplicity and personal connections can be made. Being more in touch with the environment can mean that companies become smaller or that companies are organized through a system of many small parts. Smaller banks and banks that are specialized for example, prove to be more efficient and productive. Smaller companies are better recognizable in character and the services they deliver. This promotes the transparency and fosters personal contact with customers.

The service industry is pre-eminently the industry that can set an example when it comes to delivering services to its customers. Companies, whether they are production-based or service-based, are increasingly competing on providing the best service. Companies can become mature through price differentiation or product differentiation. However, companies in a mature state are increasingly becoming aware of the necessity to differentiate on service delivery. From a marketing point of view, it seems only logical that all companies eventually have to transform to optimizing their services.

**RENEWED GOVERNANCE MODELS ARE ABOUT TO ARISE**

Banks, pension funds and insurance companies are mostly shareholder-owned. The dynamics that this ownership model induces is a shareholder-focused strategy, thereby losing sight of customers' best interests. The essence of listed companies is that the ownership is based on financial incentives. Making profits for shareholders becomes the main goal. Circular service restores the focus on society instead of on profit for shareholders. This requires new governance models. A **cooperative company** is gaining more ground. The interest of the owners becomes the company’s interest. The relationship cooperatives or employee-owned organisations have is very different from the other type of companies. Cooperatives “share the values of democracy, solidarity, equality, self-help and self responsibility, creating businesses that serve the greater good.

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as opposed to maximising profit for the very few.\textsuperscript{19} Cooperation from shared interests is the basis of such a governance model. Contradictions are not part of these organisations as they serve society and exercise their social task. They strive for social improvement, more than profits. Profits are used as buffers and invested in innovation, said PGGM. Thus, the relationships and the transactions are in balance. Companies such as pension fund PGGM and insurance company Univé are companies that are organized by this governance model. Univé states that the interests of the members are their number one priority. Members benefit by sharing in the distribution of profits, by receiving discounts, and improved products and services (“Daar plukt ú de vruchten van”).

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{diagram.png}
\caption{Diagram of a circular economy system.}
\end{figure}

**CAPABILITIES NEEDED FOR CHANGE**

The transition to a circular service industry will take time. How this transition can take place is a question to be answered. Different phases of improvements will be determined to facilitate the transition. Certain capabilities are needed to allow for circular economy thinking. First of all, change is only possible when we act out of intrinsic motivation. A culture change within the service industry is inevitable. Greed, bounded rationality, excessive risk-taking for the own good, and unrealistic optimism have to change in generosity, intrinsic motivation, striving for wellbeing for society, and reconsidering the capitalist system.

A first step towards another culture is strong **leadership**. Leadership is needed to take the lead in changing the current governance systems. Leaders serve as examples for employees and their actions have an effect on the perceptions of outsiders. Their innovations have to become rooted in the organisation, also after they leave the company. There lays a large task for supervisory boards to appoint the right people and not be drawn in the competition between peer companies and compensation benchmarks.

Systems thinking is inherent to **openness and transparency**. Together with stakeholders, circular economic models form inclusive systems. The whole is greater than the sum of the parts. This implies that service companies have to open up to their stakeholders and allow them to contribute to their operational business and strategic course. Moreover, innovating towards circular economy thinking cannot be seen as separate from

\textsuperscript{19} Pauline Green, President of the International Cooperative Assembly

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the interaction with the organizational environment. Open systems interact with the larger system and the environment. This requires self-governance and learning through networks, interfaces, and feedback loops.

**Diversity** is another important capability. A culture change is more easily realized when human resource policies stimulate a diverse management team and workforce. Diverse opinions and backgrounds allow for more creativity and innovation. Moreover, a diversity of people can ensure that the organisation is protected from short-sightedness and moving in the wrong direction.

**SECTOR IMPLICATIONS**

In the **financial industry** connection with the environment and the servant role are increasingly visible. Serving the greater good by investing in enterprises with a sustainable character is developing at a fast pace. Connection with the environment is facilitated by investing in social ventures, thereby creating value in environmental, social and cultural ecosystems.

Changing business models and integrating transparency is common ground nowadays in the **insurance landscape**. Back to basic systems are introduced in which customers collectively get money back when costs of damage are covered. Value propositions towards customers are communicated more transparently by explicitly defining added value in a clear and concise way.

Investing in circular systems is executed more and more often by **pension funds**. Extending the portfolio by investing in sustainable initiatives embraces a long-term focus and creates a sustainable advantage. Another key indicator of pension services includes moving towards circular service and the circular system by taking care for each other and thereby investing in the future of our society. Cross boundaries and develop new connections with members and other organizations.

A culture change in the dynamic system of **employment and recruitment agencies** is developing: all stakeholders are involved and connected. Everything good for an organisation needs to be considered good for employees, suppliers, government and society. Creating opportunities for individual development and social integration set the learning environment and add value to the circular economy as a whole. In addition, flexibility is created in the chain of human resources which reduces risks and makes the industry more robust against future challenges.

Anywhere, anytime, any device: data is easily accessible through asp, cloud services and freeware these days. Besides, processes are transformed into environmental friendly and reducing CO2 emissions by integrating smart **IT** processes. Identifying opportunities to create sustainable performance, measuring indicators, evaluate and take appropriate actions further enhances understanding of the value chain. In addition, it creates awareness throughout organisations to take responsibility for the environment and society in the long run.

**STEP BY STEP CHANGES**

Looking at the different sectors that we identified, it can be seen that circular economy has different implications for each sector. How do we get large, institutionalized companies such as banks, insurance companies, pension funds, employee agencies and IT companies to restore their legitimacy and identity by using circular economy thinking? Changing linear business models to circular economy thinking requires a step by step approach. For the financial industry, rules regarding the division of service parts and business parts, changes in governance such as constraining executive compensation, closer supervision and solvability regulations are first steps in changing the culture of financial institutions towards more customer-focused, service companies. Islamic banking could serve as an example: In this type of banking, trading in derivatives is prohibited and no interests are paid.
Both insurance companies and pension funds are institutional investors that provide capital to the financial market. The paradox is that pension funds are supposed to make expected returns for the purpose of their customers. Hence, these institutions have to make profits, by growing or by investing, to ensure coverage. At this moment, we see that many institutions merely focus on making as much money with money. However, capital can be used to create non-monetary value. Saving for pension does not only have to be returned into money, but can also be traded for health services\textsuperscript{20}.

When it comes to the employment agency sector, the stakeholder group ‘employees’ is their main asset. These companies have to act in the service of their people by investing in their development and education. The large group of self-employed deserves much more respect when agencies organize their staffing at different companies. A first step could be to calculate their fee for the client on an all-in level, from which development programmes can be paid. The essence is that agencies invest in their people.

The Circle Economy and Dutch aim at accelerating the transition to a circular service sector. We would gladly invite the different players in the industry to elaborate with us on the statements that we make in this paper so that we can build new business models and identify projects on which these ideas can be applied.

\textsuperscript{20} PGGM is already thinking about concepts based on this idea http://www.nieuweoudedag.nl/Zorgflorijnen.pdf