Circular Square for (non)profit

Impact in Planet, People and Profit

Apeldoorn   A.H.Hellemans

| Version	2.0.2023
WP	3
Deliverable	Business development tool in organic materials
Date	MARCH 2023
Dissemination level	PUBLIC
Deliverable lead	Municipality of Apeldoorn in collaboration with Wageningen Research
Authors	Adriaan Hellemans
Reviewers	Inge Smolders, Sanne van Laar, Edwin Keijsers, Carmen Aalbers
Abstract	The circular economy (CE) is a key enabler of the shift to sustainable business practices, represented in the UN Sustainable Development Goals as SDG12: responsible production and consumption. It has an important role in protecting life on water and on land (SDGs 14 and 15) and contributing to climate action (SDG13). The CE provides a real economic alternative. It aims to maintain the value and use of products, components and materials at all times. This means enabling reuse, multiple uses, cascading uses, or fully closed loops for technical or biological resources. Circular businesses have an important role in the transition to the circular economy. This is delivered through product life extension, re-use, remanufacturing, up and downcycling, and recycling. New business models, the use of new disruptive technologies and new mindsets, particularly around technology, are also key. This paper is a combination of existing models described in 'a new jacket'.
Keywords	Sustainability, Impact, stakeholders, supply chain, roadmap, people, profit, planet, social, environmental.
License	

Contents

1. Introduction

The circular economy is a systems solution framework that tackles global challenges including climate change, biodiversity loss, waste, and pollution. It has three principles, all driven by design: (1) eliminate waste and pollution, (2) circulate products and materials, and (3) regenerate nature. It is a bigger idea that goes beyond treating the symptoms of the current economy to tackle the root causes of global challenges, while providing opportunities for better growth that benefit businesses, people, and the environment. These principles are represented in the system diagram on the right (source: Ellen Macarthur foundation)
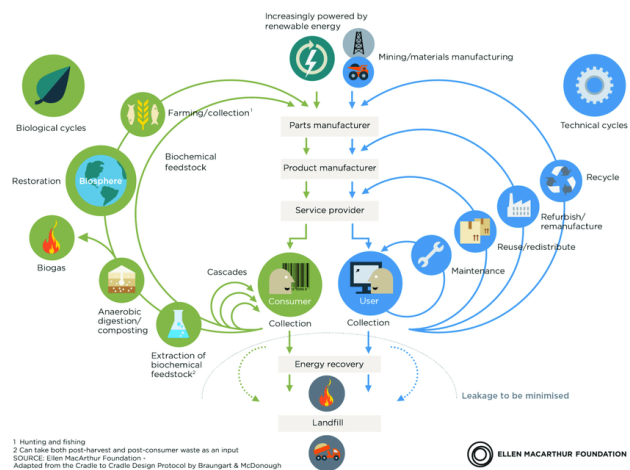
The highlighted 'inner loops', such as maintenance and reuse, retain the greatest proportion of the energy, labour, and time invested in a product and therefore represent high-value pathways that should be prioritised. Circular business models make these inner loops a reality. Take a 100% cotton dress. In linear business models, once harvested from the field, the cotton is processed and spun into yarn, woven into fabric, cut, and sewn it travels down the 'body' of the butterfly to become a dress, before ending up in the hands of a user. After use, the cotton dress then drops off the diagram, ending up in landfill or incineration. Through circular business models, however, the cotton dress is worn time and time again by one or many people. It is repaired when it becomes damaged so that it can keep being worn. Then, when it can no longer be fixed, it is remade into a new item. Circular business models enable this product journey and maintain the energy, labour, and time invested in the dress's production.

Many (circular) business models are written with the intention to make business/ to earn money before concerning about planet or people. In this Circular Square model we set up planet, people and profit in an similar level playing field. This circular square model helps you to make impact in the direction you think it is important. In this document, we use successful, proven strategies and models. This combination together makes it, so we believe, interesting to make steps towards the circular, regenerative or sustainable future. It is finally up to you to make your dreams come true and make the desired impact.

2. Abstract

Long term decisions

- Impact claim
- 5-year strategy
- Type of circular model

Core activities

People	Learning, health, etc. (relation with stakeholders)
Planet	Production, manufacturing
Profit	(marketing, production, logistics) (relation with cost-benefits)

Stakeholders

Employees	
Relations	
Users (clients)	

Support and impact plan

Cost-benefits*:

	Cost	Benefits
People	Negative impacts	Positive impacts
Planet	Footprint	Savings
Profit	€ of activity	Incomes

*=fill in: '-' / '+' / '0'

3. About this guide

There are so many tools, guides, models. Mainly all these guides/models have their focus to earn money or to make (new) business. That is of course one of the main ideas to run business, otherwise you won't make it. Mainly all models set up people and planet after profit. In this CircularSquare we abreast the position of planet-people-profit. At the end you choose what is important for you. In chapter 3 we explained which models, canvas, books are used.

Purpose of this guide – The case for moving to the CE is compelling and necessary. It offers a way of improving resource and economic efficiency while reducing the impact on the natural environment, biodiversity and climate. While technology, policy and regulation have critical roles to play, the transition towards a CE will be powered by businesses of all sizes finding new, circular ways of creating, delivering and capturing value. This guide helps businesses explore and design circular business models. It provides practical steps and templates to navigate an area of enormous opportunity.

Who is it for - The guide is for any organisation wanting to understand how they can create, deliver and capture value from circular practices. Regardless of sector, region, business activity, size or maturity, it can be used to:
- identify new 'greenfield' circular business opportunities and define the business and operating models required
- explore and define how existing linear businesses can become circular
- refine existing circular business concepts and pilots.

How to use it - The guide can be used in different ways:
- sequentially, working step by step in a structured way to identify and define new opportunities in an area of business you are interested in
- with a focus on particular areas to test and refine for those with an existing circular business concept.
- As an inspirational document. Because of existing models that are used, it can be inspiring and useful for your case.

CircularSquare design is an innovative process, so be prepared to test key assumptions, test and learn, and iterate your model with experience. The steps and tools can be used independently or in a workshop setting.

4. CircularSquare©

This is the CircularSquare©. The CircularSquare© is a combination of existing models; retrieved from strategies (Blue Ocean), 7S model of McKenzie, Triple Layer Canvas (Alexander Osterwalder & Yves Pigneur), Impact management (Avance). This is an abstract from the best existing models, combined with lessons learned from the CityLoops project (2019-2023). The model has been proven and used in 4 organic business cases from a non-profit organisation. Hopefully it helps you to understand which activities you have to do to reach your goal. For any comments on this newly developed model, we're open to get in touch[1].

Long term decisions

- Impact claim
- 5-year strategy
- Type of circular model

Core activities

People	Learning, health, etc. (relation with stakeholders)
Planet	Production, manufacturing
Profit	(marketing, production, logistics) (relation with cost-benefits)

Stakeholders

Employees	
Relations	
Users (clients)	

Support and impact plan

Cost-benefits*:

	Cost	Benefits
People	Negative impacts	Positive impacts
Planet	Footprint	Savings
Profit	€ of activity	Incomes

*=fill in: '-' / '+' / '0'

---

[1] Please via: https://nl.linkedin.com/in/adriaanhellemans

5. Long term decisions

If you want to be distinctive you have to realise you talk about a longer term. Not within 2 years, more about 5-7 years. If you make a decision today you have to consider what the effect is or will be in x years. This long term decisions has to do something with your impact claim. What impact will you make and to who?

Ingredients for these long term impact are: input, activities, output and outcome (or effects and higher effects) which result in your impact.
The impact claim you will make will have effects for your strategy, circular model, stakeholders and activities. They will are pass in review in this document. Therefore we start with your impact claim. In next chapters we will give attention to your circular model, activities, etc.

5.1. Impact claim

You start to set up your impact claim. Your impact claim is the effect of change, caused by you(or your organisation); the black arrow. The yellow arrow is the line what happens anyway.

An example to understand 'impact claim'
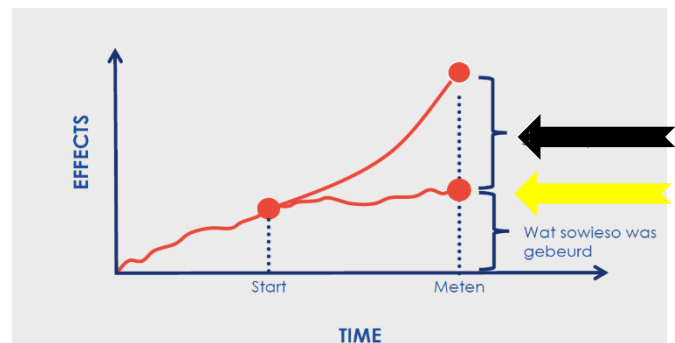
Imagine it is 2008. You want to develop a car. A car like other cars with fuel gas, 4 tyres, 5 places to sit, etc. Of course; your car has a nice design, better looks etc. You will have impact. Your product is new. But perhaps not so new to really make a difference instead of other cars. The effect of your new product will not really be that shocking.	*Imagine it is 2008. You want do develop a car. A car like other cars. But instead of having an engine to put fuel in, you have a car that drives 100% electric. Like Tesla did in 2008. In the beginning, many people had doubts, not sure if it is a good investment. But now, 2023 Elon Musk doesn't only have impact in his own Tesla line, but Tesla has a huge impact in the whole car industry. Tesla set the line for the next generation. Because of Tesla, we all will drive electric or at least more sustainable as ever before. Tesla can state their impact claim is: ' 'we change the world of driving into 100% electric'.*

So, what is your impact claim? [write it down on a paper!]

5.2. Know your market

"playing football is easy, but to play easy football tháts quite difficult" (J. Cruyff, 2010).

A strategy starts with an idea. You have thought about your impact claim (4.1.), but what do you really know about your idea? And what about the market you will operate? Before analyse the market ask yourself:

- *What is my Unique Selling Point (USP).* The first check is to check whether your idea already exists. How unique is your idea and how can you substantiate a claim regarding novelty? Check from the start of working whether what you have come up with is not already out there, and if it exists elsewhere how can you differentiate yourself? Google or surf one of the many wikis. Go to forums or to the library (whether physical or digital). Spread an invitation to your networks. Clarify your USP (how does your activity differ from the others? (if that is needed). Are there similar activities that you can learn from? What are the successful elements of similar activities that can help you optimize your intended idea? The fact that the idea already exists, in part or as a whole, does not have to be a problem or an obstacle. If your idea has been successfully implemented elsewhere that can be an indication that it is viable. The question becomes how you can differentiate yourself or do it better.
- *Is it legal?* The second check you perform is whether the activity conforms to existing laws and regulations. If you have an innovative activity, it remains to be seen whether the existing legal framework provides for this. Laws and regulations are usually based on past insights and experiences; they represent the interests of the established order and thus of mainstream practice. If the regulation proves to be an obstacle, you have a range of options. One possibility is to look for a different interpretation of the legislation and explore the manoeuvring space. A second option is to look at rule-free areas or investigate how others have dealt with similar obstacles. A third option is not to wait for changes to the legal frame- work but to *anticipate* and start the activity while informing relevant local authorities as appropriate.
- *To what economy do you contribute?* The third check is a difficult one, but one that matters a lot. You may have largely developed a smart, perhaps even brilliant idea, but in which economy does your idea fit? Or to put it even more clearly: to what economy does your idea contribute? Are you committed to recycling or circularity, or do you dare to take it a step further and focus on a regenerative or restorative economy Is it possible to further develop your current idea so that it fits in to the new economy? In essence, this check requires you to ask yourselfthe question: how does your idea contribute to the transition? It is also worth asking your interviewees, because they may have reflected deeply on your idea.
- *Unintended consequences* - The fourth check focuses on unforeseen effects (the unwanted impacts) which are referred to as *unintended consequences* in systems thinking. It may be that your initiative makes a significant contribution to the wellbeing of people, but that it simultaneously harms biodiversity. Not all impact is equal: one impact will be stronger than another. You will pay more attention to this in the chapter 'Impact Plan'.
- *Valuable feedback* - During conversations about your idea with third parties, you are likely to receive valuable feedback, which may be counter to what you would like to hear. Listen to it. Try not to be defensive when people say things you would rather not hear! Just let them bring it on. See this as an opportunity to improve your proposition and idea. Perhaps through these conversations you will be referred to other people, which will help you to increase the number of partners in your network, or you are pointed to subsidy schemes that could support the initial stage of your idea. If someone is willing to invest their time in engaging with you and giving you feedback on your idea, take their feedback in good faith treat them as critical friends, which all entrepreneurs need.

5.2.1. Analyse

No you know for sure your idea can have an added value to the chosen economy, you will deep dive into the market.

- A quick scan of facts: (this step is quite similar as page 6, perhaps you can skip this first bullet) The simplest method is to gather facts about the issue you want to address and organize them properly. Start with internet search. Find (scientifical) documents, figures and experiences of others. Make sure to use proper sources from reputable institutions; e.g. Central Bureau of Statistics, Eurostat, European Commission, national agencies, government or knowledge institutes. Documents or information from social media with no demonstrable sources are perhaps not trustworthy or contain less evidence. Whatever you do, always use multiple sources so you can compare and cross-check assumptions.
- Macro-analyses like PESTEL and SWOT: The PESTEL analysis, is an analytical framework to map the Political, Economic, Social, Technological, Ecological, and Legal factors at the macro-environmental level. These are six perspectives (variables) that together produce a picture of the macro-economic environment of a company or organization. Combined, they give insight into the elements around a market that cannot be influenced directly. The aim is to gain insight into the short- and long-term impacts of these factors. There are dozens of (public) sources that help you to carry out a DESTEP analysis in a neat and methodological manner. The so-called SWOT analysis SWOT stands for Strengths, Weaknesses, Opportunities, and Threats—is a complementary analysis to a DESTEP analysis. The SWOT (example: https://bit.ly/3PtxaVt) is a tool that creates a structured representation of an organization's perspective of internal strengths and weaknesses relative to perceived information in the analysis. A crucial benefit of this analysis is the confrontation matrix, in which you develop insight into the relationship between your plan and the market or context. Here you can find more explanation about the PESTEL: https://bit.ly/3pqJlYM.
- Trend analysis & scenarios: This involves extending specific trends into the future, for example, for a period of five or ten years. What the future will bring appeals to the imagination and is instrumental in determining the market. Of course, there is also such a thing as trendology, and there are quite a few professional forecasters, but those who look at the matter seriously end up with scenarios and scenario planning. Scenarios are useful instruments for developing and exploring different future possibilities. In short, a scenario is a chronological description of a particular event that has taken place or is yet to take place.

5.2.2. Six-path frame

Now you know a lot about your idea and market and you do know that your idea is legal, the following 6 steps can helps you to define your idea even better:
- *Look to other sectors.* Do not only take a look to the sector you will operate. What can you learn from other sectors according your idea. If you want to develop and sell solar panels, how are cars sell to people? Or how does consumers buy a new telephone (and what can you learn from them).
- *Look to a strategic group inside the sector.* For example Tesla introduced the first electric luxury car 10 years ago. It took some time for other brands to also develop full electric cars. There is no Tesla garage. You buy this car online. What can you learn from them.
- *Look to the role of the consumer/buyer.* Years ago, Apple came with Apple Music, instead of buying singles, CD. It took some time that the consumer accept this kind of listening music.
- *Look to complementary product/services.* Easyjet for example offers you a complete trip including hotel bookings and rental cars. Or the National Railway in the Netherlands, they offer a taxi2go, train-trip, bicycles and bus. Everything to make their customer's life as easy as possible.
- *Look to functional or emotional behaviour of user.* Nokia was mainly functional. But finally lose the market. Rituals is quite emotional and try now to become functional (scrub is good for you).
- *Look into the future.* What kind of trends do you see. Try to see what happens in 5-8 years?

5.2.3. 5 year strategy

To set up a long term strategy, you have to consider what the potential impact can be in your (new) market). A very helpful instrument is the Blue ocean strategy model[2]. The Blue Ocean strategy uses several stages to get more aware of your proposition. One of the interesting approach to set up your proposition is drawing your strategy and choose what you will do, increase, skip or create[3].

You have your impact claim, analyse the market and have an interesting overview of your market. You should be able to make a strategy photo. This is a 'photo' of the current (or future) situation of your idea in the sector. A strategy photo (or picture) is only a result of some research you did in the paragraphs before.

Below 2 examples of products:
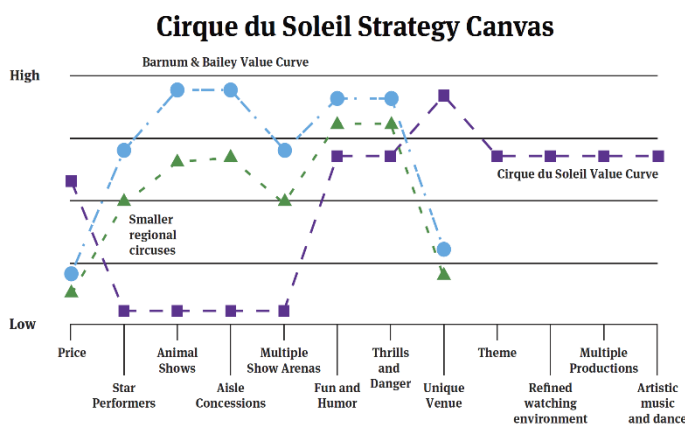
This is an example of Cirque du Soleil. They started with research in high end circuses and small regional circuses and budget wines (merged) and after they decided according their own vision, what do we want? They changed the name circus in Cirque and stopped working with animals (https://www.cirquedusoleil.com/)
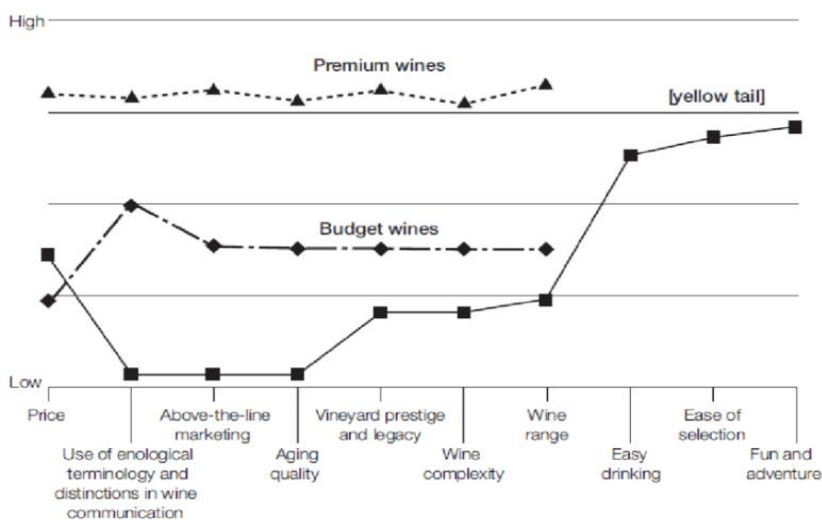
This is an example of Yellow tail wine. They started with research in premium wines and budget wines (merged) and after they decided according their own vision, what do we want? (https://www.yellowtailwine.com/)

This strategy photo helps you (perhaps once again) to explore what your pattern can be for the coming years. Which indicators (horizontal axis) are important in your sector/ branches?

---

[2] Blue ocean strategy , Kim and Mauberge
[3] https://consultport.com/for-consultants/the-red-ocean-vs-blue-ocean-strategy-which-one-to-choose-as-a-consultant/?gclid=CjwKCAjwo8-SBhAlEiwAopc9W7Co1p_Bvvo4y2prnHQbEuyL_dib9CyckUYZwUBPOfyu-gg_DoWIvhoCCNgQAvD_BwE

In the strategy picture every description is an indicator in the market you will operate. In the examples you see that 'aging quality' is an indicator for wine. The older the wine, the more expensive it (normally) is. Another issue can be the complexity of the wine. Is your wine complex or not? Every indicator you have to give a range in what is low and what is high. Every indicator has virtually her own grade. Take at least 8 to 10 indicators for your market to make a realistic strategy picture. This picture will be the baseline of your activities later (in this guide).

5.2.4. Four action frame

When you have your *strategy photo* ready you can start with the four action frame, where you decide what to do. The frame below can helps you to structure your choices.

Delete	Strength
What factors/indicators that are self-evident in the industry should we delete	What factors should we strengthen to a level well above the norm

Weak	Create
What factors should we reduce to well below the industry standard	What factors should we create

You are almost at the end of the impact strategy formulation. Be sure that you have:
- Focus. Make choices and delete activities that give you headache.
- Deviate. Don't do what everybody is doing.
- Convincing slogan. Short, briefly and realistic

What is your abstract of your mission to reach impact? (write in the box)

> [example] 'Tony Chocolonely's impact mission: Together we'll make 100% slave free the norm in chocolate. How we are going to achieve it? It won't be easy. The situation is complex. But Tony's roadmap will help us accomplish it. Our roadmap has 3 pillars and points the way to 100% slave-free chocolate:
> 1) We create awareness: We believe in empowering cocoa farmers and people in cocoa communities with a certain level of consciousness about what is and isn't allowed.
> 2) Leads by examples: We aim for everybody in our supply chain to be happy with our chocolate, from the farmer and his children to the consumer who buys the chocolate. We lead by example as a commercially successful company to show the world chocolate can be made differently and without the use of modern slavery or exploitation.
> 3) Inspire to act: We inspire other key players to take action and are actively seeking partners who would be interested in applying our model. We do this by showing the impact we're making, sharing lessons we've learned and by always being open to a good conversation.

Now your impact, mission and 5years strategy is clear we make te step to short term. In what kind of circular model will you achieve your impact?

5.3. Circular model

Even if the choice of a business model can be fundamental, if you have not thoroughly thought through your idea and the market, it makes no sense to start this chapter. The choice of business model can be fundamental[4]. It allows you to decide on the main direction of your business model. There are several circular models. Perhaps you find your own model. This classification may help you if you have not found a business model yet:

Classification has been made according to organisational aspects, that can be useful to choose your model. This list is based on analysis from several existing models, interviews, workshops and desk research;

Figure 1: circular (business) models

1) Focus. Is the main activity design, making, assembling, re-use, design, make it useful, reuse of materials, reclaim of products, service, etc.
2) Value proposition: what do you want to achieve? Is it a combination? Is it social? Ecological? Money? Baseline: value proposition has a negative impact in social and/or environmental way.
3) Organisation: what is the 'mainstream' of the organisation at the activity? Internal approach? Value the chain? Organise a cycle? Is the organisation complex? Principle: the more complex the organisation is, less impact you will achieve.
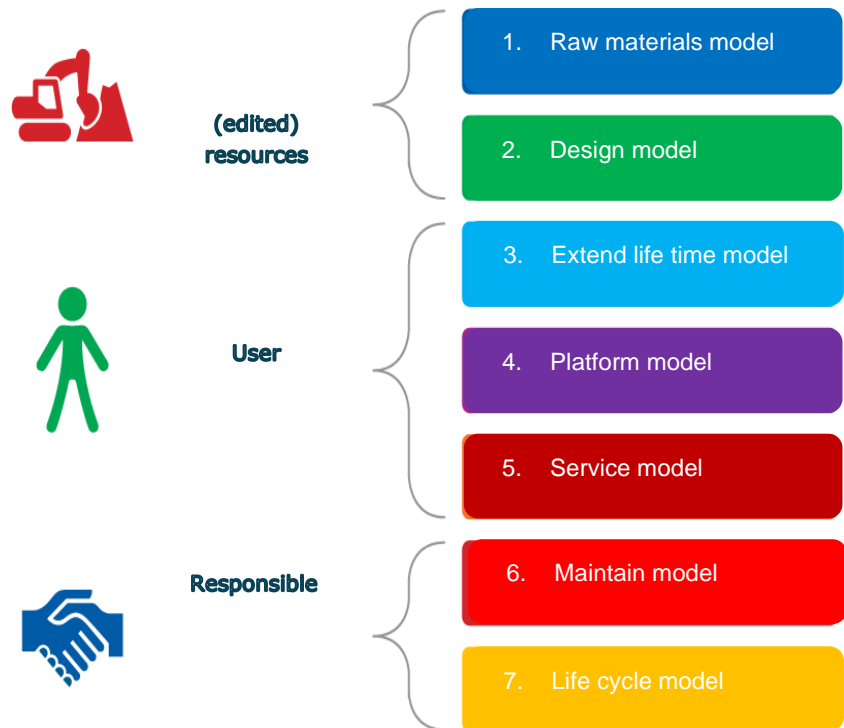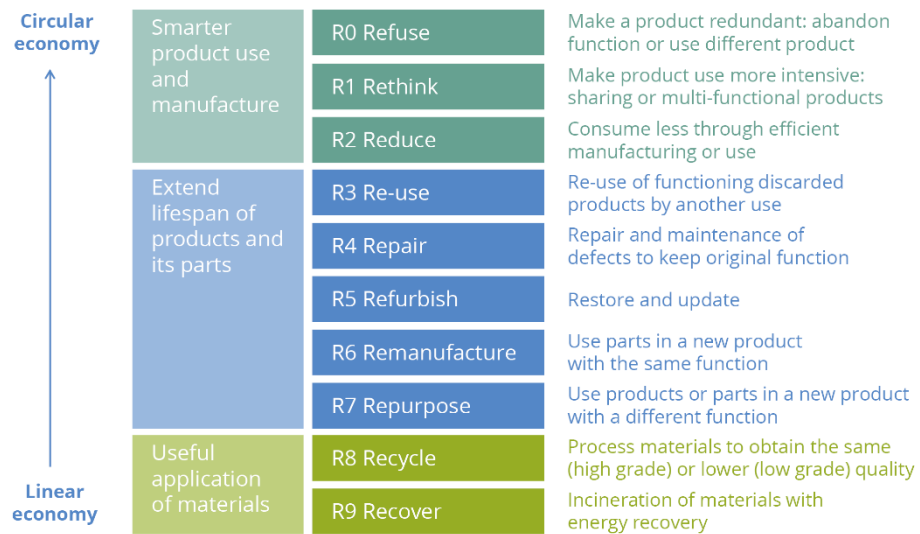
---

[4] Jonker, J. & Faber, N. (2020). Duurzaam organiseren: Template voor het ontwikkelen van nieuwe businessmodellen. Deventer: Boom | Management Impact.

4) Operational strategy (like 'way of work'): in which 'RE' strategy will you focus:

Circular economy ↑	Smarter product use and manufacture	R0 Refuse	Make a product redundant: abandon function or use different product
		R1 Rethink	Make product use more intensive: sharing or multi-functional products
		R2 Reduce	Consume less through efficient manufacturing or use
	Extend lifespan of products and its parts	R3 Re-use	Re-use of functioning discarded products by another use
		R4 Repair	Repair and maintenance of defects to keep original function
		R5 Refurbish	Restore and update
		R6 Remanufacture	Use parts in a new product with the same function
		R7 Repurpose	Use products or parts in a new product with a different function
Linear economy	Useful application of materials	R8 Recycle	Process materials to obtain the same (high grade) or lower (low grade) quality
		R9 Recover	Incineration of materials with energy recovery

5) Support: which supporting processes are essential/crucial for this model. Think about digitalisation, datafication, (return)logistics, competences, (technical) infrastructure, stock management, material exchange, quality.
6) Business model: which model (or combination) will be the best in this model? If you 'plus' al previous classification questions you can think about, for example, a service model. But you have to consider as well which impact does CO2 has (or other emissions). This about impact of people and planet (chapter before). If you take into account these questions, you will figure out what is the best for you!
7) Impact. Impact we be explained in the next chapter. But you already can think about this category. What is or will be the impact. Is it risk reduction? Resource security? Is it less use of materials? Creation jobs? Combination perhaps?

Below we bring the models together with the category's/classification. These overview can helps you to choose/ understand what's good for you. For instance, if you want to focus on extend life time, it is not so useful to set up a platform model, because your organisation will not be profit with a platform model.

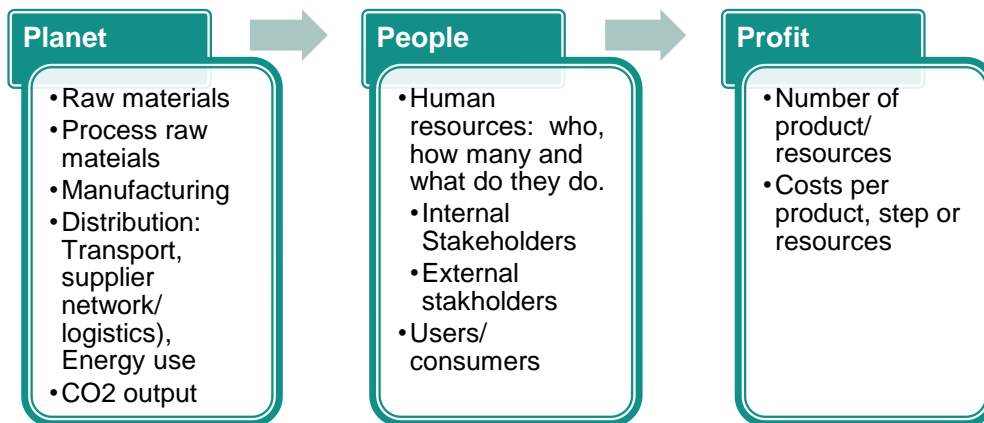| Model	Focus	Value proposition	Organisation	Operational strategy	Support	Way of working	Impact
Raw materials	Demolition, reclaim, repurpose, remanufacture	Primary: recycling of products, secondary: job creation, less	Increase value and New cycle principles	Recycle, repurpose, reuse, recover	Return-logistics, technical infrastructure, quality and demolition protocols	Sell residual flows and (bruto) reclycate (product of proces)	Less materials and resources, job creation and CO2 reduction.
Design	Design products and proces	Sustainability, circularity, recycling	Internal organisation, cycle and chain management	Rethink, redesign, reduce	Competence, design proces, return logistics	Combination of design, functional use and maintain and sell of products	Less materials, user reduction, reclaim resources, CO2 reduction
Extended life time	Maintain at time, reuse	Sustainability and circularity	Organise extend of life time materials, chain management, network and cycle	Reduce, reuse, repair, refurbish, remanufacture, repurpose	Design, competence, technical and logistic infrastructure	Product-As-A-Service (PAAS), Data(AAS), Maintain, sell-resell	Less use of (edited) resources
Platform	(re)use, maintain	Sustainability	Network	Reduce	Digitalisation, datafication, material exchange	Shared ownership, open access, pooling, give access	Save use of materials
Service (PAAS)	Use	Sustainability by better use of…	Network	Reduce	Digitalisation and datafication	Subscribe, share concepts without ownership, lease, pay-per-use, PAAS, hire	Reduce of material use
Maintain	Use, maintain, reuse, reclaim	Circularity	Chain, cycle as a system	Reduce, reuse	Digitalisation and datafication, (technical) infrastructure, stock management	Data and analytics as a service, maintain, inspection	Reduce material use, reuse, CO2-reduction
Life Cycle	Design, make, (re)use, maintain, reclaim	Sustainability, recycling, circularity, social, ecological	Cycle and system	Rethink, reduce, reuse, repair, refurbish, remanufacture, repurpose, recycle	Digitalisation and datafication, return logistics, competences, quality management	Subscribe, use of residual flows, reclycate, buy and rebuy, lease, maintain, inspection, extend life guarantee	Reduce of material sue, CO2 reduction

6. Core activities

Core activities	
People	Learning, health, etc.
Planet	Production, manufacturing
Profit	(marketing, production, logistics)

Core activities are activities that belong to your daily business. Marketing and sales activities for example. Or take control over your logistics. The idea of this chapter is to get an overview of your complete 'supply chain' of your activities. It is time to understand your (linear) activity chain. It is not the supply chain management of your organisation, but a detailed description of your activities, including transport, use of materials, use of human resources, amounts, etc. It is very helpful to draw your activity supply chain on a large white paper or white board where everybody can see where you up to. Try not to forget steps you think they may not be relevant. Every step is relevant, even mail service once a week.

Be clear in your definitions and write these on the paper, your amounts, etc. Is something missing, please add. When you look to your overview it must be a really clear overview of the activities that are included in the daily operations of working on your idea (business). '. On the next pages we give a description in every step, more broadly. When filling in this assignment, it's best to leave the room every now and then, to clear your head and stay focused. Come back and ask others to review and give additions.

In your supply chain you have described also these steps: (not limitative)

Planet →
- Raw materials
- Process raw mateials
- Manufacturing
- Distribution: Transport, supplier network/ logistics), Energy use
- CO2 output

People →
- Human resources: who, how many and what do they do.
- Internal Stakeholders
- External stakholders
- Users/ consumers

Profit
- Number of product/ resources
- Costs per product, step or resources

PLANET
- *Raw materials:* describe every raw material needed in your product (service). If your product exists of more sub raw materials, you describe all these sub raw materials. Tell yourself also if you have to process some raw materials before transport. Describe every raw material that belongs to your end product. For example: if you want to make a chair of an oak tree, you describe in detail what you use from the oak. (and what you don't use). If you don't use all components of the oak, what do you do with the other parts of the oak? If you only use or buy the trunk of the tree you write this down. What are the other parts. If you buy aluminium parts, where does these parts comes from. Do you only buy the end part? What is the source of your aluminium? Etc.
- *Sources:* Tell yourself where the trunk of the trees come from. Is that in your own country, region or city? Is it processed or unprocessed? Is the aluminium part made nearby or not? Is the aluminium a recycled version or comes from abroad, etc.
- *Manufacturing*: who is doing what. Explain detailed what happen and who is doing what in this step. If this step is large, start a new white paper and explain detailed what is happening. If you make the chairs by yourself, explain detailed every step you do. For example: if you make the trunk useable for legs or seat, this is an activity. Who is doing this? What is (s)he doing? Is (s)he assembling, than it is an activity, etc.

CircularSquare 2023 CircularSquare©

- *Distribution:* this part is divided into: transport by logistics (trucks/tractors, cars); energy transport. Explain briefly to yourself what is happening here, distance of transport and how many energy (electricity, fuel) is used).
- *CO2 - output:* in every step will be used energy. Energy generate CO2 probably, so be honest and tell yourself how many kg CO2 is expelled.

A helpful activity for your supply chain is to set up a Life Cycle Assessment. A Life Cycle Assessment (LCA) is defined as the systematic analysis of the potential environmental impacts of products or services during their entire life cycle. During a LCA you evaluate the potential environmental impacts throughout the entire life cycle of a product (production, distribution, use and end-of-life phases) or service. This also includes the upstream (e.g., suppliers) and downstream (e.g., waste management) processes associated with the production (e.g., production of raw, auxiliary and operating materials), use phase, and disposal (e.g., waste incineration). Life cycle impact assessment (LCIA) covers all relevant inputs from the environment (e.g., ores and crude oil, water, land use) as well as emissions into air, water and soil (e.g., carbon dioxide and nitrogen oxides). The International Organization for Standardization provides guidelines and requirements for conducting a Life Cycle Assessment according to ISO 14040 and 14044. You can imagine that making a LCA ask you some

professionality. Be aware that a LCA gives you a lot of information. Keep in mind that, if you're not used to working with it, it may be time-consuming. Find more information of LCA : eplca.jrc.ec.europa.eu/LCDN). A LCA can be quite difficult, see below a short version. You can also start with a calculation of the total costs of ownership (this step will be more in dept done in chapter Methodical. A short diagram is shown below. You make clear what the total life cycle will be (and what will the people, profit, planet costs be).
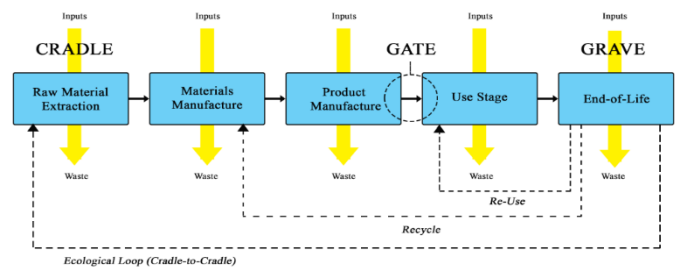

Figure 2: Example of LCA stage diagram (https://bit.ly/3SRMqP3)

PEOPLE
- *Human resources.* You can't do you activity without human resources. These group can be divided into several groups. First you will naming them, without value judgement. In your activity chain you will tell yourself:
  - which organisation will participate
  - is this an internal or external stakeholder.
  - is this a (end) user
  - consumer, client
  - producer
  - etc (there can be many difference groups or persons).

PROFIT-PRODUCT
- Profit is not only an monetary step. But you have to calculate what the cost per step is or will be. Besides the monetary step, you also count how many products (for example 4.000), resources, components, means of transportation (for example 4 trucks, 3 bus, 2 tractors), energy (for example: you use only solar panels), number of people (for example: 4 people with working time factor 1,0 (40 hours a week) will be part of your activity chain.

6.1.1. negative-positive impact of People

In this paragraph you will set up a total overview of your costs and benefits along the 3P's of: people (named stakeholders), planet and profit. Stakeholders is the most difficult part to describe the positive or negative impact in you model. It depends in how you look to this group, do you have positive or negative thoughts in advance or you do not know anything about them. Try not to rate them in value for money but in value of impact.

Planet will be rated along the CO_2 emission. You can consider to add other rates; like impact on better biodiversity, better absorption of water or other issues. Make it clear in advance. And profit will be rated along costs per activity versus incomes.

Cost-benefits*:		
People	**Negative impacts**	**Positive impacts**
Planet	Footprint	Savings
Profit	€ of activity	Incomes

*=fill in: '-' / '+' / '0'

The *stakeholders* category considers a broad range of people. Workers, customers and community have their own role. But what about stakeholders (versus solely shareholders). In your business the group of stakeholders is broader than only workers/ employees or hiring people. It is wise to know your stakeholders very well to have business with them.

Stakeholders	
Employees	
Relations	
Users (clients)	

The[5] central question is identifying what actors and stakeholders you want to engage with, work with, or create value for through your product or service. Identifying the parties that you work with is essential. Working together on (multiple) value creation is always a collective task in which value chains and networks take a central position. It is useful to make an overview of them when designing a circular model. In the first place, it is about determining who they are and what interests they have or may have in relation to your idea. Are they parties you have to deal with immediately as they are essential for your circular model to work? Or are they more distant, but ultimately influence the social acceptance of your idea? Freeman (1984) formulated the notion of stakeholders in relation to organisations. A stakeholder is any person or group of people who have a particular interest in an organisation. Numerous tools have been developed in recent decades to identify parties and determine the nature of their relationship. How you use these tools will depend on what you want to achieve.

In network analysis, you identify everyone who is or may be relevant to the business model and indicate the extent to which there is a relationship between you and the identified parties. The actors identified can, of course, be partiesfrom your existing network, or parties that are affiliated with your network and with whom it is relatively easy to establish contact. Internal actors are also part of this exercise.
It could also be that you can only realize your value proposition by entering into a relationship with parties with whom you have no relationship as yet. We encourage you to keep an open mind and think broadly. There are many ways to carry out a network analysis. It can be done very easily, for example, by firstly identifying the names of actors who are relevant to realizing the value proposition and adding them to Post-its® in a brainstorming session, and secondly, exploring how they are related. To aid identification of actors in the first step of this process, we highlight tree key approaches to mapping networks. These approaches can help you to get grip into your stakeholders.

---

[5] Freeman, R. E. (1984). Stakeholder management: A strategic approach. Pitman. Johnson, G., Whittington, R., Scholes, K., Angwin, D., & Regnér, P. (2017). // Exploring strategy: Text and cases. 11th edn. Pearson Education Limited.// Mitchell, R. K., Agle, B. R., & Wood, D. J. (1997). Toward a theory of stakeholder identification and salience: Defining the principle of who and what really counts. Academy of Management Review, 22 (4), 853–886.

Spider Web model: Start from your own position where you, as an initiator, set up a partnership and identify the related parties with you in the centre. This is a network model reminiscent of a spider in a web.
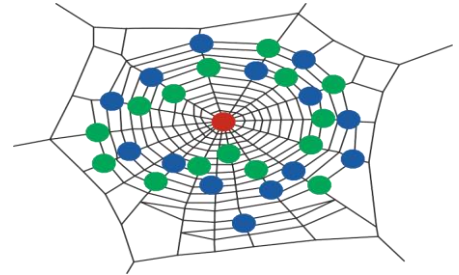
Mesh Network model: When you create a value proposition with multiple parties, a mesh is a good starting point. The participating parties are links in networks in which all parties are mutually connected, without a central spider in the web. However, within a broader network of parties, it is important to determine the boundaries of the collective of parties with which you realize the value proposition. This prevents you from losing your perspective.

Cluster Tree model: Here, you start with yourself as the starting point of the network. What may become evident when you have produced an overview of the network is that you may not be the central point.
The identification of the parties in your network is a first step that is the basis for a much more extensive analysis of the interrelationships between different actors. In addition, understanding these interrelationships can enable you to investigate these actors' powers to positively or negatively influence the value proposition. Several methods are available to support these additional analyses. Here we recommend two tools to determine the possible roles and influences of the various stakeholders and parties in your network:
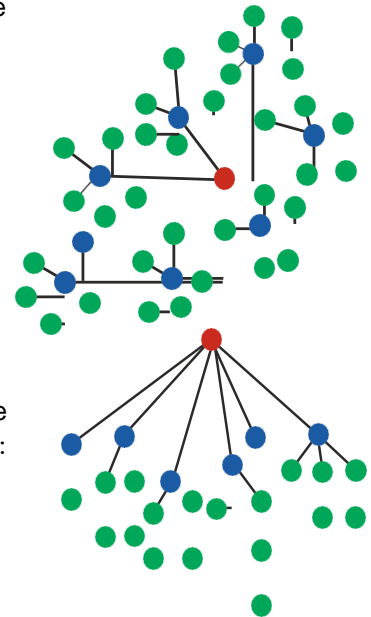
Force field analysis (optional)

Once you have mapped your network you can indicate the forces between parties, for example with green and red arrows, addressing the question(s) of how the parties relate to each other and whether they have a positive or negative influence on each other or on your impact claim. This process can provide insight into the roles and interrelationships of the parties and how and whether you might need to align your network to realize your value proposition.

After you have analysed which parties are relevant and how they can contribute to the realization of the goal, you can also consider how and what type of partnerships you want to enter into with these parties. Do you enter into a cooperation agreement with them? Or develop a joint venture together? Or do you set up a cooperation? At all of these key decision points, sense- check your choice of business model archetype and whether your partnership structure will influence or impact your proposition in any way.

When having an overview of your stakeholders, make a table and line all stakeholders among each other. Rate every stakeholder with a '+'// '-'. Count the total of + and – and you will see the positive or negative impact of your stakeholders. When doing, you will also see where you have to take more effort (or not).

6.1.2. Footprint-saving of our planet

Raw materials, reused materials, sources, manufacturing, distribution, CO2-output. What do you really know about this? There are several ways to find out where they comes from, but it will takes time. Calling, mailing, talking with your stakeholders may be wise and needed to understand how the market is (and works). Metabolism of Cities[6] for example makes visible where your materials comes from. (four main material families). If you know how the flows will go of materials, water, energy, you can make the next step of improvement. Visualisation of your supply activity – material chain helps you to understand your own/new business. Try to be as complementary as possible. Energy use, gas use, water use are also sources you may/will use. Planet is also about the difference in the impact you may do. This paragraph is related to the new way we will have to look and work according the corporate sustainability reporting directive (next paragraph). It was and will be a continuously triangle of social, environmental and economical approach. The 'costs' of planet are described in CO2. The 'benefits' are the potential savings of CO2.

Cost-benefits*:

People	Negative impacts	Positive impacts
Planet	**Footprint**	**Savings**
Profit	€ of activity	Incomes

*=fill in: '-' / '+' / '0'
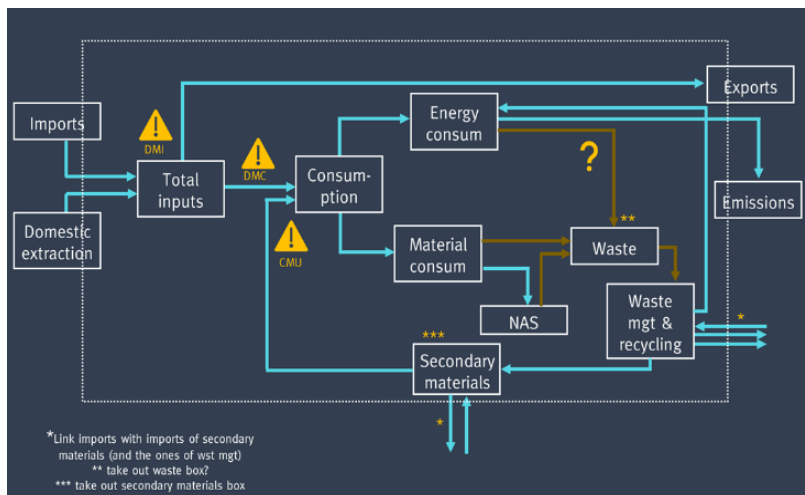
Figure 3: source Metabolism of Cities 220321
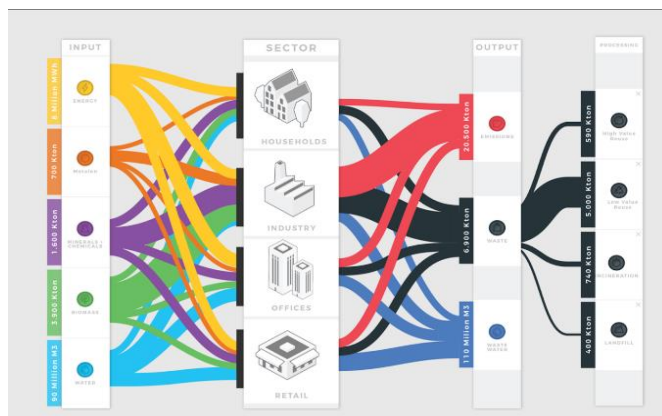
Figure 4: source Metabolism of Cities Sankey report Amsterdam

---

[6] https://metabolismofcities.org/

6.1.3. Cost-benefit of Profit

The time of only explaining financial benefits, is history. The council and the European Parliament reached a provisional political agreement on the corporate sustainability reporting directive. That means that all your effort in planet and people will make sense. You are one of the people who will (or must) be transparency about the activities you do. You need to explain where you earn money, what the costs per activity is or will be and if it is profitable. Please do consider that you will be asked to report your non-financial activities as well.

EU law requires certain large companies to disclose information on the way they operate and manage social and environmental challenges. This helps investors, civil society organisations, consumers, policy makers and other stakeholders to evaluate the non-financial performance of large companies and encourages these companies to develop a responsible approach to business.

Cost-benefits*:		
	Cost	**Benefits**
People	Negative impacts	Positive impacts
Planet	Footprint	Savings
Profit	**€ of activity**	**Incomes**

*=fill in: '-' / '+' / '0'

The Council and European Parliament today (30 June 2022)[7] reached a provisional political agreement on the corporate sustainability reporting directive (CSRD).The proposal aims to address shortcomings in the existing rules on disclosure of non-financial information, which was of insufficient quality to allow it to be properly taken into account by investors. Such shortcomings hinder the transition to a sustainable economy. This agreement is excellent news for all European consumers. They will (should be) now be better informed about the impact of business on human rights and the environment. This means more transparency for citizens, consumers and investors. It also means more readability and simplicity in the information provided by companies, which must play their full part in society.

The European Financial Reporting Advisory Group (EFRAG) will be responsible for establishing European standards, following technical advice from a number of European agencies. EU rules on non-financial information apply to all large companies and all companies listed on regulated markets. These companies are also responsible for assessing the information at the level of their subsidiaries. The rules also apply to listed SMEs, taking into account their specific characteristics. An opt-out will be possible for SMEs during a transitional period, meaning that they will be exempted from the application of the directive until 2028.

Reporting must be certified by an accredited independent auditor or certifier. To ensure that companies comply with the reporting rules, an independent auditor or certifier must ensure that the sustainability information complies with the certification standards that have been adopted by the EU. The reporting of non-European companies must also be certified, either by a European auditor or by one established in a third country. The application of the regulation will take place in three stages:

- 1 January 2024 for companies already subject to the non-financial reporting directive
- 1 January 2025 for large companies that are not presently subject to the non-financial reporting directive
- 1 January 2026 for listed SMEs, small and non-complex credit institutions and captive insurance undertakings

For the coming years, it is important to consider that you will need to report not only your costs and benefits, but also the impact on social and environmental issues.

---

[7] https://www.consilium.europa.eu/en/press/press-releases/2022/06/21/new-rules-on-sustainability-disclosure-provisional-agreement-between-council-and-european-parliament/

7. Impact plan

An impact strategy clearly outlines the purpose of the investment, it is a detailed roadmap to achieve the impact, and provides a long term vision of how such impact will be achieved as well as how the investment will be measured to determine success of the impact vision.

7.1. What makes a good impact strategy?

- The impact strategy should be developed and owned by those who will take it forward. Engaging all stakeholders within the impact value chain, investors, investees, beneficiaries, influencers in the process helps ensure that they are part of the strategy and for realizing the strategy.
- The impact strategy should get to the heart of what the investment is about to achieve. It also creates the space for important or difficult conversations about what are the trade- offs, concessions, expectations and results in a more robust and meaningful strategy.
- The impact strategy should combine analysis with imagination. Strategy development is structured - but structure is not necessarily the enemy of creativity.
- The impact strategy must be lived. A good impact strategy should be emergent - setting a direction of travel but adapting along the way. Effective investors regularly review their strategy as they learn more about what works in practice, and manage their expectations about what is relative, material and effective.

7.2. What is the strategy process?

To become an impactful entrepreneur that creates value in all dimensions, for all stakeholders, you need to start by thinking about the value and impact you want to create. This will require a very specific vision and making it visible and tangible. Explicitly mapping the impact you want to create is a great guide for strategic thinking and action. The best way to start thinking about impact is to draw up a Theory of Change (ToC).

A Theory of Change[8] describes how change is assumed to come about through intervention in a prevailing situation. The theory is usually laid out in a diagram showing the connections between interventions and outcomes – the causal pathways or results chains. But more than this, it makes clear that these causal pathways rest on a set of assumptions. And these assumptions have varying degrees of evidence to support them. It makes all three things explicit: causal pathways, assumptions, and evidence.

The idea of a 'Theory of Change' is not new. It is regarded by many as more flexible and able to capture the more complicated and real world nature of initiatives. Therefore, it has become a popular tool for development practitioners who work in complex and changeable environments. Theory of Change encourages a more holistic understanding of a context and the role of the intervention in the context. This level of perspective often strengthens design, implementation, continuous learning and adaptation, and ability to deliver desired impacts.

---

[8] Funnell and Rogers (2011). Purposeful Program Theory: effective use of theories of change and logic models. Sue Funnell and Patricia J Rogers. Published by Jossey-Bass, Sydney, 2011. 550pp. // The Aspen Institute (2004). Andrea A Anderson, Theory of Change as a tool for strategic planning. A report on early experiences. For The Aspen Institute Roundtable on Community Change, August 2004.// Comic Relief (2011). Cathy James, Theory of Change Review. For Comic Relief, September 2011.// Vogel/DFID (2012). Isobel Vogel, Review of the use of 'Theory of Change' in international development. For DFID, April 2012.// UNDP/Hivos (2011). Iñigo R Eguren, Theory of Change. A thinking and action approach to navigate in the complexity of social change processes. For Hivos, The Netherlands, and the UNDP Regional Centre for Latin America and the Caribbean, May 2011.

Sometimes an intervention is not about change, but aims to stop or reduce a specific change, or prevent something from happening - for example, maintaining biodiversity despite pressures from agriculture and industry. In such cases the theory of change explains how pressure to change will be resisted or deflected. The intervention can be seen as changing a situation from what it otherwise would have been. Why use a Theory of Change approach? Creating a Theory of Change is beneficial because it:

A. Provides a framework to think logically through the assumed change pathways of an intervention, or design an intervention based on the current change pathways in a certain environment.

B. Provides a forum for stakeholders to express their assumptions of what changes will take place. Creation of a Theory of Change is ideally participatory, capitalising on a diverse range of knowledge, and creating shared understanding, expectations, and ownership.

C. Prompts you to weigh the evidence behind each assumption of change, highlighting: I. Evidence gaps, which can ideally be filled in design phase, or if none exists then; II. Areas of weak evidence that need to be monitored and maybe evaluated

D. Helps to identify potential blockages or risky pathways that need to be managed, the potential impact of those risks, and alternative change pathways that could act as a contingency plan.

E. Helps to identify opportunities - other partners/events/circumstances that contribute to an intended outcome, which could be strengthened rather than putting a new intervention in place, therefore offering better vfm. 6) Forms the basis of a results framework, often in the form of a logframe - helping to identify SMART outputs, outcomes, and impacts, in an open and transparent way

How is it different from a Logframe? The differences between the two are highlighted in the table next.

The Theory of Change should be used as a framework for the logframe. It is important to remember that the scope of the Theory of Change is often much greater than that of the programmatic logframe.

Theory of Change	Logframe
▪ Maps out multiple causal pathways with sight of the 'bigger picture' context ▪ Explores what is implicit - spelling out assumptions ▪ Cites the evidence (or lack of it) relating to each causal link ▪ Prompts critical reflection and re-thinking of approach ▪ Is of particular value for evaluation	▪ Monitoring tool to measure progress against the Results Chain, comparing planned and actual results along selected causal pathways. ▪ Includes indicators, baselines, targets and sources to measure progress ▪ Outlines the assumptions and risks, which are linked to the realisation of certain causal pathways.

7.3. Developing a Theory of Change

Developing a Theory of Change should be participatory. It should be designed with all those involved in making the change happen. This way you can build consensus among those supporting the intervention and discuss the value of different approaches.

Generally, a Theory of Change development process is designed around a few key steps:

1. A situation analysis - understanding the context, including but not limited to the problem, its causes and its consequences, and using these insights to help establish the boundaries around the intervention. This helps to scope and focus the intervention (at any level, from local to global, to institutional). Decision Point: Consideration of the context and scope of the proposed project will often lead to a decision on whether to develop a simple or more complex Theory of Change format and approach. This may be based on and integrate learning from recent pilots on the use of complexity thinking and adaptive programming (R4D listing of ODI paper) and will influence the approach to creation of the visual schematic described in step 2, and possibly the type of software or other tool used to create the schematic. (see options below)

2. Laying out the sequence of expected results chains in a schematic visual representation, called a logic model. Using the logic model to identify a set of preconditions that together are deemed necessary and sufficient for the desired change(s) at the next level to occur. Working backwards is

a good way of doing this - starting with the long-term goal or desired impact and then developing the logic model with its set of connected outcomes. The outcomes at each level together can then be seen as preconditions before change at the next level will be triggered. The logic model can reflect the fact that changes are not usually linear, feedback loops can be added where possible. Many different outcomes can be identified at different stages of an intervention, and then clustered in a series of levels that are most logical and useful.

3. An explicit assessment of the evidence supporting these assumptions of change (either in the visual representation or narrative). This assessment of evidence aids risk identification and mitigation activities as well as guiding M&E, research and learning activities. Where knowledge gaps exist this can be an opportunity for innovative thinking on how these gaps might be addressed through a new approach or one that has been piloted elsewhere that may also work in the context.

4. Thinking through, and making explicit the underlying rationale and actions (activities), and the level of success needed for each outcome in order to produce the final intended results and impact. Although often neglected, it is important to develop and apply this theory of action in conjunction with the theory of change. This can then be pulled together into a matrix as the basis for a delivery plan.

7.3.1. Characteristics of a good Theory of Change

A good Theory of Change will be:

- Meaningful – represents action that's valued and worth doing; influences the design, management and M&E.
- Plausible – makes good sense; is logical, comprehensive, clear and understandable
- Feasible – it can actually be carried out; it's practical and focussed
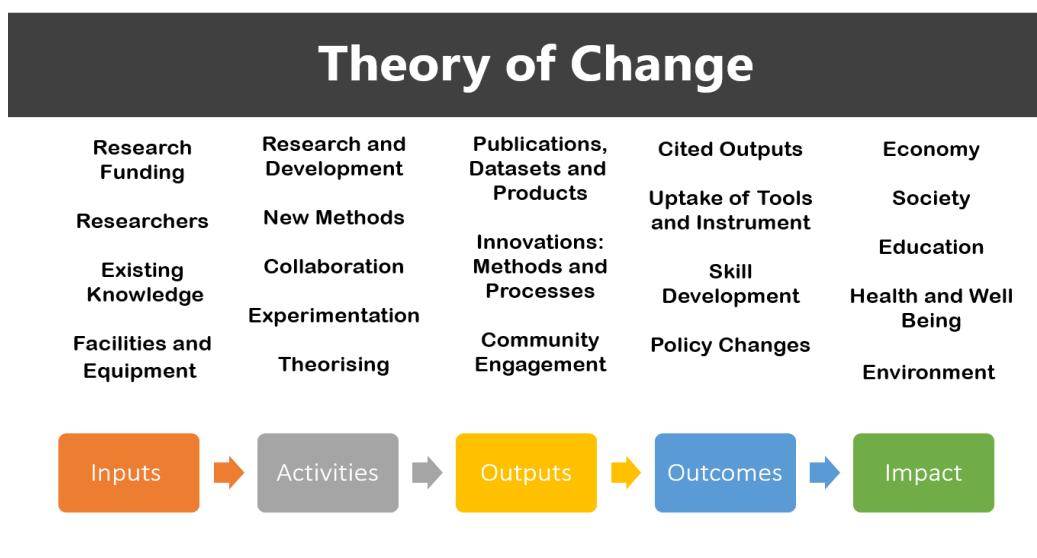- Testable –results chains and assumptions can be verified. Evidence gaps are noted.

Figure 5: An example of a Theory of Change model - Weiss, Carol (1995). Nothing as Practical as Good Theory: Exploring Theory-Based Evaluation for Comprehensive Community Initiatives for Children and Families in 'New Approaches to Evaluating Community Initiatives'. Aspen Institute

A ToC will finally help you realise your impact claim you described in the first chapter!

8. Now it all begins

You have read a lot of books. This document as well. And still you have doubts. Does it really work? Your well-developed idea is brilliant. The purpose of this CircularSquare is to help you turn your idea into a viable project, organisation or business. You have to start, but where? All books you have read tell you to start with your value proposition; or to start with your idea; your value chain. To be honest, it does not matter where you start, as long as you start somewhere. Pick up a canvas, a impact model or this CircularSquare model and and see which chapters you think might be easiest to fill in.

Read other models and you will see a *red line.* All templates have something that you will make comfortable. Working on new business models is ultimately a change management challenge. New models are not invented in a vacuum, but within the existing social and economic order. Based on all possible considerations and historical developments, that order has been established, and all potential parties are interested in keeping it that way. Proposals to irrevocably change that order create resistance. But that's what's always on the agenda. Especially when it comes to adding value in what is not there now. In a society where everything of economic importance is based on transactions that are monetized, drawing attention to the inclusion of more than one value is something that just doesn't fit.

Back to the present and the challenge of shaping transformation and transition through a new generation of what we have called sustainable business models. People, organizations and governments are looking for ways to create value in a renewed and collective way. CircularSquare offers existing companies a tool to explore innovation opportunities that contribute to social and ecological issues and ultimately make them more successful as an organization. There are many ways in which this can happen. Just look at how organizations like Ikea, Toney Chocolonely and Patagonia experience these changes in their daily practice. The CiruclarSquare gives inventive, enterprising people the opportunity to develop their own business model.

Concepts will develop over time. In that respect, the mere resembles a 'start-up method'. People and organizations in society are tinkering with finding ways things can be done differently in existing societies. It involves trial and error; resistance and moving along and temporarily or permanently changed. It ultimately provides an image of (a generation of) new frontrunners who determine the contours of a transition to a different, circular, economy with new business models. It is certainly not yet a fixed pattern, but it is an advance towards a different view of the new normal.

9. References

- European Commission. (n.d.). *Active inclusion.* European Commission. Retrieved on 24 September 2020. ec.europa.eu/social/main.jsp?catId=1059&langId=en.
- Jonker, J., Stegeman, H., Faber, N., & Kothman, T. H. (2018). *Eén zwaluwbelooft veel goeds – resultaten van het landelijke onderzoek 2016–2017 naar businessmodellen voor de circulaire economie.* Doetinchem: Stichting OCF 2.0.
- Jonker, J, Kothman, I., Faber, N., & Montenegro Navarro, N. (2018). *Organising for the circular economy | a workbook for developing circular businessmodels.* www.newbusinessmodels.info/ebook/organising-for-the-circular-economy-a-workbook-for-developing-circular-business-models.
-

is a combination of existing models; retrieved from strategies (Blue Ocean), 7S model of McKenzie, Triple Layer Canvas (Alexander Osterwalder & Yves Pigneur), Impact management (Avance). This is an abstract from the best existing models, combined with lessons learned from the CityLoops project (2019-2023). The model has been proven and used in 4 organic business cases from a non-profit organisation. Hopefully it helps you to understand which activities you have to do to reach your goal. For any comments on this newly developed model, we're open to get in touch[9].

---

[9] Please via: https://nl.linkedin.com/in/adriaanhellemans

CITYLOOPS

CityLoops is an EU-funded project focusing on construction and demolition waste (CDW), including soil, and organic waste (OW), where seven European cities are piloting solutions to be more circular.

Høje-Taastrup and Roskilde (Denmark), Mikkeli (Finland), Apeldoorn (the Netherlands), Bodø (Norway), Porto (Portugal) and Seville (Spain) are the seven cities implementing a series of demonstration actions on CDW and OW, and developing and testing over 30 new tools and processes.

Alongside these, a sector-wide circularity assessment and an urban circularity assessment are to be carried out in each of the cities. The former, to optimise the demonstration activities, whereas the latter to enable cities to effectively integrate circularity into planning and decision making. Another two key aspect of CityLoops are stakeholder engagement and circular procurement.

CityLoops runs from October 2019 until September 2023.