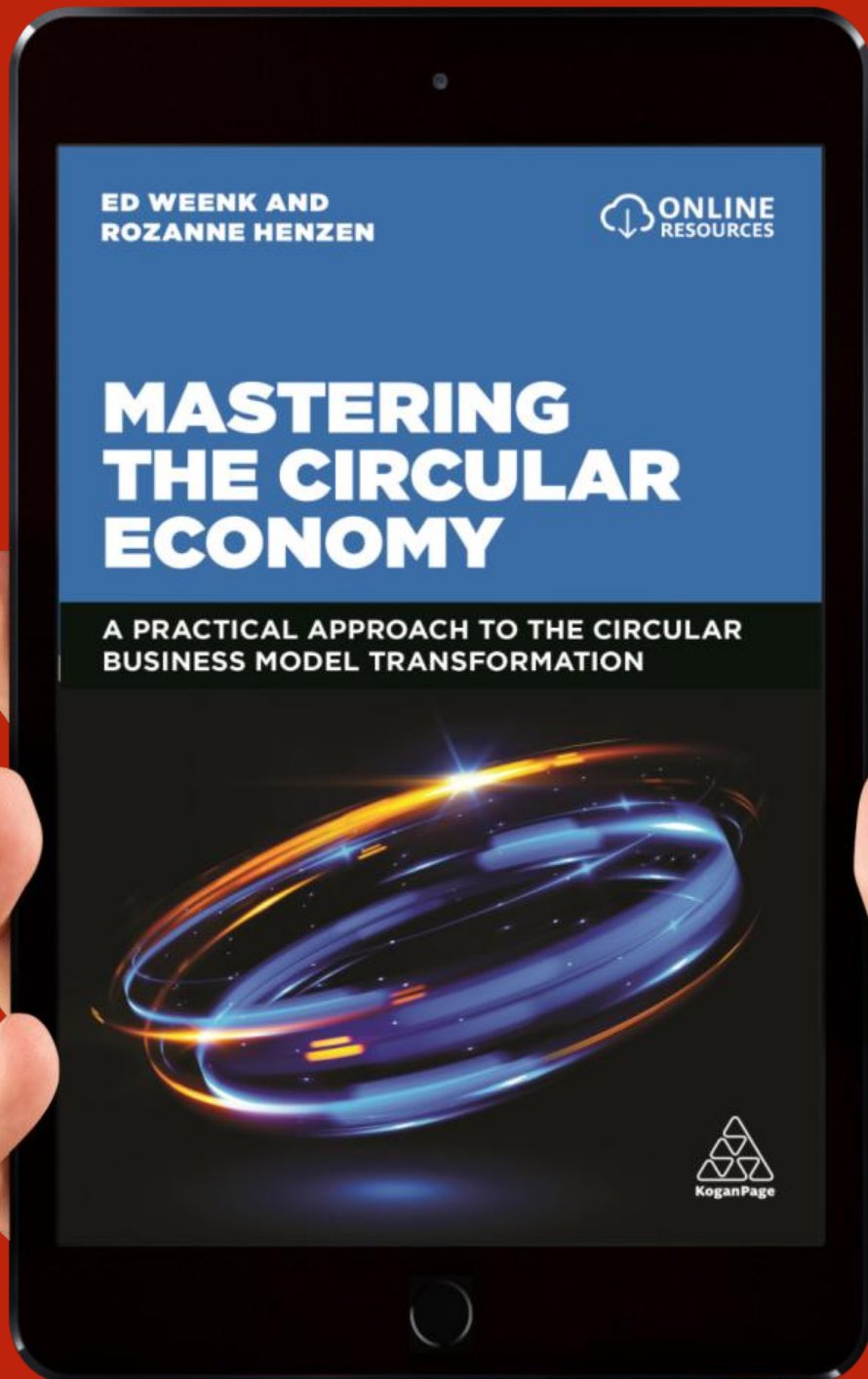


Exclusive preview



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About the authors



Rozanne Henzen

Rozanne Henzen holds an MSc in Strategic Communication Sciences from the University of Antwerp, and received a Fellowship at the Stockholm School of Entrepreneurship during her studies, both focusing on consumer behaviour and circularity for the textile industry. Currently, she is a researcher and innovation consultant within the Expertise Centre for Sustainable Transformation at Antwerp Management School (AMS).

Her research and consultancy services involve working on several national and international research projects within the field of sustainable transformation. She manages the AMS Corporate Leadership Groups, through which companies jointly commit to public annual actions to promote the circular or wellbeing economy. As part of her work for AMS she gives Circular Economy 101 lectures and is part of the Global Leadership Skills faculty team.

Rozanne was previously a member of the Dutch National Think Thank on Accelerating the Transition to a Circular Economy and conducted research on individual sustainability leadership. In 2020 her first book was published for the Dutch market, *De kleine Circulaire economie for Dummies*, the first official For Dummies book on the circular economy, which contained clear and thorough explanations and tips on contributing to a fully circular Netherlands. She is currently being recognized for her sustainability efforts as one of the Sustainable Young 100 of 2020 in the Netherlands.

In her spare time, she tries to make the complexity of a circular economy and other sustainability-related topics accessible for everyone through her Instagram account [@reduce.reuse.rznn](https://www.instagram.com/reduce.reuse.rznn). In doing so she hopes that people will see the transition to a circular economy as an adventure, instead of a restriction.



Ed Weenk

Ed Weenk MSc PDEng is an experienced lecturer, corporate adviser and workshop and training facilitator. His professional passions are sustainable operations and supply chain, managers and management, projects and project management, training and teaching, and business simulations and experiential learning.

He has extensive practical experience since the mid-1990s in managing international logistics and distribution projects at strategic and operational level and is a strong believer in the principles of experiential learning. Next to his practice as an independent professional, he is delivery partner and authorized trainer in the business simulations of Inchange of the Netherlands and Palatine Group of New York.

Ed collaborates as a Senior Associate Professor at different business schools, such as EADA Barcelona (Spain), Maastricht School of Management (Netherlands), TIAS School for Business and Society (Netherlands), Antwerp Management School (Belgium), WU Wien Executive Academy (Austria), Rotterdam School of Management (Netherlands) and Centrum Graduate School of Business (Lima, Peru). His specialization is on the topics of operations and supply chain management, circular economy, project management and intrapreneurship and entrepreneurship.

Ed has previously written a management book, *The Perfect Pass: What the manager can learn from the football trainer*, published in English, Spanish and Dutch, about the importance of seeing the big picture, having good internal and external alignment and achieving coherence at all levels. In 2019 his second book was published, *Mastering the Supply Chain: Principles, practice and real-life applications*, which is now available in English and Dutch. Like *Mastering the Circular Economy*, this book combines relevant theory and frameworks with practical application through a business simulation.



Noah Schaul (contributor)

Originally from Luxembourg, Noah Schaul speaks five languages fluently (Luxembourgish, English, German, French and Dutch) and currently lives in Utrecht in the Netherlands.

From a young age, sustainability was a key interest, later on developing into his passion for sustainable business. Noah graduated *cum laude* from Utrecht University's honours programme, studying a BSc in Economics and Business Economics, with a minor in Economic Geography. His thesis about revisiting the impossibility of universal basic income was published on the Citizen's Basic Income Trust website.

After projects in sustainable food, the sharing economy and the art business, Noah joined Inchainge in 2019. There he had the opportunity to deep-dive into the circular economy.

Among his first projects was the launch of the newly developed circular business simulation The Blue Connection. During the 'City Tour', key stakeholders were invited to showcase events across Europe to experience the brand-new circular strategy business simulation. This project allowed Noah to meet professionals, academics, NGOs, consultants and politicians to discuss the optimal ways to transition to circularity.

Over the course of 2020 Noah has developed into a thought leader on circularity within Inchainge, establishing a reputation as 'Mr Circular' within his team. Noah is now one of the master trainers in The Blue Connection, facilitating Train the Trainer events, professional programmes, university courses and MBAs.

As a strong believer in cooperation, Noah has started to build a circular economy community for the Netherlands on LinkedIn and is growing the network of delivery partners for Inchainge.

Background

Egge Haak, Partner at Inchainge

Inchainge is a Dutch company fully dedicated to experiential learning in value chain management based on business simulations. We constantly create new simulations and training programmes as well as enhancing our existing ones, so that learners in the industry and around the world can be supported in their learning journeys. Being a small and compact organization we take great care in developing and maintaining a large network of both professional trainers and educational teachers and professors around the globe.

We see around us that the volatile and uncertain world we currently live in creates enormous challenges for companies and their value chains. Change is the only certainty in every day's business and in order to adapt supply chains successfully, a thorough understanding of their dynamics and interdependencies is absolutely necessary. But just understanding the system as a whole will not be enough; constant adaptation also calls for leadership skills in collaboration and teamwork.

At Inchainge, we believe that such understanding and the corresponding skills can only be acquired through active experience. I'm referring to the full experience of managing a value chain with a team, of handling all dimensions in an integral way, of exploring how everything is connected, of working effectively together as a team. On top of this our mission is to help students and companies create alignment between strategy and execution, between departments in a company and between business partners in the value chain.

We have designed and built all of our business simulations with these objectives in mind, starting with The Fresh Connection in 2008 – to help learners understand relevant concepts, to give them a platform to experience these in a virtual company setting and thus acquire the necessary skills to better deal with the complexities of alignment in the competitive and fun setting of a game. But we don't stop there. We also have a wide diversity of materials to support teachers, trainers and learners in their usage of our simulations and to enrich their experience with meaningful content.

That is also where this book fits in, like its predecessor *Mastering the Supply Chain*. Apart from our existing simulations and supporting materials, we were looking for a way to further bridge the gap between theoretical value chain concepts and their direct application, and that

is precisely what you will find here. The book starts with an overview of many critical concepts around the topic of circularity, then invites their practical application using The Blue Connection as an interactive case. In the third part the book even goes beyond the pure context of the simulation, providing learners with a wealth of additional circular challenges to think about. With this, I believe, the book will be extremely useful to both learners and their instructors, in business or in the educational world.

At Inchainge we trust that *Mastering the Circular Economy* will set a new standard and bring the integral experience of The Blue Connection to a higher level.

Preface: The corporate circular imperative 1: Narrative and numbers

Many students learn best when they are actively doing things and not only studying ideas in the abstract: when their curiosity is aroused, when they are asking questions, discovering new ideas, and feeling for themselves the excitement of these disciplines.

KEN ROBINSON AND LOU ARONICA

Circularity is not just about recycling. Circularity is not just about fighting climate change. Circularity is also not just the latest hype in sustainable business. In fact, circularity isn't even new.

Check out any major city in Africa, India or South America to find large clusters of car repair shops, household appliance repair shops, clothing repair shops and so on. In Europe or the USA too, for most people circularity was arguably quite a normal element of daily life until at least the 1950s. A world in which things which were broken, from household appliances to tools to clothing, would be repaired, mainly out of *economic necessity*. There was simply no money to buy something new.

In Europe and the USA, with the economies booming from the 1960s onwards, consumerism has entered over time as the *modus vivendi* and people have got used to throwing things away and replacing them by newer or more fashionable things. At best these items are replaced at the end of their physical lifecycle, but in many cases long before, and all too often even before using them at all. In other countries which are trailing in the development curve follow similar development patterns, possibly similar behaviour can be observed there in the future.* As much research demonstrates, we are already moving fast towards hitting resource boundaries on the planet. Thus, economic necessity is maybe no longer the main issue, but *resource necessity* (read: scarcity) may become the issue.

As the saying goes, *necessity is the mother of invention*, and it can be observed that more and more people, governmental institutions and also companies are beginning to see that action is required and that new ways of looking and acting are needed. In short: circularity is gaining relevance, and fast.

Circularity is a highly complex, multi-faceted subject, ranging from product design to reverse logistics to fiscal regulations to international

* Please do note that the simplistic distinction between 'developed nations' and 'developing nations' in practice requires a much more differentiated view, even within countries, as has been shown beautifully in Hans Rosling's work (e.g. Rosling et al. 2018).

governmental policies to company ecosystems, and more. In addition, the field of circularity is developing rapidly, in terms of academic research as well as new legislation and the proliferation of circular start-ups.

At the same time, the topic is approached from very different angles. Many people involved in circularity have a strong ecological or even ideological drive, emphasizing that action is needed in order to save the planet from disaster and even our species from extinction. Others approach circularity from a much more technical point of view, not necessarily driven by sustainability motives at all, looking for example at how new materials or new technologies can be used. We believe that somehow, when speaking about circularity, all of these dimensions, angles and voices need to be heard in order to get a complete picture.

Having said that, however, what does this mean for individual companies? Why should a company at their micro level be involved in helping to solve macro issues like climate change? Or invest heavily in more durable product designs and/or materials, at the risk of becoming more expensive than their competitors? In other words, what's *the Corporate Circular Imperative*? Why should a company care? That's one of the central questions we raise in this book, with *narrative and numbers* as recurring key themes.*

And we want to do that in the spirit of the quote at the beginning of this Preface: to create a textbook with a clear and strong focus on practical application by learners. Albert Einstein allegedly used to say that instead of focusing on teaching and explaining theories and concepts, he preferred to put emphasis on providing the conditions in which students could practise and learn. In allusion to Einstein, this book wants to provide a solid basis for learners to practice and learn how to master circularity from a company perspective.

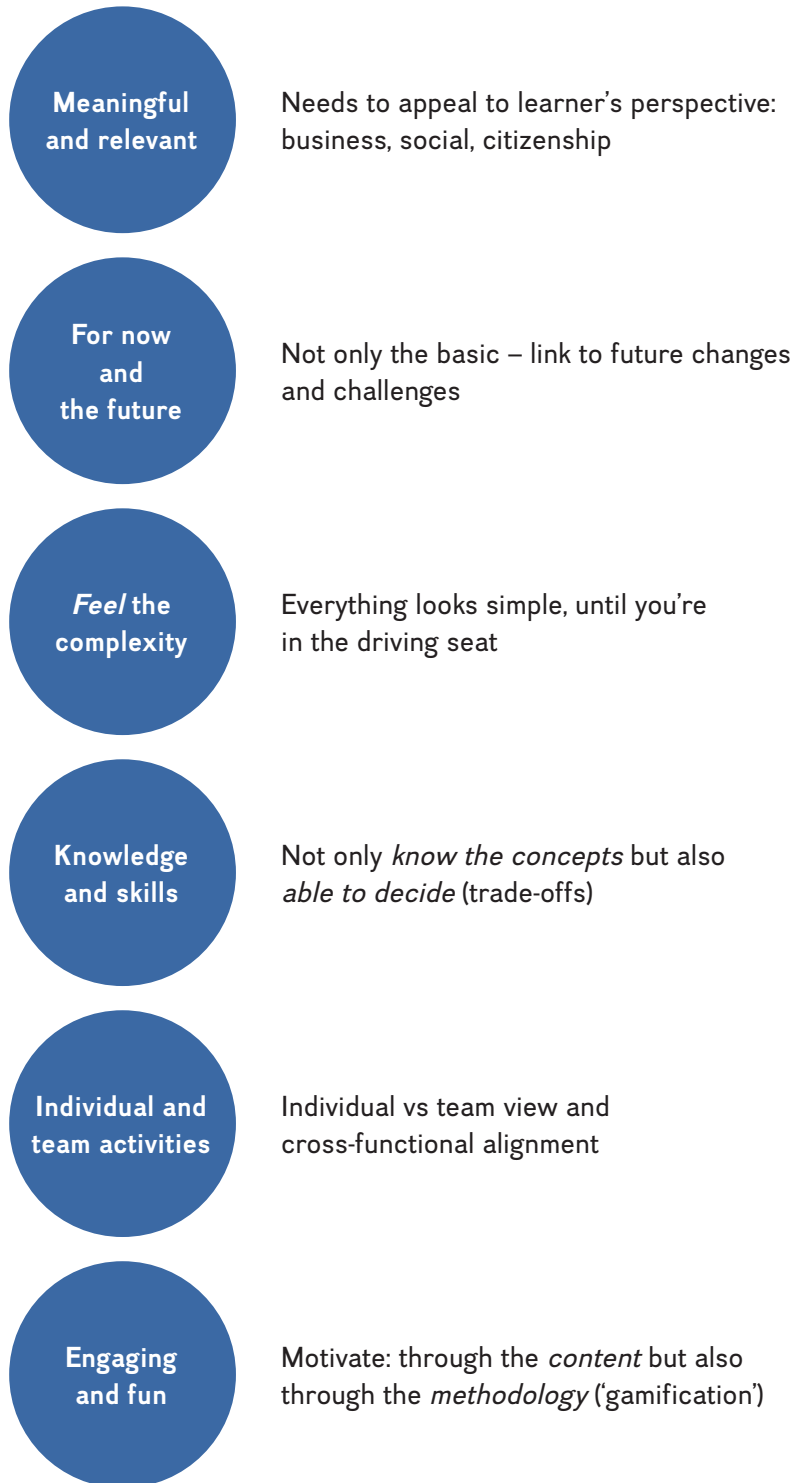
Mastering the Circular Economy is written for people studying such diverse topics as business, sustainability, supply chain management and so on. It can be used as part of courses in schools and universities within specialized circularity or sustainability programmes, but also links well to courses within programmes of a more generalist nature, from Bachelor level up to (Executive) MBA. In addition, the book is written in such a way that it is also suitable for use by professionals, either for individual self-study as well as in in-company training.

Integrated learning approach

In the same spirit as the previous book, *Mastering the Supply Chain*, in the same series, this book proposes an integrated learning approach. See Figure 0.1 on the next page.

* The notion of 'narrative and numbers' was introduced in an article on business models by Magretta (2002).

Figure 0.1 Integrated learning approach



Specifically, there are three main desires behind the topics chosen for the book and the strong emphasis on practical application:

- 1 the desire to put the increasing need for developing *21st-century skills* such as critical thinking, complex problem solving and coordinating with others into the practical context of circularity
- 2 the desire to actively address the recurring theme of *simple but not easy*, i.e. to provide a way to make learners feel first-hand the many complexities of actually applying the often relatively straightforward concepts and frameworks at play in circularity
- 3 the desire to combine the *multiple perspectives on circularity* into one coherent and holistic view on the topic, focusing in particular on the company perspective, the leadership perspective and perspective beyond the company frontiers

One element related to those, however, deserves specific attention already here. Since we're dealing with practical skills, experiential learning seems to be a very appropriate way of developing and training such skills. We'd like to particularly reference the work of David Kolb, whose book *Experiential Learning* is a classic on the topic. Among other important contributions, such as the concept of individual learning styles, Kolb is well-known for what is called the learning cycle (see Figure 0.2 on the next page).

The main idea behind the learning cycle is that

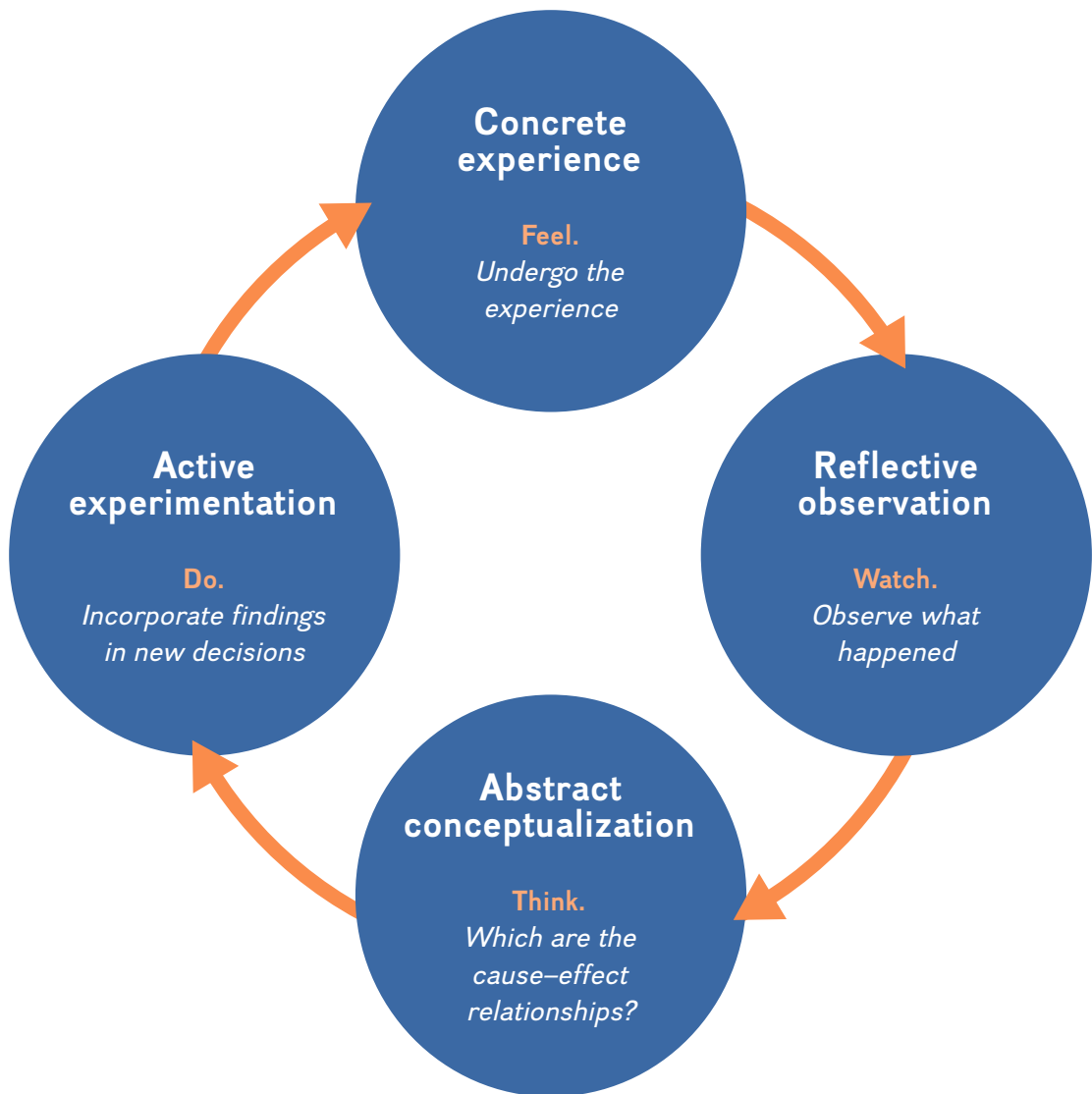
knowledge results from the combination of grasping and transforming experience. Grasping experience refers to the process of taking in information, and transforming experience is how individuals interpret and act on that information... This process is portrayed as an idealized learning cycle or spiral where the learner 'touches all the bases'.

David Kolb

In experiential learning, the focus is on going through a first-hand experience, which allows for reflection on what happened and why, leading to forming a conceptual view on the situation, potentially reinforced by existing theories and/or frameworks. This combination will then be the basis for an improved view on the situation, which can then be applied in the next experience, either in class or other study environment, or directly in a real-world situation. In the book we will use a business simulation game called The Blue Connection as an important tool for facilitating this experiential learning.

Figure 0.2
The learning cycle

Source: After McLeod (2017), based on Kolb (2015)



The multiple perspectives on circularity

Circularity has many faces and it covers a wide array of activities as far as scope is concerned. But also has very distinct dimensions, which are very different in nature. Even if we want to focus on what circularity can mean at the (micro) company level, then there are still many aspects to be addressed.

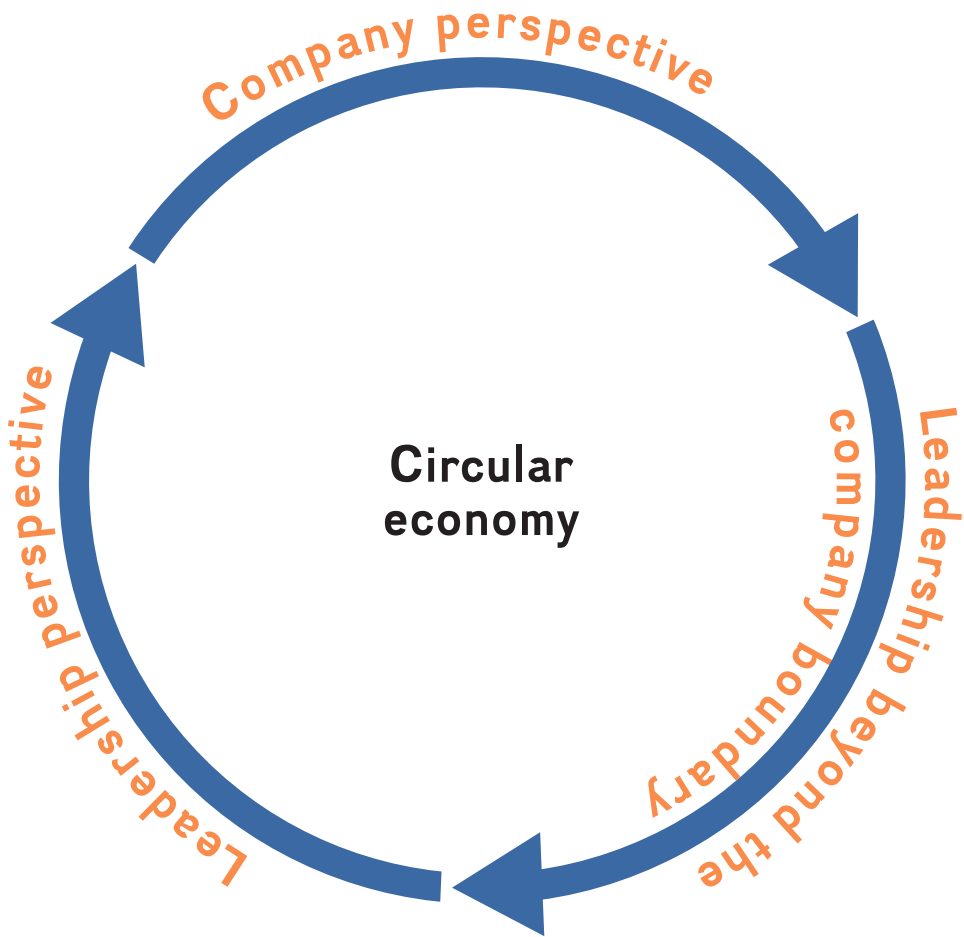
Firstly, we need to define what circularity means from the **company perspective**. Why would a company engage in becoming more circular, i.e. how does it match with concepts like strategy and purpose? And what does becoming circular mean at the company level – what are the alternatives and what are their implications for the goods flows that need to be managed? And what are feasible and viable business models that go together with circular strategies? And what does that mean for the company's financials?

Secondly, circularity also has a clear **perspective beyond the company boundary**. Even more than in regular business, the dependency on what governments do or do not do, which new circular ecosystems emerge, or which new educational requirements become visible, mean that companies are forced to have a clear view on what happens outside.

And thirdly, becoming and being circular calls for a high degree of coordination and collaboration, but also of innovation and change. Therefore, circularity at the company level also has a clear **leadership perspective**. How can circularity be measured? How do the different departments involved need to align? What does the path from linear to circular look like and how can the transformation best be managed?

Because of their importance and because of their differences as well as interdependencies, these three distinct perspectives (company, beyond the company boundary and leadership), will be dealt with explicitly and separately. In fact, together they form the backbone of the structure of the book. (See Figure 0.3 on the next page.)

Figure 0.3
The three perspectives on circularity
at the core of the book

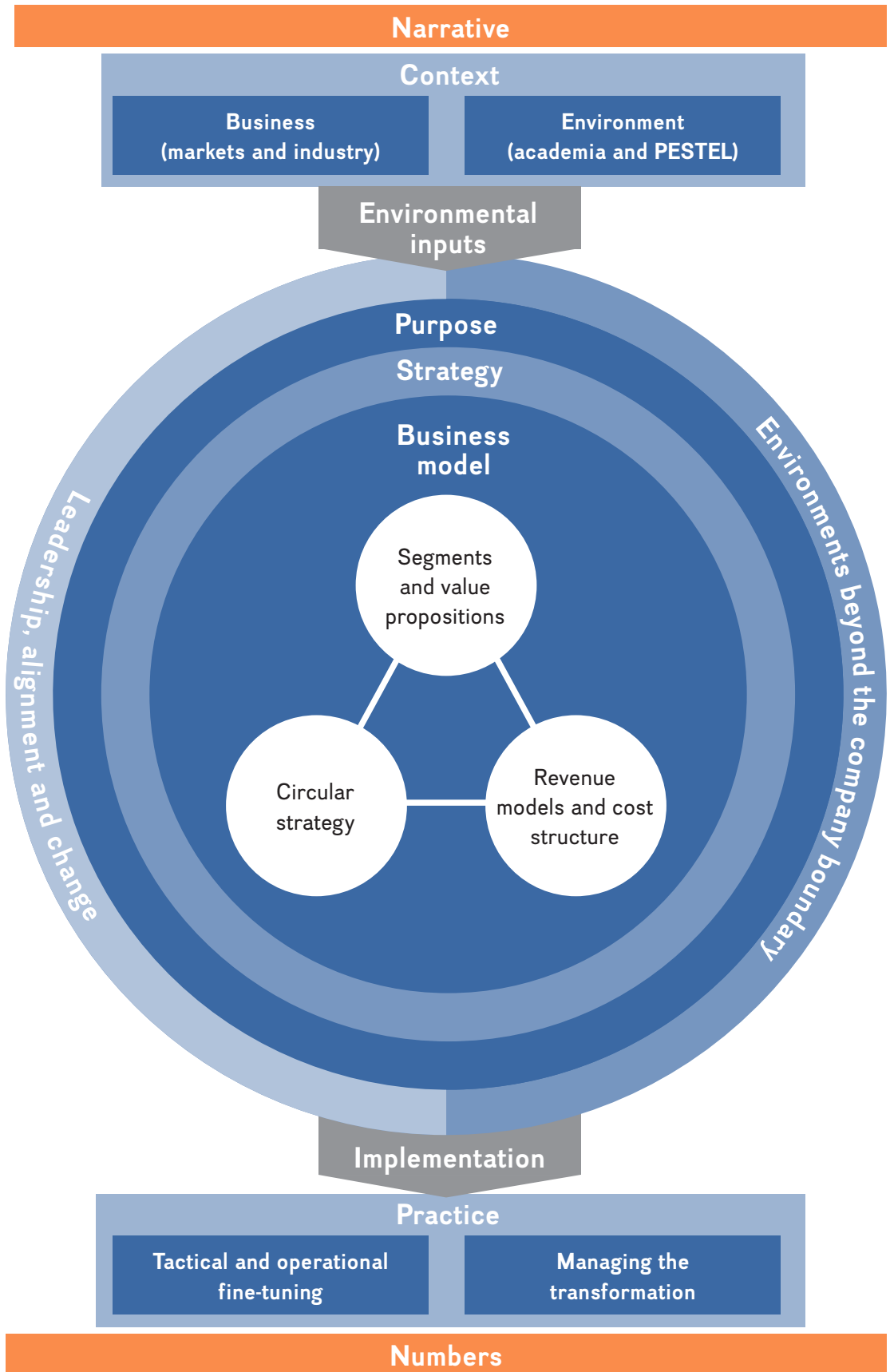


As a last comment in this Preface, we want to go back to the *Corporate Circular Imperative* mentioned earlier on. Many opinions are possible about why companies should or should not engage in becoming circular. And practice unfortunately shows examples of companies claiming to be very sustainable or circular when reality turns out to be much less positive about what they really do. John Elkington, a long-time advocate of sustainability and the person who coined the concept *Triple Bottom Line* – of people, planet and profit – did a ‘concept recall’ recently, because he found that too many companies were merely using the concept in order to look good, rather than do good.

In the book, we want to stay away from imposing opinions, but we do address the many viewpoints that can be found in practice. We introduce a few (fictitious) characters to accompany the learner on their circular journey, via dialogues that appear throughout the book. These characters express opinions that can be found around us, sometimes agreeing, sometimes disagreeing. Step by step, they go from context to company purpose, strategy and business models to practice, thus discovering the multitude of aspects involved in the narrative and numbers of the Corporate Circular Imperative.

We hope that this book will help the learner to understand the topic of circularity better and that these dialogues will allow the learner to make up their own mind and define what they see as the Corporate Circular Imperative and the narrative and numbers that could go with it.

Figure 0.4
The journey of narrative and numbers
(the corporate circular imperative)



Structure of the book: A practical approach to the circular business model transformation

In line with the desires explained above, the objective of this book is to fully facilitate the *learner touching all the bases*, using the principles of experiential learning, training 21st-century skills, while going through the first-hand experience of supply chain as simple but not easy. and working with the distinct dimensions of the topic.

The Blue Connection business simulation game will be at the heart of this learning experience in Part Two and Three of the book. In subsequent steps, the business simulation serves as a vehicle for grasping experience as well as transforming it, by offering the possibility for the simulation of rounds of gameplay complemented by conceptual frameworks, as well as active reflecting by the learner, leading into a new round of simulation, creating a steep learning curve based on first-hand experience. In addition, fields of direct application outside the simulation tool will be touched upon, to widen the learner's perspective even further.

In Part One, *Exploring circularity*, we will be presenting a helicopter view of the main important *principles*, i.e. relevant theories, frameworks and concepts of supply chain management and the relationships between them. Although the list itself is quite extensive we want to keep it as simple as possible for this book, and that is why instead of going into much detail we will limit ourselves to brief and to-the-point introductions. Wherever relevant, reference will be made to leading textbooks and articles from the area of circularity. Most of the topics covered will be accompanied by some initial exercises to have the learner actively work with them in order to get acquainted with them. These exercises serve to explore the topics at hand. This first section thus sets the scene for *the practical approach to the circular business model transformation* in Parts Two and Three.

Part Two, *Mastering circularity*, then focuses on practically applying the fundamental concepts from Part One. Here, The Blue Connection business simulation will be the main vehicle that will serve for the application of the individual concepts that were introduced in Part One. The basic set-up of the simulation used in this second section presents a relatively stable environment in which to make a wide variety of basic decisions related to circular scenarios, to make the value chain run smoothly and the company profitable. In this way, the learner will get

the first-hand experience of *analysing real company data* from different functional areas in order to *make good decisions*. Reflections and exercises in this section will thus be structured in two steps: *analyse*, *develop* and *decide*. In addition, through the possibility of running the simulation, there will be a clear and visible link between cause and effect (decisions and results).

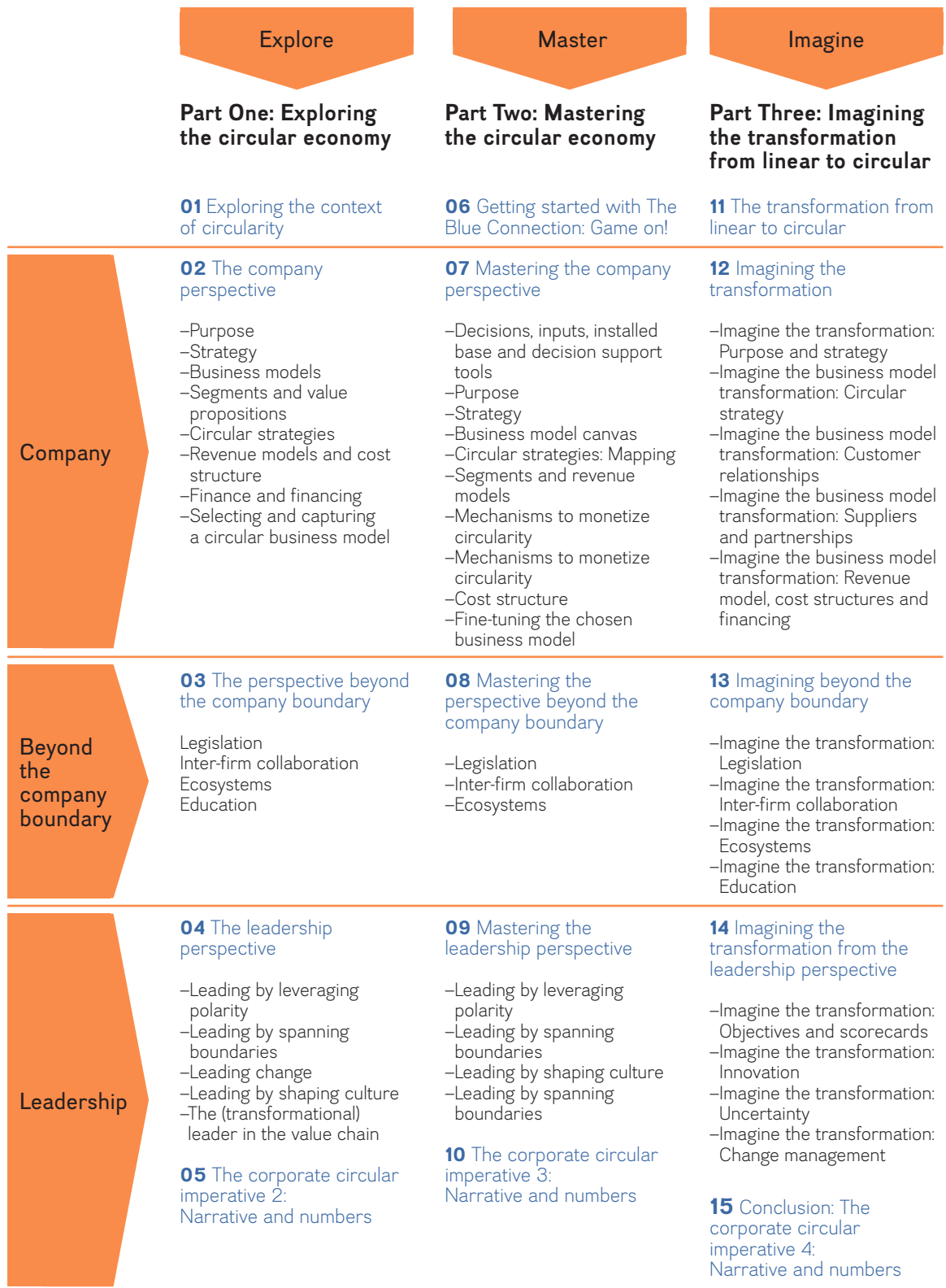
Part Three, *Imagining the transformation from linear to circular*, then elaborates on how to achieve the transition from the current linear value chains to true circular solutions. For example, what are the implications of introducing a circular focus into the company's purpose and strategy, how are business models affected, or how should the period between the linear **As-Is** and the circular **To-Be** be organized? Reflections and exercises in the third section fall under the umbrella of *imagining the transformation* of certain internal corporate directions, or the anticipated response to those from external stakeholders. All aspects covered in Part Three will be related to the company at the heart of the gameplay in Part Two, so wherever possible, real company data from the simulation will be used.

In each of the three parts, the following perspectives on circularity will be addressed:

- the company perspective
- the perspective beyond the company boundary
- the perspective of leadership and change.

This gives the book the overall structure that can be seen in the figure on the next page.

Figure 0.5
Overall structure of the book



Guided tour, web resources and business simulation game

Guided tour

In order to facilitate optimal learning, chapters in the book all have the following structure besides the pure content of each of them:

- Introduction and bullet point overview of topics at the beginning of each chapter
- In total 90+ numbered exercises of different types, which can be done individually or as part of lecture plans:
 - Chapters of Part One: *explore*, for example by investigating internet resources
 - Chapters of Part Two: *analyse, develop* and *decide*, using The Blue Connection business simulation game as an interactive case, analysing detailed data from the simulation, allowing for gameplay and seeing cause and effect relationships
 - Chapters of Part Three: *imagine*, using the virtual company from The Blue Connection business simulation game as a reference case, how the company should shape the period of transformation from linear to circular
- Summary at the end of each chapter, bridging current and next chapter

Accompanying web resources

Mastering the Circular Economy is supported by web resources for learners and for lecturers and trainers. You can visit www.inchainge.com/mce to see which additional resources you can have access to.

Examples of resources for lecturers and trainers

- Request a free consultative call to get advice on how to optimally integrate the book into a learning programme

- Inspiring showcases of past learning programmes
- Request a self-paced online Train the Trainer to get certified with The Blue Connection and learn how to use it as an interactive learning experience in combination with the book (free of charge for university staff). After completion of the training you get access to:
 - examples of course outlines and lecture plans
 - several supporting PowerPoint slide decks, exercises for an interactive course
 - multimedia teaching cases
 - and more

Examples of resources for participants

- Reading lists
- Supporting videos
- Overview of relevant industry associations

Access to The Blue Connection business simulation game

To access The Blue Connection and be able to use it as an interactive case with the book, you need to follow the steps below:

- 1 Add my@inchange.com to the list of trusted email recipients in your email program.
- 2 Register yourself in the Inchange portal via <https://my.inchange.com>, by choosing the option 'No account yet? Register as a new user'.
- 3 Follow the steps indicated, including the instructions you get in the confirmation email.
- 4 After finalizing the registration process you can log into the Inchange portal.
- 5 Enter the code MCE_WATCH_ONLY into the 'Code Entry' field and click submit.

There are several options to use The Blue Connection in combination with the book. As part of the book you can use the standard option for free. Depending on your learning objectives and budget, you can explore other options and formats (e.g. interactive version) at www.inchainge.com/mce:

- **Standard option (free)**

Use this code MCE_WATCH_ONLY which is included in the purchase of this book and is thus free of charge. It includes full visibility of all screens and access to all elements inside the business simulation game, thus allowing to work through all of the exercises in the book;

- **Interactive option (paid)**

The interactive setup of The Blue Connection allows you to use the business simulation game in a more dynamic format. Participants can split up in teams where each person takes over one department in the business simulation. Over the course of six rounds the teams can take decisions while facing increasing complexity and seeing the impact on the company after every round of decisions. This allows for a steep learning curve, an engaging team experience and a step-by-step implementation of different circular strategies. This interactive format is being used by universities and companies across the world. Information about the usage and pricing of this package can be found by reaching out to Inchainge directly via info@inchainge.com or www.inchainge.com/mce.

- **Interactive option diving into various learning topics (paid)**

With the interactive set-up of The Blue Connection you also have the option to dive into several learning topics. Inchainge is continuously working on those so called extensions (e.g. legislation, supplier development, bank selection, market dynamics and collaboration, and so on) and you can find the available ones www.inchainge.com/mce.

ED WEENK AND
ROZANNE HENZEN



MASTERING THE CIRCULAR ECONOMY

A PRACTICAL APPROACH TO THE CIRCULAR
BUSINESS MODEL TRANSFORMATION



Publishes 3 May 2021

296 pages

Hardback | Paperback | Ebook

Published by Kogan Page
London, New York, New Delhi

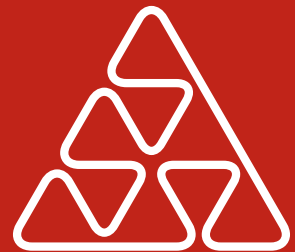
ISBNs

Hardback 978 1 39860 275 5

Paperback 978 1 39860 274 8

Ebook 978 1 39860 276 2

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