

TransMission

THE MISSION-DRIVEN TRANSITION APPROACH
TO MANAGING COMPLEX CHANGE PROCESSES

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INTRODUCTION

The world is in transition. The profound challenges facing our societies, as contained in the United Nations Sustainable Development Goals,¹ are systemic in nature and affect every country, every market and thus ultimately every organisation. With the pursuit of long-term sustainability goals (to stay within the limits of our planet² and related social boundaries³), there is a growing realisation that we will not get there with incremental improvements to what is already there. The real task requires us to structurally reform our economies and markets towards efficient, sustainable, circular, regenerative, inclusive and fair economies and markets.⁴ This is especially true for those sectors that currently have the most significant adverse impacts, including food and agriculture, energy, construction and infrastructure, ICT, logistics and mobility, textiles, manufacturing, and the chemical industry.^{5 6}

Reforming our economies is no easy task and requires an effective systems change approach that is based on a good understanding of how economic systems work now, why it is so tough to change them, and provides concrete and action-oriented interventions from different stakeholder roles to achieve real systemic change.

Thinking about how systemic change works and can be governed or managed is the field of transition science. In recent years, transition science has been concerned with being able to understand and influence transitions. This area of research has led to a wide range of transition theories. Most theories recognise that transitions are change processes that can be governed and managed to some extent. However, the existing theories and frameworks often focus on a particular context (e.g., the presence of a competent and benevolent policy regime) or certain aspects of the transition, or they focus on a specific scope or timeframe. Added to this, many transition theories are predominantly academic and analytical in nature using technical jargon, with the result that these frameworks are not always easy to understand for those who have to put them into practice. In addition, they are often not action-oriented or lead to confusion and thus inaction.

Particularly these times, with large, global sustainability challenges in a world of growing political polarisation, diminishing trust in governments to solve these issues, and changing international economic and geopolitical relationships call for actions and concrete interventions by

various stakeholders. And this calls for a practical, unambiguous, action-oriented and standardised transition model that can analyse transitions in their specific context, draw up a Mission-Driven Transition Strategy, and then steer and coordinate the transition. For this purpose, we introduce in this paper the *TransMission Model*.

The name and content of the TransMission approach are based on the integration of two leading transition theories: the Sustainable Market Transformation Model, developed by NewForesight⁷ and Nyenrode Business University⁸ (described in the books *Changing the Food Game*⁹ and *Changing the Game*¹⁰ and several other publications^{11 12}), and the Mission-Driven Innovation Systems Model, as developed by the Copernicus Institute.^{13,14} We also used, where appropriate, elements of the X-curve theory developed by DRIFT.¹⁵

The meaning of the word TransMission is very fitting for the purpose at hand: to align and transmit power, movement and information in a coordinated manner, which collectively lead to a larger movement¹⁶ – or, in other words, the art of interlocking different mechanisms and keeping the larger transition radar work smoothly to achieve the Mission.

In writing this paper, we have several reader audiences in mind. Namely, the change agents in the field: the manager, civil servant, researcher, consultant, campaigner, citizen and professional who are concerned that transitions are not moving fast enough, are not proceeding

efficiently, and are working every day to reform our economies and help shape sustainable futures. Therefore, this paper is deliberately not a scientific paper, although the TransMission approach is based on the latest scientific insights into transition science and is co-written by scientists. With the aforementioned target groups in mind, this paper has been written in an accessible and understandable way so that a broad audience can make it their own. The ambition is that every organisation and transition leader can take note of it and – preferably under the guidance of an expert and with the right skills – start working with it.

This paper was written by authors associated with NewForesight, Nyenrode Business University and the Copernicus Institute for Sustainable Development (Utrecht University). Three organisations, each with a long track record in transition and systemic change, research, analysis, strategy formation and implementation.

The paper introduces the TransMission framework:

It describes the nature of unsustainable systems and why it is so difficult to change them. The paper then describes the origins of the TransMission model, referring to specific elements from prominent transition-related perspectives. Next, it details the TransMission model's dynamics, describing the fundamental processes for each phase in the model and the build-up and breakdown movements. It ends with a chapter on how a

transition process can progress through the phases and how different stakeholders can contribute. In the afterword, we look ahead to opportunities to apply, sharpen and extend the TransMission approach.

Although we will present a standardized TransMission framework, it is important to realize that each transition is unique and requires a thorough analysis to determine what needs to be done in a given transition context and which stakeholders can contribute. Therefore, a correct transition analysis is crucial. For this, a special training and working book has been developed. This is not part of this paper.

The training and workbook guide presents a standardised analysis manual consisting of three building blocks with a total of nine analytical steps, which can be used to successively shape and apply the transition scope, strategy and organisation. For more information about the training and workbook, contact the TransMission Institute.

For a description of the TransMission Institute, see the end of this paper.





CHAPTER 1

WHY SYSTEMIC CHANGE AND TRANSITION MANAGEMENT?

1.1 What causes sustainability problems

There is no shortage of sustainability issues in the world. Whether it is climate change, biodiversity loss, resource scarcity, pollution, poverty and poor working conditions, the challenges are all complex and extensive. Many of these problems are interconnected, meaning that solutions to one challenge can often reinforce or weaken others. Moreover, many of these problems are global in nature, meaning they cannot be solved by any single country or organisation alone.

It is widely recognised that the cause of most sustainability problems is the one-sided global focus on economic growth and the way it is pursued.¹⁷ Economic growth's primary purpose is contributing to more employment, higher incomes and greater availability of goods and services, thereby improving living standards. Moreover, economic growth leads to increased government revenues, which can be used to fund social programmes, improve infrastructure, contribute to reducing poverty and social inequality, and improve public health and education.

In the Western world, economic growth is determined through free market forces, where private parties pursue growth and profit maximisation through competition. Better competitiveness leads to more economic growth, leading to higher living standards and more (tax) income for governments. In this system, it can be said that almost all social and economic stakeholders (governments, companies, financial institutions, employees, etc.) have an interest in continuously strengthening competitive positions vis-à-vis others to achieve more economic growth. When every country and company adopts this philosophy, there is a self-reinforcing and sustaining process.

Besides the desirable benefits of economic growth, it also leads to an increasing degree of unsustainability as it is accompanied by the depletion of natural resources and increasing emissions of environmentally harmful substances, such as greenhouse gases and air and water pollution from industrial activities and transport. Furthermore, it is becoming apparent that economic growth often leads to greater social inequality and exclusion.

1.2 Four system factors that shape and define the system

By focusing on economic growth through free market forces, a system is formed with four system factors that influence and reinforce each other resulting in an unsustainable outcome. Despite the growing problems posed by the economic system, it will continue to reinforce itself because of these



four system factors, making it very difficult to change. Therefore, a good understanding of the following four system factors is the basis of an effective systemic change approach.

The four system factors are: ^{18,19}

1. How do market dynamics work?

In a free-market economy focused on economic growth and profit maximisation, market actors' dominant behaviour is already fixed. Only by being better than competitors can you sustain business operations and be successful. By understanding what a market competes on (lowest price, best quality, convenience, speed, etc.), it becomes clear what is the winning behaviour of the firms within that market, but also what will be externalised as much as possible ²⁰(externalisation means shifting the costs or consequences of an activity or decision to a third party, the overall society, or the environment). Externalisation in economics underlies the creation of many environmental and social sustainability problems.

2. How does the policy regime function?

A policy regime is a set of rules, procedures, protocols, resources and conditions used by governments, institutions and multilateral organisations to implement and manage policies to achieve stated policy objectives. These are often objectives to enhance competitiveness to drive

economic growth. The policy regime largely determines and reinforces the market dynamics mentioned above. For instance, the policy regime determines what is or is not allowed and what is or is not invested in with public funds. But also what is subsidised or made more expensive, what fundamental or applied research is done or not, what is facilitated with resources, formal counters, procedures, rules and instruments, and what is not. What and how is procured by governments and what is not, what infrastructure is laid down and what is not, which parties do and which have no or less influence on policy. Understanding the interpretation of the current policy regime often provides an illuminating and sometimes sobering picture of how existing market dynamics are maintained, strengthened and optimised.

3. The missing voice of the aggrieved.

From the above descriptions of both the market dynamics and the policy regime, it becomes clear that the constructed system serves the short-term economic interests of governments, society and market participants alike, leading to further externalisation and environmental and social sustainability problems. But who experiences the negative consequences of this? A systemic law is that those who benefit from the current system and thereby cause sustainability problems are not the ones who experience the

negative consequences themselves – at least in the short term. The negative consequences of market dynamics, stimulated by the policy regime, end up with parties who are either at a great distance (such as people in other countries) or are not organised and therefore have little influence (certain stakeholder groups such as local people or minorities) or with those who do not (yet) have a voice (such as nature or future generations). In any unsustainable system, a transfer occurs from those who benefit from, and have power and influence over, the current system to those who experience negative consequences and have no power or influence. This shifting mechanism of negative consequences persistently sustains unsustainable systems.²¹

4. Availability and attractiveness of sustainable alternatives. The last system factor is sustainable alternatives or solutions' availability, attractiveness and scalability. For almost all sustainability problems, solutions, innovations and alternatives exist, or we can develop them. Markets can (at least in theory) operate sustainably. However, these sustainable solutions are often less attractive because they are more expensive, do not yet fit well into current ways of working, come with more uncertainty and risks, or are not yet ready for scaling up. There are often several reasons why we do not yet want to implement those solutions to achieve a transition.²²

These four system factors all interact and influence each other in a dynamic way. The four system factors are depicted in Figure 1.



Figure 1: The four system factors that make up an economic system and determine its outcome

Once the above system has formed, it will reinforce and optimise itself by accumulating incremental and path-dependent innovations²³ leading to *system lock-in*. The incremental and path-dependent innovations below describe why it becomes increasingly attractive to keep investing and innovating in the existing system and less and less to change it:

- With competition between countries and between market players, there is a need to keep improving to increase returns. After all, standing still is going backwards in a competitive environment. Therefore, innovations from governments and market players are almost always aimed at furthering the efficiency and effectiveness of existing products, production and work processes (e.g., higher yields at lower costs). This leads to further optimisation and embedding of what is already there.
- Most research and innovations carried out by knowledge institutions and companies are based on existing knowledge and experience of the current system. The improvements should be relatively easy to implement and fit into what is already there so that we do not have to rebuild everything from scratch. This means building on what we already know, which also has a reinforcing effect on existing systems.
- A system, once in place, will lead

to further economies of scale and network effects. Investment is made in physical infrastructure, and there will develop specialist suppliers. Work processes will be automated, and supporting systems around them (such as logistical, administrative and financial services) will also join and adapt so that everything is better streamlined and optimised. Again, this makes the current system cheaper to continue producing on a large scale, leading to lower costs, higher returns, and better predictability and risk management.

- Investments by investment and pension funds need to pay off and are therefore looking for long-term, predictable returns. Existing systems provide that predictability, which benefits further investment in the current system.
- Training institutes are tasked with training and preparing people for careers. To maximise job opportunities, people are trained on how to be employed in the current system. This leads to a build-up of people with knowledge, skills and employability that strengthen the current system.

With these incremental, path-dependent innovations, over time, more and more parties will build their investments, knowledge and interests in that system

(this applies to companies, investors, knowledge and training organisations, media and governments alike). Employment, investment, pensions, tax revenues and social cohesion will become increasingly dependent on the current system. The need to maintain, improve, grow and protect what has been built will increase, creating another self-reinforcing effect. This will continue until, despite the system's problems, we can hardly imagine any other system.

Good understanding and insight into these self-reinforcing dynamics of the four system factors and how this leads to further *system lock-in* over time form the basis for drawing

up an effective transition strategy. This strategy should consider these dynamics and, depending on the specific context, try to influence and reverse these system factors with targeted interventions. Only then will the system dynamics change, generating a different outcome, leading to the sustainability problem to be structurally solved.





CHAPTER 2

TRANSMISSION: A PRACTICAL APPROACH TO MANAGING TRANSITIONS

2.1 Introduction

The transition challenge we face is to structurally reshape our economies to become more efficient, sustainable, circular, regenerative, inclusive and fair. Given the accumulated interests, complexities and *system lock-in*, this will not happen overnight. It will be a long-term change process - a transition - working simultaneously on two parallel trajectories:^{24, 25}

1. Introducing, making attractive and scaling up impactful and sustainable

alternatives (the innovation or 'build-up' pathway).

2. Making unattractive and phasing out unsustainable practices and activities (the 'phase-out' process).

A transition is often a process of several partial transitions to be realised that add up to a successful transition. This requires a long-term strategy in which the right parties implement the right interventions at the right time. This change process will go through several phases; at each stage, the right

conditions must be met. How does this work?

2.2 Mission-driven transitions: What do we want to achieve?

Complex change processes call for a transition approach in which a guiding and connecting vision is essential and together, by different stakeholders, each with their own power and interests, can be worked towards ambitious and concretely measurable 'Missions'.²⁶

Inspired by the success of the Mission to put a man on the moon, much thought is being given these days to the possibility of also tackling social problems around, for example, sustainability by formulating Missions for this and then working on them with combined efforts.

Unlike the original Moonshot *Mission*, this involves problems that are not only technologically but also socio-economically complex or even controversial. There is no single solution for these problems, but the Mission is successful only after adding and integrating several partial solutions. Often, at the beginning of the transition process, it is not always clear which (partial) solutions are suitable to make a difference. Non-technological solutions also have an important role to play in solving today's sustainability problems (and other societal challenges). Think, for instance, of behavioural change or adaptation of regulations.²⁷

The uncertainty about which solutions are promising means that we cannot simply work

to strengthen systems around a few promising technologies but must create 'Mission-specific' innovation systems that invite diverse stakeholders to contribute to exploring, developing, scaling up and disseminating different solutions. Those solutions may be competitive or mutually reinforcing at first. However, only by putting energy into them can we discover the opportunities in terms of technological and economic feasibility, public support and under what conditions they can be scaled up. This calls for a dynamic view of managing system change: a Mission goal itself can remain unchanged, but the process towards achieving it must be flexible enough to learn where adjustments are needed. This involves paying attention to which (systemic) bottlenecks, which shift as solutions are further developed, need the most attention and which stakeholders have an important role to play in them.²⁸

Mission-driven transitions are therefore primarily 'coordination mechanisms and organisational processes' for determining:

- what the Mission is we want to achieve;
- in what market(s) it takes place;
- what the (partial) solutions to realise the Mission are;
- what actions need to be taken;
- how these actions - by diverse stakeholders - can be mobilised and connected so that the right

interventions are implemented at the right time to jointly contribute to the realisation of the Mission.²⁹

The way such coordination takes place can take a variety of forms. One extreme is that an influential actor, such as a government, formulates a Mission goal and creates conditions for other stakeholders to contribute to achieving the goal. This fits within a situation where governments are decisive and courageous and can and want to prioritise achieving this goal over other public objectives (such as economic growth). It also requires that governments have the position, authority, and influence to overcome resistance to change, address societal challenges, and ultimately force change.

However, in many situations, governments have multiple, often conflicting objectives or lack the knowledge, influence, skills, position and flexibility to single-handedly chart the course for other actors (companies, knowledge institutions, financial institutions, civil society, citizens). For example, because in most Western countries, we have an institutional landscape in which the interests of those actors are recognised and in which they have a relatively high degree of autonomy in determining their actions. Or because there is increasingly polarised politics in which trust in governments declines, undermining the mandate and effectiveness of governments. But also, because in a globalising world with internationally interwoven economies,

value chains and interests, the influence and position of governments are increasingly limited to set the course *top-down*.

Therefore, in many cases, transitions call for a *multi-stakeholder* approach in which interventions must come from different stakeholders to create the right conditions to accelerate the transition and achieve societal goals, depending on the phase of the partial transition. In these cases, governments are just one of the stakeholders who have an important role to play.

Thus, each transition strategy depends on the specific context and Mission goal to coordinate and organise structures and achieve agreement and support. The strategy can be coordinated in different ways (e.g., formal or informal, centralised or decentralised). Even if everyone reasons from their own perspectives, this ensures consistency and coherence in the activities of different actors regarding problems, solutions and intervention options.²⁹

2.3 The TransMission model: A synthesis of leading and recent transition thinking

As mentioned in the introduction, the name and content of the TransMission approach are based on an integration of two leading transition theories: the Sustainable Market Transformation Model and the Mission-Driven Innovation Systems Model. In addition, elements from the X-curve model have been used.

Below is a brief description of these three transition theories and how they are integrated into the TransMission model.

1) **Sustainable Market Transformation**

focuses on solving a specific complex sustainability problem within a particular market. It assumes that governments are important stakeholders but are not always able to initiate the transition *top-down*. For that, their influence and position is often not strong enough. Therefore, an important part of sustainable market transformation is understanding the specific market dynamics to determine where influence can come from. It also assumes that to solve the sustainability problem there are no single solutions, but rather a sum of different (partial) solutions that ultimately reinforce each other and are integrated. Scaling up the partial solutions from need, to idea, to niche,³⁰ to eventually the new normal, is a process in which the partial solutions go through five recognisable maturity phases. Each phase has specific characteristics and requires particular interventions from different stakeholders to accelerate the build-up and scale-down.

These five phases are:

1. *The Inertia phase*: the four system factors described in Chapter 1 are dominant and are leading to ever-increasing sustainability problems. These problems have been known for some (or even longer) time, although there is a low sense of urgency to do something about them. Urgency for change does not usually come on its own; it requires an external trigger, generally in the form of a crisis or major opportunity. The situation may arise of its own accord or be triggered by interventions by specific stakeholders. Urgency is the necessary driver to initiate a change process.
2. *The Inception phase*: due to the increased urgency, awareness around the sustainability problem has grown considerably in a short period of time. Despite attempts by established players to continue denying the problem, creating confusion and delay, the change process hesitantly begins. This phase focuses mainly on raising the need and urgency to change, searching for knowledge, and experimenting with potentially sustainable solutions. Depending on the situation, different stakeholders have different roles to play here.
3. *The Competition phase*: after several possible solutions have been developed in the previous phase, the first companies see the opportunity to introduce sustainable products and services to the market. In doing so, they try to differentiate themselves from their competitors and compete on the (partial) solutions. This is an exciting phase because the demand

and willingness to pay for sustainable solutions are not yet high, while these companies' costs and risks are increasing. This phase focuses on how to work on market differentiation (distinctiveness), recognise and acknowledge frontrunners, strengthen and organise supply and demand, remove market risks, and increase pressure on the laggards and deniers. For this phase to succeed, various stakeholders must implement the appropriate interventions leading to high market engagement, accelerated innovations, new business models, and related new relationships and value chains.

4. *The Synergy and Integration phase:* through increased competition on partial solutions, the market demonstrated that certain sustainable alternatives did prove workable, had market potential, and impacted the sustainability problem. Other (partial) solutions proved not to work and disappeared. However, market share is still relatively limited, and increased competition reduces distinctiveness. Barriers to scaling up are also encountered, and other parties are needed to remove them. This phase, therefore, focuses on arriving at a broader, shared, integral vision and scaling-up plan in which - together with various stakeholders - the focus is determined, which solutions need

to be added, which system barriers need to be removed and how the old, unsustainable market dynamics can be made less attractive. Cooperation between different stakeholders is key here.

5. *The Institutionalisation phase:* the transition accelerates. In this phase, the desired sustainable solutions are normalised, optimised and institutionalised, and the old, unsustainable system is accelerated or stopped.

2) **Mission-driven Innovation Systems (MIS model)**

is based on the idea that for a successful transition involving bringing sustainable innovations to the market, several key processes must be well organised. When an essential process is not well or sufficiently elaborated, it becomes a barrier to the further transition. The MIS model operationalises the concept of Missions (see section 2.3) in this way of thinking and distinguishes eight key processes. For clarity, we have grouped these into five key processes when integrating the transition frameworks. However, we adhere to the view that for specific analyses, it may make sense to disaggregate some key processes, depending, for instance, on the types of solutions in sight and how far they are already developed.

The five condensed key processes are:

1. *Prioritisation of problem -and solution directionality:* what exactly is the societal problem at focus, why and for whom (e.g., in which region or sector) is it a problem, and to what extent is there consensus on the nature and urgency of the problem? What are the solution directions in sight? To what extent is there clarity and consensus on how promising those solutions are, how they relate to each other and what attention and resources they deserve?
2. *Knowledge development and dissemination:* is there already sufficient knowledge about the problem and the various solutions? Are these solutions being experimented with, and do valuable insights also reach parties that can benefit from them (e.g., to test solutions in specific contexts and combine them with other solutions)?
3. *Entrepreneurship and market development:* how to increase demand for new solutions and how to organise and improve supply? What risks or barriers are holding back market reforms, and how can they be overcome? Are enough companies or other actors trying to make new solutions viable by developing new business models and finding customers (e.g., customers willing to pay for still relatively expensive and undeveloped solutions)?
4. *Resource mobilisation:* are there sufficient financial, human, material and infrastructural resources to develop and scale up promising (partial) solutions?
5. *Sector organisation and coordination:* are there structures and processes by which stakeholders can find each other and work together on the Mission? Is it sufficiently clear who has what roles and responsibilities in this and who should or should not join the collective effort to achieve the Mission goal?

Through MIS analysis, transition processes can identify which of these key processes are missing and, based on this, recommendations can be made on how they can be fulfilled.

3) **The X-Curve model** is based on the idea that for a transition process to succeed, it is not enough just to build a new, sustainable system. At the same time, the current unsustainable system, which is much more attractive, efficient and profitable due to the constructive system *lock-ins*, must be pressurised and opened up or even broken down. That is, the mutually reinforcing dependencies in the existing system need to be broken, making room for new alternatives. Consider,



for instance, adapting infrastructures or standards tailored to undesirable current products. Broadening these increases the chances of sustainable alternatives becoming more technologically and economically attractive. In line with the outlined perspective on unsustainable markets, it is often also important to internalise unpriced social costs (negative externalities) in the economy so that undesirable products become relatively more expensive and desirable products relatively cheaper, thereby influencing the behaviour of citizens and consumers.

Each of the three core models shares similarities and offers valuable and complementary insights. Integrating these three models into one model - TransMission

- should therefore lead to a transition model that is complete and more applicable in different contexts.

Reasoning from the three transition theories described above, TransMission is based on the following eight interlocking transition principles and logic:

Principle 1: Transitions can only be successful if, certainly at the beginning but also throughout the change process, there is sufficient shared urgency so that change is deemed necessary and even inevitable. If there is insufficient pressure and urgency, the transition process will not start, stagnate or revert to earlier phases.

Principle 2: Jointly driving a transition will

only succeed if a change process is worked on that is manageable for the parties that can influence it. A challenge such as achieving 'a fully circular economy' is too big and broad to work on properly. This Mission will have to be translated into more concrete Missions for specific markets. TransMission lends itself best to tackle problems at the level of specific problems in sectors or product groups (such as circular packaging, sustainable textile chains, bio-based housing construction or a living income for farmers in a certain sector).

Principle 3: In a transition process, there are five recognisable phases of change, with five recognisable key processes that require different emphasis and interpretation in each phase. Understanding and insight into which partial solution is in which phase and which key processes are missing determine the intervention and action perspective and which stakeholders have a role to play.

Principle 4: It is very important to have Mission shaping as early as possible in the transition process. This process can be initiated by various stakeholders, recognising the problem, thinking about where we want to move, getting commitment from a growing group of stakeholders to move towards it, and determining what needs to be phased out and built up. Such a Mission can be sharpened and made more concrete as one moves through the transition phases and more insight is gained into the feasibility and support for promising solutions.

Principle 5: A Mission-driven transition process is a sum and integration of mutually reinforcing partial solutions that are scaled up.

Principle 6: Mission-driven transitions do not happen by themselves and require active guidance and interventions. For each phase and key process, certain interventions are needed to scale up desired, sustainable solutions and deliberately pressure and demolish existing, harmful and unsustainable practices – until the transition is complete and the Mission objective is achieved.

Principle 7: Transitions can be initiated, managed and accelerated, but always have their own specific, situational context and thus require customisation. There is no *one size fits all*. The success of a transition strategy depends on the quality of the underlying analysis, the consistency of the actions to be taken, and their implementation and organisation. In all cases, this requires the right support, analysis, competence, learning ability, organisational capacity and resources from those who assign themselves a role in contributing to transitions.

Principle 8: No single stakeholder alone can change the system. Achieving the Mission always requires different stakeholder groups. Each stakeholder group, with the right system strategy, can be an initiator and driver of a transition by 1) taking the right actions themselves at the right time and 2) mobilising other stakeholders and ensuring that they also take up their appropriate

transition role and carry out the right interventions at the right time. With this, then, transitions become primarily a coordinating and organising issue. Leadership of individuals within or operating between stakeholders is of crucial importance. Different types of leadership can be recognised here.

TransMission's transition model is depicted in Figure 2, which shows the construction of the desired, sustainable partial solutions (in green), the dismantling of the old system (in red), and the key processes to be completed for each phase of the transition (the five arrows below).

What is new and unique about the TransMission framework:

- The TransMission framework is the first framework that successfully integrates the process side of transitions (the five different phases) with substantive success conditions (the key processes) and elaborates this into concrete interventions and stakeholder roles
- It is a standardized approach that is applicable for reforming and making sustainable all markets and sectors (both national and international)

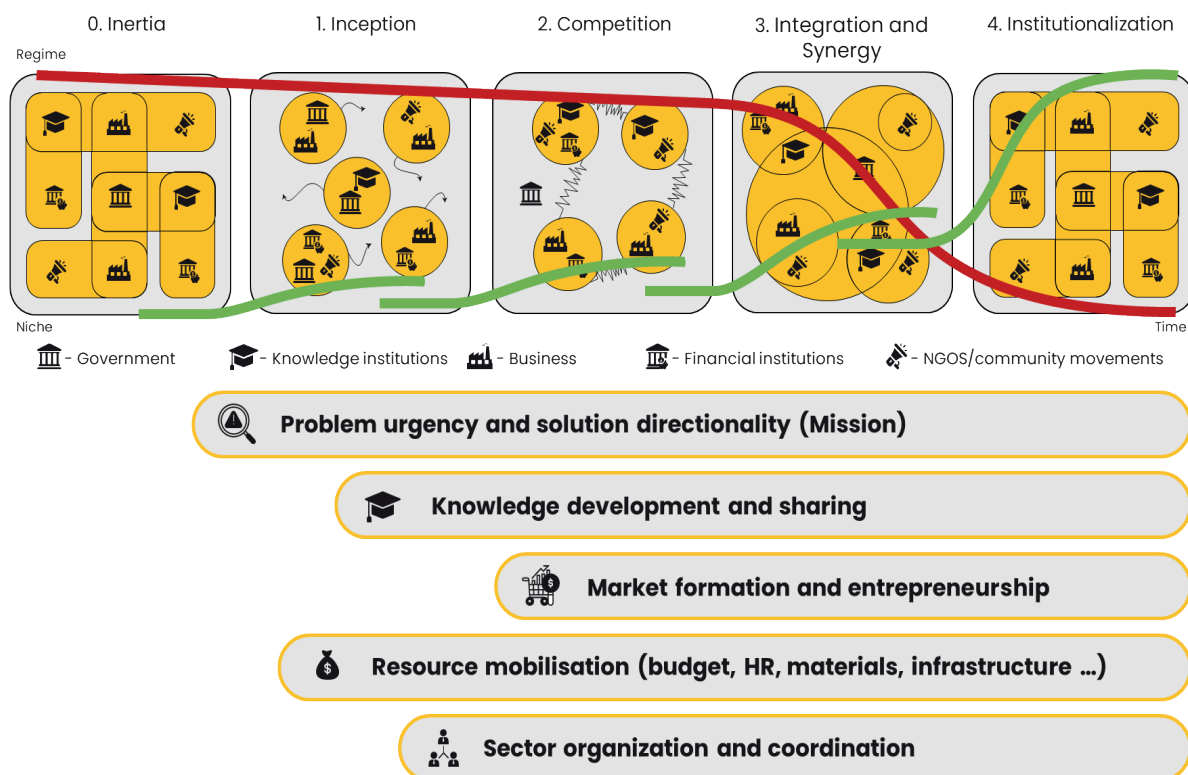


Figure 2: The TransMission model consists of building sustainable partial solutions and phasing out the unsustainable system by considering five key processes at each transition phase.

- It is a very action and practice-oriented framework which makes it concrete for all professionals who want to accelerate transitions
- It provides a universal language that everyone can use to determine together what needs to be done, by whom and how you can organize it
- It assumes that change can come from all stakeholders. Every stakeholder has a crucial role to play at every stage. It addresses this responsibility to all stakeholders

2.3 TransMission interventions and stakeholder roles

The figure above shows at a high level of abstraction and in general terms how transition processes take place. However, we know that initiating, accelerating and governing transition processes does not happen automatically. Mission-driven transitions are primarily ‘coordination mechanisms and organisational processes’ of mobilising and connecting diverse stakeholders to implement the right interventions at the right time, collectively contributing to achieving the Mission (see Principles 6 and 8).



Note: *Both the intervention matrix and stakeholder matrix have been compiled with care. They are both comprehensive overviews but not necessarily exhaustive ones. For that, the reality of all imaginable transitions and contexts is too diverse. They are meant as inspiration to show that appropriate actions can always be devised in every phase to help get systems moving and accelerate transition processes. Which interventions are relevant and necessary and which stakeholders can or cannot contribute to them is always context-specific and thus an outcome of a thorough analysis based on the TransMission model (see principle 7).*



The TransMission workbook (separate): *For proper analysis, a special TransMission workbook has been prepared in which, in three building blocks and nine steps, a complete analysis takes place that is needed to determine who, what, and when depending on the specific context, market dynamics and maturity of the sub-solutions.*

To arrive at concrete and thoughtful interventions per phase, a more granular and detailed understanding of what can be done per transition phase is needed. In each phase, there is a need to ensure an effective build-up and breakdown by ensuring that the various key processes function properly. Once it is known what interventions are needed for this, it is also possible to determine which stakeholders can best contribute to it.

To this end, the following pages contain a detailed intervention matrix with interventions that can be considered for each transition phase. In addition, a detailed stakeholder matrix on the page after that indicates which roles different stakeholders can take to implement the interventions.



How to use the Intervention Matrix? Once it is known which partial solutions are needed to achieve the Mission, what transition phase these partial solutions are in, and which key processes are functioning adequately and which are not, the Intervention Matrix can be used for inspiration to identify the interventions needed.

How to use the Stakeholder Matrix? Once it is known what interventions are needed, the Stakeholder Matrix can then be used to identify which stakeholders can carry out these interventions.





The TransMission Intervention Matrix™

Once it has been determined what needs to happen for each partial solution and phase, the Stakeholder Matrix below can help identify which stakeholders can play a role in this.

		F0: Inertia (create urgency)	F1: Inception (learning/ experimentation)	F2: Competition (recognize frontrunners)	F3: Synergy and integration (scaling up/organising)	F4: Institutionalisation (optimise/anchor)
1. Prioritising problem & solution direction	Build up	<ul style="list-style-type: none"> + Embrace unexpected events to get parties moving (black swans and crises) + Name alternative views + Highlight the need for change + Organize negatively affected citizens, give nature a voice 	<ul style="list-style-type: none"> + Start a Mission in a submarket / for specific solutions + Create an initial vision of what the future should look like + Recognize and acknowledge innovators 	<ul style="list-style-type: none"> + Acknowledge contradictions and different end pictures + Indicate which solution directions have potential + Set quantitative / normative long-term goals 	<ul style="list-style-type: none"> + Develop with the entire sector a roadmap to achieve the Mission + Clarify which solutions are part of the final picture and which are not + Make it clear how the new system will work + Implement policies for scaling up + Recognize politicians and others showing courage 	<ul style="list-style-type: none"> + Optimise the new system
	Tear down	<ul style="list-style-type: none"> + Protest visibly + Launch campaigns (social media, petitions, demonstrations) + Conduct litigation and elicit legal rulings 	<ul style="list-style-type: none"> + Make damage from unsustainable practices transparent + Run more extensive campaigns + Ensure media coverage 	<ul style="list-style-type: none"> + Indicate which practices no longer have a future + Calculate social costs/ externalities 	<ul style="list-style-type: none"> + Indicate that stragglers are going to lose + Establish a plan for phasing out unsustainable practices 	<ul style="list-style-type: none"> + Say goodbye to parties that don't want to come along
2. Knowledge development & dissemination	Build up	<ul style="list-style-type: none"> + Analyze what is already happening (including abroad) 	<ul style="list-style-type: none"> + Set new knowledge agenda + Explore principles to which new solutions should conform + Indicate the potential of new technical resources + Create legal space for experimentation 	<ul style="list-style-type: none"> + Research business models + Share knowledge about promising solutions + Develop monitoring systems 	<ul style="list-style-type: none"> + Put the new system at the heart of the research agenda + Determine what is needed for scaling up (fiscal, pricing, policy, (re)procurement) + Monitor the progress of the transition + Investigate possible unintended side effects + Explore linkages between transitions 	<ul style="list-style-type: none"> + Research optimization of the new system + Determine which solutions are still missing or need to be scaled up + Monitor whether the sustainability problem is solved + Determine the negative impact of side effects and mitigation
	Tear down	<ul style="list-style-type: none"> + Substantiate that things are not going well in the current way + Clarify who benefits and who suffers from the current system 	<ul style="list-style-type: none"> + Make it clear that research should no longer focus on the old system 	<ul style="list-style-type: none"> + Clarify how the current system is subsidized 	<ul style="list-style-type: none"> + Finish research on the old system + Research lobby working against structural change + Map where the transition will hurt 	<ul style="list-style-type: none"> + Stop researching old system + Monitor who is doing what in line with sector plan agreements

3. Entrepreneurship & market development	Build up	+ N/A	<ul style="list-style-type: none"> + Acknowledge the problem and own contributions to it + Start R&D, experiment + Invite others to contribute to and learn from experiments + Encourage sustainable and innovative start-ups/ social entrepreneurs 	<ul style="list-style-type: none"> + Introduce differentiation in the market (standards, labels, indexes, rankings) + Develop and invest in new revenue models in the chain + Adjust selection criteria + Buy socially responsible + Reward frontrunners + Organize supply and demand + Identify and reduce market risks 	<ul style="list-style-type: none"> + Make sustainable cheaper + Work with competitors and long-term contracts + Adjust award criteria + Discuss new allocation of risks, costs and revenues + Influence consumer perception and behavior 	<ul style="list-style-type: none"> + Lobby for sustainable solutions to become the norm and create a new level playing field + Amend legislation to secure agreements + Adjust exclusion criteria
	Tear down	+ N/A	<ul style="list-style-type: none"> + Emphasize that harmful practices will not be profitable in the long run 	<ul style="list-style-type: none"> + Identify which products, services and processes we need to discontinue over time + Ensure transparency (reporting, due diligence, benchmarks) + Campaigns and protests against laggards 	<ul style="list-style-type: none"> + Name risks of stranded assets + Make unsustainable more expensive (e.g., taxes) + Hold parties liable (lawsuits, legislation) + Acknowledge that mistakes have been made 	<ul style="list-style-type: none"> + Phase out old products, services and processes + Expose violations
4. Resource mobilization	Build up	+ N/A	<ul style="list-style-type: none"> + Map where funding is available for renewal + Fund research and subsidize experiments + Organize innovation prizes and competitions + Put the innovators on stage 	<ul style="list-style-type: none"> + Make funds available for MVOI + Make human, financial and infrastructure resources available for acceleration in submarkets + Link performance agreements to resource provision + Apply positive screening (what do we want) 	<ul style="list-style-type: none"> + Make long-term investment plans + Provide the right framework conditions (financial, human resources, infrastructure) to scale up + Financing chain partners without a covering revenue model (unprofitable top) 	<ul style="list-style-type: none"> + Implement large-scale just transition mechanisms (e.g., retraining) + Large investment funds to finance/ compensate for the transition to the new solutions
	Tear down	+ N/A	<ul style="list-style-type: none"> + Phase out renewal budgets in the old system 	<ul style="list-style-type: none"> + Phase out funds for unsustainable practices + Apply negative screening in resource deployment (what do we no longer want) 	<ul style="list-style-type: none"> + No more resources for incremental improvements to legacy systems + Prepare divestments 	<ul style="list-style-type: none"> + -Buy out/ compensate stragglers + -Divestments in old practices
5. Sector organization & coordination	Build up	+ N/A	<ul style="list-style-type: none"> + Organize a small group of leaders around Mission + Organize knowledge sharing (symposia, webinars, community of practice) + Work together to give innovators a stage + Create experimentation labs and hubs 	<ul style="list-style-type: none"> + Involve parties who want to join Mission + Facilitate cooperation within the chain + Identify/recognize which parties can and should potentially play a director's role + Set up a common standard + Acknowledge multiple solutions and allow competition between them 	<ul style="list-style-type: none"> + Bring together a wider group of stakeholders from the sector around Mission + Organize multi-stakeholder consultations to arrive at a supported sector plan + Explore sector plan via citizen consultation if regular consultations get bogged down + Invite the voice of the new sector to develop policy 	<ul style="list-style-type: none"> + Organize the monitor and watchdog function + Recognize new industry and interest groups + Use new structures to tackle new problems too
	Tear down	+ Organize joint campaigns	<ul style="list-style-type: none"> + Put pressure on industry and interest groups to act 	<ul style="list-style-type: none"> + Understand how opposing forces organize and lobby 	<ul style="list-style-type: none"> + Be prepared for the (predictable) arguments coming from the lobby that does not want change 	<ul style="list-style-type: none"> + If necessary, deploy lawsuits to force laggards

The TransMission Stakeholder Matrix™

Stakeholders	Phase 0: Inertia	Phase 1: Inception	Phase 2: Competition	Phase 3: Synergy & integration	Phase 4: Institutionalization
 Government	<ul style="list-style-type: none"> Embrace the crisis Indicate urgency 	<ul style="list-style-type: none"> Start Mission Long-term vision Subsidy Room for experiments Put innovators on stage 	<ul style="list-style-type: none"> Set goals Recognize & reward frontrunners Responsible procurement Remove risks Adjust selection criteria 	<ul style="list-style-type: none"> Support Mission roadmap Demonstrate leadership Make sustainable cheaper Develop infrastructure Adjust award criteria 	<ul style="list-style-type: none"> Enforce Laws & regulations Buy out/compensate Taxes Exclusion criteria
 Business	<ul style="list-style-type: none"> Stop denial 	<ul style="list-style-type: none"> Embrace Mission Innovation & experimentation Pilots & projects Sustainable entrepreneurship Share knowledge 	<ul style="list-style-type: none"> Involve value chain Distinctiveness Develop business models Organize supply Invest in solutions 	<ul style="list-style-type: none"> Mission roadmap/sector plan Start phasing out Collaboration with competitors Preconditions Invest in scaling up 	<ul style="list-style-type: none"> Lobby for new normal Exclude stragglers Optimize new system Compliance Divestments
 Financial institutions	<ul style="list-style-type: none"> Name risks 	<ul style="list-style-type: none"> Acknowledge own role Support projects Risk screening Finance innovation Reduce renewal budget 	<ul style="list-style-type: none"> Finance frontrunners Share knowledge business models Negative screening Impact loans Support a shared standard 	<ul style="list-style-type: none"> Support sector plan Prepare divestments Facilitate scale-up Name risk of stranded assets Collaboration with sector 	<ul style="list-style-type: none"> Lobby for new normal Divestments Optimize financing Exclude clients Adjust rules
 NGOs/community movements	<ul style="list-style-type: none"> Campaigns & protests Start lawsuits Name alternative visions Petitions & social media actions 	<ul style="list-style-type: none"> Organize movement Start/align with the Mission Develop a vision for the future Insight into harmful practices Appoint innovators 	<ul style="list-style-type: none"> Name & shame laggards Reward frontrunners Name what should be broken down Allow transparency Insight in lobby of contra forces 	<ul style="list-style-type: none"> Name the risk of not changing Support sector cooperation Support lobby innovators Hold parties accountable Fight counter lobbying 	<ul style="list-style-type: none"> Monitor progress Monitor agreements Lobby for new normal Expose violations Enforce through lawsuits
 Knowledge institutions	<ul style="list-style-type: none"> Research problems Prove that things are going wrong 	<ul style="list-style-type: none"> Prioritize problems Draw knowledge agenda Investigate solutions Organize knowledge sharing, R&D and innovation 	<ul style="list-style-type: none"> Research business models Show good examples Share knowledge about solutions Develop benchmarks Calculate externalities 	<ul style="list-style-type: none"> Research upscaling Winding down research Monitor transition Support lobby innovators Phase out research of the old 	<ul style="list-style-type: none"> Research optimization Focus on new system Study side effects Identify new problems Stop researching the old system
 Media	<ul style="list-style-type: none"> Expose issues Give urgency Spread awareness 	<ul style="list-style-type: none"> Attention to innovators Explore visions of the future Emphasize problems 	<ul style="list-style-type: none"> Put the spotlight on front runners Share knowledge about solutions Report on laggards 	<ul style="list-style-type: none"> Hold parties to promises Identify the risk of not changing Influence perception and behavior 	<ul style="list-style-type: none"> Monitor counter lobby Report on side effects Expose violations



CHAPTER 3

A TYPICAL TRANSITION JOURNEY ACCORDING TO THE STAGES OF THE TRANSMISSION MODEL

The TransMission model described in the previous chapter is still theoretical in nature. How do these kinds of transition processes work in practice?

Reading the newspapers or watching the news, current transitions – such as in agriculture or the energy sector – seem chaotic, painful and random. Yet this need not be so when the transition process is seen as one that has to be coordinated and

organised according to the TransMission model described above. This is not to say that transition processes are easy, that painful decisions will not have to be made, that mistakes will not be made, that there will be no resistance and that there will be no losers. Unfortunately, all these things are part of any change process. However, transitions can be managed in a much more orderly and predictable way, and thus much more efficiently and effectively. This is possible if

there is an understanding of how the current system works and what needs to happen in the various phases of the transition journey. And if the right interventions are made by the right stakeholders and smart cooperation takes place.

Let us see how a transition process can proceed if we are mindful of the connection between various components of the TransMission model, namely:

- The sequence and dynamics of the different transition phases.
- The process in which the sustainable partial solutions are built, and the old system is put under increasing pressure.
- The changing interpretation of the five key processes.
- Cooperation between different stakeholders, reinforcing each other's actions and, over time, creating the right conditions to move to the next transition phase.

Based on these constituents, the following is a description of how a transition journey might proceed according to the TransMission model.






Phase 0: The Inertia phase

This phase marks the beginning of the change process.

How it starts: it's the familiar story. We fill up our cars with petrol. We buy our groceries in shops. We buy the latest fashion in clothes shops. We get parcels delivered to our homes and book our flight holidays in advance, watching for stunt offers. The dominant market dynamic is as we have known it for a long time and to which we are accustomed. The system works like an efficient machine with considerable competition on price. Everything is geared towards being even more efficient and staying ahead of the competition, both nationally and internationally. Sustainability issues such as climate change, the waste problem, and poverty in the value chain have long been known. Any debate on them is dismissed by stakeholders and smothered in denial, contradictory facts, and calls for more details and research. At this stage, the most significant barrier is the lack of urgency for change. Without urgency, the current *system lock-in* will be too powerful to initiate real change. There is simply no reason to set different priorities and goals now, and it is still too easy to keep denying the problem.

Meanwhile, sustainability problems are piling up under the surface, and if you pay close attention, you can already see the first signs emerging. A good listener knows that change is coming.

The overview below shows the state of the key processes in phase 0.

Key processes	Build up	Tear down
 <p>Problem urgency and solution direction (Mission)</p>	<ul style="list-style-type: none"> In phase 0 there is limited awareness of sustainability issues and the urgency to do something about them is hardly felt. Crises or unexpected events are used to emphasize the need for change, to get parties moving, and to identify alternative visions for the current system. 	<ul style="list-style-type: none"> Through protest movements, NGO campaigns, journalistic research or court decisions, attention is drawn to the problem and change is set in motion.
 <p>Knowledge development, experimentation and knowledge sharing</p>	<ul style="list-style-type: none"> Knowledge development is still mainly aimed at improving the existing system. First analyzes are made of what is already happening and/or what is possible to solve the sustainability problem. 	<ul style="list-style-type: none"> Parties that want change use knowledge and research to substantiate that things are not going well in the current way.
 <p>Market formation and entrepreneurship</p>	<ul style="list-style-type: none"> The existing market dynamics revolve around increasing economic efficiency and fierce competition on the lowest price, or on quality and security of supply. There is not yet a market for sustainable alternatives. 	
 <p>Means (Budget, HR, Materials,...)</p>	<ul style="list-style-type: none"> Investments, training, infrastructure are all designed to maintain the existing system. 	
 <p>Sector organization</p>	<ul style="list-style-type: none"> Leaders in the sector dare to say that things have to change. 	<ul style="list-style-type: none"> Parties are seeking cooperation in putting sustainability issues on the agenda and creating urgency.

Phase 1: The Inception phase

This phase focuses on building urgency and pressure and finding possible solutions to sustainability problems. Knowledge institutions, NGOs, concerned citizens and niche companies often play the leading roles in this phase.

How it starts: slowly at first, then suddenly and seemingly out of nowhere, the debate changes. The immediate cause could be anything. Reports appear on television on the collapse of the Rana Plaza factory, where hundreds of workers are buried and killed. Water shortages are ravaging the country, forest fires are taking hold, the visible signs of climate change are asserting themselves. Images of the plastic soup are spreading across social media and people are shocked by the impact on nature and wonder what this means for our own health.

Pressure on the old system: when the crisis will occur is difficult to predict, but there will always come a time when it happens. A crisis in itself is no guarantee that change will be initiated, but it is often a prerequisite for creating a sufficient sense of urgency. Suddenly the critical reports on the seriousness of the issue appear, and the question is asked how we could have let it come to this anyway. Actions are organised by concerned citizens, action groups and NGOs, and knowledge institutions also step up the pressure with critical reports. After one last attempt by the system players to downplay and deny the problem, things seem to be changing for a growing group of actors. The problem is being recognised hesitantly and still with little enthusiasm by governments and market players.

The emerging system: as action groups mount pressure and urgency to recognise the problem, the search for alternatives is launched.

Resources are released and, where necessary, legal space is created to experiment. The priority in this phase is to research, build knowledge and experiment with what might be possible solutions. This may involve the emergence of different, sometimes competing and conflicting, solution approaches that are tested in practice. To speed up innovations, parties are brought together to share knowledge. In this troubled phase of confusion, crisis, campaigns and research, it helps if authoritative parties recognise the problem and commit to working on the solutions.

The overview below shows the status of key processes in phase 1.

Key processes	Build up	Tear down
Problem urgency and solution direction (Mission)	<ul style="list-style-type: none"> • Due to increased urgency, various parties are looking for solutions and are thinking about a vision for the future. • The government, NGOs, knowledge institutions, or industry leaders formulate a general direction for the transition (mission). 	<ul style="list-style-type: none"> • Actions by NGOs, citizens, media, government or judges are putting increasing pressure on the old system. • The damage of unsustainable practices will be made more transparent and awareness will be raised that change is needed.
Knowledge development, experimentation and knowledge sharing	<ul style="list-style-type: none"> • Research focuses on determining possible solutions to the sustainability problem. • An agenda is being drawn up for knowledge development. 	<ul style="list-style-type: none"> • Research for the old system is being phased out. • Lessons are learned from failed attempts to solve the problem.
Market formation and entrepreneurship	<ul style="list-style-type: none"> • Startups and sector leaders develop and experiment with new solutions. • Innovators are put on stage. 	<ul style="list-style-type: none"> • It is becoming clearer that unsustainable practices will not be profitable in the long run.
Means (Budget, HR, Materials,...)	<ul style="list-style-type: none"> • Money is made available for research, innovation and pilots to develop solutions. 	<ul style="list-style-type: none"> • Reluctance is being exercised in deploying resources for the old system.
Sector organization	<ul style="list-style-type: none"> • Collaboration arises around innovation, experiments, pilots & projects. • Small group of parties organize themselves around the mission. 	<ul style="list-style-type: none"> • Pressure is being put on industry and interest groups that deny the problem and want to maintain the current system.

Phase 2: The Competition phase

This phase focuses on creating supply and demand and market differentiation of the emerging sustainable solutions. Market players, governments and financial institutions often play a leading role here. But parties that keep pressure on the system are also needed.

How it starts: when the pressure for the necessary system change persists and when some hopeful solutions and innovations have been found, a new dynamic gradually emerges. The focus shifts from even more research and experimentation to marketing the sustainable solutions. This initially involves (niche) markets that have a relatively high interest in the solution, e.g., because they themselves suffer greatly from a sustainability problem. In those markets, the new solutions can be tested, which in turn contributes to improving quality and, especially if more scale can be achieved, reducing costs. This is all the more the case if the system around the solutions is starting to form, for instance, when it comes to the availability of relevant skills, infrastructures, or complementary solutions.



Pressure on the old system: urgency is what drives change. Critical reports continue to pile up. Action groups start campaigns, *naming and shaming*, rankings and indexes of companies that recognise the problem and work towards a solution. All this remains necessary to create the right conditions so that it becomes increasingly attractive for companies to continue with the innovations. The nuance sometimes fades into the background in the process, but according to many, the end justifies the means.

What can help in this phase is if a Mission is drawn up from the government or other actors, outlining a vision of what the future should look like. The Mission clearly acknowledges the problem, expresses long-term commitment and elaborates on corresponding objectives,

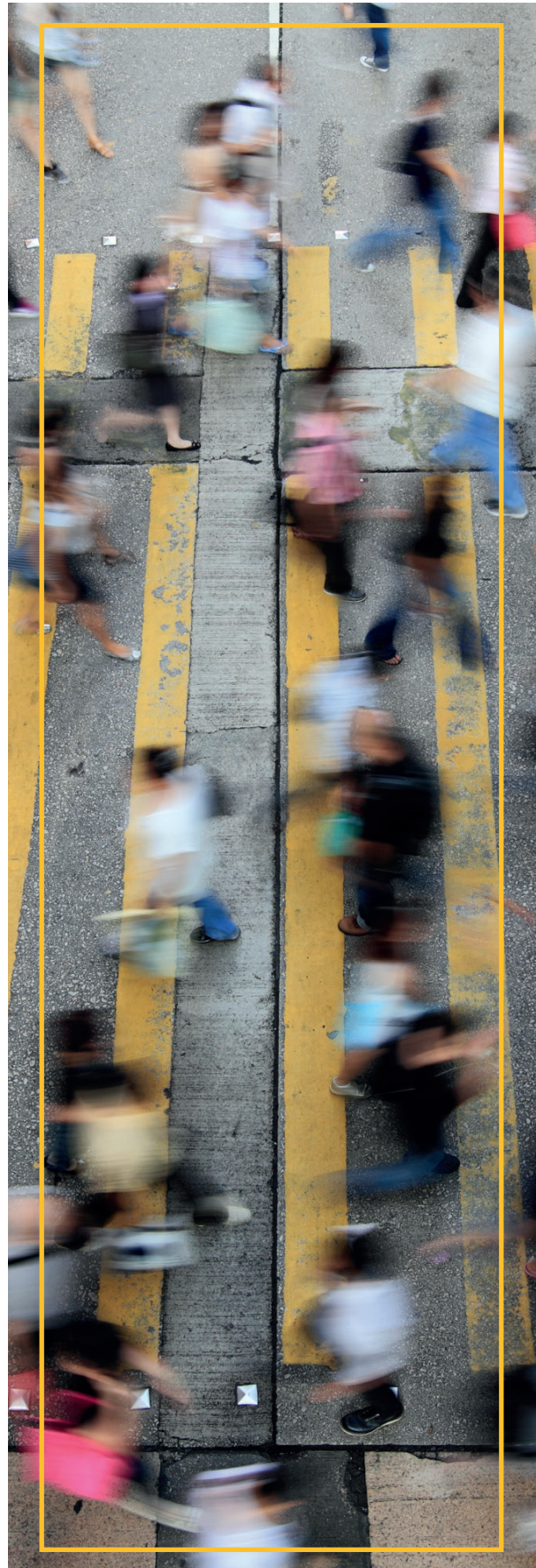
even if the path towards them is not always clear yet. Much resistance to the Mission being developed can still be expected at this stage. This resistance may come from industry, trade associations, but also from government agencies that have other objectives and priorities. There will be calls at this stage to be especially careful not to push too hard: “We have to consider our (international) competitive position, and it is too premature to come up with such objectives now.” In boardrooms, however, these signals are being taken seriously, and various options are being discussed and considered.

The emerging system: not all market players are pessimistic and cautious. Some leaders are intrinsically motivated to find ways to contribute to solving sustainability problems.

Some market players see an opportunity to differentiate themselves from their competitors with new knowledge and sustainable solutions, making a virtue of necessity. This is an exciting period because innovating on sustainability is risky. Substantial investments are made while the innovation may fail, or they are accused of greenwashing. All this while, there is often no direct customer demand for them to focus on because sustainability innovations do not offer any immediate relative or competitive advantage for the customer or consumer. Surely, sustainability is perceived by many as a public issue.

At this stage, the biggest barrier is the lack of concrete market demand. This is why it is so important that the frontrunners are recognised and acknowledged by other system actors. Every effort should be made to create and scale up supply and demand for the desired solutions. Various instruments can be used for this, such as credible standards and certificates, removing risks in the market, organising and aggregating market demand, helping to organise supply, sustainable procurement by governments, making the sustainable alternatives more financially and fiscally attractive or, conversely, taxing the non-sustainable options. All this, in addition to the actions already taken to put pressure on the old system, is slowly but surely changing the market dynamics in favour of the emerging system.

When this phase is successfully completed, more and more companies will feel called but also compelled to also implement sustainable



innovations or programmes. Competitive pressure will create a natural diversity of sustainable solutions because companies always try to differentiate themselves from each other. Many companies naturally want to do things differently and better than their competitors. Different technologies will be developed, different standards used, and different marketing claims used. This diversity is part of the game and is even to be welcomed to some extent. However, the confusion and inefficiency it brings will also, at some point, signal the end of phase 2 and increase the need for the next phase.









The overview below shows the state of the key processes in phase 2.

Phase 3: The Synergy and Integration phase

This phase is the critical tipping point and focuses on integrating the various solutions, creating synergies, and enabling them to

scale up and realise economies of scale around them. This while the old system is now coming under maximum pressure. All different types of stakeholders have an important role to play here, and it is crucial to have parties at the table that want real change.

How it starts: various parties have developed different sustainable solutions, and a well-run (niche) market for these has now emerged. However, the noise in the market is increasing. It becomes unclear what the differences are between all those different niche products and standards. The novelty has also worn off somewhat, and the limited willingness that existed to pay for the sustainable alternative is starting to decline. This leads to frustration among suppliers who have the costs of innovation but face disappointing or even declining revenues.

	Build up	Tear down
 <p>Key processes</p>		
 <p>Problem urgency and solution direction (Mission)</p>	<ul style="list-style-type: none"> • More parties support the mission and long-term goals are set. • Tackling the sustainability problem is now also seen as an opportunity. • Different solutions and visions for the future compete with each other. 	<ul style="list-style-type: none"> • It is made clear which practices no longer have a future in the long term.
 <p>Knowledge development, experimentation and knowledge sharing</p>	<ul style="list-style-type: none"> • Research focuses on the further development of solutions with the greatest potential and the creation of revenue models for this. • The social costs and benefits of the transition are made transparent. 	<ul style="list-style-type: none"> • Research shows the costs of externalities of the current system and how this system is subsidized.
 <p>Market formation and entrepreneurship</p>	<ul style="list-style-type: none"> • Niche markets are created by creating opportunities for market parties to distinguish themselves with sustainable solutions through standards, labels or recognition. • Risks surrounding new solutions are removed, so that more parties follow. Competition between (market) parties around new solutions ensures innovation and commitment. • Demand is stimulated by socially responsible purchasing and consumption. 	<ul style="list-style-type: none"> • Solutions are starting to compete in niches with unsustainable practices. • Those who stay behind are challenged to also focus on sustainable solutions.
 <p>Means (Budget, HR, Materials,...)</p>	<ul style="list-style-type: none"> • Subsidies and advantageous loans are made available for investments in solutions and business models. 	<ul style="list-style-type: none"> • Access to resources for unsustainable practices is being phased out.
 <p>Sector organization</p>	<ul style="list-style-type: none"> • There is both cooperation and competition between parties in the sector. • Chain collaboration ensures organization of supply, knowledge development and sharing. • The demand for sustainable solutions is being scaled up by cooperation between customers. 	<ul style="list-style-type: none"> • Resistance to change is growing and opposing forces are organizing. • The strategies and lobbying practices of these parties are mapped out.

Meanwhile, the sustainability problem is far from solved. The insight is dawning on a growing group of stakeholders that even more competition between companies on sustainable solutions alone will not be enough to meet the targets. The biggest focus at this stage is how to scale up, and that also means that now is the time to start thinking about how to really start stopping unsustainable practices. Slowly, minds are becoming ripe for the third phase of the transition.

Pressure on the old system: there seems to be a growing ear in government to listen to stakeholders driving the transition and less to those who want to leave everything as it is. The need to change is becoming more widely accepted. Various social cost and benefit calculations show a good business case for pushing through the transition. After all, it is about jobs and future economic growth. Also, the costs of inaction appear to be frighteningly high and unsustainable. These insights are again put to good use by media and NGOs to put further pressure on the legitimacy of the old system and the parties that do not want to change.

Behind the scenes and in close consultation with the stakeholders needed for the next phase, agreements are now being made to adjust financial and fiscal incentives in such a way that sustainable alternatives become increasingly attractive and unsustainable activities less so. For those parties still largely stuck in the old system, the pressure and pain are now starting to be felt. Things are moving too fast for these parties. Lobbying

is used to maximum effect to slow down the transition, by confusing with details and contradictory information. The arguments being used are already familiar: “Why do we have to get ahead of the music; Why are we the best kid in the class; The companies will leave our country; This is going to cost jobs; It is capital destruction.” It is important to be well-prepared to resist this counter-lobby and continue the transition.

The emerging system: a growing group of stakeholders (governments, companies, industry associations, knowledge institutes, NGOs, banks, etc.) is rallying behind the Mission and its objectives and is willing to work together pre-competitively on a joint roadmap to achieve the Mission. Whereas in phase 2 there were still different visions, solutions and standards for the future, actors are now trying to sketch a common future picture for the sector.

This also means clarifying which solutions are most desirable and will become part of the new system and which may not. Solutions and standards will be harmonised, creating more synergy, and making solutions easier to scale. Through research by knowledge institutions and communication about the feasibility and scalability of these solutions by media, NGOs, market parties and governments, these solutions gain legitimacy and credibility. Parties also jointly invest in creating the right preconditions for scaling up. Calls for investment in infrastructure, staff training and removal of barriers to scale-up are swelling. As it becomes increasingly

clear that the transition is inevitable and even desirable, it becomes possible for financial institutions to enable large-scale investments in new solutions. Indeed, continuing to invest in the old, unsustainable economy is increasingly starting to be seen as a risk. The tipping point for the system is approaching.

The overview below shows the state of key processes in phase 3.






Phase 4: The Institutionalisation phase

This phase focuses on accelerating the introduction of the desired solutions and formally phasing out or stopping the unsustainable practices. The government often plays the leading role here through its normative, policy-making, and fiscal function to phase out the old system and adopt the new system as the starting point of its policies. Laws, processes, agencies, budgets, roles and

responsibilities that previously served the old system are now set up to efficiently support and govern the new system. The new system becomes institutionalised and the path-dependent, incremental *lock-in* dynamics that previously served and strengthened the old system now start working for the new system. In the process, the new system starts working more and more efficiently and investments, interests and knowledge are built up.

A system change is a sum of several partial solutions that go through such transition phases. In this way, step by step, a complex problem is solved and a new normal is created – a new ‘regime’ – which stabilises and optimises itself until the moment a next crisis arises, and the urgency is again increased for changing the system and the cycle starts all over again.

The old system: unsustainable practices are completely phased out or banned by

Key processes	Build up	Tear down
 <p>Problem urgency and solution direction (Mission)</p>	<ul style="list-style-type: none"> A broad group of sector stakeholders (government, market, knowledge institutions, NGOs, banks, etc.) support the mission; a joint vision of the future is outlined for the sector. There will be more clarity about which solutions are the most desirable and whether or not they should be part of the new system. Policy focuses on designing new systems and scaling up solutions. 	<ul style="list-style-type: none"> A critical mass of industry stakeholders is amplifying the call for change. Legitimacy of unsustainable practices and the old system is increasingly declining. Laggards and opponents are betting on delays and are lobbying strongly against change.
 <p>Knowledge development, experimentation and knowledge sharing</p>	<ul style="list-style-type: none"> Research focuses on optimizing solutions and the necessary preconditions for upscaling. Cohesion and synergies between (partial) transitions are being investigated. 	<ul style="list-style-type: none"> Research is also being done into where the transition will hurt and the best ways to phase out the old system.
 <p>Market formation and entrepreneurship</p>	<ul style="list-style-type: none"> By organizing supply, increasing demand and creating the right preconditions, sustainable solutions are increasingly being scaled up. 	<ul style="list-style-type: none"> Harmful practices are becoming more expensive and riskier. Sustainable solutions provide more competition, but not enough for a complete turnaround.
 <p>Means (Budget, HR, Materials,...)</p>	<ul style="list-style-type: none"> Large-scale investments are (possibly) made in solutions. Sector stakeholders invest (together) in the necessary infrastructure, technology, training and other preconditions. 	<ul style="list-style-type: none"> It is becoming increasingly difficult to mobilize resources to maintain the old system – grants, investments, and loans are limited.
 <p>Sector organization</p>	<ul style="list-style-type: none"> A broad group of stakeholders from industry, government and civil society work together pre-competitively to determine the future for the sector and to scale up solutions. 	<ul style="list-style-type: none"> Resistance and lobbying from the established order is anticipated. Parties that do not want to be excluded from sector cooperation.

modifying laws and regulations. Examples include introducing taxes so that unsustainable practices are no longer financially sustainable, or by outright banning certain practices and no longer granting or revoking licences. Also, parties that, despite all previous warnings and actions in earlier phases, are still stuck in the old system can be bought out. Market parties, as well as financial, public and knowledge institutions, will have to move along and switch to new solutions, or stop what they are doing and exit the market. Companies and banks divest their assets in the old system or write off *stranded assets* that can no longer be used. Also, the new rules create *compliance* with new laws and regulations among customers or suppliers, or cooperation is stopped if they do not want to come along. Trade associations representing the old system adapt or are dissolved.






The emerging system: a shift in the system is emerging. Proven solutions become the new normal and completely take over the (market) share from unsustainable practices. Research and innovation focus on optimising these solutions and monitoring and addressing unexpected side effects. Processes, rules, infrastructure, behaviours and culture begin to form around the new system. Cooperation between actors is formalised or accommodated in an existing interest or industry organisation, focusing on other sustainable solutions in earlier transition phases or optimising the new system.

The overview below shows the state of key processes in phase 4.

- In reality, there are often multiple transitions going on at the same time. Each transition consists of various sub-transitions and solutions that each are in a different transition phase. This makes the reality already more complex.
- There will be active counter lobby and measures happening organized by parties that are against the Mission objectives and feel it goes against their interest.
- The urgency for the transition is often not under control; other issues can take the centre stage of attention at any moment, changing what society is focusing on and is willing and able to address.
- Mistakes are made deliberately or not, but wrong interventions can seriously affect the speed and direction of a transition.

For any or several of these reasons, transition momentum can get lost, trust eroded, resources depleted, and once promising solutions can go forward but also backwards in the transition phases. Therefore, every transition needs to be viewed as a long-term process where frequent reflection has to happen to see if the circumstances have changed and, if so, whether the right actions are still being taken.



Key processes	Build up	Tear down
 Problem urgency and solution direction (Mission)	<ul style="list-style-type: none"> Proven solutions are being institutionalized and are now the new normal. Attention is shifting to scale-up solutions in earlier phases. 	<ul style="list-style-type: none"> Those left behind are forced to join or stop. Unsustainable practices are completely phased out.
 Knowledge development, experimentation and knowledge sharing	<ul style="list-style-type: none"> Research and knowledge development focuses on optimizing the new system, determining whether the original problem is solved and keeping an eye out for unexpected side effects. 	<ul style="list-style-type: none"> No further research is being done into the old system. It is monitored whether parties comply with sector agreements and new laws and regulations.
 Market formation and entrepreneurship	<ul style="list-style-type: none"> A tipping point is emerging in the market, which now revolves around sustainable solutions. The parties are committed to improving solutions. 	<ul style="list-style-type: none"> Laws, regulations and policies are being adjusted so that unsustainable practices no longer become profitable or illegal.
 Means (Budget, HR, Materials,...)	<ul style="list-style-type: none"> Resources are invested in the new system on a large scale. Where necessary, losers of the transition are compensated. 	<ul style="list-style-type: none"> Resources are diverted from unsustainable practices through divestments or write-offs. Those who stay behind are bought out or compensated to quit.
 Sector organization	<ul style="list-style-type: none"> The parties are fully committed to joint lobbying and organize a monitoring and watchdog function to ensure that institutionalization runs smoothly. Stakeholders formalize multi-stakeholder cooperation or place it in an existing trade association. 	<ul style="list-style-type: none"> Industry and interest groups are embracing the new system or are discontinuing their network and activities.



Looking at the intervention- and stakeholder matrix and reading the dynamics in the different transition phases can give a false sense that transitions are linear, predictable processes that only can go one way. This is not the case. Although it is important to recognize that transitions can be managed and steered, that there is an order and logic to the timing of certain interventions and that different stakeholders have a role to play at certain moments, the reality will often not be as clear and clean as described above. There are a number of reasons why transition processes are messy and sometimes have an unpleasantly dynamic:

AFTERWORD

Integrating theories is making choices

TransMission builds on leading transition theories but does not reflect all that is offered therein. After all, there are contradictions in different perspectives. This is precisely why we have made an effort to see which elements do go well together. This also automatically means that we have made choices. The TransMission model represents a specific view of how transitions happen and how they can be influenced. We realise that there are other views on this as well.

Fundamental to TransMission is the belief that diverse stakeholders can work together on a concrete Mission and that this can be managed (certainly not assuming that the government must necessarily be at the controls). This view differs from visions that assume you cannot do much more than just throw open the existing system (and wait and see what 'bottom-up' solutions emerge next) or that argue that only drastic government intervention can unleash change. TransMission holds the middle ground between these two views.

We concur with the view that large-scale changes are ideally kicked off with sweeping

interventions (such as prohibition laws and strict norms) that, at a stroke, significantly change the playing field for desirable and undesirable solutions, or demand that actors (including consumers) behave very differently and accept a lower level of welfare if necessary. At the same time, we see that, in reality, system changes are not that fast, and (too) radical changes quickly meet with a lot of resistance. In addition, enforcement is often impossible because the alternatives are not yet available, or radical steps are not taken because they would lead to too much economic damage - which is undesirable for achieving other public goals.

Because of these points, we advocate the TransMission approach, with promising and acceptable solutions in sight that also prove to be feasible and scalable. This can reassure users (they have a choice) and increases the legitimacy of pressure on the existing system (society is no longer dependent on them). In addition, interests can be built up in the new system. All this makes a transition more realistic.

Moreover, an important assumption in TransMission is that momentum for a

transition will only be created if there are enough players who believe in it and have an interest in it. This means that you do not cast aside all existing structures at once, but you have to work with a group of parties who want to continue using existing capacities and assets in the new system to a certain extent. This, too, argues for a gradual approach, in which the intensity of phase-out actions is determined by how far alternatives have been developed. Starting from these perspectives, we have tried to develop an approach that lends itself to ambitious but realistic change processes.

Questions raised by this paper that require further investigation

Transition science is a relatively new field of research. Also, the reality of all conceivable transitions and contexts is very broad and diverse. The questions raised by this paper that call for further research and case studies are:

- Can the different transitions be categorised, and which categories lend themselves well to a TransMission approach and which do not or less so?
- How do technically driven transitions compare with more culturally and socially driven ones?
- What are the differences in applying the TransMission approach to transitions that are mainly government-driven (top-down) versus those driven by the market or civil society?
- What are good ways to monitor and measure the TransMission approach so that timely adjustments and improvements can be made?
- How do systemic transitions relate to the internal organisational transformation that needs to take place? After all, organisations are often their own biggest barrier to change.
- What is the relationship between transitions and leadership, and how can the right leadership be fostered and activated?

Everyone can make an important contribution to transitions

Because transitions do not depend solely on governments, we believe and see that all kinds of stakeholders can make important contributions to initiating, accelerating and governing transitions. With the right transition strategy, as we set out in this paper, each stakeholder can make an important contribution to shaping key processes, such as helping to prioritise and direct problems and solutions, creating and disseminating knowledge, shaping markets, mobilising resources, and organising the sector. This can be done directly by taking the leading role in this themselves, but if this is not possible, it can also be done indirectly by bringing other parties into the position to do so or supporting the parties that are already doing this.

Don't wait for each other. Get the analysis right to determine what the transition calls for and take action. Or to end with what this paper started with:

*"Never doubt that a small group of thoughtful, committed citizens
can change the world, indeed it is the only thing that ever has."*

- Margaret Mead

ABOUT THE AUTHORS OF THE TRANSMISSION MODEL

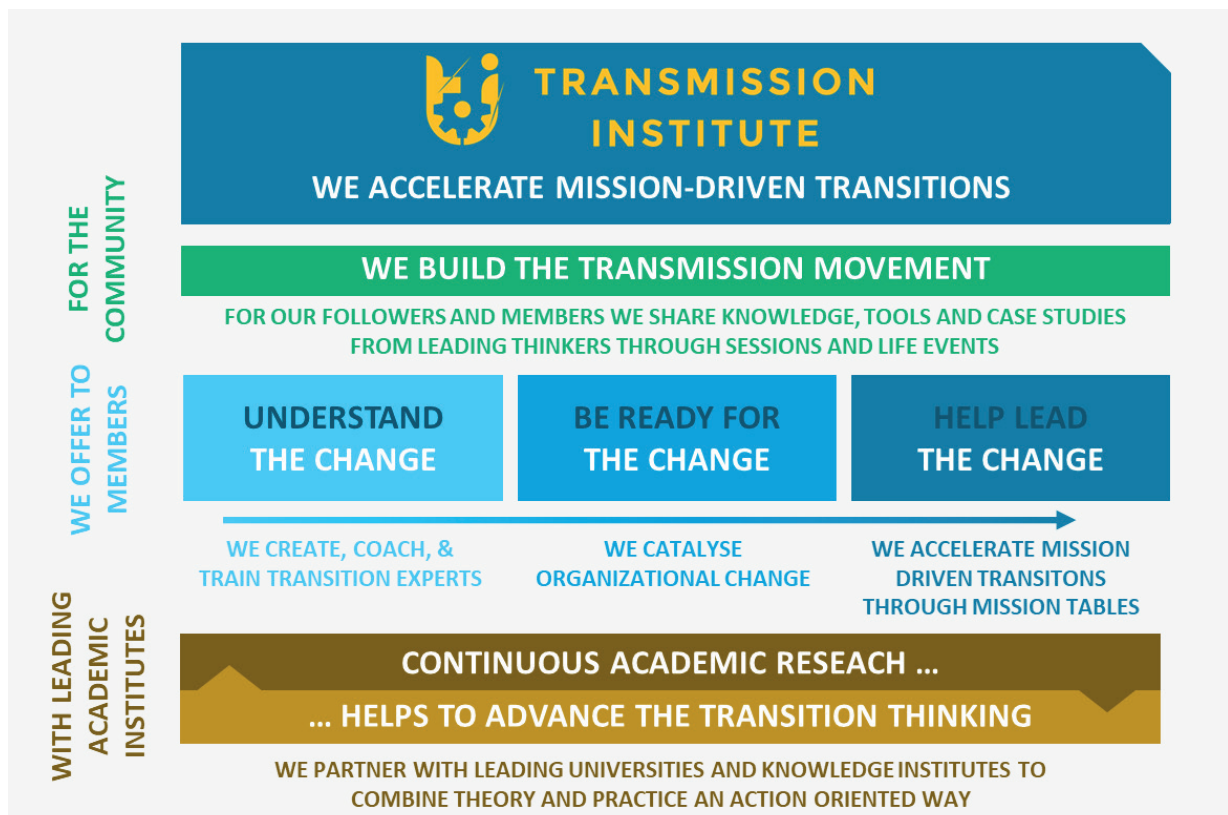
Lucas Simons has been involved in global transitions for more than 20 years. He is the creator of the Sustainable Market Transformation theory, described in the book *'Changing the Food Game'* (2015), after which, together with André Nijhof, he further developed and described this theory in the book *'Changing the Game'* (2021). Lucas is also the founder of NewForesight Consultancy, a leading strategic consultancy for companies, governments and NGOs, specialising in initiating and accelerating sustainable transitions in various sectors across different continents. From 2002 to 2008, Lucas was director at Utz Certified, the largest global certification programme for sustainable commodities such as coffee and cocoa. For his efforts, he was honoured by the World Economic Forum as Young Global Leader and appointed Ashoka Fellow.

André Nijhof is professor of Sustainable Business and Stewardship at Nyenrode Business University, where he works at the Centre for Entrepreneurship, Governance and Stewardship. Before his professorship, André worked as a consultant at Q-Consult Advisors. He ran workshops on case study learning, teaching people of all experience levels to analyse complex, real-world challenges to create lasting, impactful solutions. With nearly 20 years of experience as a professor, programme director and public speaker, André knows what it takes to teach people from different backgrounds in a way that works for everyone. André is co-author of the book *'Changing the Game'* (2021).

Matthijs Janssen is an associate professor at the Copernicus Institute of Sustainable Development at Utrecht University. His research focuses on the interface between innovation (policy) and transitions. Of particular interest here is the concept of societal Missions. As co-founder and coordinator of the Mission-oriented Innovation Policy Observatory, Matthijs has been involved in a large number of publications, projects, workshops and presentations focusing on the possibilities and limitations of Missions. In addition, he has a major stake in cutting-edge research on 'Mission-driven innovation systems' and evaluating Mission-driven innovation policies, among others.

Thomas Meijer and Zoé Bander were working for NewForesight at the time of writing this paper.

ABOUT THE TRANSMISSION INSTITUTE



The TransMission Initiative is a multi-party, open initiative with the objective of accelerating Mission driven transitions. In all its activities, it operates from the TransMission framework and a strong code of conduct. The TransMission Institute:

- Trains change makers and leaders
- Helps organisations prepare for transitions

- Organises and facilitates Mission Tables. The goal of a Mission Table is to bring stakeholders together to cooperate and develop a Mission-drive transition roadmap that is feasible, scalable, and sustainable.

In the above picture, we summarize what the TransMission Institute entails. On the next page we elaborate per building block what it is and why it is important.

The TransMission Institute is an initiative by Lucas Simons (NewForesight) and André Nijhof (Nyenrode Business University). Matthijs Janssen (Copernicus Institute of Sustainable Development) is engaged as advisor.

For more information, mail to: lucas.simons@newforesight.com. See also <http://www.newforesight.com>. The website for TransMission Institute is under development.

WE BUILD THE TRANSMISSION MOVEMENT

We build a movement of TransMission practitioners. For everyone interested in understanding more about the why, what, and how of transitions, we offer free tools, case studies, articles and research papers and periodic free digital webinars on relevant topics.

- ✓ Sharing the TransMission Theory publicly
- ✓ Organising Knowledge sessions, workshops and events

UNDERSTAND THE CHANGE

We train and coach individuals to become TransMission experts. For people who really want to contribute and need the theory and tools to understand and accelerate complex transitions. You get access to training,

coaching sessions, TransMission toolbox, receive the book and papers, and are engaged in the community.

- ✓ Personal and organisational training (a 3- or 4-day Changing the Game training course).
- ✓ Tools to put theory into practice

BE READY FOR THE CHANGE

We transform internal organizations of businesses, NGOs, governments, platforms and others. For organizations that want to lead structural impact and need the right internal structure, skills, mindset, tools, competencies, and strategies to take that leading role.

- ✓ Internal organisational guidance, training, and coaching.
- ✓ Consultancy services for thorough analysis based on the TransMission approach, strategy formation, implementation and monitoring.

HELP LEAD THE CHANGE

We drive sectoral change through **Mission Tables**. We bring in the process and expertise on transitions. Our Mission Partner brings in the sector expertise and network. We convene stakeholders, create an actionable and long-term TransMission strategy, and drive sectoral change together.

- ✓ A unique 3-day TransMission Quest for Mission formation and Roadmap development
- ✓ Co-develop and initiate new transition initiatives together with a coalition of the willing and able
- ✓ Setting up Mission tables where in sectors or around certain topics the right stakeholders are convened, and the transitions are accelerated

CONTINUOUS ACADEMIC RESEARCH ...
... HELPS TO ADVANCE THE TRANSITION THINKING

By applying the theories, we accelerate transitions and continue to advance transition thinking. We partner with leading universities and knowledge institutes and organize continuous fundamental and applied research and case studies. Transmission Research Partners uniquely possess the necessary expertise, knowledge, and resources to conduct interdisciplinary research and develop solutions that will be used in the Training and Mission tables.

- ✓ Continuous fundamental research in collaboration with Nyenrode Business University and Copernicus Institute
- ✓ Support in case studies and demand-driven research to support Mission tables and TMI member organizations

Accelerating the biggest transitions of our time requires dedicated partnerships. We recognize the importance of forging

alliances across various domains and are continuously seeking partners to join us on this journey. We offer partnerships on the following three levels.



On invitation only: Complimentary organizations who share the TMI Mission and vision

What we offer:

- ✓ A seat at the board of TMI
- ✓ We combine forces to build the TransMission community and accelerate Mission Driven transitions
- ✓ Joint branding and communication opportunities on all reports and events
- ✓ Access to all tables and initiatives

As a TMI Partner you:

- Contribute financially to the TMI
- Bring in expertise on transitions or certain sectors or themes
- Bring in new networks and co-start Mission tables



Mission Partner

For organizations who want to accelerate the Mission-driven transition in their sector and help us convene the right stakeholders

What we offer:

- ✓ We jointly develop a neutral transition table that can convene stakeholders
- ✓ TMI provides the TransMission knowledge, structure, governance, and administration
- ✓ Communication and co-branding opportunity on Mission table level
- ✓ Together, we enable a robust Transition strategy tailored to its context to ensure structural impact

As a Mission Partner you:

- Bring in expertise on a certain sector or theme
- Bring the network and play an active role in convening stakeholders



Knowledge Partner

For research institutes who want to bring in scientific and research capabilities and work together with others

What we offer:

- ✓ We link you with real-world transitions
- ✓ You will have access to a network of organizations seeking your support in demand-driven and fundamental research
- ✓ Together we synergize theory with practice, continuously advancing transition thinking
- ✓ We jointly apply for new research programs
- ✓ TMI and its members can offer co-investments in your research programs

As a Knowledge Partner you:

- Bring in new scientific insights on transition theories or specific Sectors / Themes
- Conduct Demand-based research for our Mission Tables

Contact us today to learn more about the opportunities.

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