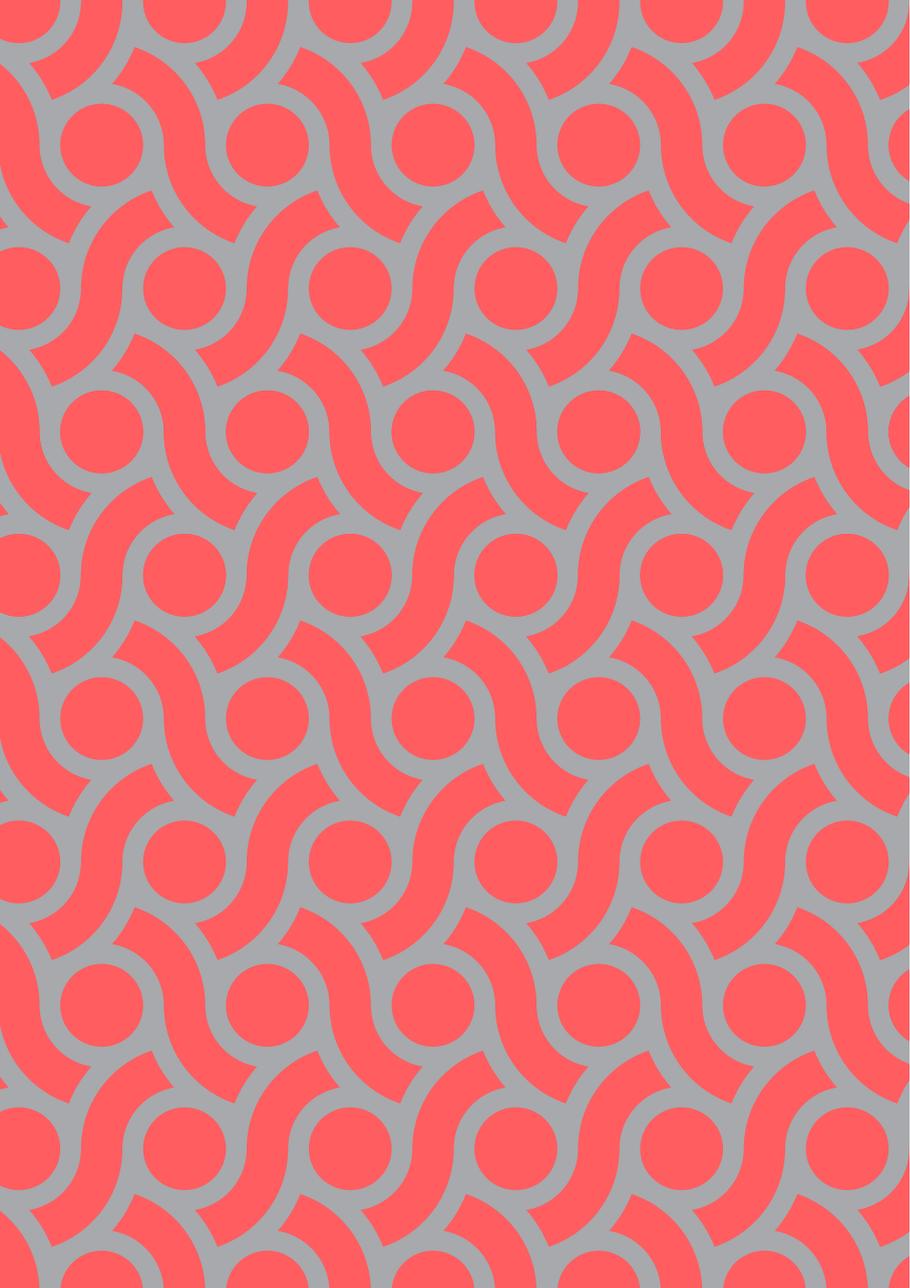




06

*Insights Series 06*

# Scaling through PPPs



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## Introduction

Scaling is the process of expanding beneficial practices over geographies and across organizations to impact larger numbers of people. Scaling up, scaling out, scaling in, deep or down: the term 'scaling' is increasingly popular in international development efforts, especially in light of the ambitions of the Sustainable Development Goals (SDGs).

Scaling suggests providing a real solution for large numbers of people. Public-private partnerships (PPPs) are seen as an important way to reach scale, as they combine the competencies of different actors to address difficult development issues, create breakthroughs, and combine different types of finance to create and sustain solutions.

Scaling is an increasingly popular concept. This popularity, however, is not matched by a high level of conceptual clarity or depth of approaches. The main aim of this booklet is to unpack the concept of scaling and make it more understandable and actionable. A second focus is on the role of public-private engagement in making scaling work. This booklet supports practitioners - whether they work in businesses, governments, NGOs, finance, or knowledge institutes - to consciously reflect on and develop realistic and rich scaling approaches for PPPs and other programs.

While the projects and instruments studied for this research mainly focus on the water and agriculture sectors, the concepts and approaches presented here are of wider relevance to the international development field.

# Colophon

PPPLab Food & Water is a four-year action research and joint-learning initiative (2014–2018) aiming at exploring the relevance, effectiveness, and quality of Dutch-supported public–private partnerships (PPPs). PPPLab is commissioned by the Dutch Ministry of Foreign Affairs and is driven and implemented by a consortium consisting of the Partnerships Resource Centre (PrC), Aqua for All (A4A), the Centre for Development Innovation at Wageningen UR (CDI), and the Netherlands Development Organization (SNV).

The insights in this booklet are derived and synthesized from literature, from the experiences of different agriculture and water sector programs, from interviews with selected thought leaders, and from learning sessions with relevant teams and networks. We are particularly grateful to the programs and thought leaders that shared their experience and wisdom directly with us, as well as the participants in workshops who applied and enriched the concepts and models.



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# Scaling

Scaling up

Scaling across

Scaling out

Scaling wide

Scaling in

Scaling deep

## 1. Why scale?

### Context

There is a growing call for impact at scale in international development ambitions to address critical global issues, such as water availability, sanitation, food security, and environmental concerns. The solutions to these global challenges require new ways of working to be applied across many people, communities and countries - hence the need to develop a stronger ability to tackle scale.

The need for transformations at scale is embodied in the Sustainable Development Goals (SDGs), adopted in 2015. This ambitious list of 17 goals indicates that systemic changes are needed, with innovative solutions, new ways of working, and improved models of governance. To achieve these the SDG agenda emphasizes the need for different sectors and actors working together by pooling financial resources, knowledge, and expertise.

### Expected benefits

Scale is associated with three types of benefits:

- Reaching more people
- Greater efficiency per person reached
- System change and sustainability

In practice, however, scaling processes are often not very successful at achieving these benefits. Simplistic approaches of replication ('blueprints') may be ill-adapted to different contexts. The focus on the specific technical solution may obscure other essential dimensions, such as the need to create buy-in and engage relevant stakeholders. A successful pilot often takes place

under conditions and levels of support that are difficult to realize at a larger scale. As a result of such factors, scaling efforts run the risk of becoming ineffective and not creating the breakthroughs needed to achieve the transformative agenda of the SDGs.

### The rationale for public and private engagement in scaling

A key challenge for traditional development initiatives is that, once public sector funding stops, the initiative typically does so too. The SDGs will not be achieved through conventional development finance alone. Private sector engagement and finance are essential to making any significant progress towards the ambitious goals. Market-based approaches have gained ground because the private sector can have lasting impact through viable business cases and has operational scale. In Goal 17, the SDG agenda identifies public-private partnerships (PPPs) as being one of the key methods of implementation for achieving the goals.

The increased attention being paid to market-driven approaches also applies to financing development. Official development assistance (ODA or aid) is far too limited in scale to finance the SDGs. ODA can, however, play a unique and strategic role in opening frontier markets, tackling governance issues, and leveraging other sources of (private) finance towards social goals. Generally, public-private engagement for scaling development initiatives is based on two parallel rationales:

- ✓ Together, business, government, civic, knowledge, and financial actors are able to address difficult ('wicked') development problems and collective action issues by combining their

expertise, mandates, and resources. Effective partnerships can develop solutions that individual actors cannot create or carry forward.

- ✓ In a range of domains, market-driven approaches can result in more sustainable solutions and higher impact, as they are driven by business cases. The development of pro-poor solutions and markets, however, requires public subsidies in initial stages (and sometimes longer) to mitigate risks and decrease upfront investment, thus allowing businesses to enter difficult or unknown domains.

These two rationales will return when we dive into the details of the role of PPPs in effective scaling strategies.

### What is scaled? An example of a PPP in sanitation

The “Financial Inclusion Improves Sanitation and Health (FINISH)” project aims to decrease the prevalence of sanitation-related diseases by improving sanitation facilities in a number of counties in Kenya. Its scaling strategy is built around the “Community-Led Total Sanitation” (CLTS) approach, which raises community awareness of the risks of open defecation to motivate the construction and use of sanitation facilities. The introduction of this process is backed up by local government planning and support, by the marketing of improved sanitation technology, and by setting up supply chains that provide and build toilets. Additionally, for both the toilet owners and the enterprises, engagement of (micro)finance institutions is established.

While the main aim is to spread sanitation facilities, multiple arrangements are being scaled to achieve that result. These arrangements include:

- **Demand creation** through the CLTS approach;
- The provision of **financing** options by microfinance institutions;
- Developing a **business model** for masons and support services;
- **Value-chain development** for these services.

This is backed by embedding the solution in **government policies** and cooperation with the Kenyan Ministry of Health, which provides the CLTS framework and has set 100% Open Defecation-Free Villages as a policy objective.

## 2. What is scaled, and through what mechanism?

### What is scaled?

In many scaling efforts, the focus is on specific technical solutions: drip-irrigation or improved sanitation, for example. But programs that address scaling more consciously show that what is scaled is a combination of multiple arrangements.

The sanitation example shows the actual complexity of any scaling ambition. Rather than replicating a single thing, scaling entails multiple arrangements that stimulate the use of the solution. The example also resonates with other cases, in which arrangements such as demand-engagement, technical solutions, provision of related services, financing, value-chain development, backup of professional knowledge, and embedding in policies and regulations pop up as part of what is scaled. What is scaled is thus a combination of multiple arrangements that together enable and stimulate the adoption and sustainability of a certain solution.

### Delivery mechanisms

An essential choice in any scaling effort is through what mechanism(s) the multiple arrangements of a solution are delivered. Examples of mechanisms used in agriculture and WASH are provided in the box on the next page.

- Commercial firms and outlets (shops, agro-dealers)
- Public and collective infrastructure (markets, warehouses)
- User and producer organizations
- Intermediary actors such as NGOs
- Local government mechanisms (including extension services)
- Brokering, facilitation, and advisory services
- Hubs and incubators
- Web-based outreach - increasingly two-way - through phones (sites, apps, SMS services)

The mechanism that is chosen has far-reaching implications, as it allows you to use its strengths, but also confronts you with its limitations. While in conventional development efforts, government and NGO delivery channels were often dominant, in recent years increasing use is being made of private channels, because these can be financially sustainable and may already have some market penetration. As what is scaled is often a combination of arrangements, the delivery mechanism may also be a combination of mechanisms. A delivery mechanism can be single point (a 'one-stop shop' kind of outfit), but it may also be a mutually coordinated set of arrangements with different actors.

It is essential to recognize the quality characteristics that are important for a delivery mechanism. Such a mechanism should:

- Effectively connect to an optimum number of users;
- Provide the required combination of arrangements in a sufficiently coordinated manner;
- Have an adequate balance of standardization and responsiveness to local variation and demand;
- Provide an effective and efficient unit for horizontal replication and vertical linkages.

### **An example of a coordinated delivery mechanism**

*The PPP "Uduma" in Mali implements an innovative operations and maintenance (O&M) system for 1400 manual water pumps in 300 communities. The delivery mechanism is a carefully designed combination of:*

- a) A lead private firm assuring maintenance and delivering technical hardware;*
- b) Having a service contract between them and local municipalities; as well as*
- c) A network of local maintenance entrepreneurs and caretakers. Moreover, they operate an electronic information system on pump performance and a user payment system.*

*This model has been designed to be a game-changer in the maintenance of rural water points. After an initial investment with some donor support, it will enable sustainable O&M with highly improved service delivery levels for users based on viable business cases for the company, the mechanics, and the caretakers.<sup>1</sup>*

When you move from a certain scale level (such as a district) to a significantly larger level (like a province or nation), the nature of the delivery mechanism may need to further evolve, or the primary delivery mechanism may require backing up by a secondary mechanism that is capable of supporting larger geographies.

<sup>1]</sup> For more information, see [www.uduma.net](http://www.uduma.net)

Figure: The relation between numbers of people reached and system levels (developed on the basis of Wigboldus & Leeuwis (2013) and NewForesight (2013)).



### 3. Horizontal and vertical scaling

#### Two dimensions: numbers and system

As we have mentioned, the basic conceptual model for scaling is often replication or rolling-out: copying a successful solution or model for new clients and geographies. Scale in this horizontal perspective is measured by sheer **numbers**.

Achieving significant scale usually also requires dealing with other **system** levels: not just delivering the solution or practice, but also altering the ways in which organizations and institutions function to allow that solution to be sustained. This is called vertical scaling, and involves changing ways of working and the rules of the game in the sector. These horizontal and vertical perspectives on scaling are visualized in the figure on the left.

The visual can be exemplified by the scaling of financial services for improved agricultural practices. The first level, for example in a pilot project, is concerned with the type of **financial product** or **service** that farmers need to implement the improved agricultural practice. When seeking to make this accessible to more farmers, attention shifts to the **financial organization** (such as a bank or a microfinance institution) and the way in which it can provide that loan product. If this is to be scaled to the national level, the concern shifts to the **rules of the game** (policies, regulations, etc.) that allow more financial institutions to provide such products or services.

## Barriers to scale

Adding to the understanding of system levels is the analysis of barriers to scale. The figure on the right shows that scaling barriers can be found at the level of firms and their direct value chain, but also on higher system levels, in terms of public goods and governments. For scaling strategies to be effective, a thorough analysis of (potential) scaling barriers should be performed.<sup>2</sup>

### Horizontal approaches

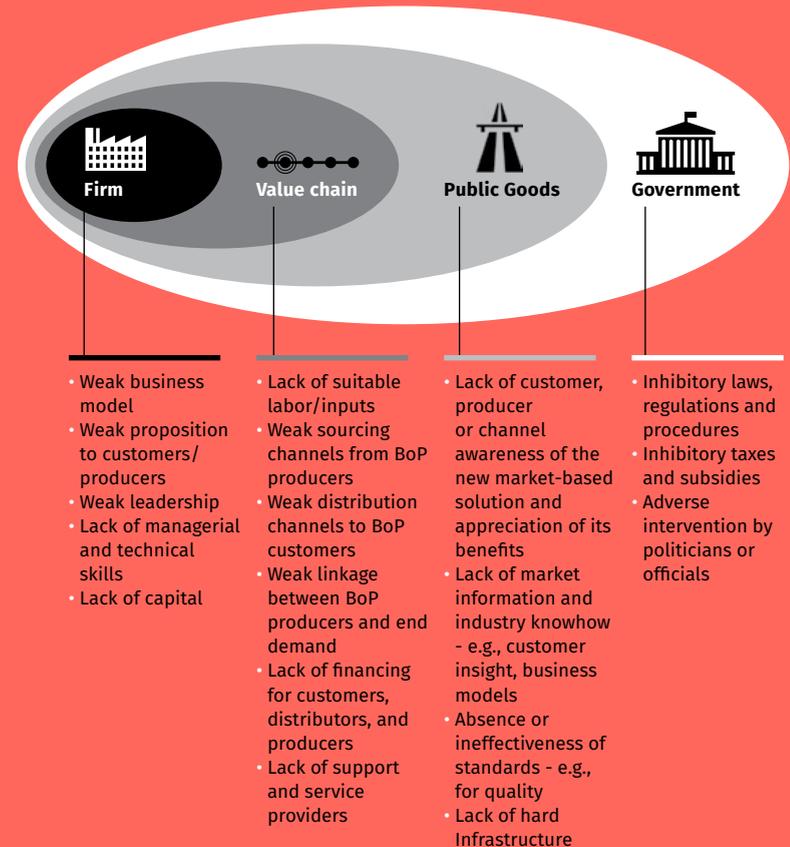
Horizontal scaling approaches consist of strategies for replication, rolling-out, business growth, and market-driven approaches to achieve impact numbers. Key elements of horizontal approaches include:

- Demand-creation, awareness-raising, and producer and customer engagement;
- Technical qualities and competitiveness of a solution or practice;
- Attractiveness and efficiency of the business models for users, businesses, and intermediaries;
- Strengthening linkages in the value chain.

Horizontal approaches are often used by businesses seeking to enhance their market share. Such approaches can also include programs that support the development of a number of SMEs in a certain domain. Governments and NGOs also use horizontal approaches when promoting certain solutions through public awareness campaigns. Marketing campaigns are usually an important element of horizontal approaches.

<sup>2</sup>] Note that the Scaling Scan developed by PPPLab does exactly this, identifying key scaling challenges and ways of addressing them. See: [www.ppplab.org](http://www.ppplab.org)

Figure: Scaling barriers (based on Koh et al. 2014)



## Vertical approaches

Vertical approaches look at the systems and institutions that govern and enable the use of a practice or solution. In other words, they seek to strengthen the enabling environment - for example, by making certain solutions a policy priority, enforcing or stimulating them through regulations, improving or innovating financing mechanisms, or strengthening the backup educational systems. The key focus areas of vertical scaling approaches are:

- Sector or industry platforms, including self-regulation and voluntary standards;
- Public sector policies, regulations, and standards;
- Coordination and governance of the value chain or subsector;
- Tertiary chain and sector functions, such as education and knowledge institutes.

Vertical approaches seek to stimulate and incentivize certain solutions (for example, more environmentally friendly technology or more pro-poor delivery models). This reflects an ambition for system change that redefines what is 'normal' and has better practices backed up by the system. Vertical approaches often make use of existing fora, such as industry platforms, umbrella organizations, or more diverse coalitions.

More practically, the idea of vertical scaling can be unpacked, distinguishing three interrelated system levels. These are illustrated on the right: the micro, meso, and macro levels.

Figure: Vertical scaling levels

### MACRO: RULES OF THE GAME AND INSTITUTIONS

- Policies, norms, standards, regulation
- Development of the market and business environment
- Financing landscape and mechanisms

**Actors:** Government, (multi)national companies, major finance actors, (international) NGOs

### MESO: ORGANIZATION AND DELIVERY MECHANISMS

- Coordination between relevant actors
- Delivery systems and quality assurance
- Access to knowledge and education

**Actors:** SMEs, producers/users organizations, NGOs, local governments, local finance actors

### MICRO: SOLUTION AND BASIC BUSINESS CASE

- Product and practice specifications
- Technology development
- Business case, price, and competitive power

**Actors:** SMEs, technology developers, users or producers and their organizations

Promoting scaling through vertical approaches can be challenging. Many barriers to scale are located in the broader sector dynamics and the governance environment: weakly governed value chains, a lack of necessary financial institutions, inhibitory laws and regulations, and so on. The current rules of the game reflect the existing power structure and interests. Shifting these rules is usually demanding and highly political. Much effort and time are needed to achieve governance, regulatory, or institutional change, but it often cannot be avoided. Horizontal scaling progress is frequently crippled by a lack of vertical breakthroughs and changes. In fact, the failure of pilot projects to scale up is often a failure to realize effective delivery mechanisms and new rules of the game.

### Combining horizontal and vertical

We talk of systemic change when new ways of working become ‘the new normal’; this requires both adoption in sheer numbers (horizontal scaling) and the institutionalization of these ways on different levels (vertical scaling). In this way, scaling barriers are addressed at all levels and an innovation can become a real breakthrough. Effective scaling strategies therefore consist of a healthy balance between horizontal and vertical approaches that continuously influence and feed into each other. There is no particular order or pathway to follow; whether attention is currently being paid to the horizontal or vertical dimensions depends on the specific scaling context and the challenges met at that particular moment in time.

Similarly, an effective scaling strategy also connects and switches between the different (vertical) system levels; there will be a constant shift of focus between improving the specific solutions,

sharpening the delivery models, and strengthening the enabling environment. At each level, we find a different focus of scaling activities.

Many PPPs tend to apply mainly horizontal approaches, because the numbers provide a clear justification for the use of public resources. It also serves the interest of lead firms in terms of business volume. Moreover, horizontal ambitions can easily be measured in terms of the number of people reached. A strong horizontal focus, however, can cause PPPs to fall into the ‘pilot project’ pitfall, and may limit scaling beyond the specific PPP project due to barriers at other system levels. This is a true pity, as PPPs are particularly suited to using vertical approaches, by combining the power, mandates, and resources of different partners to address system issues. However, this does require the courage of all actors to think beyond their direct business concerns and to use the PPP to address collective challenges in the sector and to pioneer game-changers.

For an example of how horizontal and vertical approaches are combined, see case study “A PPP in the sugarcane industry in India” on page 33.

Figure: Scaling ingredients

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SCALING INGREDIENT	WHAT IT PROVIDES TO SUPPORT SCALING
<b>Technology</b>	An effective and efficient solution for the issue at stake
<b>Business case</b>	An attractive financial/economic proposition for users and others
<b>Awareness and demand</b>	A wish and readiness for the consumer or producer to use the solution
<b>Finance</b>	Effective financing options for users and providers or buyers
<b>Value chain development</b>	Effective input and supply provision and other support services
<b>Platforms and collaboration</b>	Strategic and operational collaboration between key stakeholders
<b>Public sector governance</b>	Enabling policies, regulations and mechanisms
<b>Lobby and advocacy</b>	A 'change coalition' that pursues scaling and influences others
<b>Knowledge and skills</b>	The required knowledge and professional capacity and recognition
<b>Data and ICT</b>	Evidence and facts that underpin and communicate the scaling ambition

## 4. Scaling ingredients

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With the growing understanding of what is scaled (multiple arrangements, rather than a specific technical solution), how it is scaled (through delivery mechanisms), and the different dimensions of a scaling process (horizontal and vertical), it is clear that scaling is not easy. Effective scaling strategies consist of a varied and intelligent mix of activities - hence the potential for PPPs with their diverse partners to play a significant role.

PPPLab research has revealed a range of activities that are used in scaling. In total, ten 'scaling ingredients' can be distinguished, each reflecting a particular domain of professional attention or activities.

### Ten ingredients

The figure on the left shows the ten scaling ingredients and what they provide to support scaling. Successful scaling efforts deploy and combine several if not all of these ingredients, depending on ambition and context. The mixture also varies by the stage of the scaling process, as is explained in the next section. There is no standard recipe, but a well thought-through mix of ingredients can help to strengthen effectiveness.

Note that the ingredients cannot be strictly classified as vertical or horizontal. In fact, every ingredient can be used in horizontal and vertical ways. For example, the finance ingredient may involve the first investment in a business case (horizontal approach), but can also be focused on working with financial institutions to structurally increase access to finance - for example, by taking up certain new microloans in their portfolio to make a solution affordable to end users (vertical approach).

In general, early stage scaling and more horizontal approaches focus on building the business case, developing a specific technology, establishing direct financial arrangements, creating demand, and setting up the required value-chain connections. Vertical approaches usually pay more attention to sector platforms and collaboration, government policies and regulation, knowledge and education systems, and the more systemic elements of the other ingredients.

### The relevance of partnerships

PPPs have such great potential in scaling processes because they bring together different capacities to deploy an intelligent mixture of ingredients. In the figure on the next pages, you can see that the ten ingredients can roughly be grouped into four domains of work: Business & Markets, Governance & Regulation, Empowerment & Agency, and Knowledge & Technology. These generally reflect the priorities and work areas of private, public, civic, and knowledge actors.

These domains, however, must not be taken too rigidly. Some businesses have expertise in demand and awareness, and some NGOs in inclusive business. In partnerships, partners work towards the same aims, and can contribute to any ingredient if necessary or relevant. More innovative actors often pick up elements from domains other than those they are typically associated with.

The distinction of the four domains resonates with the logic of the “Dutch Diamond” model, which suggests that breakthroughs on tough development issues can be fostered by combining the specific qualities of businesses, governments, civil society,

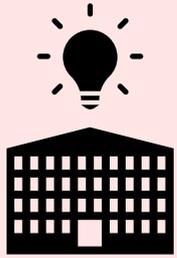
and knowledge actors.<sup>3</sup> But this is more than about combining capacities: PPPs also combine different types of influence, mandates, and resources, which together might increase the ability to overcome barriers at different system levels and the power to contribute to systemic change.

It is important to note that the finance sector is increasingly seen as a fifth category of partner that plays a unique role and has potential in contributing to scale. This has also been reflected in the most recent versions of the Dutch Diamond model. Note that finance may come from both public and private realms, and in many cases also comes from the users. Further attention to the role of finance in scaling is given in Sections 6 and 7.

<sup>3</sup>] For more information, see <http://aiv-advies.nl/download/ad4cd569-2111-4292-b04d-25aa7ba41441.pdf>

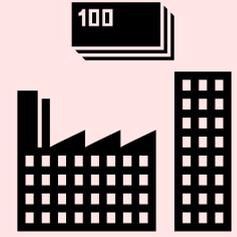
Figure: The ten scaling ingredients and four domains of work

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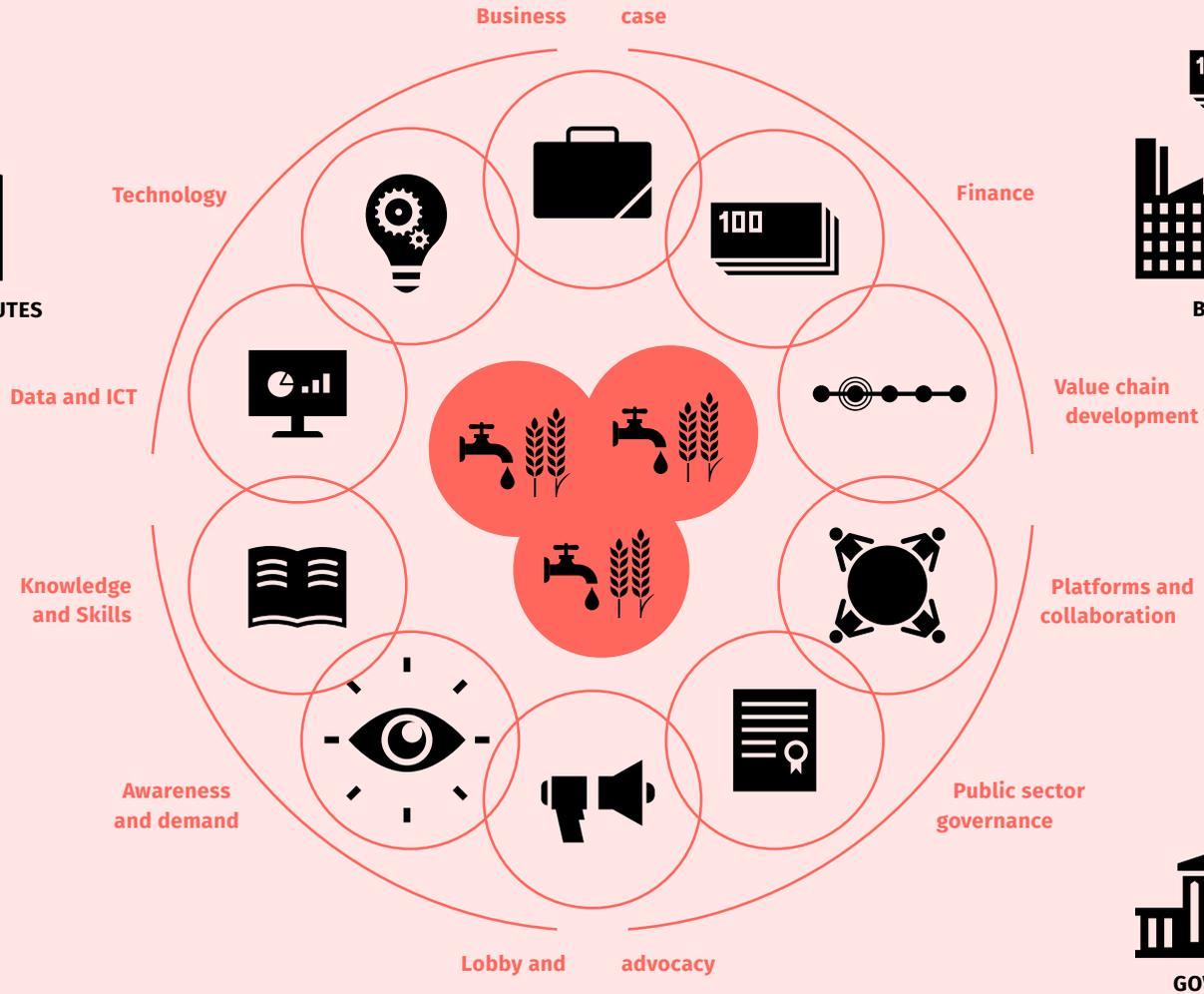


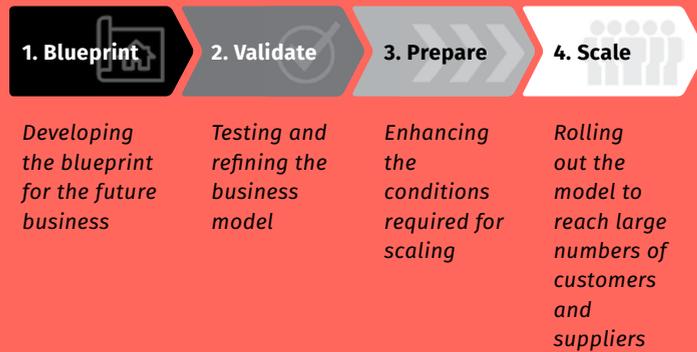
KNOWLEDGE INSTITUTES

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BUSINESS





## 5. Stages of scaling

### Timeframe

Scaling processes take substantial time, usually at least 5–7 years, though 10–15 years is often a more realistic time frame. This, of course, also depends on the ambitions of the PPP. If the objective is to make a certain solution ‘the new normal’ in a (sub)sector, a long-term, multi-staged process of transformation will be required.

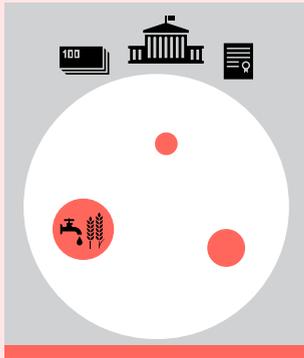
All scaling efforts go through several stages. Again, there is no blueprint or standard pathway. However, scaling stages can be looked at from a horizontal perspective (stages of scaling an individual proposition) and from a vertical perspective (stages of sector transformation). From both angles, it is crucial to have a sound understanding of the stage in which the scaling effort is currently located.

### Stages of horizontal scaling

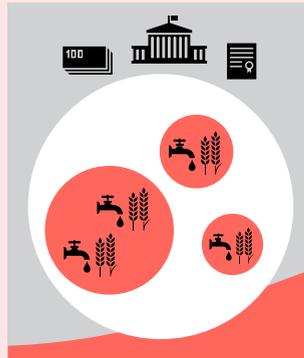
Horizontal scaling approaches mainly focus on the development of a new solution or product and related business models. Scaling a specific business proposition can, for example, be understood in the four stages as shown on the left.<sup>4</sup>

The **Blueprint stage** focuses on the development of an initial business plan, leading to product prototypes and a proof of concept. In the **Validate stage**, the commercial viability and scalability of the business model is confirmed, and market trials often lead to refinements in product, technology, and business models. In the **Prepare stage**, the scaling initiative fully

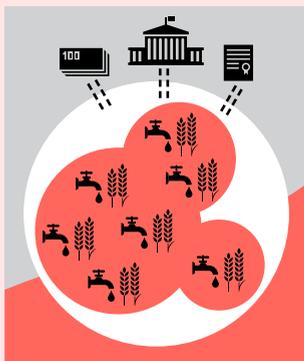
<sup>4</sup>] The description of the four stages on page 29/31 is an excerpt, with small adaptations, from page 12 in Koh et al. (2012)



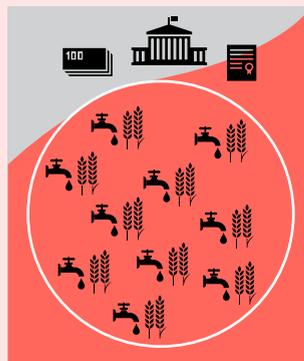
1. Inception



2. First movers



3. Critical Mass



4. Institutionalization

launches its product into the market, and market challenges to sustainable scaling are experienced and addressed. Then, if the scaling initiative can successfully surmount the existing market challenges, it is in a strong position to reach the **Scale stage**, where arrangements are scaled to reach more customers or suppliers. The initiative will face new challenges as it enters new geographies, controls costs, addresses inefficiencies, and manages more diverse sets of stakeholders.

### Stages of vertical scaling

In seeking to alter the ways that organizations and institutions function to enable a specific solution, vertical scaling involves changing the ways of working and the rules of the game in a sector. These sector transformation processes also go through several stages, as illustrated on the left.

This figure sketches a pattern by which disparate small initiatives (stage 1) begin to gain some direction, coherence, and influence through groups of ‘first movers’ (stage 2). These first movers gradually build more credibility, influence, and volume, until a sufficient critical mass is reached (stage 3). Only through and after that can a major transition towards new system dynamics, new rules of the game, and institutionalization take place (stage 4). It is important to note that the S-curve in the figure is a result of the activities and ambitions of multiple players innovating in the same domain. It reflects the stage a particular sector is in, and not the stage of a single scaling process. Both horizontal and vertical scaling activities may occur in all these sector transformation stages, and will follow upon each other or coincide in various cycles and sequences.

## Looking from both angles

Many scaling ambitions are primarily product-driven or technology-driven. Effective scaling strategies, however, are based on a sound understanding of the present system dynamics and propose viable alternatives for these in terms not only of technical solutions but also in terms of (price) incentives, required services, backup from regulations and policies and other relevant characteristics of the sector.

When developing a scaling strategy, it is important to have a realistic understanding of both the stage of maturity of the business proposition and the stage of sector transformation. If an individual proposition is considered to be relatively well developed and tested, but the sector as a whole is still in the incubation or early first-mover stage, the market environment will be volatile as the new solution may not be widely recognized, the environment not supportive, and other competing initiatives may still be popping up.

On the other hand, if the sector is moving beyond the first mover stage towards a critical mass, the position of that same proposition may be stronger. Conditions are probably more conducive in terms of demand and public understanding, and it will also be easier to find others to jointly lobby for better enabling conditions. However, there may also be stronger competitive initiatives.

If the intent is to define the next steps of a scaling strategy with an appropriate mix of ingredients and horizontal/vertical approaches, a proper context analysis needs to be performed, looking at both the stage of development of the individual proposition as well as the stage of sector transformation.

## Combining horizontal and vertical approaches - A PPP in the sugarcane industry in India

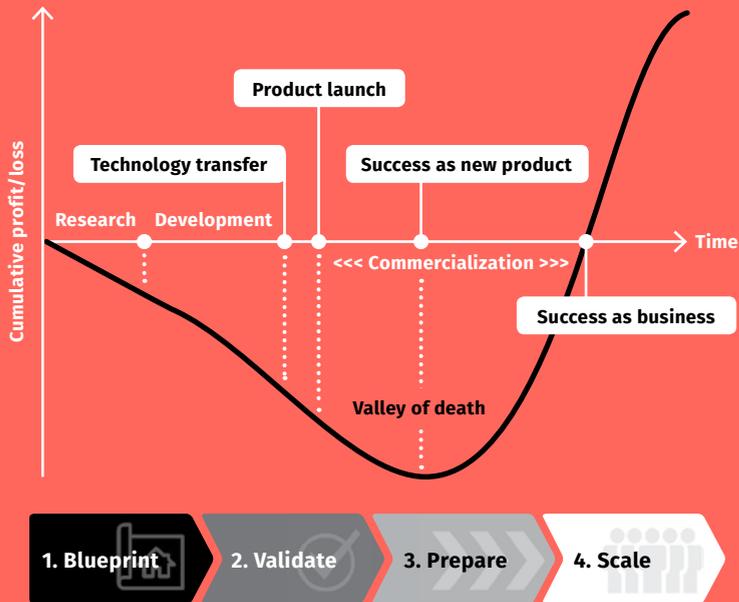
The "Increasing Water Use Efficiency in Sugarcane Growing in India" project addresses the overexploitation of groundwater resources. It focuses on sugar-cane growers adopting improved irrigation and farming practices to reduce water use and increase crop yields. Adoption of the improved irrigation practices is stimulated through the extension services of three participating sugar mills: this is the key delivery mechanism. The practices are underpinned with a strong business case for both the farmers and the mills. Monitoring water productivity through remote-sensing technology provides a solid proof-of-concept for replication and for influencing policy.

Horizontal scale is achieved by covering the command areas of the three targeted sugar mills, and may be further extended to other factories owned by these mills, as well as by inspiring other mills to take up the methods. Creating convincing real-life examples also fuels a vertical approach. Leadership on different levels (local governments, cane commissioners, the Ministry of Agriculture) are involved in obtaining buy-in and influence policy. Knowledge back-up is established through cooperation with knowledge institutes, and the project results are used to feed state-level roundtables and policy debates on water and agricultural policy.

In summary, regarding the horizontal stages of the proposition development (figure, p. 28), the project seeks to 'validate' the proposition<sup>5</sup> under Indian conditions to move quickly towards 'scale' in the command areas of the participating mills. With regard to the vertical stages of sector transformation (figure p. 30), the project establishes a number of 'first movers' (and relations with 'vertical' allies) to enable a drive towards 'critical mass'.

<sup>5</sup> Already tested and proven in other contexts

Figure: The pioneer gap and stages of proposition development (PPPLab 2016)



## 6. Financing scale

### Sector-specific requirements

The financing of scaling processes is a complex topic. PPPLab is developing separate content and tools on financing strategies, but we highlight a few key points here.

Firstly, the financing options are quite specific to various (sub) sectors and specific products and services. It makes a huge difference whether you are producing direct economic value (as in agriculture) or more public/social value (as in drinking water and sanitation). Also, in certain sub-sectors, such as drinking water provision, the government has primary responsibility and adds public finance, while in others it does not. In general, in agriculture and related services in the value chain, there is a strong dominance of private finance. In the water sector, there are more mixed arrangements whereby certain public investments and subsidies are increasingly combined with private finance.

### The financing rationale for PPPs to initiate new solutions

Any start-up or innovation has significant investment needs at the beginning; this is visualized in the 'valley of death' figure on the left. We have combined this with the four stages of a business proposition discussed in the previous section. For many innovative or inclusive propositions, few (impact) investors seem to be prepared to provide money or technical assistance during these earlier stages as "there is limited or no potential for

financial returns within a reasonable timeframe” (Koh et al. 2012: 12). This is the pioneer gap where ‘enterprise philanthropy’ or public co-investment through PPPs can be relevant.<sup>6</sup>

Until recently, matching grants were often provided as an upfront coinvestment for helping new propositions and businesses off the ground, but with little analysis of the longer-term financing perspective. Nowadays in several programs, a more direct connection is made between matching grants and the next stage of finance, with the matching grant being provided explicitly to attract the following stages of finance to the proposition, thus moving deliberately towards sustainability and scaling. PPPs are then required to come with a longer-term financing strategy, in which the financing mix evolves away from one-off grants to more sustainable (private or other) finance.

Sometimes there is a need for repetitive or on-going joint financing. We see this especially often in the water sector where, for example, market-driven operations are created for operation and maintenance, but upfront capital still needs to be subsidized. In other cases, government continues to play a role in operational costs as well. Developments in recent years suggest that as PPP models evolve, private finance and sustainable business cases are increasingly built into the overall financing model.<sup>7</sup>

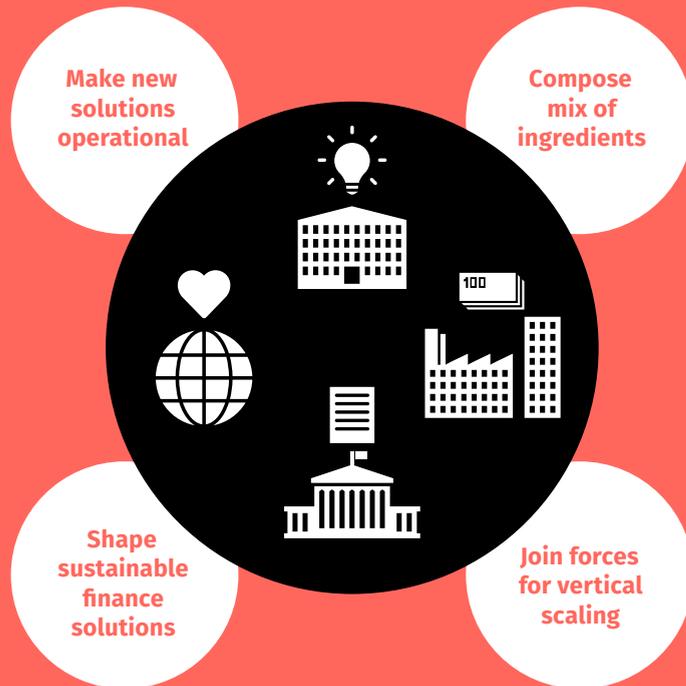
*6] Note that, in the ‘early’ part of the valley of death, smaller sources of innovation finance may be sufficient, while in the ‘later’ parts, it may be necessary to actually seek to address larger value-chain and public-good/sector issues to enable potentially viable proposition(s). Dutch PPP instruments like FDOV and FDW finance elements in both these earlier and later parts of the valley of death.*

*7] Such models bring private finance into the development of infrastructure as well as into the operation and maintenance of parts of systems. See for example initiatives supported by the Dutch government and the World Bank in Kenya under the Water Sector Trust Fund, the Pooled Water Fund and KIFFWA. See for instance [www.kiffwa.com](http://www.kiffwa.com)*

The transition from early stage matching grants to on-going market finance is still challenging, especially in domains that are considered risky by private finance. This is where ‘blended finance’ comes in. Deliberate combinations of (public and private) finance are being created to support scaling processes and to orient larger financial flows to domains like water supply in developing countries, smallholder agriculture, and renewable energy. Such financing mechanisms seek to fill a gap between donor and market finance, and usually aim at inclusive or green impact. The role of the public finance is to buffer risk for private finance, to provide relatively ‘soft’ conditions for receiving parties, and to add accompanying technical assistance for both financiers and receivers.

In this context, it should be highlighted that the financial sector is increasingly seen as a major partner in scaling development solutions. It is taking on a more prominent role as:

- a) Scaling development solutions and achieving the SDGs requires significant amounts of private finance,
- b) Non-ODA funding is required to sustain and further propel scaling, and
- c) The finance actors themselves are developing more appetite for frontier markets and for more responsible and ‘green’ investment options.



## 7. The role of PPPs in scaling

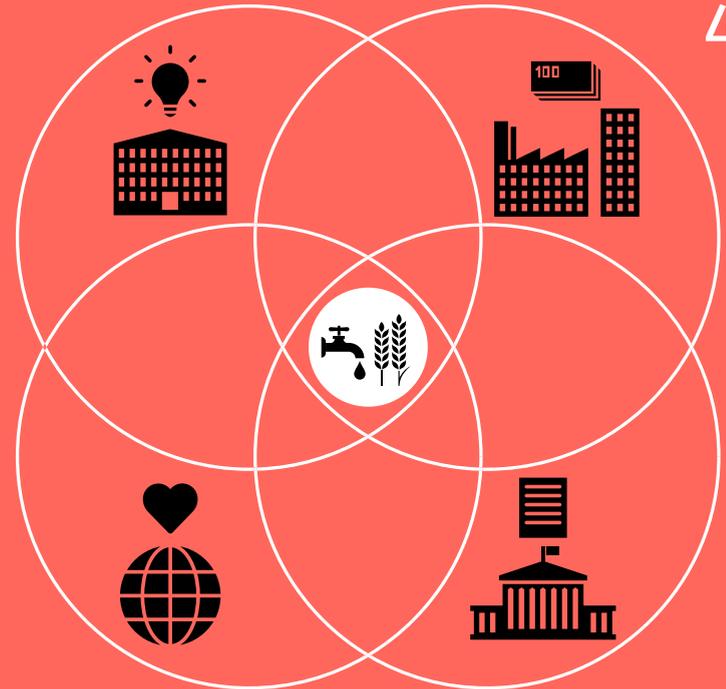
In Section 1, two basic rationales for the role of public-private engagement and PPPs in scaling development solutions were defined: to jointly create solutions for complex issues that individual actors cannot resolve, and to jointly generate finance underpinned by viable business cases with the aim of ensuring sustainability. With a more detailed understanding of scaling processes, the role of PPPs can now be further specified. PPPs are important in several essential ways in scaling solutions to address difficult development problems:

- A.** PPPs help to **make new solutions operational**. Often it is not just the actual technical innovation, but particularly its use under field conditions and the development of a delivery mechanism (Section 2) that are key in reaching impact. This is why partnerships are needed: to bring together the relevant expertise and skills of businesses, NGOs, governments, and knowledge and finance actors to create operational solutions under real-life conditions.
- B.** Once the solution has been more or less established, PPPs also serve further scaling. Effective scaling strategies consist of an intelligent **mix of scaling ingredients** (Section 4), which often require the expertise and skills of a range of partners. Together they help innovations to become recognized and gain a critical mass.
- C.** Embedding and promoting a solution or new practice in policies, regulation, and financing mechanisms is an area where the combination of different actors can also be particularly powerful. These **vertical scaling processes** (Sections 3 and 5) are demanding. When NGOs or businesses pursue such agendas alone, they are less effective than when operating together.

Additional back-up by knowledge and finance actors is often crucial to achieve vertical breakthroughs.

- D.** Finally, PPPs can be fertile breeding grounds for **innovative and more sustainable financing solutions** (Section 6). PPPs increasingly endeavor to innovate sector financing arrangements to propel the scaling process in their domain, as finance is short and private finance is not (yet) present or involved. Thus, such PPPs help to open up new access to finance or pipelines of new initiatives for further scaling. Larger blended finance mechanisms, where donors and private finance join up, are clearly also a form of public-private partnership.

Thus, PPPs can play important roles in creating innovative solutions, in paving the way towards blended financing for these, and in addressing the various dimensions of effective scaling strategies. In doing so, they can be key in creating breakthroughs for tough development issues and driving scaling processes to achieve the SDGs.



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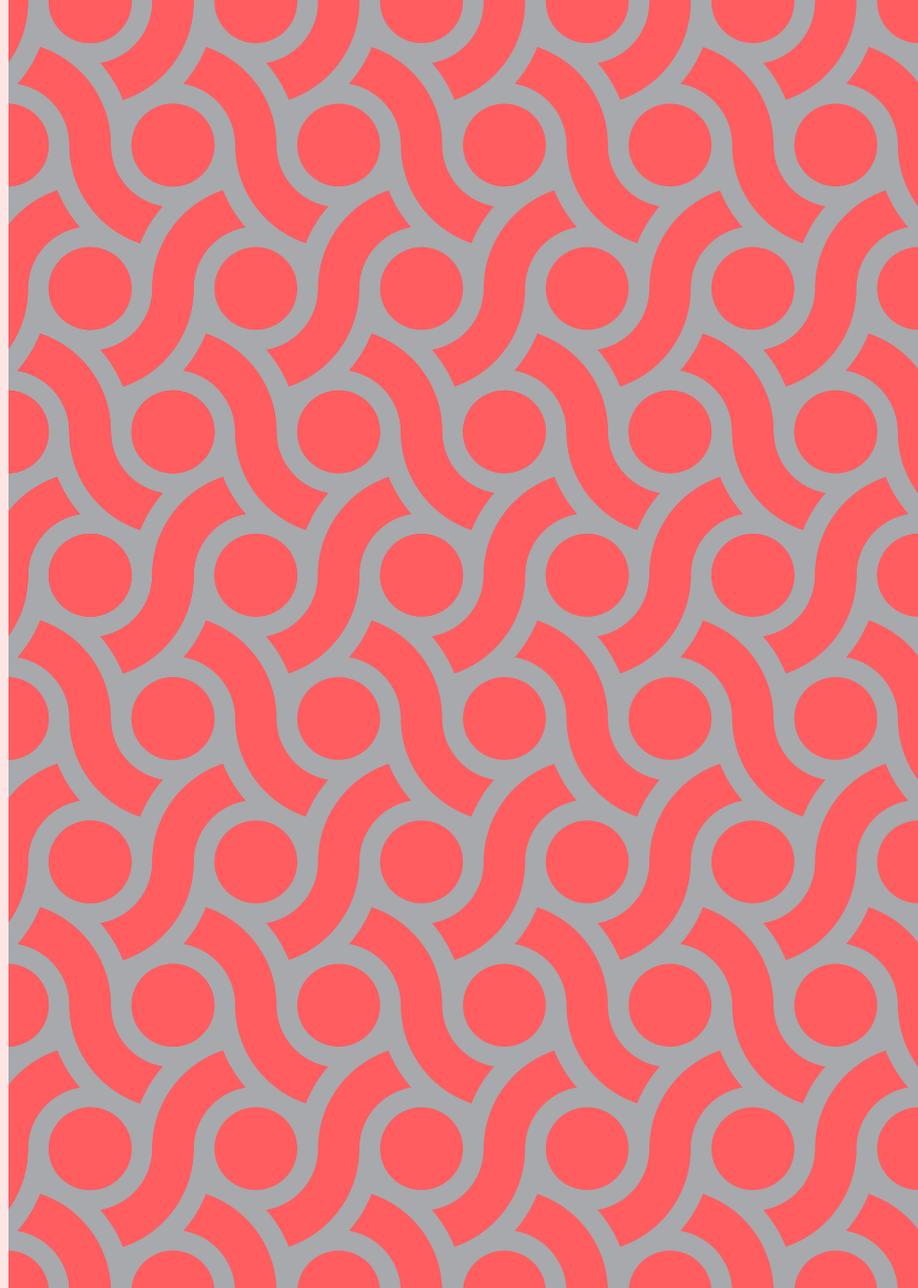
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*This booklet is part of the PPPLab Insights Series. An earlier working paper (Explorations #4, 'Scaling – From simple models to rich strategies'), which contains a more detailed discussion of the concepts related to scaling and a range of more extensive examples, is also available on our website ([www.ppplab.org](http://www.ppplab.org)).*

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PPPLab Food & Water is a four-year action research and joint learning initiative (2014–2018) to explore the relevance, effectiveness and quality of Dutch-supported public-private partnerships. This booklet is one of a series of 'Insights Series' booklets.