

DESIGNING SYNERGY

A PLAYBOOK FOR STRATEGIC
INDUSTRIAL DESIGN

the purpose of this playbook is to enable reciprocal strategy formulation and execution by reenvisioning the consultancy model and utilizing collaboration within a creative ecosystem.

it contains a framework, processes,
design concepts, approaches, and tools
to facilitate this

01 CONTEXT
02 FRAMEWORK
03 PROCESS
04 PLATFORMS
05 FUTURES
06 MICRO-MACRO
07 MATTER-META

CONTEXT

Strategy formulation and strategy execution

The creation of strategies in organizations is often still internal work done by the leadership team (Fig. 1). Sometimes external management consultancies are brought in for support for that particular task. Lately, design consultancies have increasingly contributed to strategy creation as well. From a designer's perspective, this is a welcome development. However, in such instances, designers are mainly utilized in two ways: Either in a similarly limited role like a business or management consultant, or they are originally hired for strategy execution tasks (Fig. 2), but get the freedom to challenge the brief

in some way.

Research suggests that organizational strategy creation is done best in-house when it is embedded in organizations and a long-term involvement is possible. This helps guide the implementation and strategy execution. In that way, strategy formulation and strategy execution can interact more and better with one informing the other and vice versa.

This is not the case when external organizations are responsible for only one part of the two (Fig. 3).

sf = strategy formulation
 se = strategy execution
 id = industrial design
 sd = strategic design

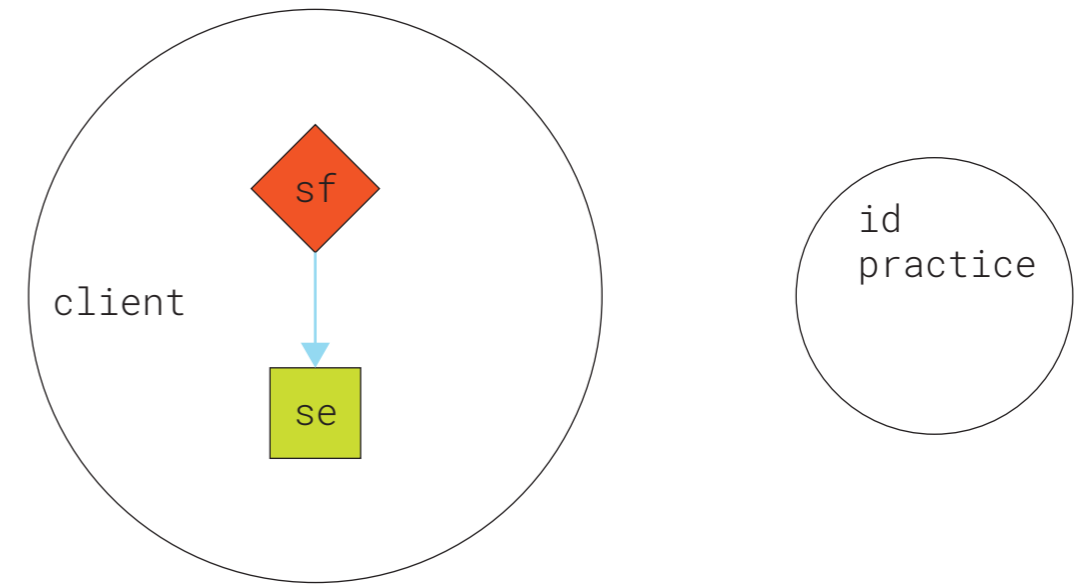


Fig. 1

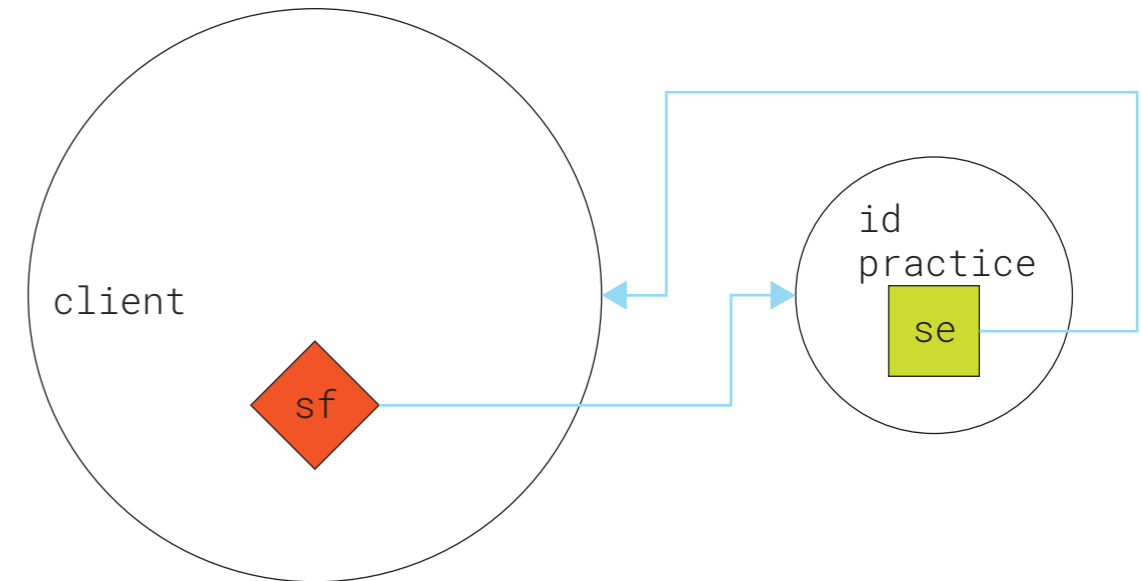


Fig. 2

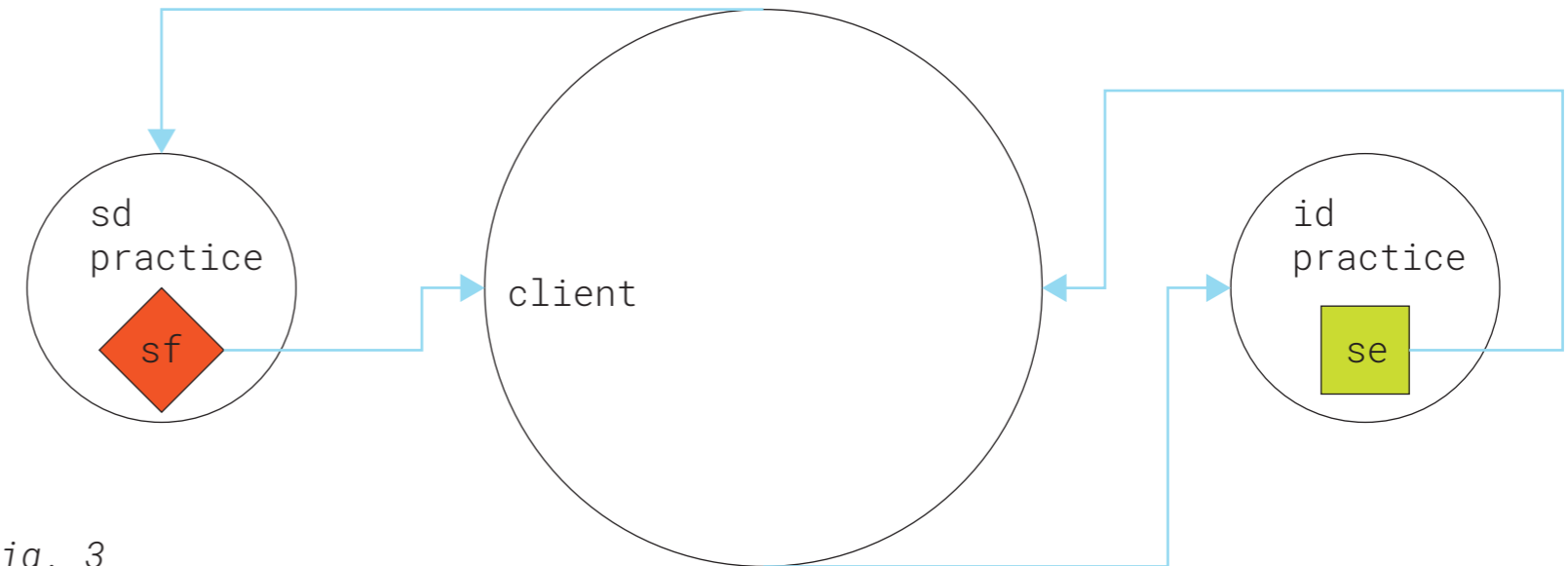


Fig. 3

CONTEXT

Consultancies and their mode of working

Every product goes through a life cycle (Fig. 4), that needs to be followed by either a product extension or the introduction of a new product. An organization needs to find a response to that life cycle in time to not lose out on sales or market share. As discussed on the previous page, this would be done best internally.

However, organizations struggle with triggering the necessary impulses. They tend to build some sort of “immune response” to change since the internal structures are built to create stability and increase effectiveness. To survive in the market it is imperative to innovate and develop new offerings. In this contradiction of the internal tendency to remove risk and instability, versus the external need to innovate, lies the *raison d’être* for external consultancies. They are in a position to trigger change

and unsettle an organization as needed (Fig. 5).

Nevertheless, in reality, both these sides of consultancy work can be true at the same time. Consultancies and their work are needed because the internal teams are bound by the internal structures of the organization, while at the same time, at least in theory, the work they do would be better done internally.



Fig. 4

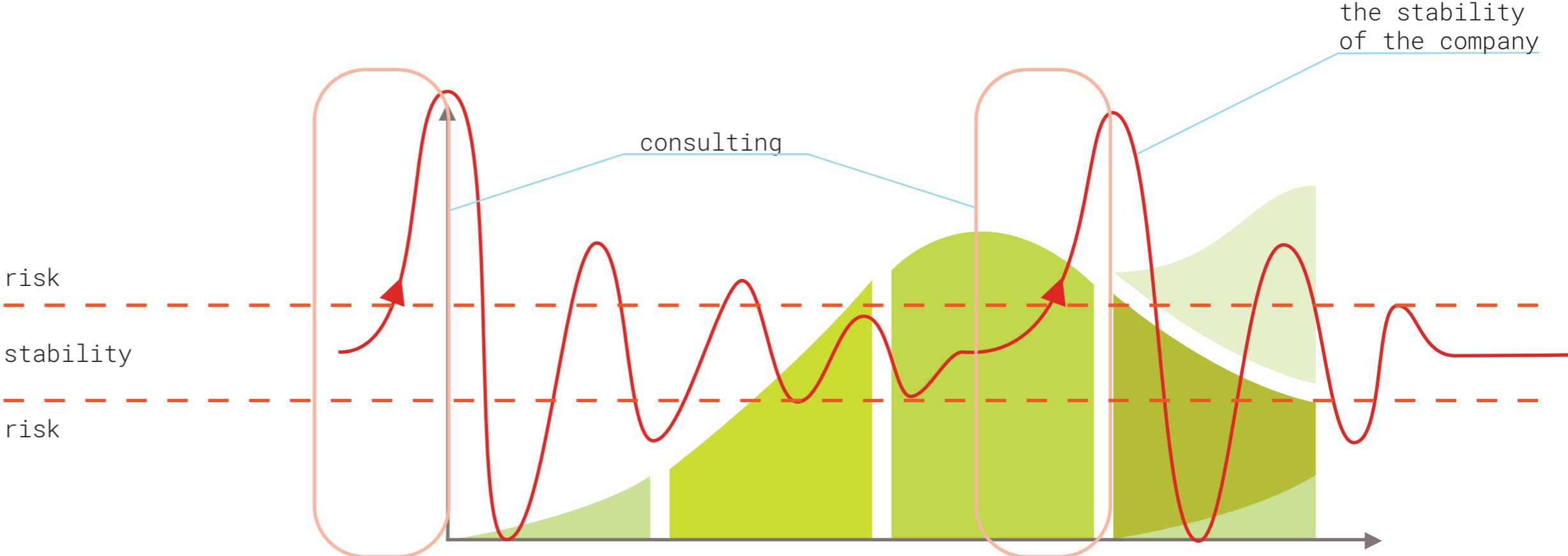


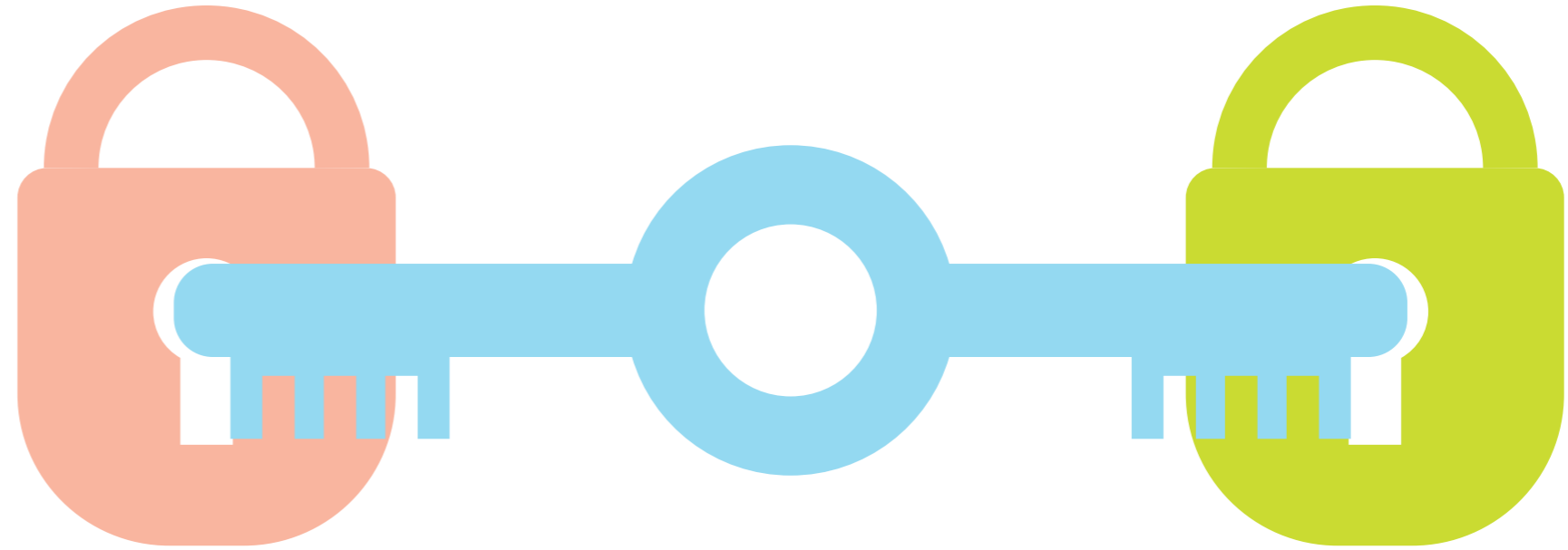
Fig. 5

CONTEXT

Capabilities within design practices

The research suggests that (industrial) designers are well-equipped to address strategic challenges. This seems to be true for strategic work they encounter as part of their more traditional design briefs, but, interestingly, also for strategic work unrelated to their traditional expertise. The methods and tools designers have for the creation of design outcomes lend themselves to strategy formulation as well.

While it is beneficial to adopt some additional methods and tools, the research suggests, it is more a matter of interest and motivation. Especially in situations when faced with a complex challenge, designers seem to be particularly well-equipped to develop responses to the ambiguous questions at hand.

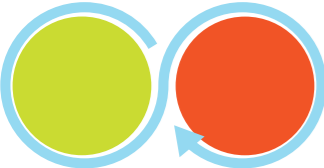


01 CONTEXT
02 FRAMEWORK
03 PROCESS
04 PLATFORMS
05 FUTURES
06 MICRO-MACRO
07 MATTER-META

THE DESIGN

The framework

This design concept for a framework aims at proposing a new way of working together with clients that enables reciprocal strategy formulation and strategy execution by reenvisioning the consultancy model and utilizing collaboration within a creative ecosystem (Fig. 6).



combined strategy formulation and strategy execution

A central part of this concept is the reciprocal nature of strategy formulation and strategy execution. Combining the two and letting them interact with each other creates better outcomes for the process. Since the knowledge from the execution part informs the formulation in the first place, makes a successful implementation more likely. Similarly, understanding (or better yet, being part of) the formulation stage guides the implementation better because the reasoning, goals, and objectives are already part of the process.

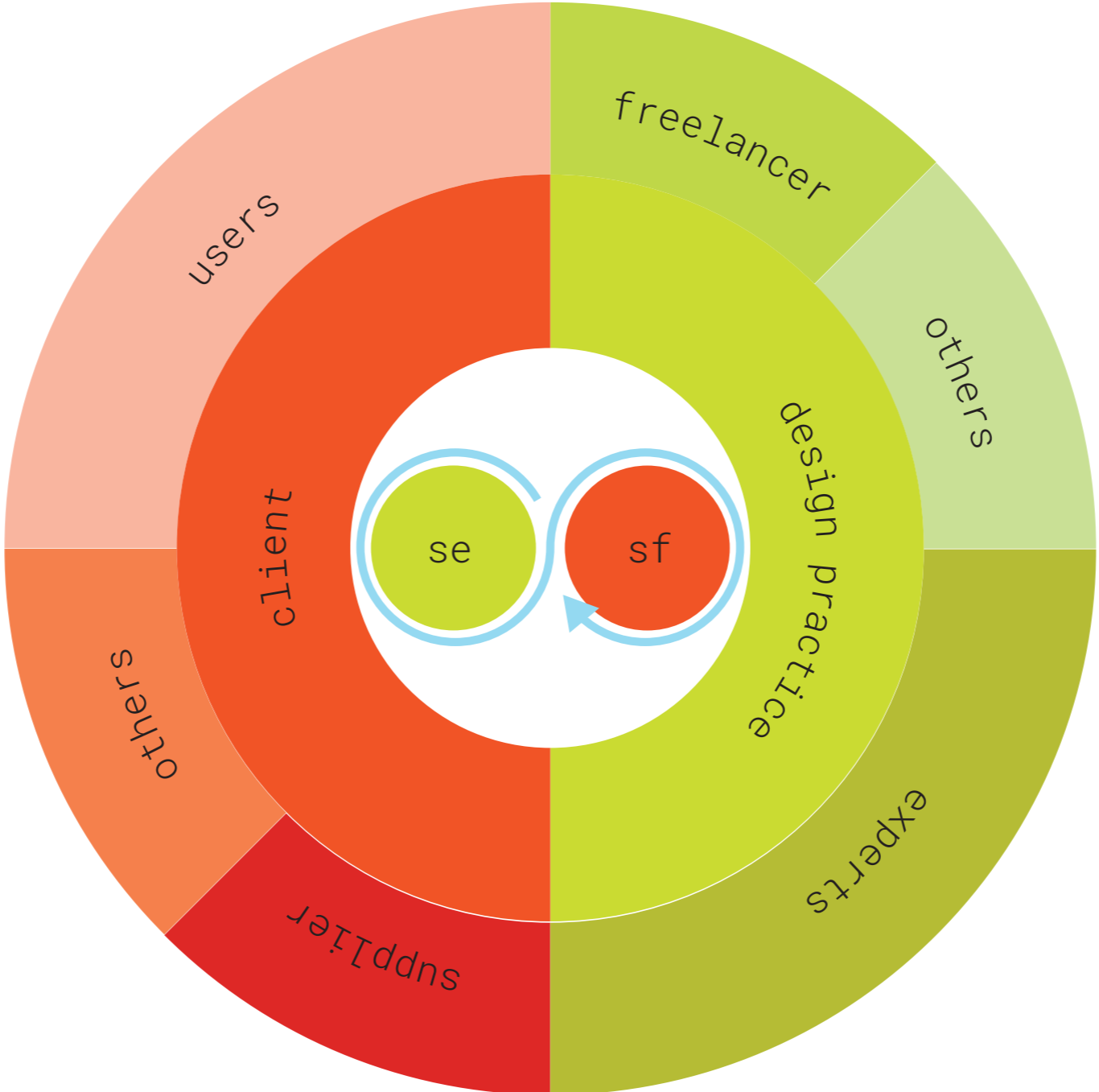


Fig. 6



reenvisioned consultancy model

The interaction and collaboration with the client get strengthened through closer exchange and teamwork. By being part of both strategy formulation as well as strategy execution, the design practice is no longer only involved in short parts of a project but can provide consistency throughout the project. At the same time the design practice has now more “skin in the game” than before, therefore they also feel more ownership over the whole process.



creative ecosystem collaboration

Essential for this concept is harnessing the creative power that can be found in collaboration. Especially combining a diverse range of participants enables the creation of innovative design outcomes. This concept also enables the design practice to remain relatively small and agile. It is through the network and the collaboration of different actors within the network that a potential absence of specialized skills and capabilities is balanced out.

01 CONTEXT
02 FRAMEWORK
03 PROCESS
04 PLATFORMS
05 FUTURES
06 MICRO-MACRO
07 MATTER-META

CIRCULAR PROCESS

Usually, a development process is understood linearly (Fig.7). While this describes a normal process fairly well, it locates strategy firmly at the beginning of the process, eliminating the strategic potential of the process outcome.

However, if we circularly approach such a process (Fig. 8), it opens up new possibilities for designers to be involved in strategy, especially if they have a difficult time moving to the „front end“ of the process.

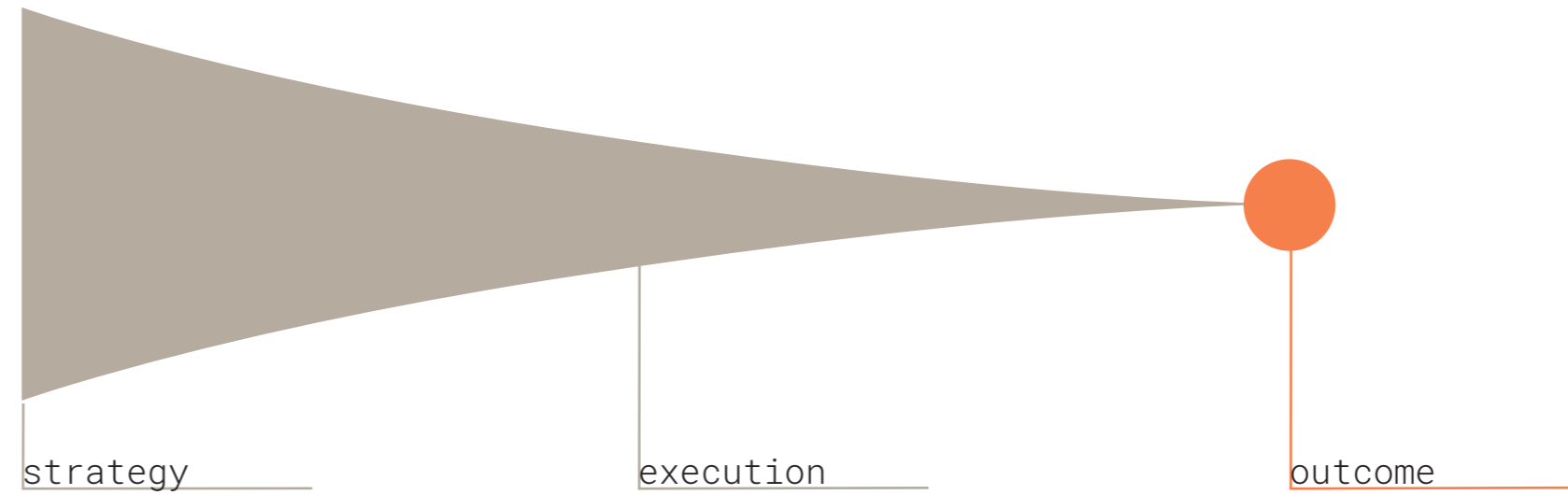


Fig. 7

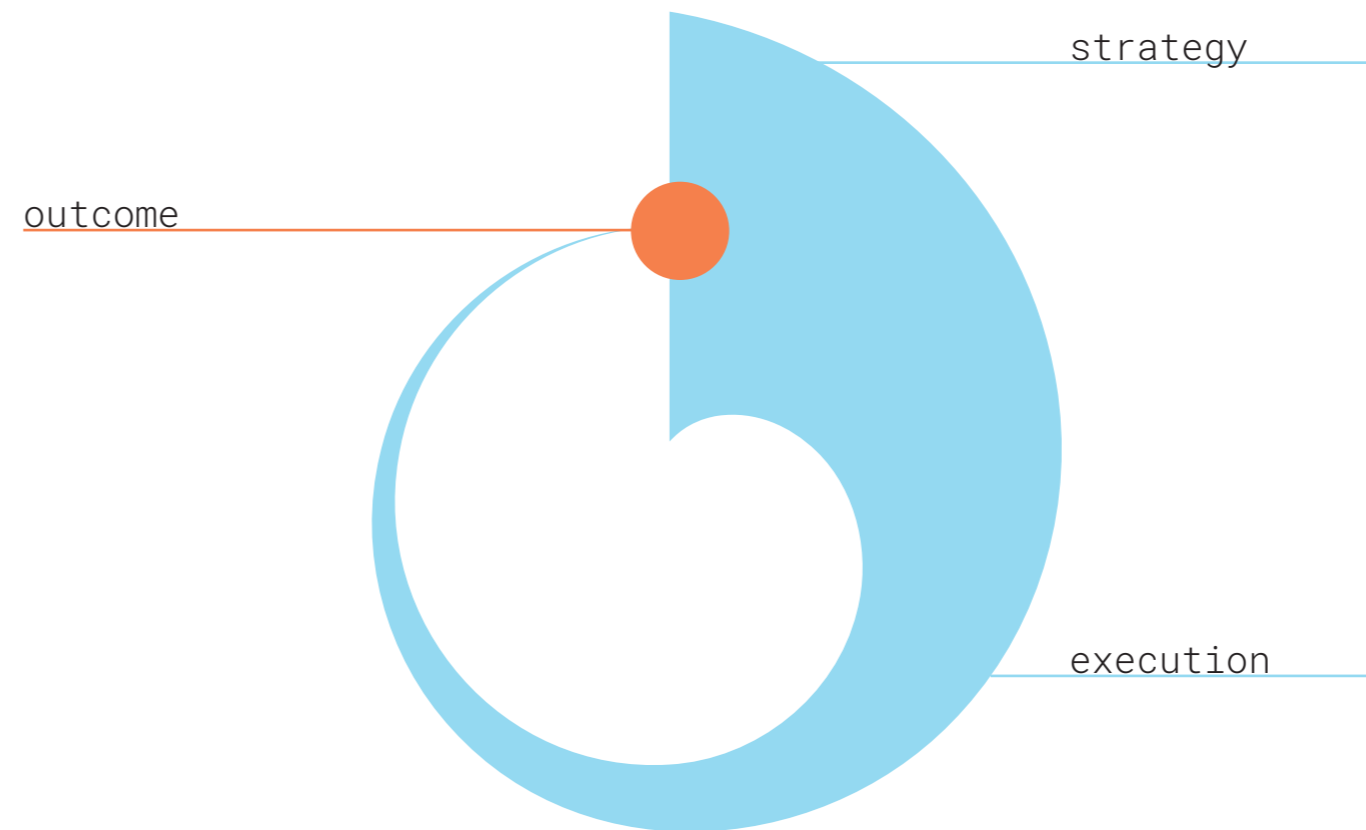


Fig. 8

EXTENDED INVOLVEMENT

In most projects, the design outcome aligns with the goal of the project and marks the end of a project (Fig. 9).

However, when design practices become involved in projects and processes that span longer time frames it becomes possible to better activate the strategic potential inherent in design outcomes to reach strategic goals additional to the original purpose of the design (Fig. 10).

Fig. 9

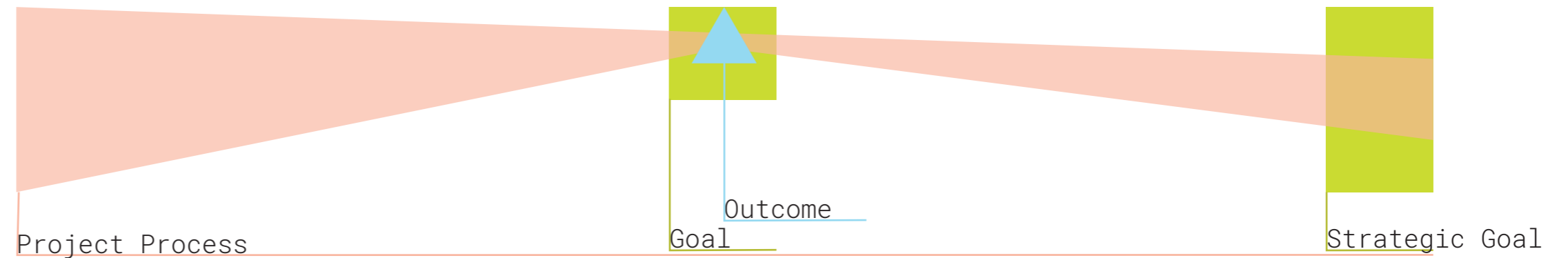
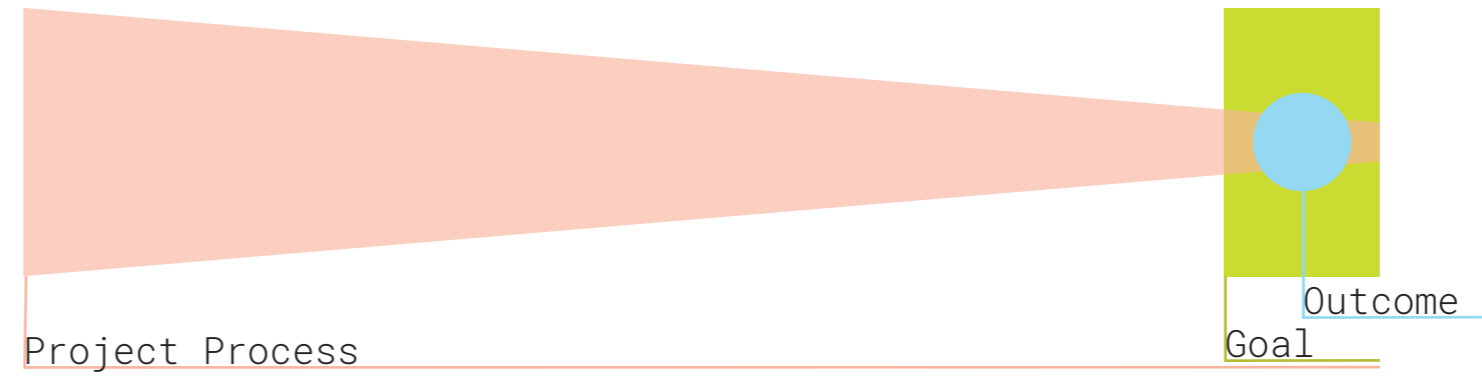


Fig. 10



CONSTANT ADJUSTMENT

Instead of specializing in sectors or markets, the focus lies on the process. Here is where the value is created. This allows for a variety of clients and projects, opening up various types of revenue streams.

Central is the ability of the design practice to adapt to the changing challenges it is faced with. It means being able to shift on these different scales (Fig. 11) while being grounded in a framework or process.

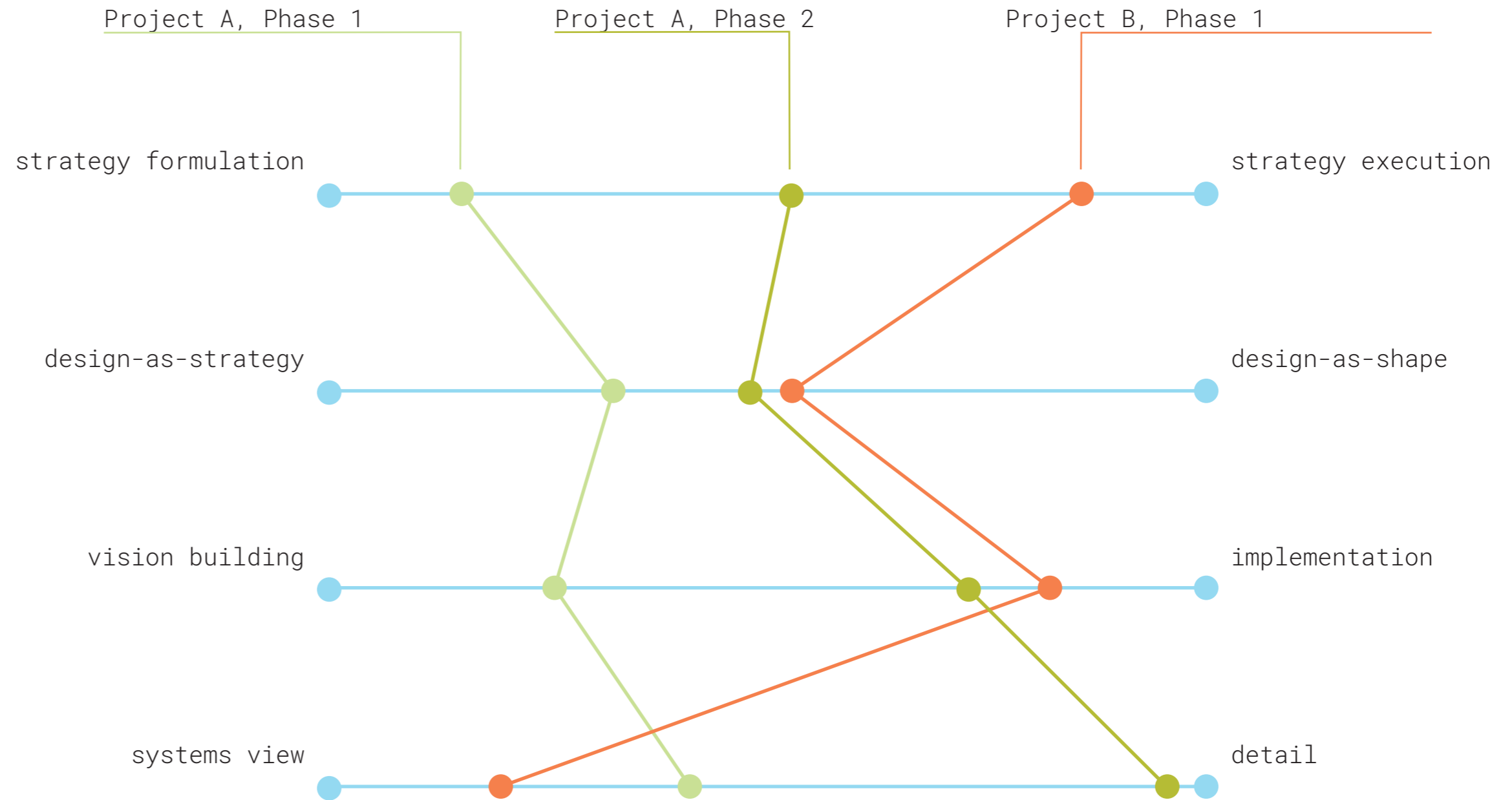


Fig. 11

01 CONTEXT
02 FRAMEWORK
03 PROCESS

04 PLATFORMS

05 FUTURES

06 MICRO-MACRO

07 MATTER-META

HOW TO GET THERE



Concept

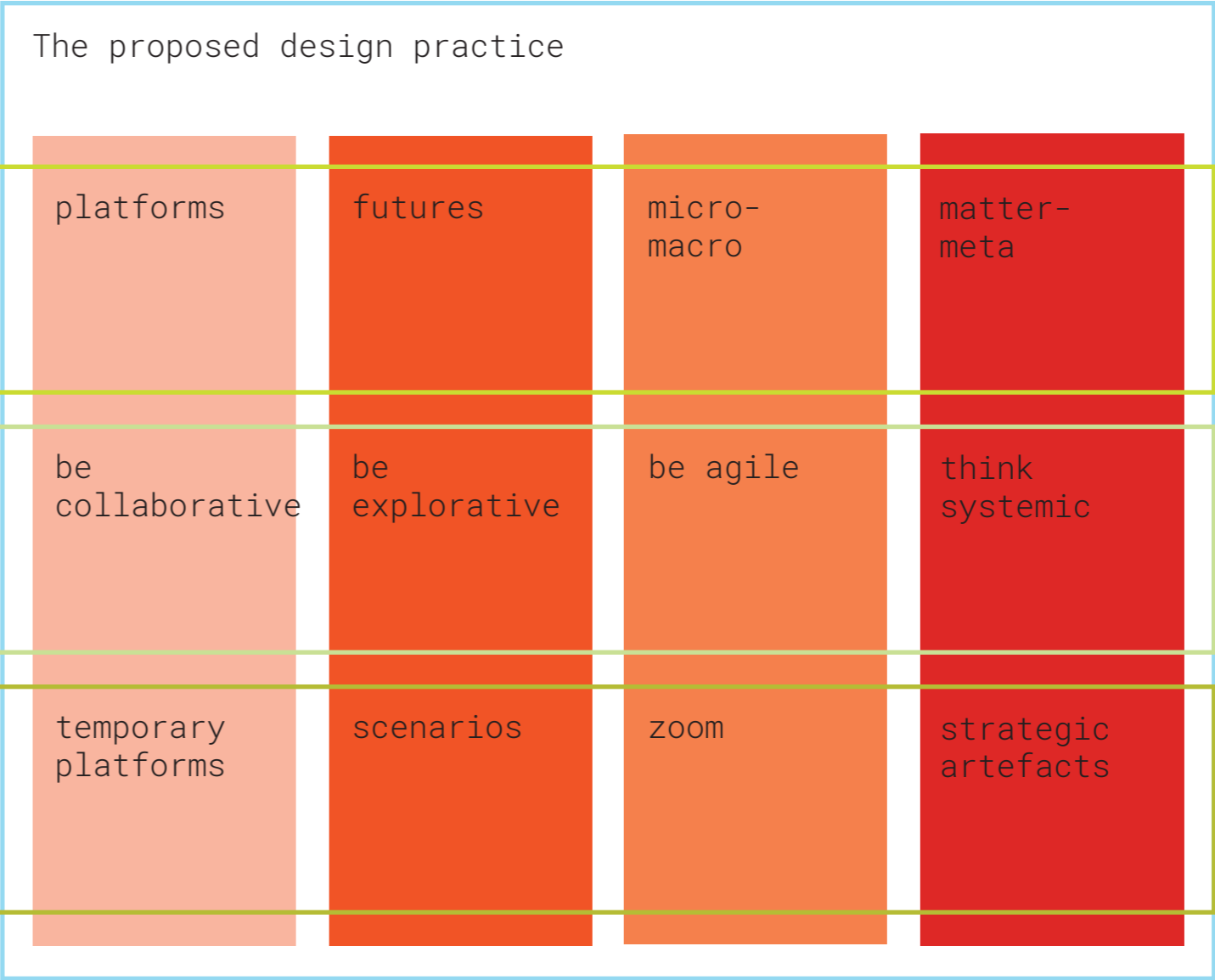
The concept is the guiding principle overarching the approach and tool. It describes on an abstract level the concept from which the approach and tool were developed.

Approach

The approach describes the attitude derived from the concept, that best supports the use of the tool. It is also a more general application of the concept.

Tool

The tool is a way to use the concept and the approach more targeted. Additionally, it illustrates the concept and approaches more explicitly.



01 CONTEXT



02 FRAMEWORK

03 PROCESS

04 PLATFORMS

05 FUTURES

06 MICRO-MACRO

07 MATTER-META

PLATFORMS



Platforms are material or immaterial structures that enable different actors to interact for the mutual benefit of all. Platforms are hotspots of innovation and creation.

For example, a coral reef is a natural platform that provides the foundation for an ecosystem flourishing with life in otherwise empty regions of the oceans (Fig. 12).

In the built environment a city functions similarly as a structure in which innovation and the exchange of ideas can thrive (Fig. 12).

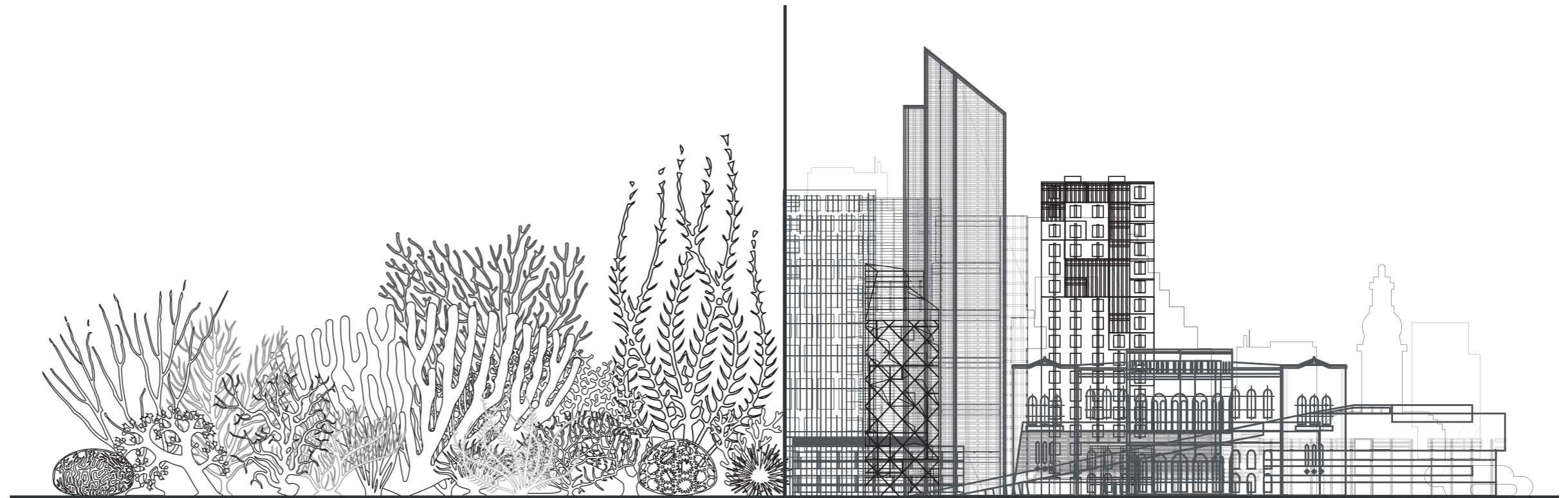


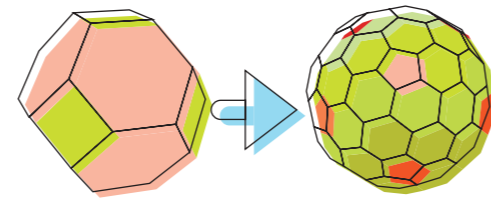
Fig. 12

BE COLLABORATIVE!

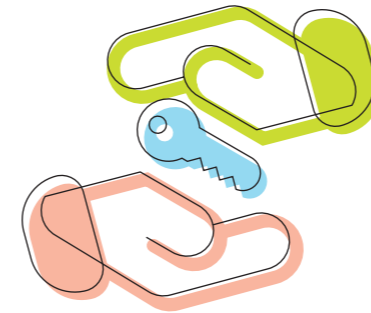


Collaborations allow you to design better outcomes. Either by adding more diverse perspectives to the team or by adding skills and capabilities that were missing, it enables the creation of the right outcome for a project. Collaborations also allow for more innovative concepts to develop when multiple ideas meet.

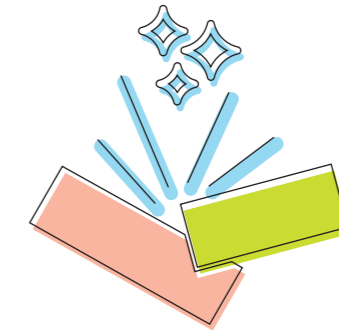
And most importantly, good collaboration with the client leads to shared ownership of the outcome, resulting in better implementation regardless if it is a strategy or a product development.



Collaborate to add new perspectives!



Collaborate to build ownership!



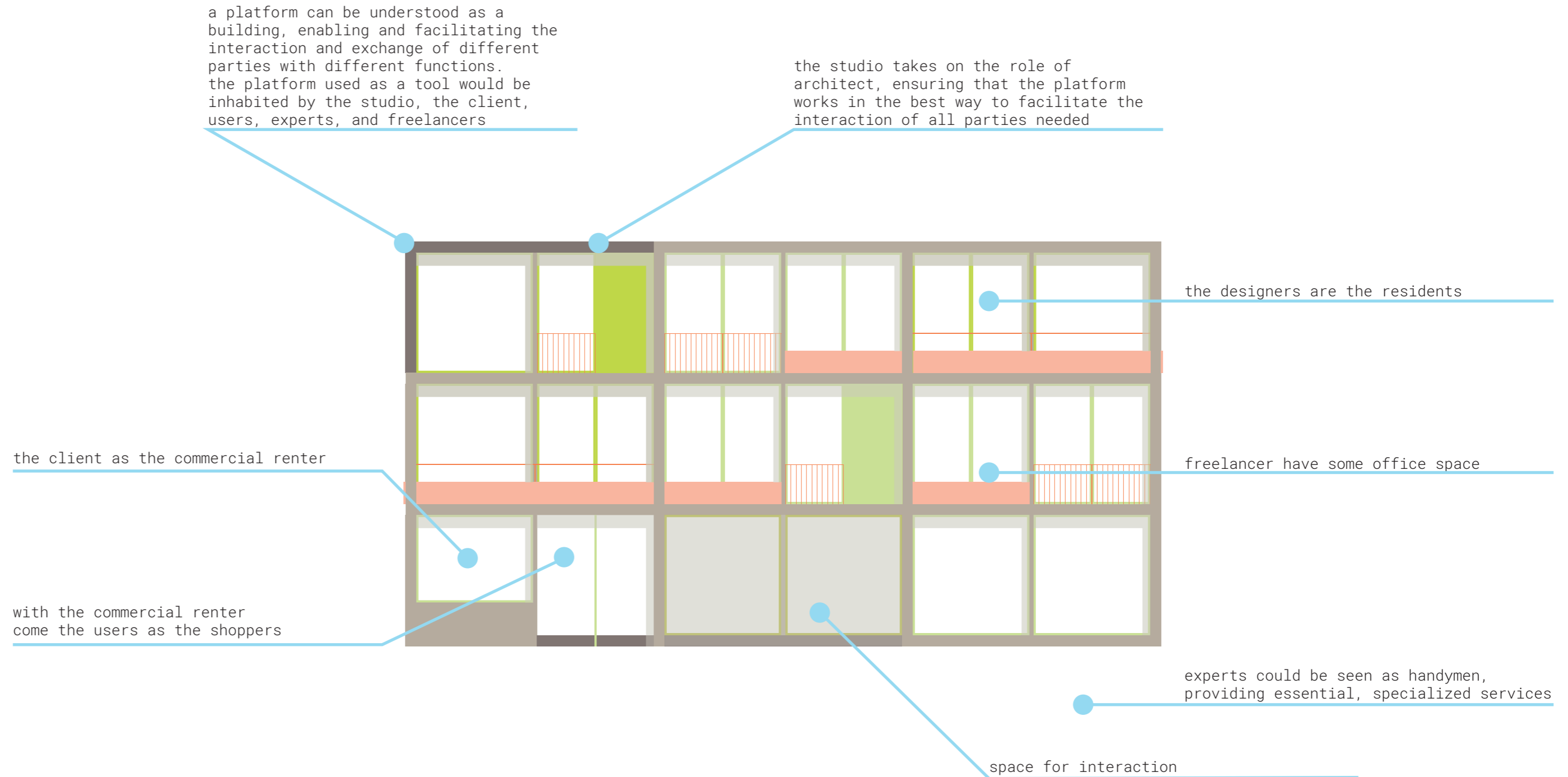
Collaborate to be more innovative!

TEMPORARY PLATFORMS



Temporary platforms are deliberately designed (immaterial or material) structures that facilitate interaction and collaboration between a multitude of actors and roles. They are constructed around projects to provide a beneficial environment for all stages of that project; as a foundation for exploration, collaboration, and design.

Examples are pop-up spaces, hackathons, expert or community co-creation, crowdsourcing, satellites, forums, etc.





- 01 CONTEXT
- 02 FRAMEWORK
- 03 PROCESS
- 04 PLATFORMS
- 05 FUTURES
- 06 MICRO-MACRO
- 07 MATTER-META

FUTURES



Futures is a concept from the field of futures study as well as speculative design. It describes the simultaneous existence of a plurality of futures at any given moment. However, even though the future is unpredictable different futures have a different likelihood of turning into reality. The futures cone (Fig. 13) from Voros (2017) visualizes this concept beautifully.

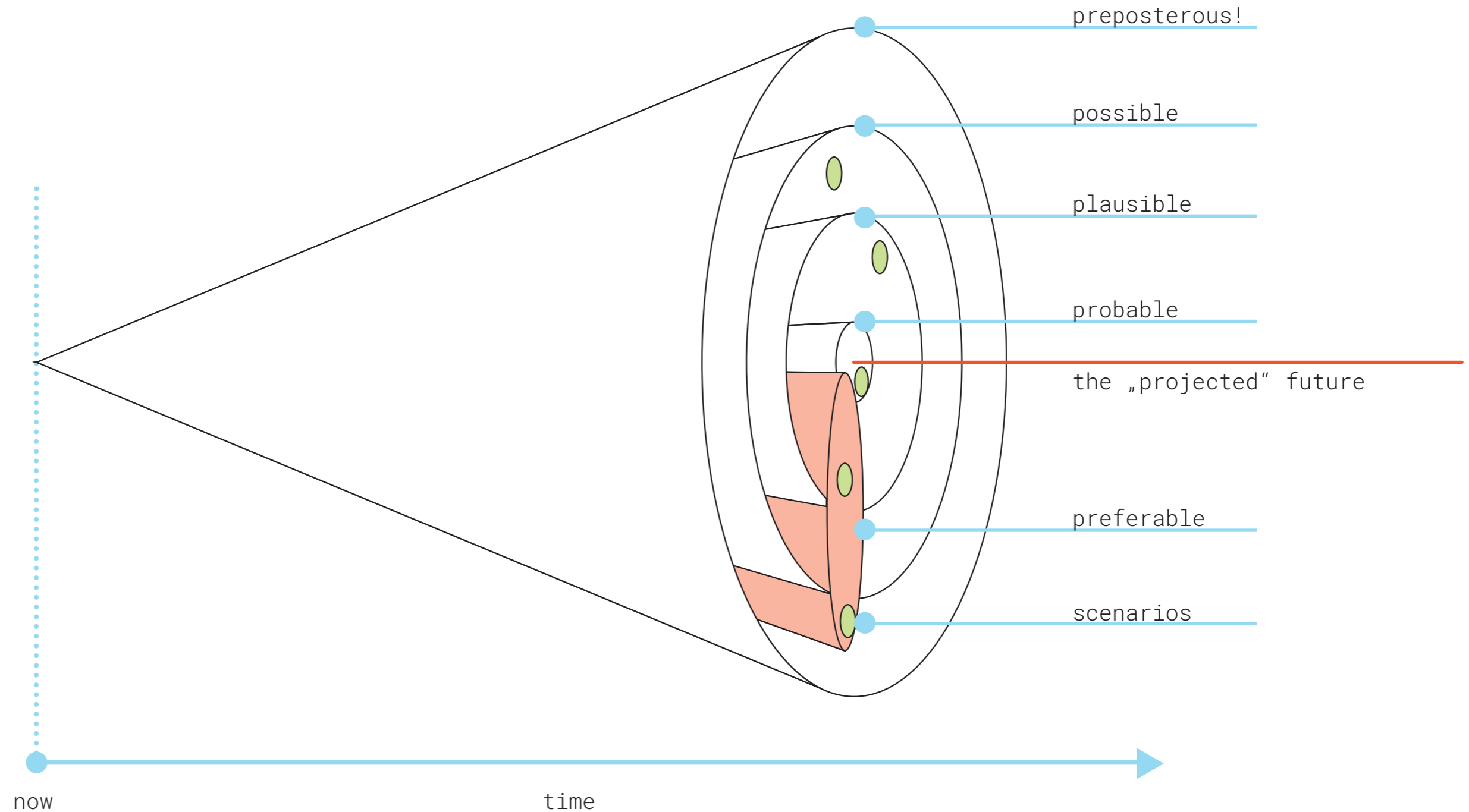
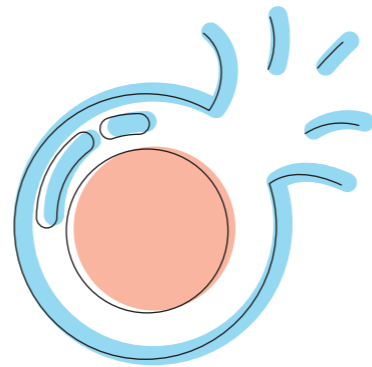


Fig. 13

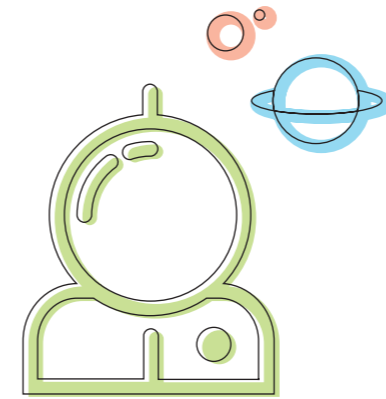
BE EXPLORATIVE!



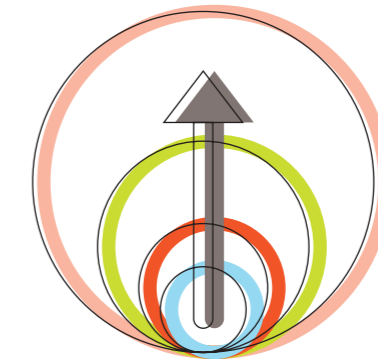
Design is by nature future-oriented. It has been described as the act of changing existing situations into preferred ones. But to do this there needs to be an understanding of what a preferred situation is. Therefore, engage with a variety of information outside of design, delve deeper into futures, and explore larger contexts.



Explore a variety of information outside of design



Explore deeper what futures could be



Explore larger contexts

SCENARIOS



Scenarios are possible futures that are scattered over the same moment in time but across multiple futures (Fig. 14). This scattering helps to determine the preferable scenarios.

Scenarios are not just different outcomes, but outcomes situated in contexts. They can be a narrative, storyboard, prototype, etc. Only by situating outcomes in contexts can we assess the preferability of a scenario. The more detail is added to a scenario the better evaluated it can be.

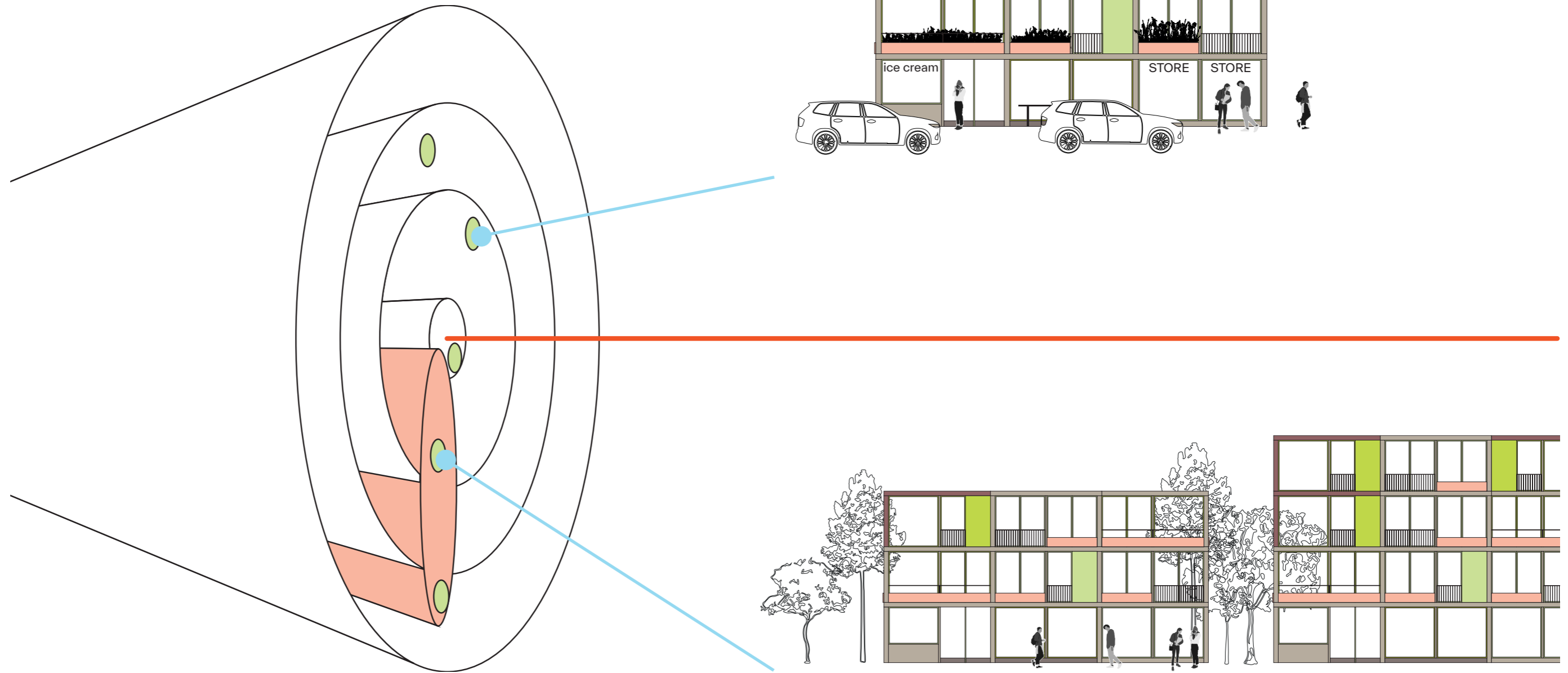


Fig. 14



- 01 CONTEXT
- 02 FRAMEWORK
- 03 PROCESS
- 04 PLATFORMS
- 05 FUTURES
- 06 MICRO-MACRO
- 07 MATTER-META

MICRO-MACRO



Micro-macro refers to the different scales present in every project. Every project has a contextual aspect to it, while simultaneously also having a detail aspect present. The singular parts of a design outcome need to function as well as the design outcome as a whole. Moreover, it also needs to function in its context. All these different scales are present all at once (Fig. 15).

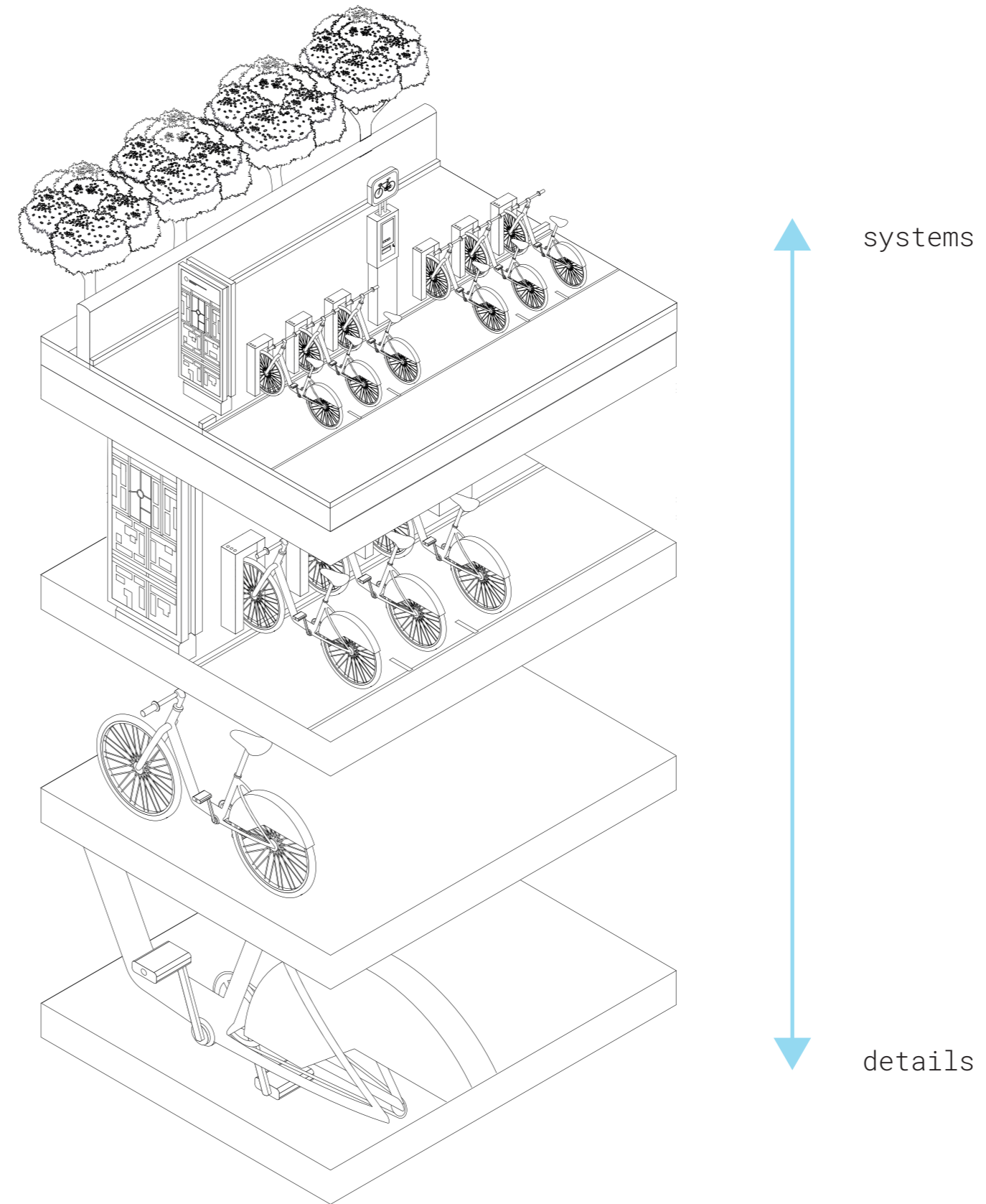


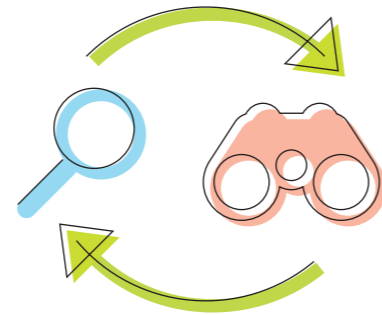
Fig. 15

BE AGILE!

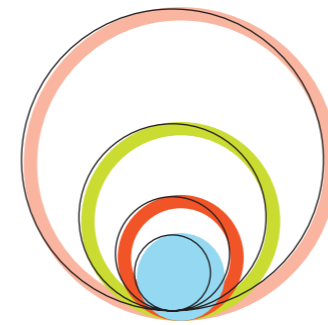


We can easily get lost in the details of a project and forget about how our design is situated in its context. Making a habit of considering your project in different scales and resolutions will help you develop design outcomes that function within their contexts as well as in their details.

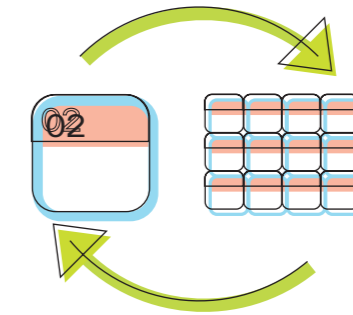
And if you get stuck in a process, changing the scale in which you are working can loosen it up again.



Make a habit of looking at your project on different scales



Always consider a design in its next larger context



Change the time frame in which the design outcome exists

ZOOM

Constantly zooming in and out over the multiple layers of scales and resolutions during a process (Fig. 16) enables one to create design outcomes that work on all the different levels. Considering these levels (more or less) simultaneously rather than consecutively ensures a gradual development of these aspects.

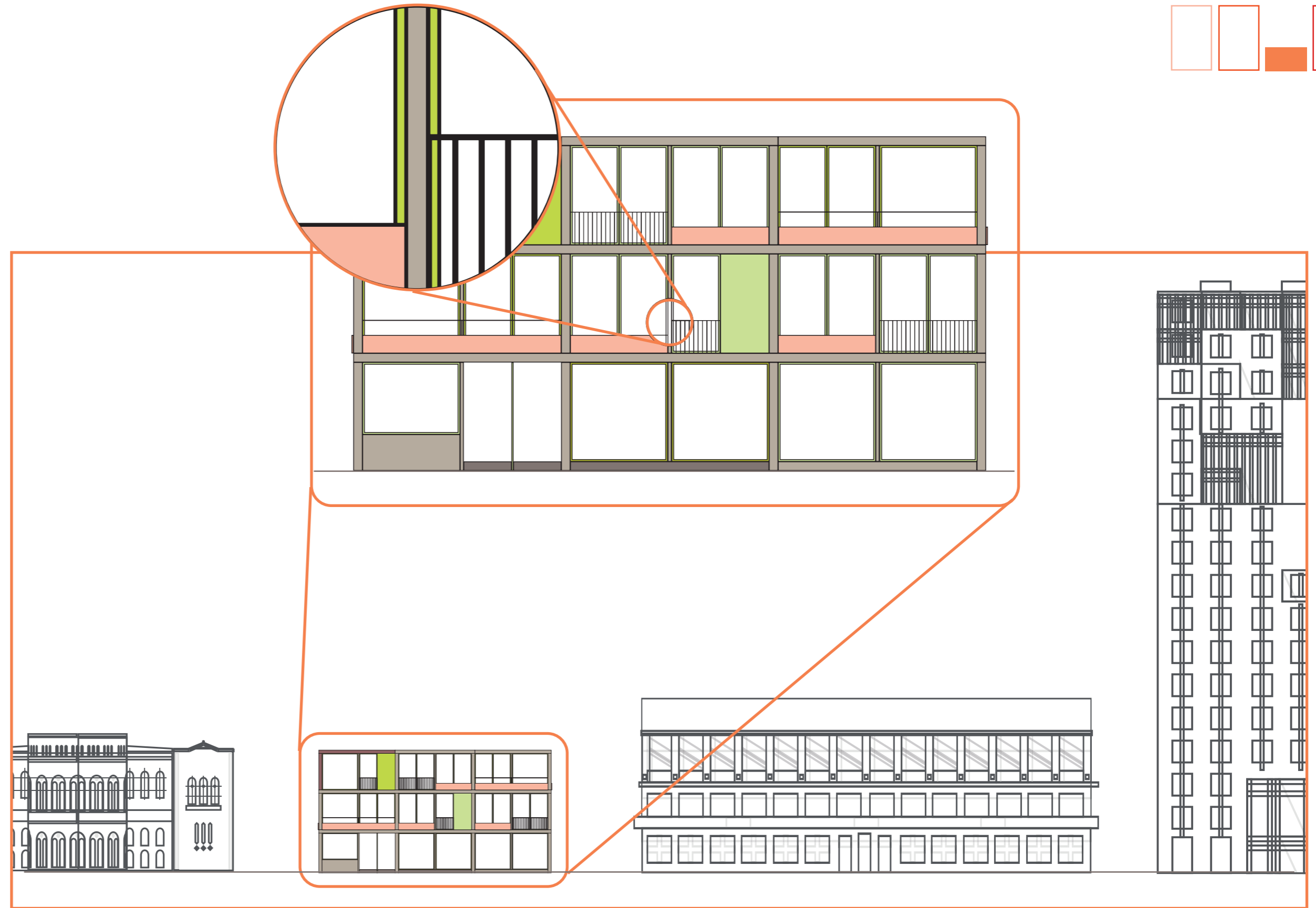


Fig. 16

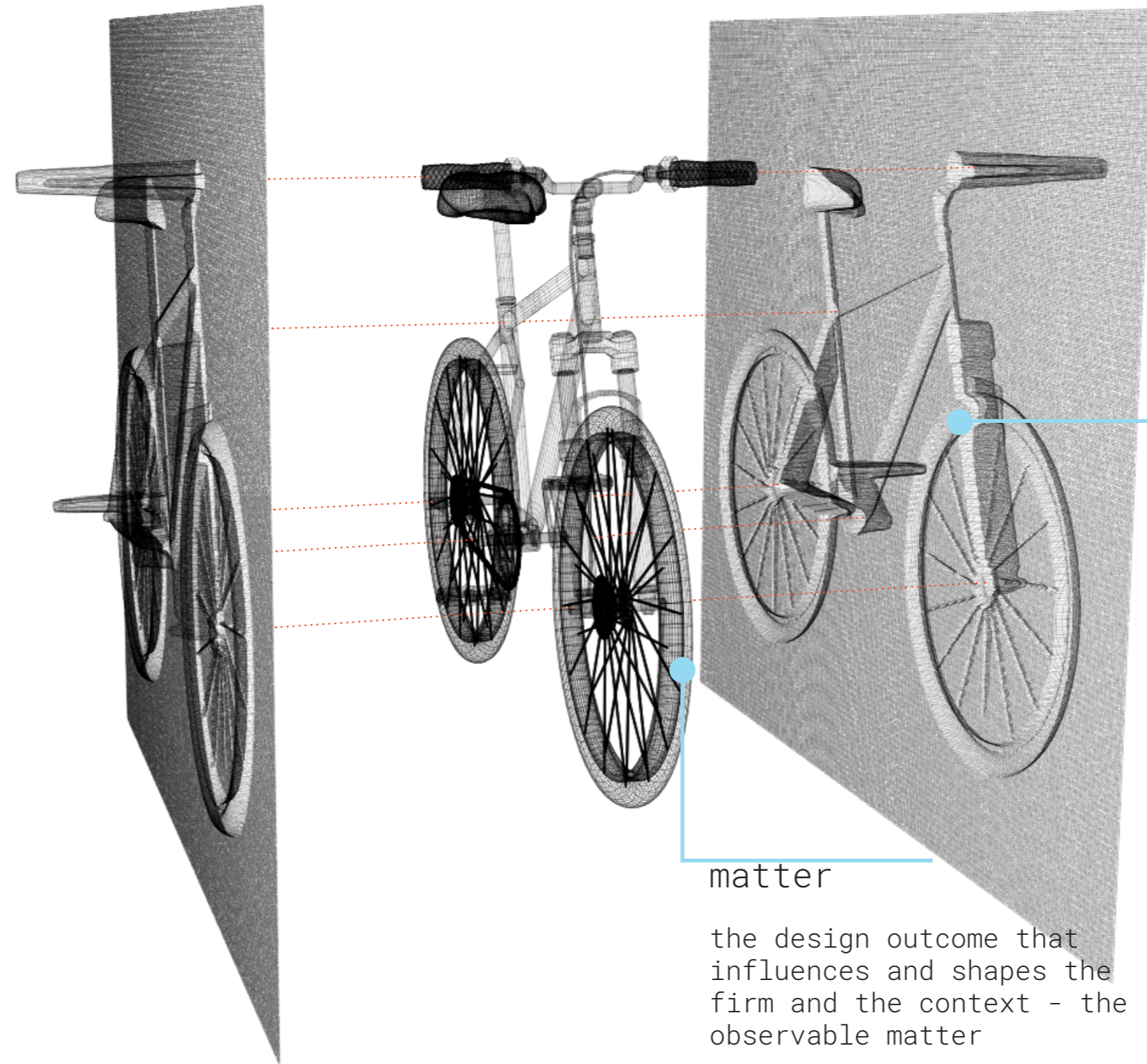
01 CONTEXT
02 FRAMEWORK
03 PROCESS
04 PLATFORMS
05 FUTURES
06 MICRO-MACRO
07 MATTER-META



MATTER-META



This concept refers to the interaction of matter (or observable matter) and meta (or dark matter). Designers are in their work very familiar with the matter part, however, the meta part is neglected. In a design context meta refers to the underlying systemic and intangible structures and forces that shape a design outcome as well, like laws and regulations, as well as the (client) firm. Reversely, matter shapes meta as well, as this is an interdependent relationship (Fig. 17).



meta

the firm and the context that influence and shape the design outcome - the dark matter

matter

the design outcome that influences and shapes the firm and the context - the observable matter

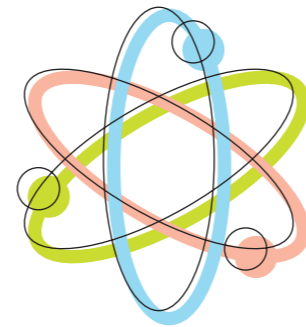
Fig. 17

THINK SYSTEMIC!

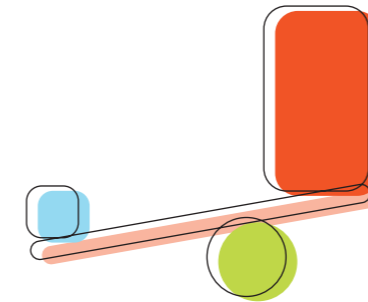


Your design will have implications for the context it will be placed in, so try to make them intended and be aware of unintended consequences!

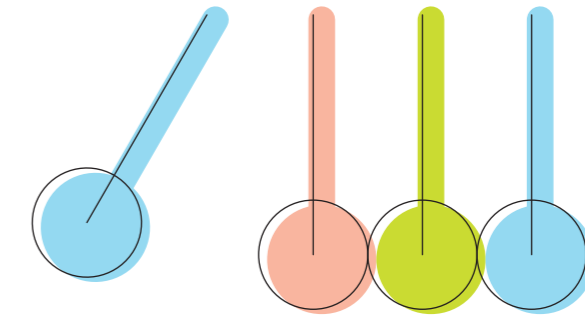
Here it helps to approach your challenges with a systemic viewpoint. Understand that the design you create does not just impact the user, but many more actors. Understanding the systems in which the design outcome lives goes a long way.



Familiarize yourself with the foundations of systems thinking



Try to identify the leverage points in the projects you work on



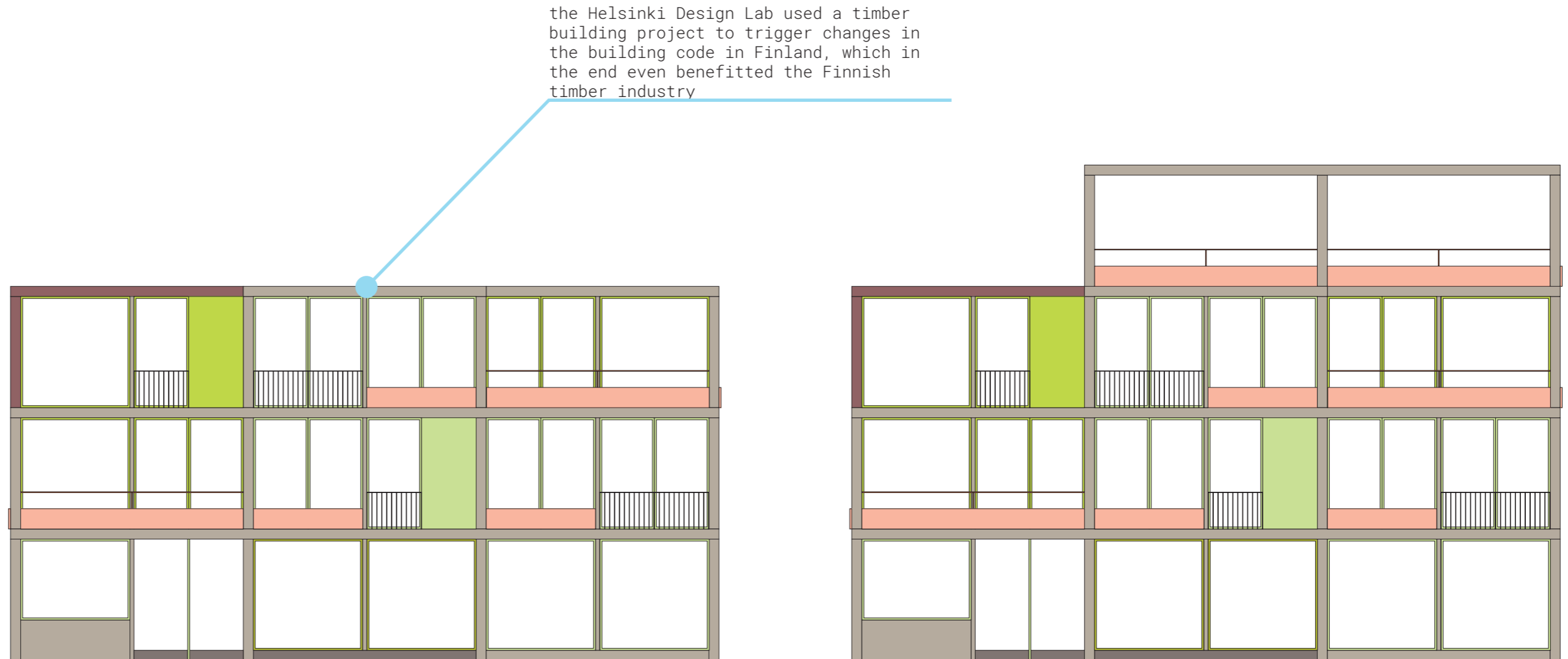
Make sure you understand the implications of your design outcomes

STRATEGIC ARTIFACTS



Often underused is the strategic dimension design outcomes have. Every design has an underlying strategic aspect to it. This strategic aspect can be activated when the design outcome is seen as a means to an end, a tool to achieve a goal. In this way, the design outcome itself becomes a tool to trigger changes in the context.

This strategic function of a design outcome does not have to be the main function, it can be one amongst others.



DESIGNING SYNERGY - A PLAYBOOK FOR STRATEGIC INDUSTRIAL DESIGN

This Playbook was created as part of a Master's thesis in Strategic Product Design at Delft University of Technology.

Author:
Valentin Bufler

Advisors:
Dr. G. Calabretta
Ir. R.G.H. Bluemink

July 2023

Fig.12,15 & 16 use parts of illustrations by macrovector on Freepik