

Introduction to Management Cybernetics

Author: **Dr. Werner Boysen**



Cybernetics is a transdisciplinary approach for exploring regulatory systems—their structures, constraints, and possibilities. Norbert Wiener defined cybernetics in 1948 as “the scientific study of control and communication in the animal and the machine.”

Introduction to Management Cybernetics

Motivation and Objectives of this Learning Series



Dr. Werner Boysen

The author's motivation for this Learning Series is to **help influential people** get to better decisions in our dynamic-complex (business) world.

Motivation and Objectives of this Learning Series

The author's motivation for this Learning Series is to help influential people reach better decisions in our dynamic-complex (business) world.

Our (business) world is characterized by an increasing dynamic complexity which often cannot be fully understood. Therefore, this complexity is often inappropriately reduced by decision makers. Simple mental models are applied. Exponential developments, tipping points and trend inversions are often not recognized, underestimated, missed, ignored or faded out.

Such wrong understanding and handling of complex interrelations may lead to wrong decisions and illusory solutions. We observe and suffer the consequences **in bad politics, in climatic changes, in dealing with raw materials and in the management of companies.**

We do not treat the roots of aberrations, but impose covers on acutely arising symptoms. For example, funds are created to compensate Brazilian farmers for economic losses in soja cultivation for large food companies due to the forest clearance – instead of preventing the forest clearance. The system will tip. The Amazon forest will become a steppe. We are destroying our livelihood.

The consequences of our activities appear with delay and have a castor effect. That makes it difficult to enforce effective measures.

An example is the high **nitrate pollution of our ground and drinking water** by using too much fertilizer. Another example is the global warming taking course exponentially by human intervention in natural regulation systems. We can also observe undesired developments in companies caused by harmful management.

Usually noticeable phenomena appear with a delay and are ignored or suppressed for a long time. The later counter measures are introduced, the more dramatic measures have finally to be taken to reach the “green area” again. Often it is not possible at all. The **phenomena continue to have an effect.**

Nitrate diffuses into the soil very slowly and seeps into the ground water many years after having been applied in agriculture. But then the nitrate concentration in the ground water further increases although no additional fertilizer is applied.

Counter-measures are often taken too hesitantly and not with the necessary enthusiasm.

Unfortunately, people introduce **measures too hesitantly and only if the pain cannot be cushioned any more.** And people often do not wait until their measures show effectiveness, but skip over the measures too early because they do not understand the interrelations and they are not patient enough to wait for the results of correct decisions.

As effective decisions normally imply constraints, they are unpopular and harm the decision makers. To avoid personal consequences, **right decisions are often softened, are not implemented with the necessary enthusiasm and fail to meet their objectives while the underlying problems become worse.**

In many cases, decision makers **“buy” apparent carefreeness** and take comfort in continuing to consume resources. Human beings also belong to these resources, suffering physically and psychologically from enduring problems. **Apparent solutions cause further cascaded problems.**

Major problems require holistic solutions and well coordinated processes, also in companies.

People often try to tackle global problems **with local measures**, which cannot be successful. For example, a German solo attempt cannot resolve the global climate problem. A global alignment often fails because of diverging interests and (too) long decision-making procedures. Serious problems are often not solved because of relatively unimportant rivalries.

Because many problems are complex, **measures have to be set up holistically.** This also applies to developments and changes in companies. As in topics with global relevance, highly qualified experts also act in companies within their departments; the large levers for improvement are the capability to **consistently embed companies in attractive markets** with high potential and in **achieving a high-quality alignment among specialists** – with the background of a mutual goal.

Why we need
management
cybernetics



Cybernetic
strategic set-up



Management
awareness of
reciprocal effects



How to introduce
cybernetics
to a business

Systemic
thinking

System-orientated
process design and
stabilizing feedback
mechanisms

How to right-size
resources along
the business process

Integrated
IT workflow
applications

Best-practice leadership
in cybernetic organizations

Coping with
dynamic complexity

**Stay tuned
for the new
releases of this
Learning Series!**

1

Introduction
to Management
Cybernetics

Why We Need Management Cybernetics



Learning Objectives

Session I

In this section...

- You will learn why linear cause-and-effect thinking does not lead to sustainable results in a dynamic-complex world
- You will be introduced to basic terms of cybernetics
- You will get a first glance of how organizations in dynamic-complex environments can be successfully managed

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B. How can management in complex environments succeed? PAGE 24

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Our thinking patterns do not work any more
because our world is de-materilizing,

1. Why Management Cybernetics?

Many of our “thinking patterns”

...only work reliably in steady environments with
mostly linear cause-and-effect relationships

...date back to former times when ad-hoc solutions were
required without considering network effects

...are the wrong orientation frame and lead to wrong
conclusions in complex environments

➔ Many of our thinking patterns
endanger the survival of organizations.

Why are these patterns no longer effective?

The relevance of tangible assets is decreasing!

Our complex world is not explained by the properties
and the capabilities of its elements, but by **the properties
and the capabilities which arise from the relationship
between these elements (emerging properties)**.

Therefore, the new sources for value are:

- Individuality, plurality and diversity
("both ... and ..." instead of "either ... or ...")
- Interdisciplinary work
- Relationships in open networks
- Communication along processes
- Intangible values (intellectual property,
contractually secured rights etc.)

**Managers should
make sure that these
sources are explored!**

**They should learn to
think in complementary
dimensions!**

...and because networks increase the complexity and create uncertainty. – By nature, we will not be able to dominate the complex world.

- Networks cause mutual effects and direct and indirect feedback on their own actions.
- In networked structures effects on actions can appear in random places and at random moments.

sub-prime crisis in USA → worldwide financial crisis →
Worldwide economic crisis → national cash nutrition →
risk of inflation → subsequent effects?

- The effects can crop up in completely unexpected magnitudes (the “butterfly-effect”).

“Even if the complete information of all elements of this complex system were available, we could not predict the behavior of the system.”



Even though all rules and basic conditions are known, by nature, the future cannot be predicted.

Nescience

It is not possible to predict how the dune lines will develop. (Photo: Namib panorama)

⚠ **Bad News:** There is uncertainty and it is unavoidable.

✓ **Good News:** *It is exactly this uncertainty that enables evolution!*

“It is not necessary to predict the future, but it is advisable to be prepared for probable scenarios. Making assumptions about the future means thinking about possible scenarios and their consequences.”

Wisse Dekker, CEO Philips
1982-1986, Chairman European
Roundtable of Industrialists
1988-1992)

We should realize that we are parts of our world. We cannot “outsmart” our world without suffering the consequences.

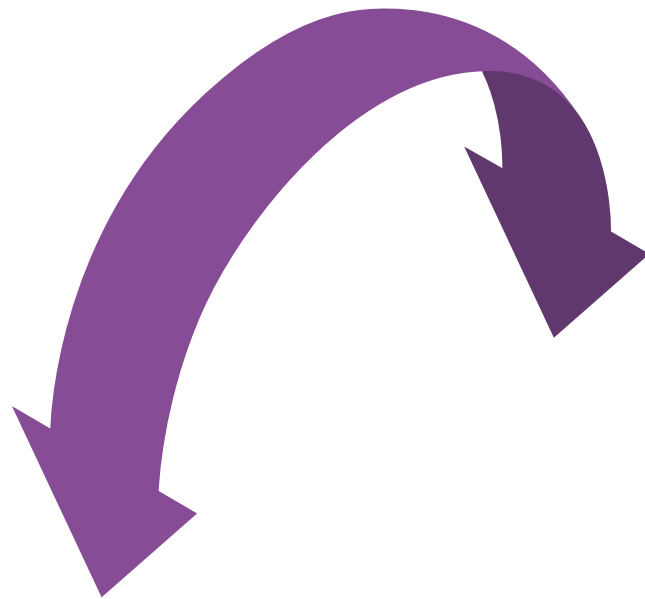
The top objective of all systems is to survive.

Our nature is capable of surviving by dint of an adaptive and dynamic evolution, driven by complexity. The species-rich and networked nature is “**living**” the **complexity** – unlike human beings, who tend to inappropriately simplify interrelations and to opt for short-term objectives, jeopardizing long-term survival. **Human beings** rather act as if they are not operating within systems, but are in fact **dominating the systems from an exterior and higher position**. That cannot work well. We are all parts of our world. All our decisions and actions have repercussions for us.

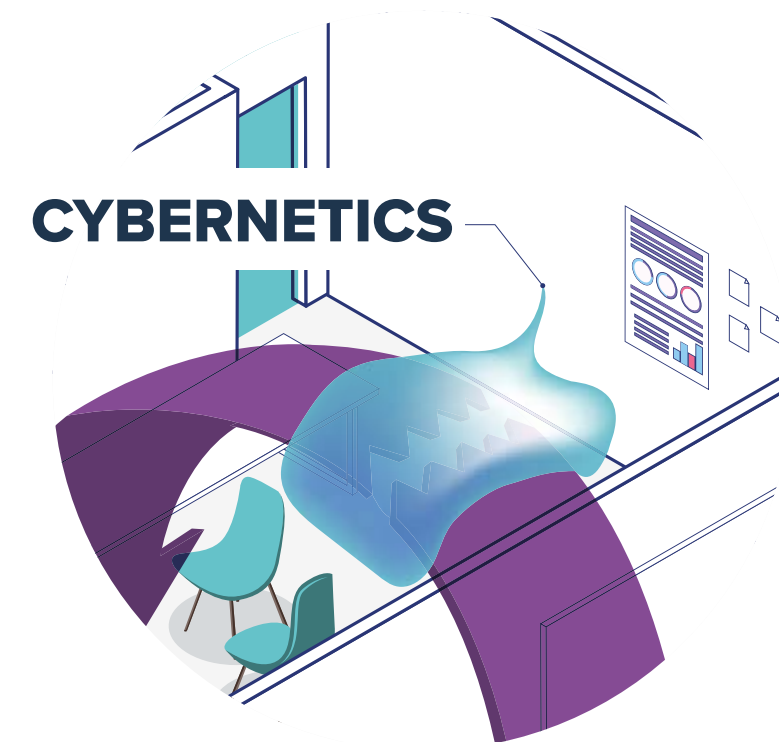
Cybernetics offers methods to achieve organizational stability and sustainability.

Our society is a system, and our companies are also systems. Both are best defined as **communicative feedback systems**. The larger and the more complex organizations become, the more their behavior and their performance are defined by the quality of the feedback between their members (citizens, employees, departments etc.) and towards their environments.

Communicative feedback systems



Most distress in organizations by **lacking or misleading communication around the interfaces** resulting in ineffective and inefficient processes, which makes life difficult for the people involved and has a demotivating effect.



Cybernetics offers a set of skills suitable **for understanding and influencing the behavior of organizations**. With the aid of these skills, communication, and in turn, **performance can be noticeably improved**.

Organizations led in line with the cybernetics approach develop resistance to disturbance and disruption. They always find new stabilities.

2. How Does the Cybernetics Approach Work?



The tricky thing is that organizations **need a certain complexity** (variety) to install possibilities with which to cope with the complexity of their environment

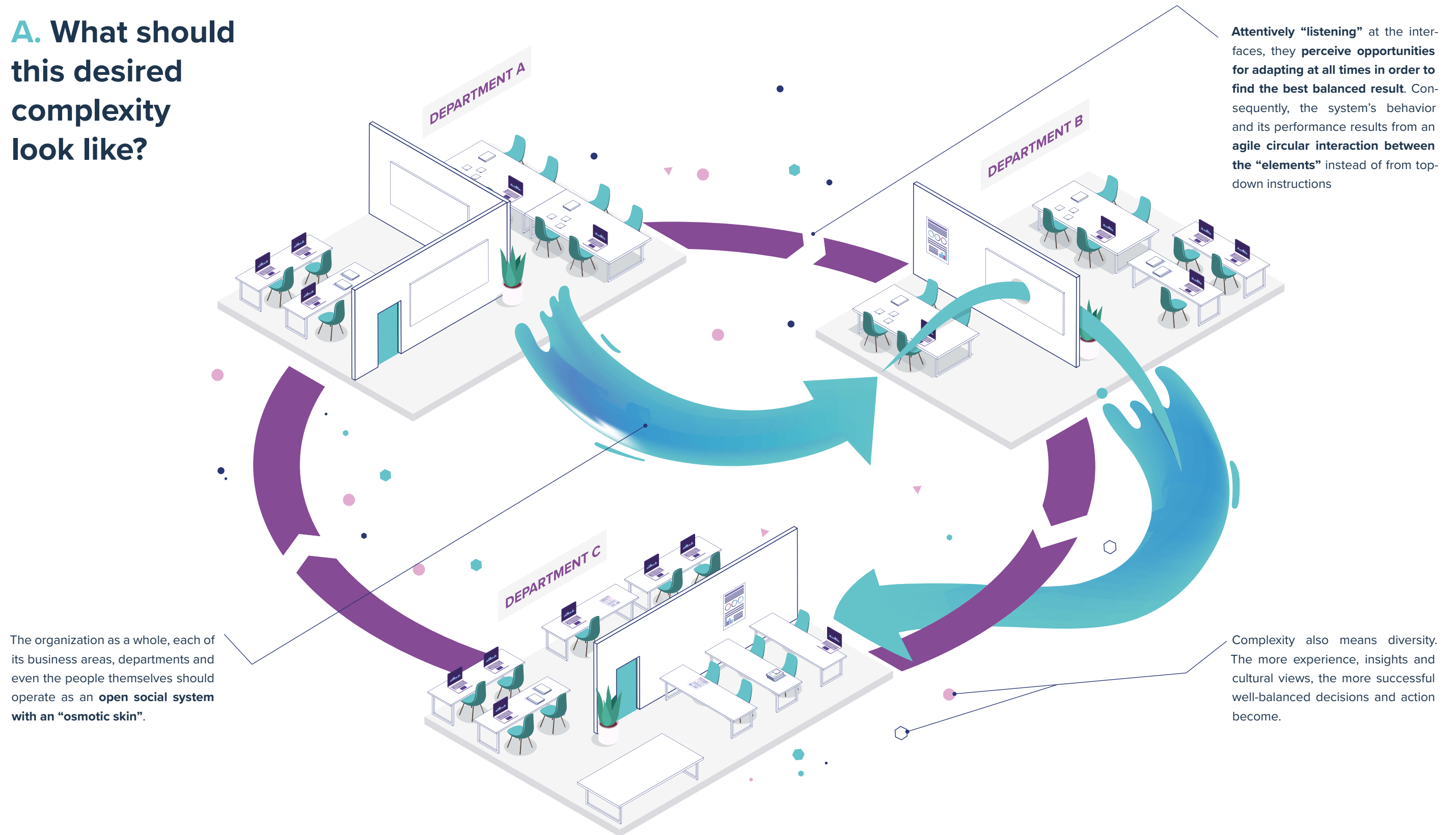
William Ross Ashby



However, the more complex organizations become the more difficult it is to manage them with conventional means

Heinz von Foerster

A. What should this desired complexity look like?



Allow your organization the needed variety to become self-controlled.

B. How can management in complex environments succeed?



Ensure that **all processes are clearly defined, well interlinked and regularly kept updated**. Advocate an effective **organizational information and knowledge management**.



Strive for this complexity in your organization and make sure that the **risk is managed within** the organization (thinking in probabilities, hedging and/or sharing of risks etc.). **Allow for redundancy** which can support the organizational stability.



Promote individual responsibility and grant the necessary authority to the people to take well balanced decisions at the respective operative level (**subsidiary principle**). Only intervene as an exception. Accept the **black-box-phenomenon** (Stafford Beer).



The challenge for top management is to **initiate top-down the move towards self-regulation** and to monitor carefully how the system is performing in terms of adaption (surface behavior). "The purpose of a system is what it does!" (Stafford Beer)



Communicative interaction is a necessary precondition for **flexibility and adaptability**, both being crucial for stability. Through its interactions the organization has to be continuously on the move and constantly find "**floating equilibrium**" (**homeostasis** according to Karl Ludwig von Bertalanffi). This so-called "**self-control**" is the counterpart to **control** in the customary sense.



Give the system **time to "settle in"** and to become effective by itself!



Accept oscillations. Hysteresis is a necessary characteristic of regulation.



Continuously "**add energy**" to the organization in the form of skills and methods in order to improve the capabilities of further sharpening processes and structures (running investment against the steadily growing entropy).

Questions for Reflection

- ① Please, draw your organization as a system of interacting elements.
- ② Evaluate the quality of the communication in your organization.
- ③ What makes your organization special?
- ④ How well embedded is your organization in its environment?
- ⑤ How flexible and adaptable is your organization? What do you do to achieve and to keep the needed adaptability and capability for development of you organization?

Summary of Section

- The author's motivation for this Learning Series is **to help influential people to improve their decisions in our dynamic-complex (business) world.**
- The objective of this Learning Series is to **set stimuli for self-reflection** and to **offer references for benchmarking organizations in dynamic-complex environments.**
- By working through my Learning Series about Management Cybernetics **you will be able to considerably improve the quality of your business.**
- Cybernetics can **provide useful additional techniques to improve your management skills.**
- Our **thinking patterns** no longer work because our world is dematerializing and because networks increase the complexity and create uncertainty. We will not be able to dominate the complex world.
- Even though all rules and basic conditions are known, by nature, the future cannot be predicted.
- We should realize that we are parts of our world. We cannot “outsmart” our world without suffering the consequences.
- Organizations led in line with the cybernetics approach develop resistance to disturbance and disruption. They always find new dynamic stabilities.
- Allow your organization the necessary variety to become self-regulated.
- The management's task is to initiate self-regulation and to keep it running by making sure that enough information and energy are added.

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Introduction
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Cybernetics

How to Implement Cybernetics in a Business



Learning Objectives

Session II

In this section...

- You will get to know the crucial difference between indicator parameters and flow parameters
- You will learn the significance of well-aligned operational functions for sustainable results
- You will be introduced to the elements of a proven model kit for a cybernetic organization set-up

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Management Cybernetics offers methods to achieve organizational stability.

1. Why Management Cybernetics?



Many managers tend to directly call in results on target figures. They do not realize that these target figures are just the result of the underlying complex interactions. The target figures only serve as indicators, but not as levers. The next level down also usually just consists of non-operable recording parameters.



The key management task is to identify the flow parameters and to optimize their operational alignment within the market context. In enterprises, these flow parameters are the effects of the operational functions.



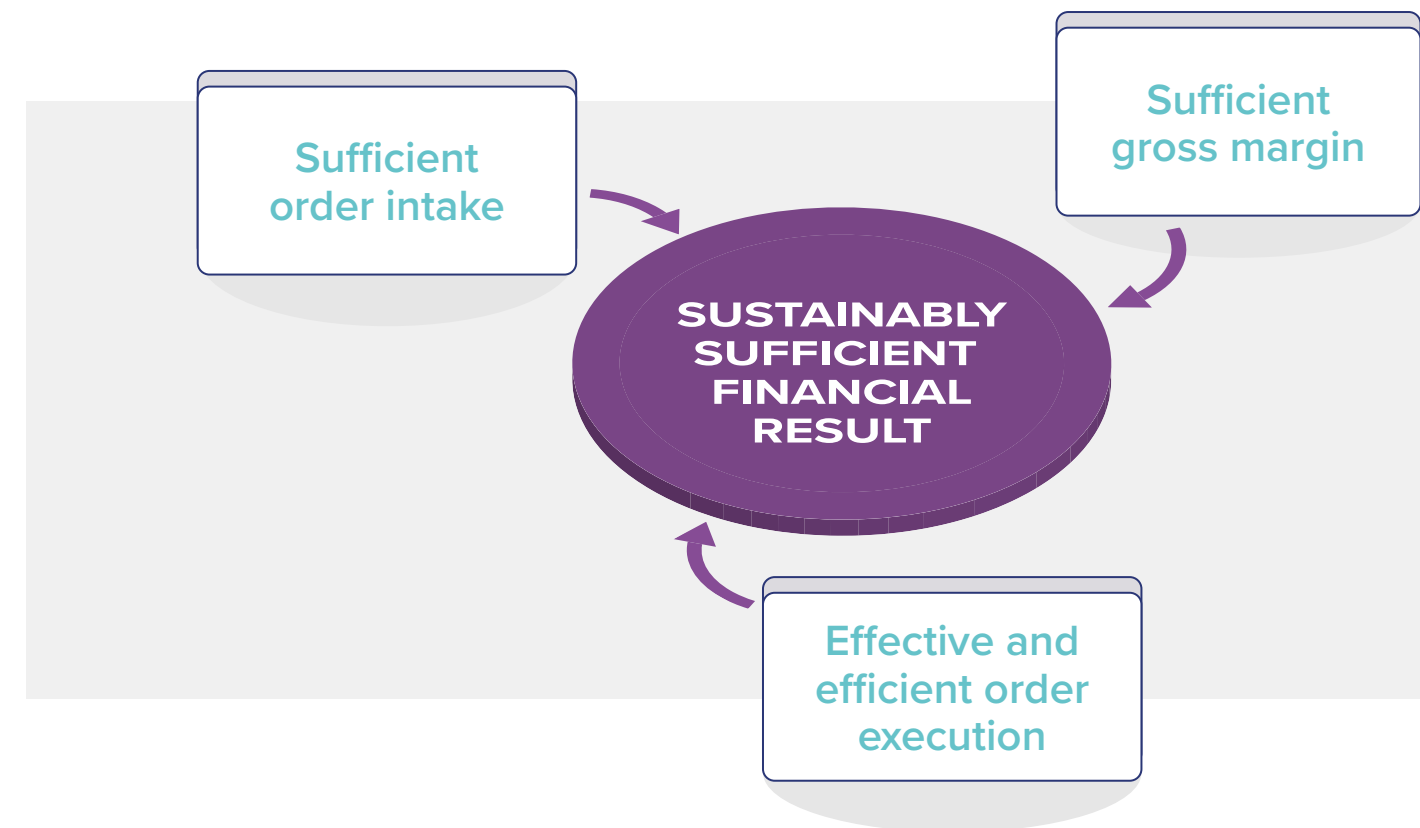
Management cybernetics is about optimizing the information flow between these operational functions. According to Stafford Beer, an enterprise is an emergent system that does exactly what is defined in its information flow. Thus, the properties of an enterprise are defined by the interaction of its operational functions.



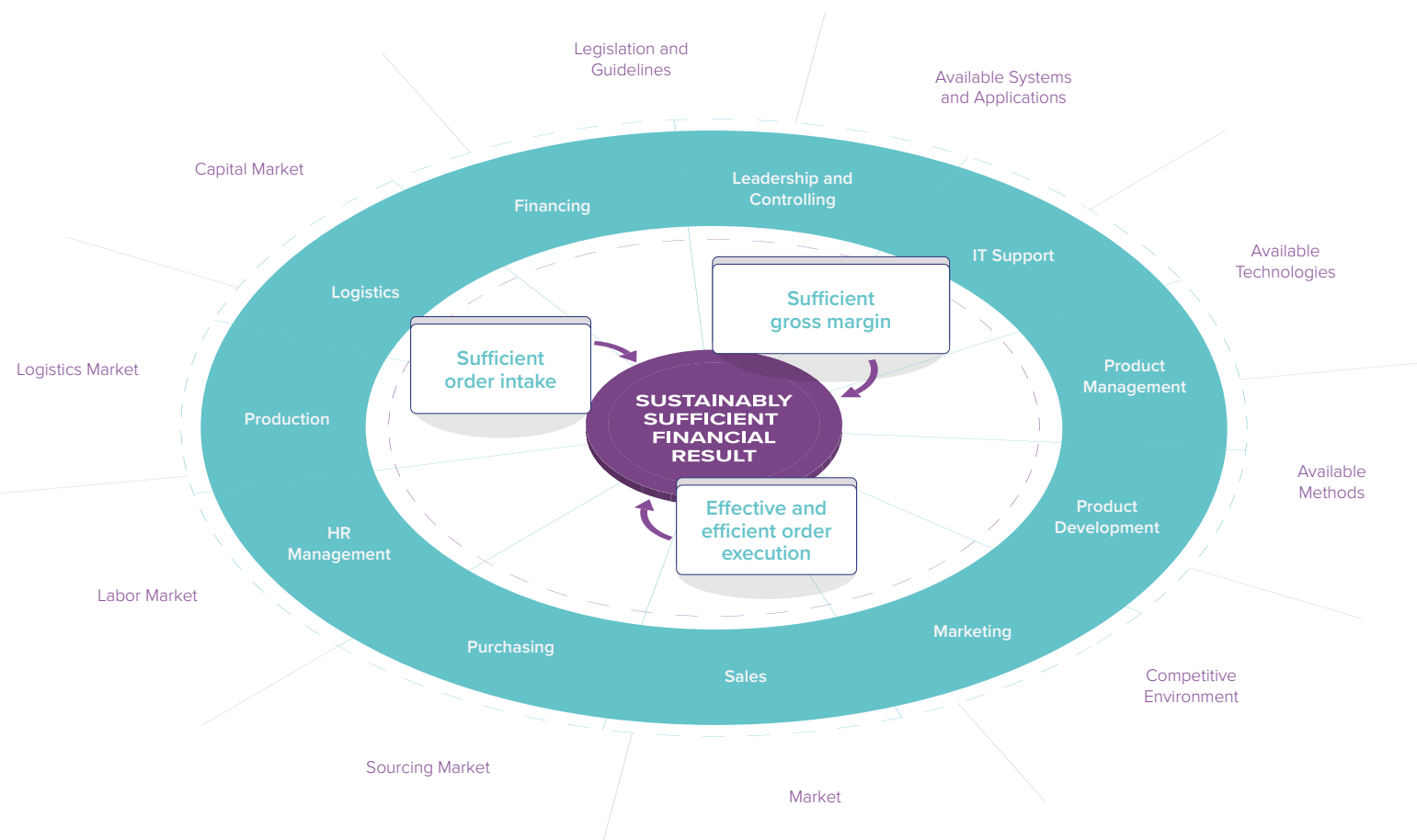
“Cybernetics and good, effective management are identical” (Fredmund Malik, Führen, Leisten, Leben, p. 28). We should overcome the “old” mechanistic way of thinking and “think and act in systems”.

1. A corporation's top objective is to survive – to do this, it is necessary to have a sustainable and good financial result.

2. The required pre-conditions are a sufficient order intake, a sufficient gross margin and an effective and efficient order execution.



3. These pre-conditions can only be fulfilled by a well-aligned dynamic-com-plex interaction of the operative functions along the business process...



4. ...within the given market conditions.

5. Not all variables are suitable for management action. We should distinguish between flow parameters and indicator parameters.

Flow parameters

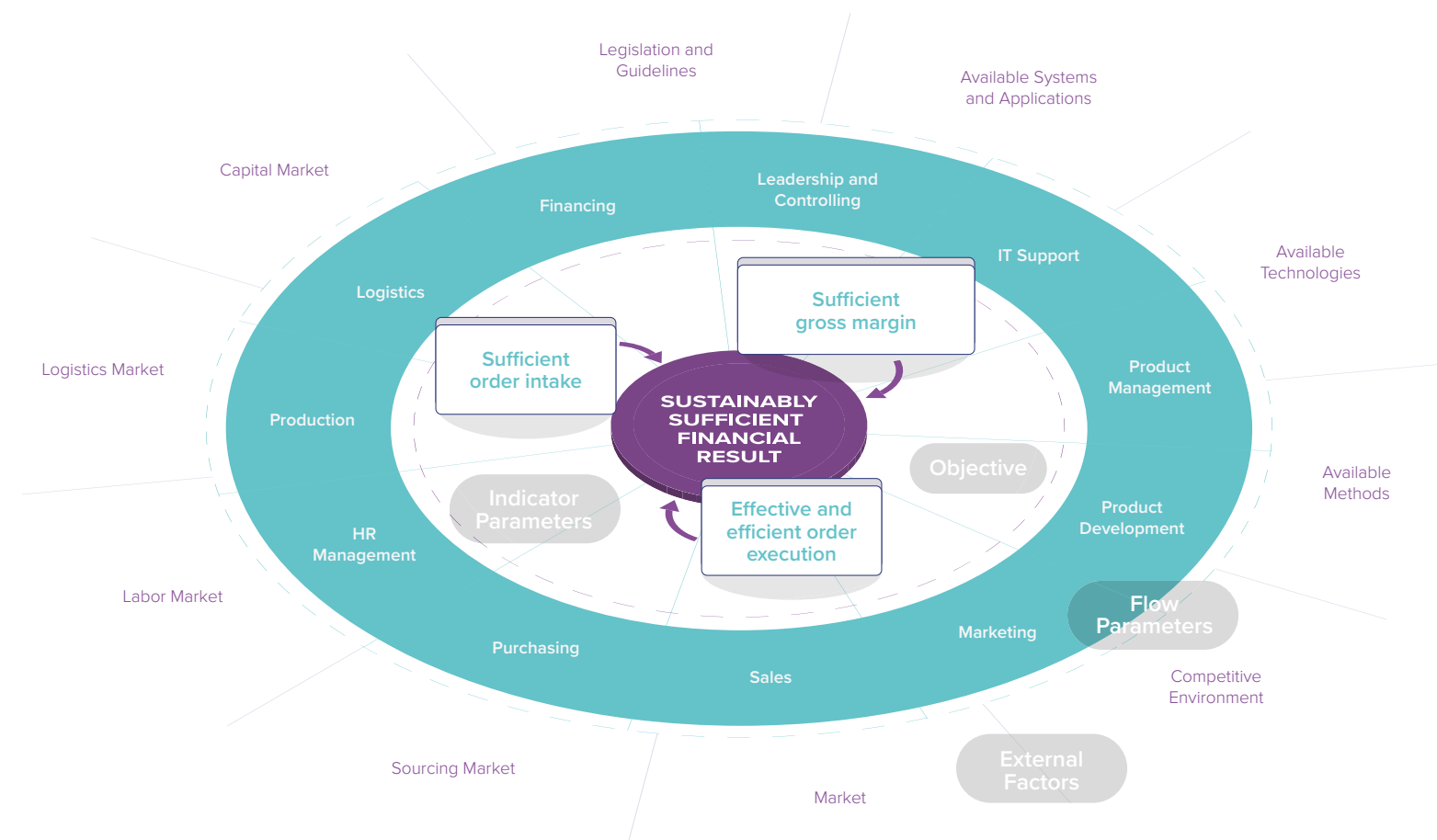
These parameters **significantly influence other parameters**. Their settings can be influenced by the actors.

Critical parameters

Critical parameters are a special subset of flow parameters. Critical parameters influence many other parameters and are influenced by many other parameters. As the behavior of a system is particularly influenced by the interaction of such critical parameters, the highest attention should be paid to the critical parameters.

Indicator parameters

These are parameters which are influenced by many other parameters, but do not influence other parameters. Indicator parameters record the result of the interactions of flow parameters. They show the status and their changes over time show the development of the system.

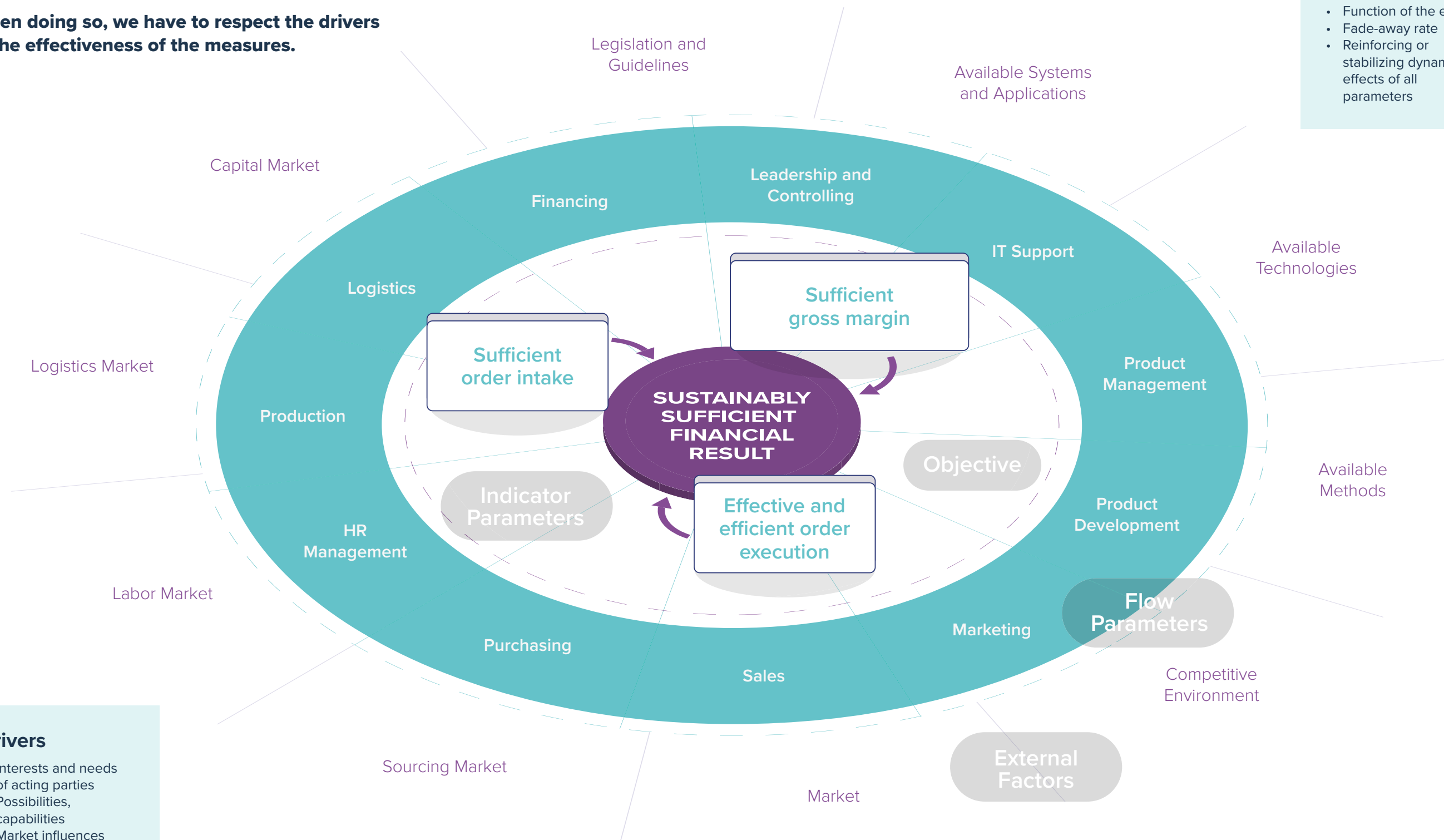


6. We can neither directly act on the objective nor on the indicator parameters; we can only influence the flow parameters.

7. When doing so, we have to respect the drivers and the effectiveness of the measures.

Effectiveness

- Timing of the effect
- Direction of the effect
- Function of the effect
- Fade-away rate
- Reinforcing or stabilizing dynamic effects of all parameters



Drivers

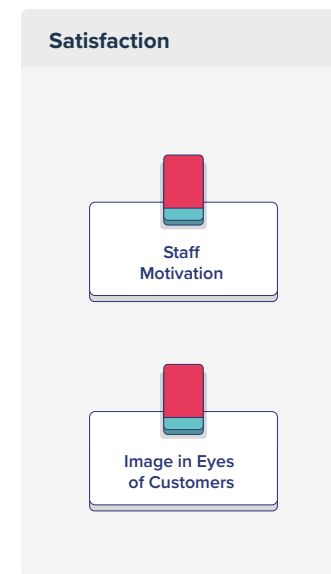
- Interests and needs of acting parties
- Possibilities, capabilities
- Market influences
- Information flow
- Actions
- Reciprocal effects

1. If the operational output is poor, ...

- If customers are not happy because of delayed delivery,
- and/or the quality does not meet the specifications,
- and/or the staff is not satisfied because their activities are not well coordinated, resulting in extra work and unplanned overtime,

then there is no point in inviting customers to a formula 1 race or arranging a team-building event with the staff. That will not solve the underlying problems.

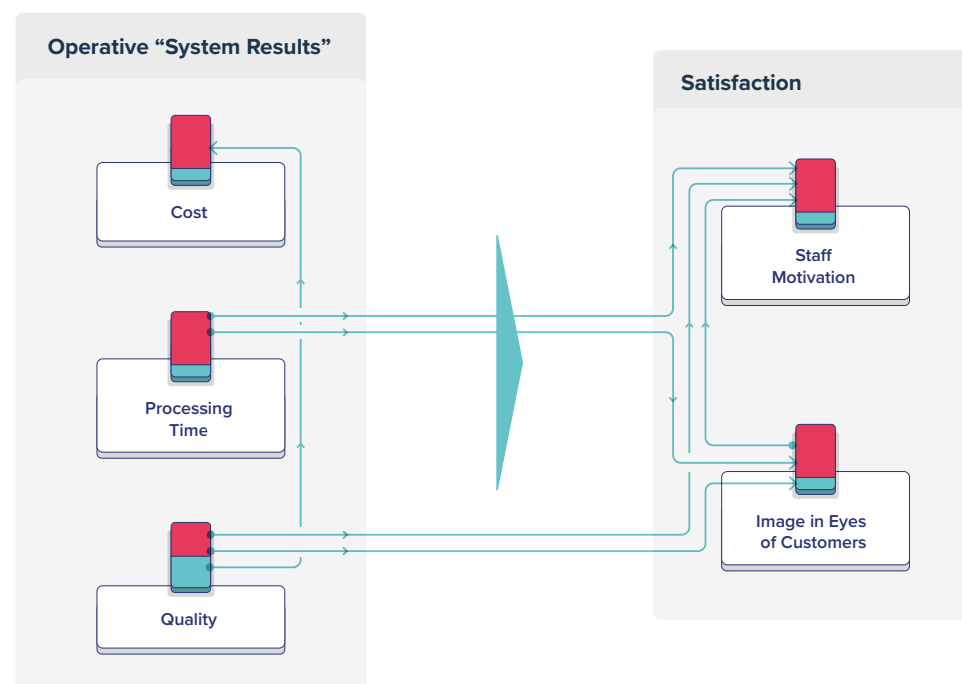
The customer and the staff satisfaction are just objectives and not operable levers.



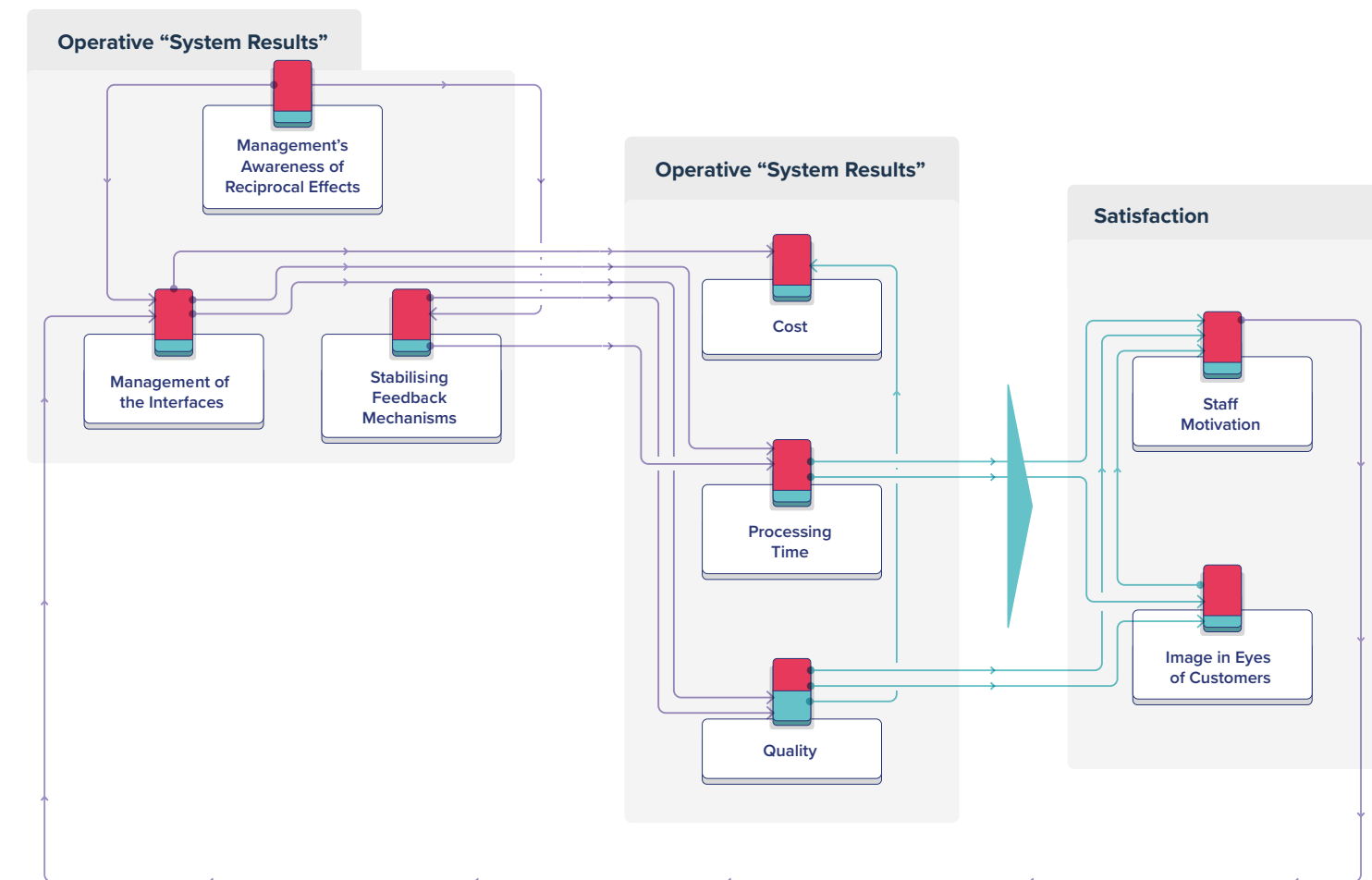
2. ... dig deeper to really understand the system (Jay Wright Forrester).

Instead, have a look at the classic indicators “Cost”, “Processing Time” and “Quality”.

But be aware that these indicators are just recording parameters; they are also not operable levers.



3. In particular, check whether the management is able and willing to understand the system.



You should start to scrutinize the management's awareness of the reciprocal effects as the most important pre-condition for any improvement.

When you are sure about the management's awareness, design the processes and carefully define the communication around the interfaces.

Then introduce stabilizing feedback mechanisms (e.g.: traffic light systems).

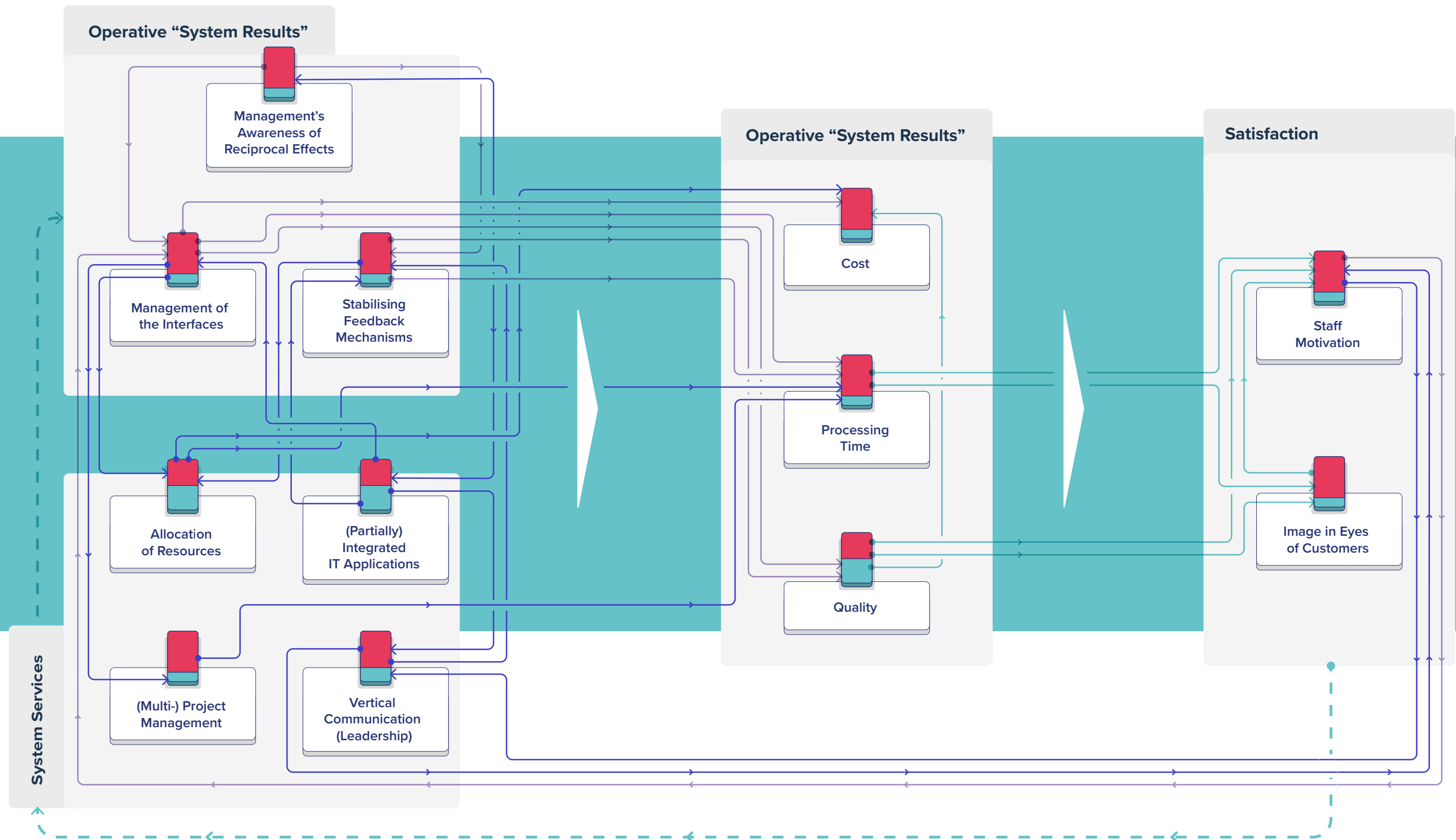
4. Design the system's "in-betweens": processes, communication, especially feedback, multi-project management, and leadership.

Finally, make sure that competing projects run through the defined process as smoothly as possible by appropriately designing the resources in each process step.

Support the feedback with the right IT applications. And last, but not least: promote good leadership.

5. You now have a suitable basic cybernetic set-up. Cost, processing times and quality will improve, resulting in staff motivation and a better image.

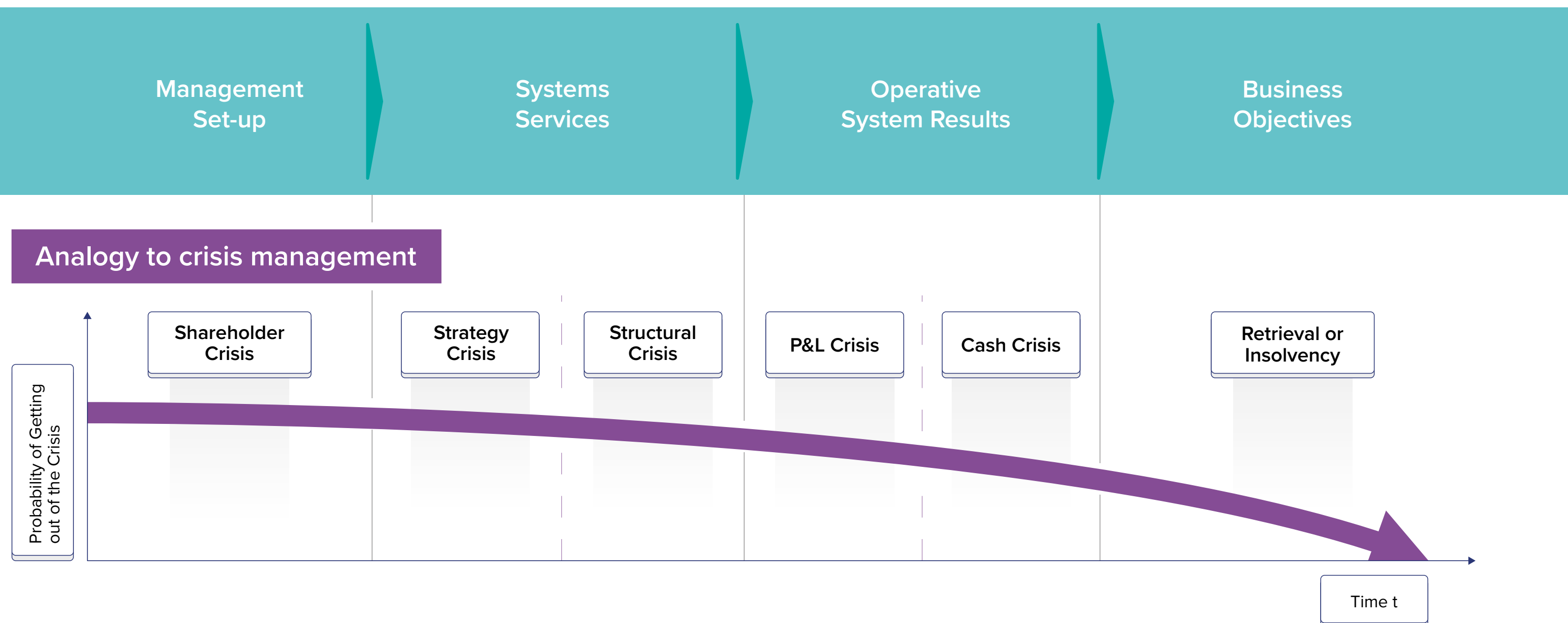
Success will further boost the improvement as it will lead to a circular feedback to the management set-up and the systems services.



Always start by ensuring that the management is ready for a cybernetic approach.

The approach to a cybernetic set-up works in the same way as the approach to a restructuring project: Staying at the surface is just like fighting against symptoms.

You should go back to the roots!



Questions for Reflection

- ❶ Please, list up the most relevant flow parameters in your organization which are suited to influence the results.
- ❷ Write down the external factors your organization must take as given.
- ❸ Is your management open-minded for a cybernetic mode of operation?
- ❹ Are the processes in your organization designed in an integrated way? How well are the processes geared with each other?

Summary of Section

To improve the resilience of your organization, build a cybernetic management set-up and identify and operate the effective flow parameters.

- A corporation's top objective is to survive – to do this, it is necessary to have a sustainable and good financial result.
- The required pre-conditions for sustainability are a secured sufficient order intake offering sufficient gross margin and an effective and efficient order execution.
- These pre-conditions can only be fulfilled by a well-aligned dynamic-complex interaction of the operative functions along the business process within the given market conditions.
- Not all variables are suitable for management action. We should distinguish between flow parameters and indicator parameters. We can neither directly act on the objective nor on the indicator parameters; we can only influence the flow parameters.
- Optimize your system by really changing the basic conditions, instead of trying to realize changes with inappropriate basic conditions.
- The management's task is to initiate self-regulation and to keep it running by making sure that enough information and energy are added.
- Always start by ensuring that the management is ready for a cybernetic approach. In particular, check whether the management is able and willing to understand the system.
- Design the system's "in-betweens": processes, communication, especially feedback, multi-project management, and leadership.
- You now have a suitable basic cybernetic set-up. Cost, processing times and quality will improve, resulting in staff motivation and a better image in the eyes of your customers.

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3

Introduction
to Management
Cybernetics

The Cybernetic Strategic Set-Up



Learning Objectives Session III

In this section...

- You will learn how you can naturally find and follow your strategic
- You will learn how to maintain strategic flexibility and adaptability
- You will learn how to stay successful in your strategic partnerships
- You will learn how to install an effective innovation process and to derive compelling products and services for your target markets

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**“Structure
Follows
Strategy”** PAGE 54

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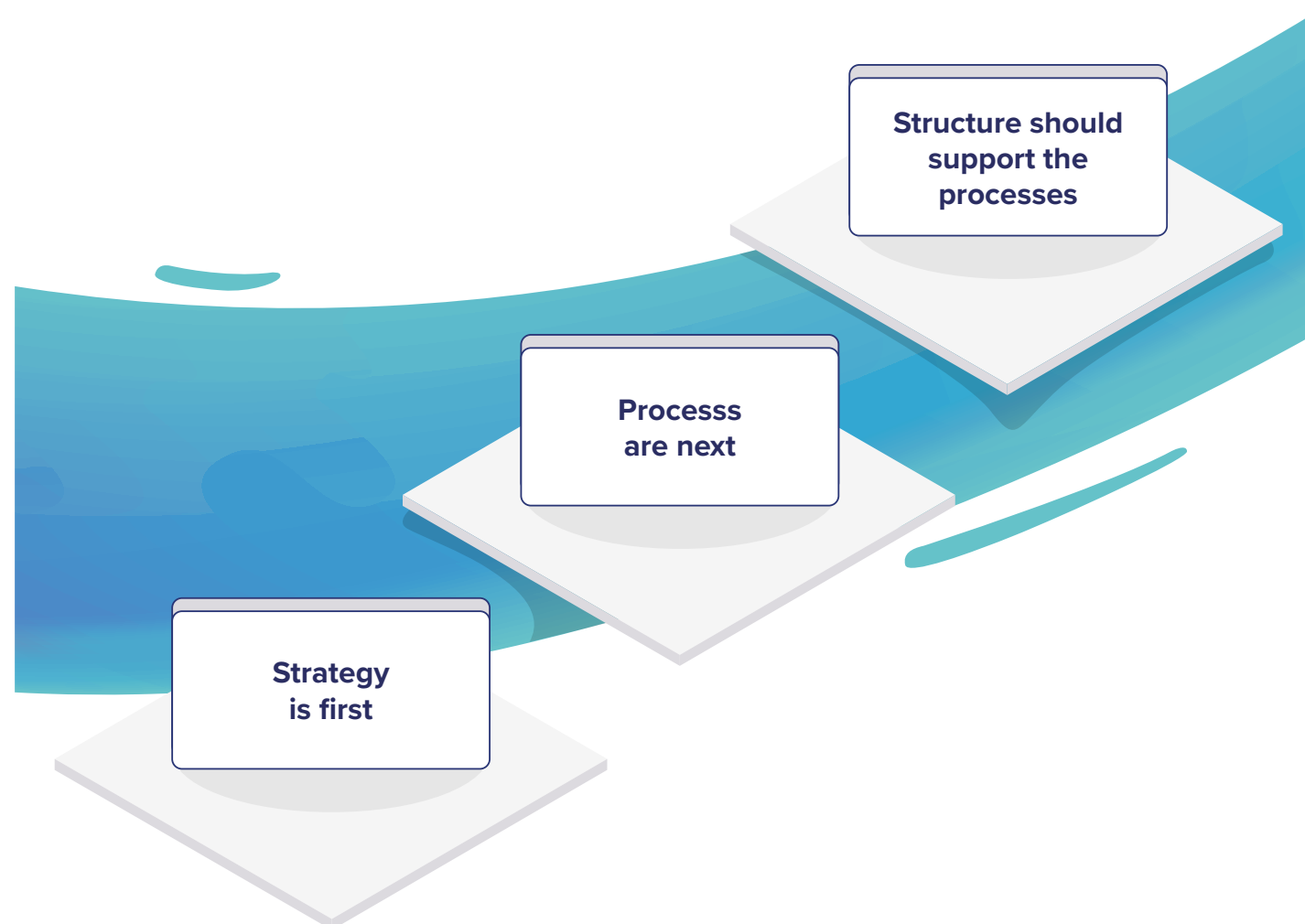
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Demand-based strategy should be implemented by means of the business process, while the corporate structure should best support the processes.

“Structure Follows Strategy”

Alfred D. Chandler



“Embed” your organization in the market by creating value for the market participants and stakeholders

- According to the **subsidiary principal**, **every organization is fully responsible for its own success**. Do not blame markets or other players for your failure.
- **Every organization is just a part of its environment**. To be successful, it should add value to its environment (private and public stakeholders, customers, suppliers and partners, employees). What is your added value (unique selling propositions (USPs)?
- **Companies which add value are in demand and are supported and sustained by their environment**. Critical question: “What would our environment miss if your company did not (yet) exist?”
- Develop a **clear profile** in your market and **communicate it**. **Decide what you should not do (anymore) by yourself and, if necessary, develop partners** for these activities.
- **Contribute to value in networks**.
- Look for **natural lock-in effects through performance, trust and reliability**. Do not rely solely on formal contracts (e.g.: acceptance duties).

Feed your business with descriptions of “future scope” with highly probable, consistent parameter values by means of a corporate foresight dialogue.

To prepare for an uncertain future ...

- Install a **continuous multi-dimensional and interdisciplinary strategic “foresight” dialogue** in your organization. Establish a kind of thinking in contexts, in complex interactions, in contrasts and in paradoxes to better acknowledge the “insight horizon” of your organization.
- Introduce new aspects for corporate development and prepare the future corporate path by developing **an open communication concerning connected developments and the limits of your own operations**.
- **Feed topics with medium-term horizon into the discourse about the operative business**.
- **Replace “uncertainty” by “probability”**: Probability is calculable. By applying probability, the future loses its cloudy appearance.
- Methodological **tool-box for corporate foresight**:
 - ♦ Scenario technique, based on legal, political and technology scouting, literature research, trend survey (exponential developments, disruptions, inversions) by Delphi surveys, technology surveys, wildcard analyses, statistics, information theory etc.
- Choose a **solid balance between scientific expectations and practical relevance**



Include the “blue oceans” approach in your considerations, equipping your organization with an “osmotic skin” and a continuous open discourse.

- Describe “future scope for possibilities” with highly probable, consistent parameter values for influencing factors, trends and possibilities
- Identify potential business areas (new services, new markets, neighboring markets) for “blue ocean” opportunities (untapped demand) and derive conclusive and consistent strategies, also considering co-operations in partnerships and networks. The **Business Model Canvas methodology** can help you to structure the process (see attachment).
- Crystallize future-orientated innovations.
- The combination of insights leads to a **coherent corporate mindset** concerning descriptors for the future, including possible disruptive incidents with serious effects, so-called “wild cards”. Make sure that **weak signals for wild cards** are perceived by your organization and that **opportunities are capitalized and risk is actively managed** instead of being avoided.
- In cross-border relationships, **the intellectual capital increases by sharing it**.
- At all times, **stay strategically flexible and capable of adapting** to changing environmental conditions.

Consider the basic conditions in co-operation relationships and try to influence them in your favor by means of game theory and statistics.

- Consider the game you are in. Do you want to stay in this game? Are there other, better games? Are there better customers or even markets?
- Find out who is defining the rules in the game you are in? Can you influence these rules?
- Can a supplier be a customer at the same time? Can a competitor be a co-operation partner (“co-opetition”) or a customer at the same time?
- What is the strategy behind decisions? Do you see the “big picture”?
- Which trends can we identify?
- In networked markets and in organizations decisions have to be made in situations of strategic interdependency with asymmetric information, often not leading to the best possible solutions.
- Try to understand the balancing act and often the dilemma between individual logical rationality and collective damage.
- Make use of game-theoretical analyses to analyze the structure of interactions and to find solutions. Statistical data can also be helpful.
- Use institutions, social norms, social sanctions and also the self-organization of co-operation to cope with public goods problems.

Provide the basic conditions for innovation, supporting a structured innovation process leading to precise fulfilment of market requirements

- Define your strategy position and derive the innovation objectives regarding products, processes and the structure of your organization directly from your strategy position.
- Define an innovation team, consisting of the Managing Director and representatives of Sales, Product Development/Engineering, Production, Finance and Controlling. Define the rules for the decision-making process. **Crucial to success is the well-coordinated organization of innovation!**
- Invite all employees, but also customers and suppliers, to come up with ideas for innovation, best thinking in solutions and not in product categories.
- Introduce a checklist for describing innovation ideas in a simple, but structured way (see attachment).
- Establish a defined stage-gate process for all innovation ideas (see attachment).
- Define and implement a practice-orientated innovation process, including the identification of the idea, the evaluation, the sign-off procedure, the cycle times, the meeting frequency and all respective responsible functions.
- Fill the process with life: Look for precise requirement profiles backed by the market/customers. Do not forget to protect your intellectual property.

Checklist for the Descriptions of Innovation Ideas

Label of the idea

Type of innovation

☐ Product innovation

☐ completely new product

☐ new product feature/attribute

☐ New application of an existing product

☐ Process innovation

☐ Service innovation

☐ New revenue model

Degree of the innovation

☐ Novelty in the market

☐ Imitation of market-proven features

Potential

☐ One-off effect

☐ Repetition and scaling potential

Estimates additional revenue potential

kEUR/year

Estimated annual cost saving potential

kEUR/year

Target market/target costumers

Target market

Target costumers

Who had the idea?

Date

Stage-gate Process: Example for Innovation Sign-off of Innovations

Sign-off Phase	Content oft the Phase
1	Basic acceptance and sign-off for market analysis, conception and first investment calculation
2	Sign-off for engineering, business model specification etc.
3	Sign-off fort he realization of prototypes (product features, business model with a lead costumer)
4	Sign-off for commercial readiness, maker-or-buy decision
5	Sign-off for market roll-out
6	Succes monitoring

The “Business Model Canvas” (BMC) method allows and supports a systematic approach to strategy, starting in the market.

Organization:

Sub-Organization:

Key partners

Who are our key partners?
Who are our key suppliers?
Which key resources do we receive from partners?
Which key activities perform our partners?

Value/offer for Partnerships:
Access to distribution channels and activities
Optimization of profitability
Decreasing of risk and uncertainty

Main activities

Which main activities requires our value offer?

Examples:
Application oriented research
Marketing
Product development
Purchasing
Operational planning
Design
Production
Sales
Financing

Key resources

Which key resources requires our value offer?

Resources/Types:
Physical
Intellectual (Patents, Know-how, Patents, Copyrights)
Humanitrium
Financial

Value offer

Which customer needs do we fulfil?
Which problems do we help to solve for our customers?
Which value/benefit do we provide to our customers?
Which inputs and service packages do we easily offer to our customers (per segment)?

Examples:
Performance
Flexibility
Individualization/customizing
/Selling the job done/
Design
Track/track status
Price
Cost reduction
Risk minimization
Availability
User friendliness, comfort

Customer relations

Which kind of relations would our customers in the target segments desire?
Which kind of relations do we have established and do we sustain?
How are our customer relations integrated in our business model?

Parameters for customer relations:
Personal support/service
Individual personal support/service
Self-service
Automated support/service
Communities
Customers are involved in the product development

Channels

With which channels do we want to reach our customers?
How do we reach our customers now?
How are the channels integrated in our business model?
Which channels will lead to reach our customers?
Which channels are the most cost-efficient ones?
How do we integrate these channels in our processes?

Aspects to select channels:
How do we get our customers' attention for our products?
How do we facilitate our customers to evaluate and to appreciate our products (messages, stories)?
How do we enable our customers to buy products from us (market presence, service)?
How do we support our customers after having bought products from us?

Customer segments

For which areas we seeking value?
Who are our most important customer today?
Which customer segments should be very interesting beginning present time?

Criteria for the definition of the customer segments:
Needs/community, market
Needs/market, which ones easily?
Segmented/Market, which ones easily?
Diversified
Multi-sided interconnected platform

Cost structure

Which are the most significant cost positions, related to our business model?
Which key resources are the most expensive ones?
Which key activities are the most expensive ones?

Types of cost:
Is our business rather cost-oriented (lean and structure, low-price value offer, maximized automation, extensive outsourcing)?
Is our business rather value-oriented (focus on in-house value-creation, first-class value offer)?

Cost attributes:
Fixed cost
Variable cost
Volume advantage (learning)
Compos/network advantage

Revenue sources

For which values are our customers really prepared to pay?
For what are they presently paying?
How do they presently pay?
For what should they like to pay?
How much does each revenue source contribute to the turnover?

Types of revenue:
Sales of assets
Lending/leasing of assets
Use fee
Membership fee
License
Broker fee
Overriding
Etc.

Price schemes:
List price
Trade discounts/term
Price, depending on product attributes
Price, depending on customer alignment
Price, depending on quantity

Price elasticity:
Negotiation range
Real-time-dependent market price
Price as an auction result

Based on Alexander Osterwalder and Yves Pigneur,
<https://www.startplatz.de/startup-wiki/business-model-canvas/>

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The Consumer Goods Forum

End-to-End Value Chain

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Questions for Reflection

- ① Is the strategy of your organization explicitly formulated?
- ② Is each of the members of your organization aware of the strategy and is it understood, accepted and supported by everybody?
- ② How well do the processes of your organization support and foster the implementation of the strategy?
- ③ Which are the most relevant result drivers?
- ④ Are the key partners co-operating with your organization suitable to implement the strategy?
- ⑤ How does your organization acknowledge the need for strategic correction?
- ⑥ How is the innovation process defined in your organization? How is it “implemented”?

Summary of Section

A demand-orientated strategy is always the first step to embed your organization in markets. Focus on solutions for customers; skip all the rest.

- A demand-based strategy should be implemented by means of the business process, while the corporate structure should best support the processes.
- Embed your organization in the market by creating value for the market participants and stakeholders
- Feed your business with descriptions of “future spaces” with highly probable, consistent parameter values by means of a corporate foresight dialogue.
- Use cross-border relationships to increase the intellectual capital by sharing it.
- Include the “blue oceans” approach in your considerations, equipping your organization with an “osmotic skin” and a continuous open discourse.
- Make sure that weak signals for wild cards are perceived by your organization and that opportunities are capitalized and risk is actively managed instead of being avoided.

Establish a strategy-driven innovation process, involving the whole organization. Be alert to any changes in strategic partnerships.

- Consider the basic conditions in strategic partnerships and try to influence them in your favor by means of game theory and statistics.
- Provide the basic conditions for innovation, supporting a structured innovation process leading to precise fulfilment of market requirements.
- The “business model canvas” method allows and supports a systematic approach to strategy, starting in the market.

Relevant Sources for Further Reading

Interested parties can find further literature about a cybernetic strategic setup.

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