From urban experimentation to management transformation:

Applying urban living lab findings to challenge business-as-usual management practices

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Graduation research | P5
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In collaboration with
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TUDelft

In the past decades,
technological innovation changed the modern world
at a growing speed **adding new systems**
to all areas **of human activity.**

1970

1970

2024

(Delft)

1970

(Delft)

(Amsterdam)

1970

2024

Innovations come forward **from try-outs.**

Our cities are not directly **sensitive to innovation flows** and **are dependent on long-term processes.**

1970 —————————————————— **2024**

(Rotterdam)

Our cities are not directly **sensitive to innovation flows and are dependent on long-term processes.**

Cities must change their business-as-usual to meet the sustainability goals to prevent further climate change.

High energy consumption

two-third of
global energy demand

CO2 emissions

ca. 70% of
global CO2 emissions

Population growth

58% of people will live
in cities by 2070

1970

2024

(Rotterdam)

Experimentation is a proven **method to start such change.**

(The green living lab, Amsterdam)

But how can we **implement the lessons learned** from this urban experimentation **to seek change?**

In the next 30 minutes...

1. Why research transforming business-as-usual?

    Problem statement

2. Theory: learning vs transforming

    Context, process and actors: definitions

3. How is the research executed?

    Research method: theoretical and empirical

4. Empirical research: three nested case-studies

    Cases: Haven-Stad, M4H and Binckhorst

    Findings: Focus on inner-organizational transformation

5. Synthesis: Transformation strategy

    Starting point: Organization as an island

    Elaboration: three phases in non-linear process

6. Discussion & conclusion

Research gap
Very briefly (2 min.)

Theory elaboration
Explanatory (5 min.)

Research set-up
Explanatory (3 min.)

Work elaboration
Explanatory (5 min.)

Recommendations
Advice (10 min.)

Wrap up   (5 min.)

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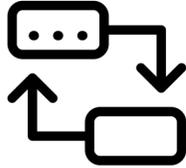
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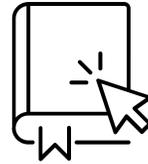**Why** research transforming business-as-usual?

Research gap

Why research transforming business-as-usual?

Problem statement

Concern about the **lack of information transfer of knowledge** we learn from experimental projects to practice.

→

Previous studies have focused on **what we learn** in experimental projects.

→

We know little about **how to implement the lessons learned in business-as-usual** management practices

to catalyze sustainable transitions in the construction sector.

Main research question

How can management practices
learn from experimental projects to transform business-as-usual
to stimulate sustainable urban transitions?

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| concept 1	concept 2	context of research	empirical context
Learning from experimental projects	Transforming business-as-usual (BAU)	Sustainable urban transitions	Urban living labs

2

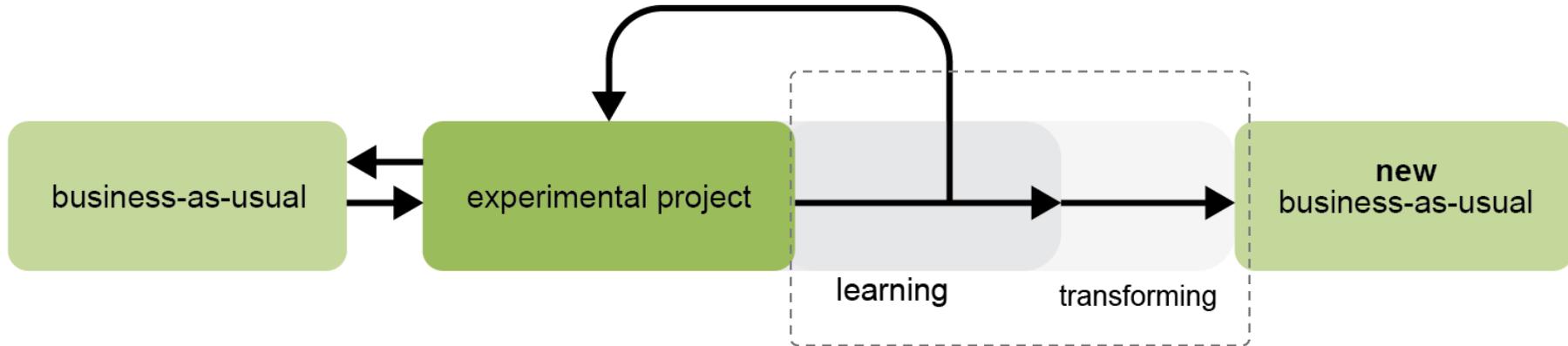**Theory**: learning vs transforming

Context, process and actors

Conceptual model

Theory

How can management practices
learn from experimental projects to transform business-as-usual
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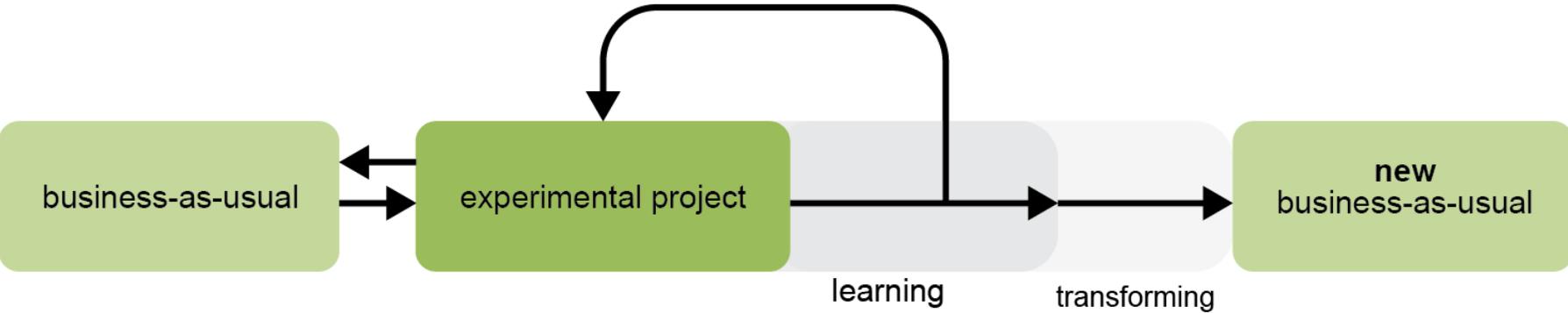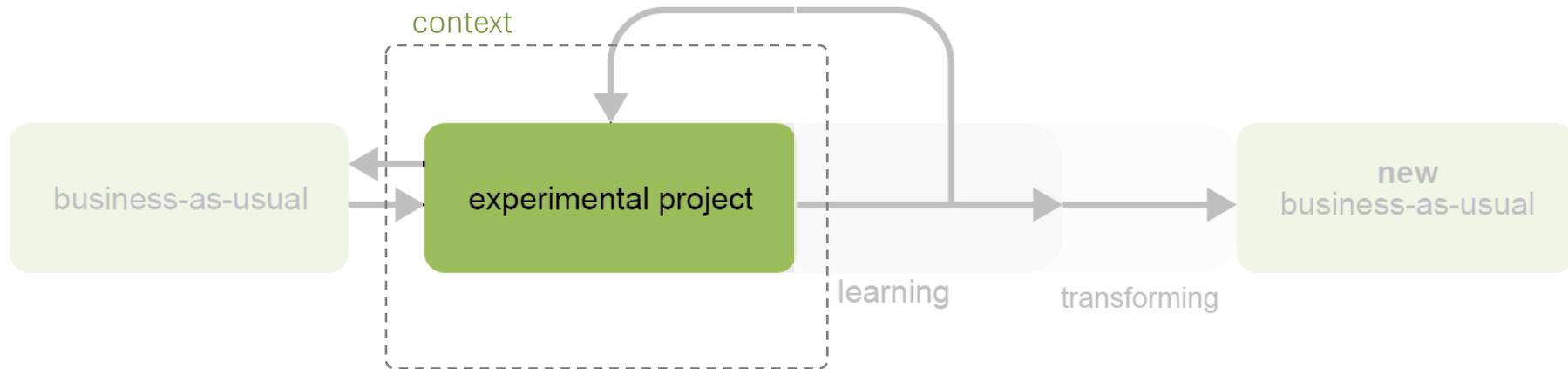
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Conceptual model

Theory

How can management practices
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An experimental project is **an open innovation ecosystem** where people employ methods to **explore, experiment, and test new products, systems, services, and processes** in real-life urban communities.

The project aims to integrate research and innovation processes **to design, evaluate, and implement creative solutions**.

Conceptual model

Theory

How can management practices
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to stimulate sustainable urban transitions?

context

business-as-usual

experimental project

learning

transforming

new
business-as-usual
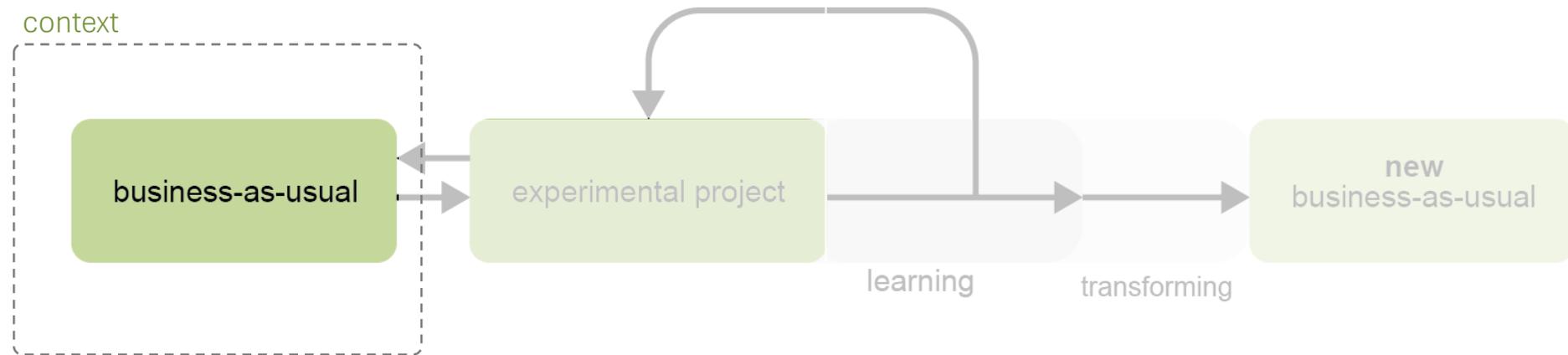
The term business-as-usual refers to **the normal way of working**, how people do work now, and form the counterpart of the experimental project.

Business-as-usual will be used **to define a process**, not a project.

Conceptual model

Theory

How can management practices
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process

business-as-usual → experimental project → learning → transforming → new business-as-usual
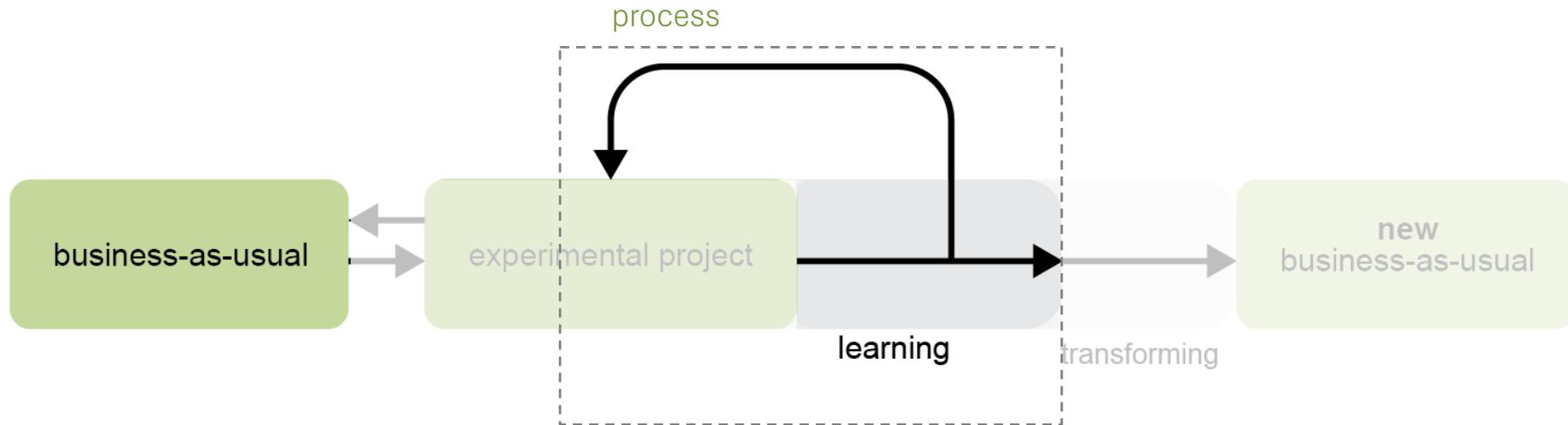
The term learning refers to the process of
gaining new knowledge through (social) network interaction.

Learning is categorized into different types.

Conceptual model

Theory

How can management practices
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process

business-as-usual

experimental project

learning

transforming

new
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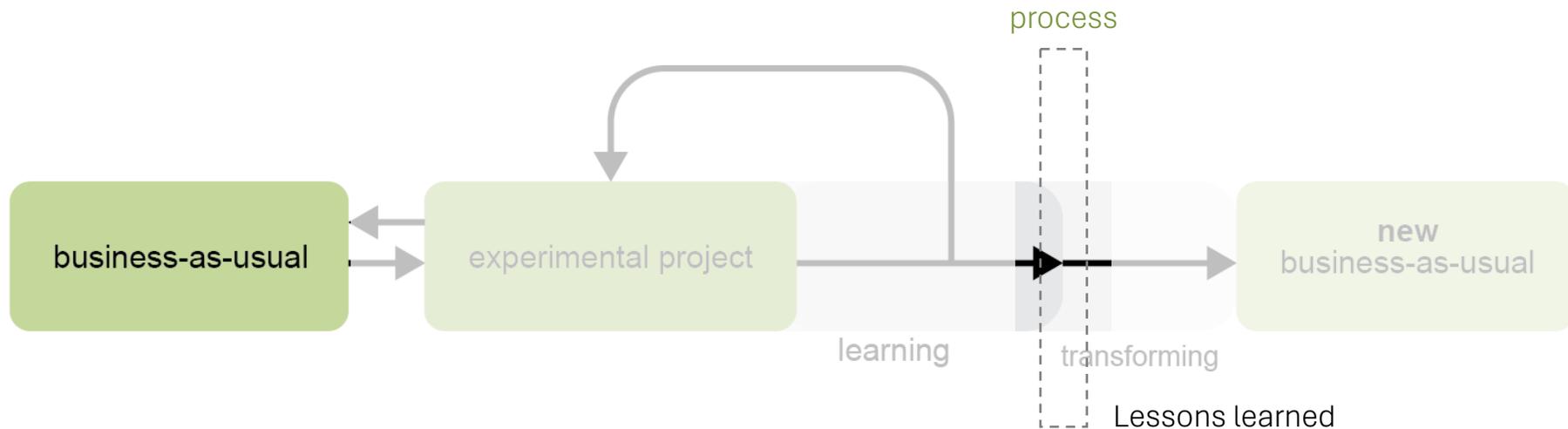
Lessons learned

Lessons are defined as learned when **a lesson has changed something**.

Lessons learned are used to **translate findings** that are tested in an experimental project to a different scale or transform business-as-usual.

It is a starting point for transformation.

Conceptual model

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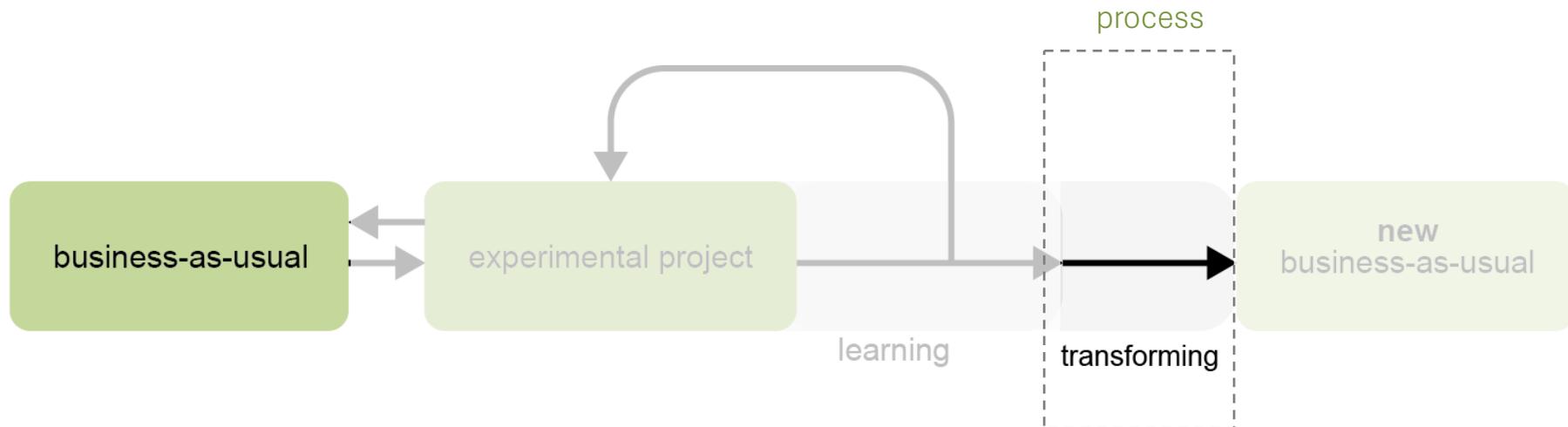
Transforming is the **process of improving performance**. Creating a **behavioral change** is key to transforming a process.

It is important to be aware of **the difficult and long-term process** requiring persistent effort to make this change possible.
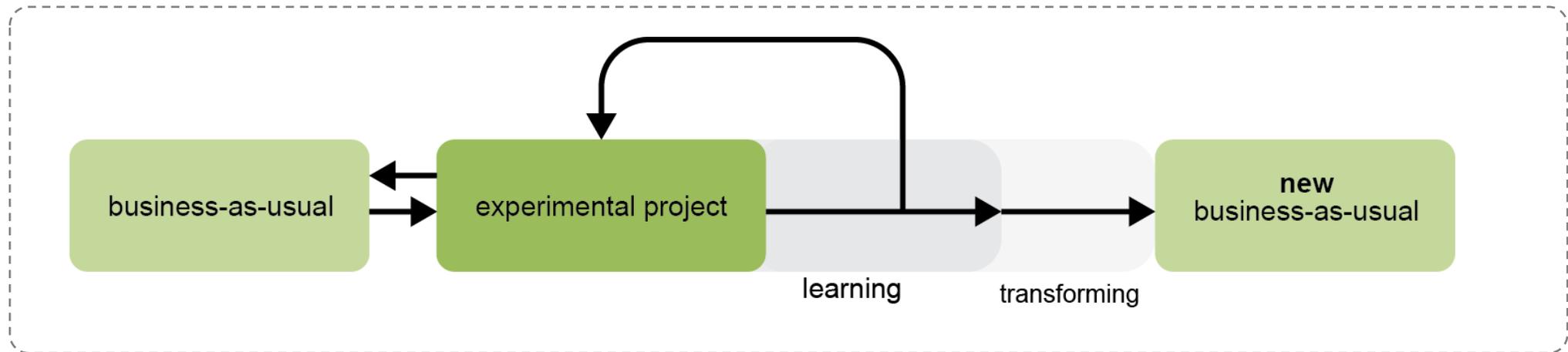
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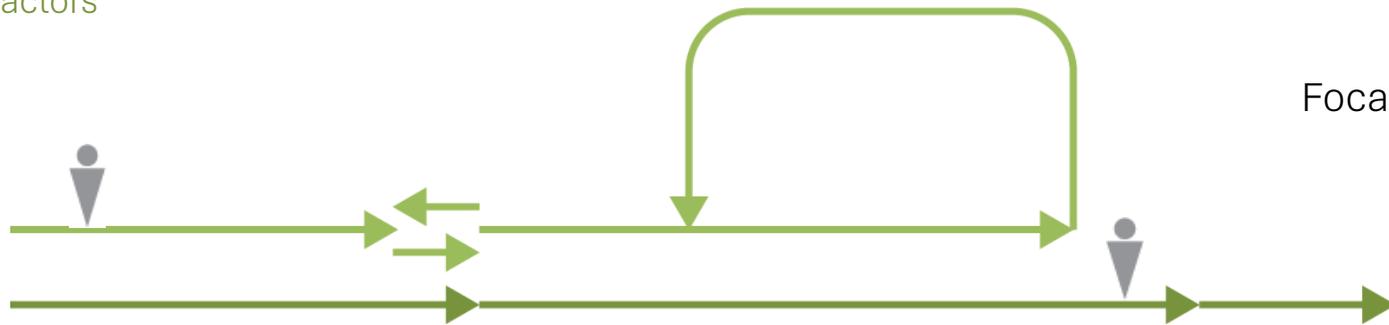
How can management practices
learn from experimental projects to transform business-as-usual
to stimulate sustainable urban transitions?

Focal actor: **individual or organization**

3

How is the research executed?

Research method

Sub research questions

Research method

How can management practices **learn from experimental projects
to transform business-as-usual** to stimulate sustainable urban transitions?

theoretical
research

1 **| What lessons are learned** from experimental projects?
2 | What are the current **challenges, barriers, and drivers to implementing
new knowledge** concerning sustainable urban transitions in projects?
3 | How can lessons **from a niche level** be translated **to a regime level**?

empirical
research

4 | How can the **knowledge transfer from experimental projects to
business-as-usual** be facilitated?

synthesis

5 | How can a **framework** be designed to steer the learning of management practice to
transform business-as-usual to stimulate sustainable urban transitions?

Sub research questions

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Research design

Research method

Research design

Research method

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Research method

empirical research

previous studies

cases   interviews   findings

design   validate

case analysis   cross-case
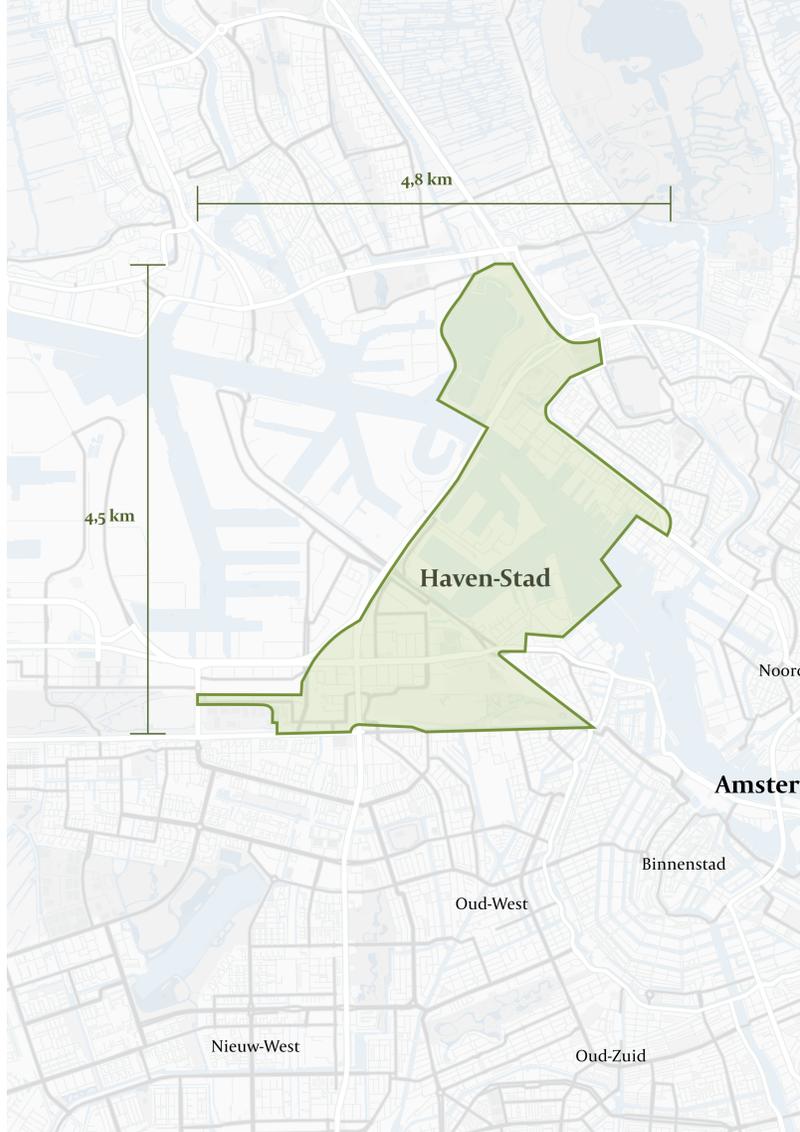
Case selection criteria

- Part of **a sustainable urban transition**.
- Part of an **urban area development**.
- A **business-as-usual way of working** is used or has been used.
- Includes an **experimental instrument**.
- Has a **parent organization**.

1

2

3

36
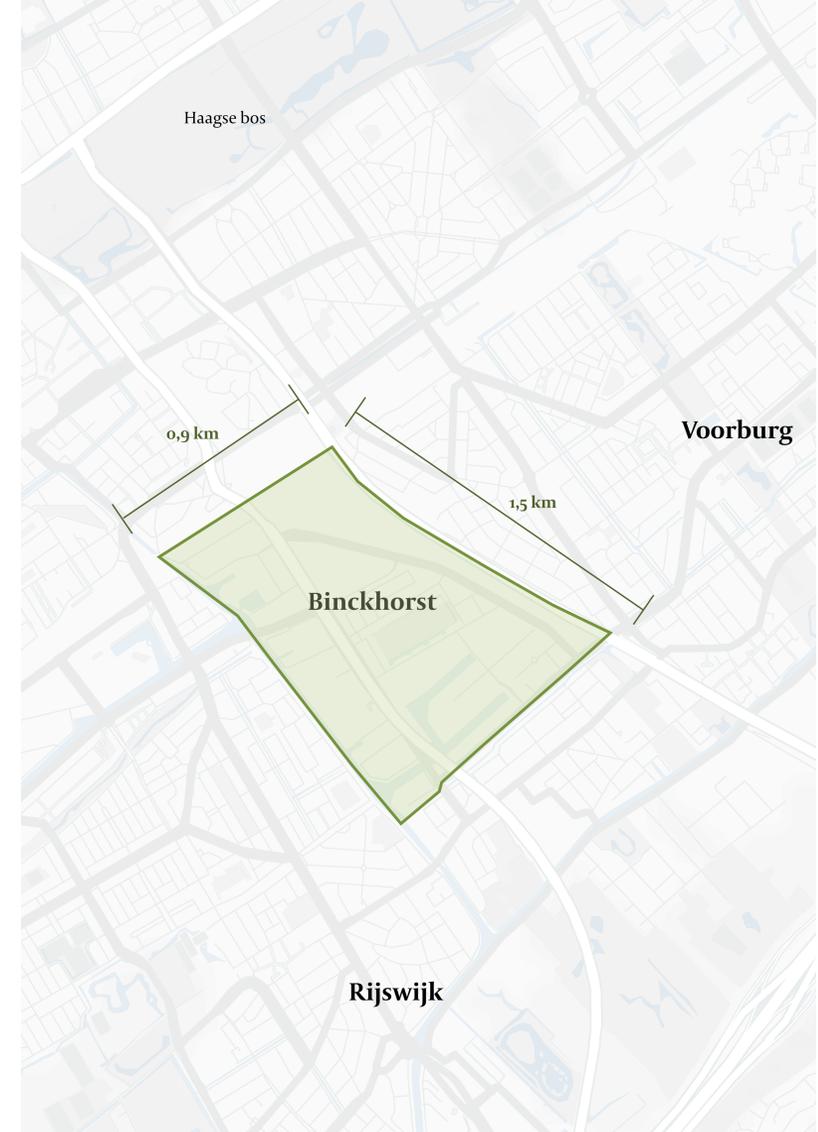
Haven-Stad
Amsterdam

Merwe-Vierhavens
Rotterdam

Binckhorst
Den Haag

Research design

Research method

theoretical research

empirical research

synthesis

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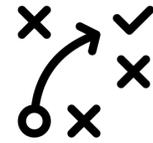
cases

interviews

findings

case analysis

cross-case analysis

design   validate

1

2

3

38

4

Empirical research: three nested case-studies

Cases, analyses and findings

Nested case-studies: three different experimental instruments

Empirical research

	Haven-Stad Amsterdam	Merwe-Vierhavens Rotterdam	Binckhorst Den Haag
goal	**Integration of energy, heat and water** infrastructure in limited soil space	Combining port and city into a **Makers district** that fosters integrated work-life synergy	**high-density work-live urban district** adapting infrastructural and environmental renewal
experimental instrument	**Integraal Gebiedsplan (IGP)**	**Ruimtelijk Raamwerk**	**Omgevingsplan**
parent organization	Municipality Water Authority Grid operator	Municipality Port Authority Developer	Municipality Developer

Cross-case analysis

Empirical research

Learning

Learning-by-doing

Step out of own process	HAV	-	-
Internal process group	HAV	-	-
Trial and error	HAV	M4H	-
Step-by-step approach	HAV	M4H	-
Intensive cross-organizational collaboration	HAV	M4H	BINCK
Flexibility	HAV	M4H	BINCK
Crash tests	-	-	BINCK
Speedboat-principle	-	M4H	-

Learning-by-thinking

Understanding other's needs	HAV	M4H	-
Thinking around	HAV	-	-
Awareness of possibilities	-	-	BINCK

Learning-by-researching

Adjust from evaluation	HAV	M4H	BINCK

Learning-by-watching

Knowledge sessions	-	-	BINCK

Transforming

Individual

Timing of interventions	HAV	-	-
Perseverance	HAV	M4H	-
Physical presence	-	M4H	-
Intermediate reflection	-	-	BINCK

Organizational

Shared financial interest	HAV	-	-
Common understanding	HAV	M4H	BINCK
Long-term capacity of manpower	HAV	-	BINCK
Transformative governance capabilities	HAV	-	BINCK
Flexibility in policies	-	M4H	BINCK

Case 1 | **Hav**en-Stad
Case 2 | **M**erwe-**Vier**havens
Case 3 | **Binck**horst

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Cross-case analysis

Empirical research

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Empirical research

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Cross-case analysis

Empirical research

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Transformation strategy for business-as-usual: starting point

Empirical research

Learning intent (vertical axis)

- **problem** oriented
- **solution** oriented

Capacity to change (horizontal axis)

- low
- high

Quadrants:
- **reflective** learning (problem oriented, low)
- **system** learning (problem oriented, high)
- **project** learning (solution oriented, low)
- **organizational** learning (solution oriented, high)

Transformation strategy for business-as-usual: starting point

Empirical research

Learning intent

How an individual or an organization intends to learn.

Solution-oriented means one is focused on **coming to the solution** of an assignment, challenge, or task.

Problem-oriented means that one is focused **on solving the core problem** of an assignment, challenge, or task.
It is not about the solution but how to solve the core of the problem.

Transformation strategy for business-as-usual: starting point

Empirical research

Capacity to change

An individual or organization's **ability to adapt, evolve, and successfully navigate** through transitions or transformations.

With low capacity, one has **few resources and opportunities** to change the way of working.

High capacity refers to **many resources and opportunities** to change.

Transformation strategy for business-as-usual: starting point

Empirical research
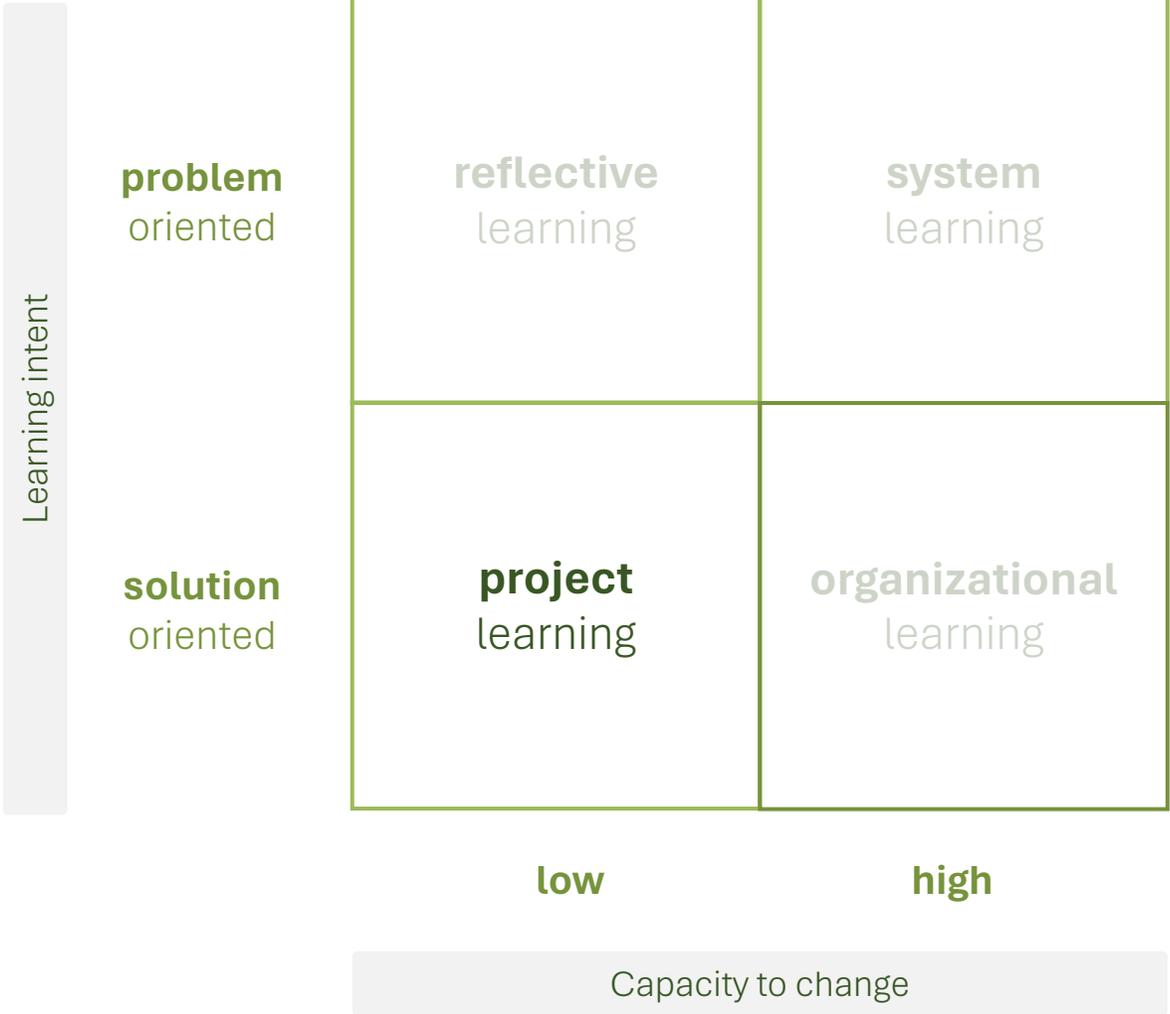
Project learning

Engagement in an extended project to **explore and apply knowledge and skills** to foster a deeper understanding and practical application.

Transformation strategy for business-as-usual: starting point

Empirical research
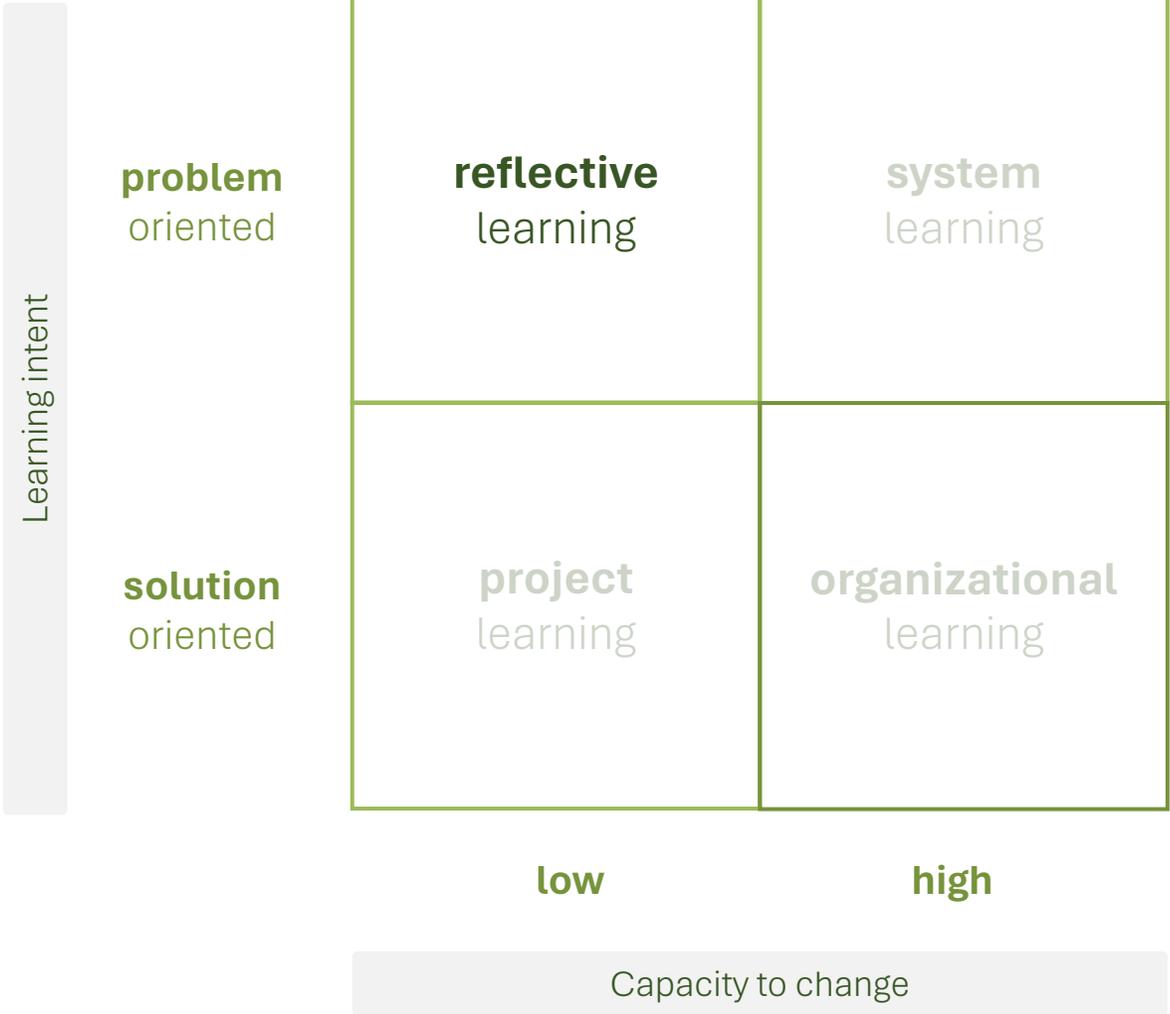
Reflective learning

The practice of **self-evaluation** to gain insights and improve future actions

Transformation strategy for business-as-usual: starting point

Empirical research

Learning intent

problem oriented

solution oriented

	reflective learning	system learning
	project learning	**organizational** learning

low   **high**

Capacity to change
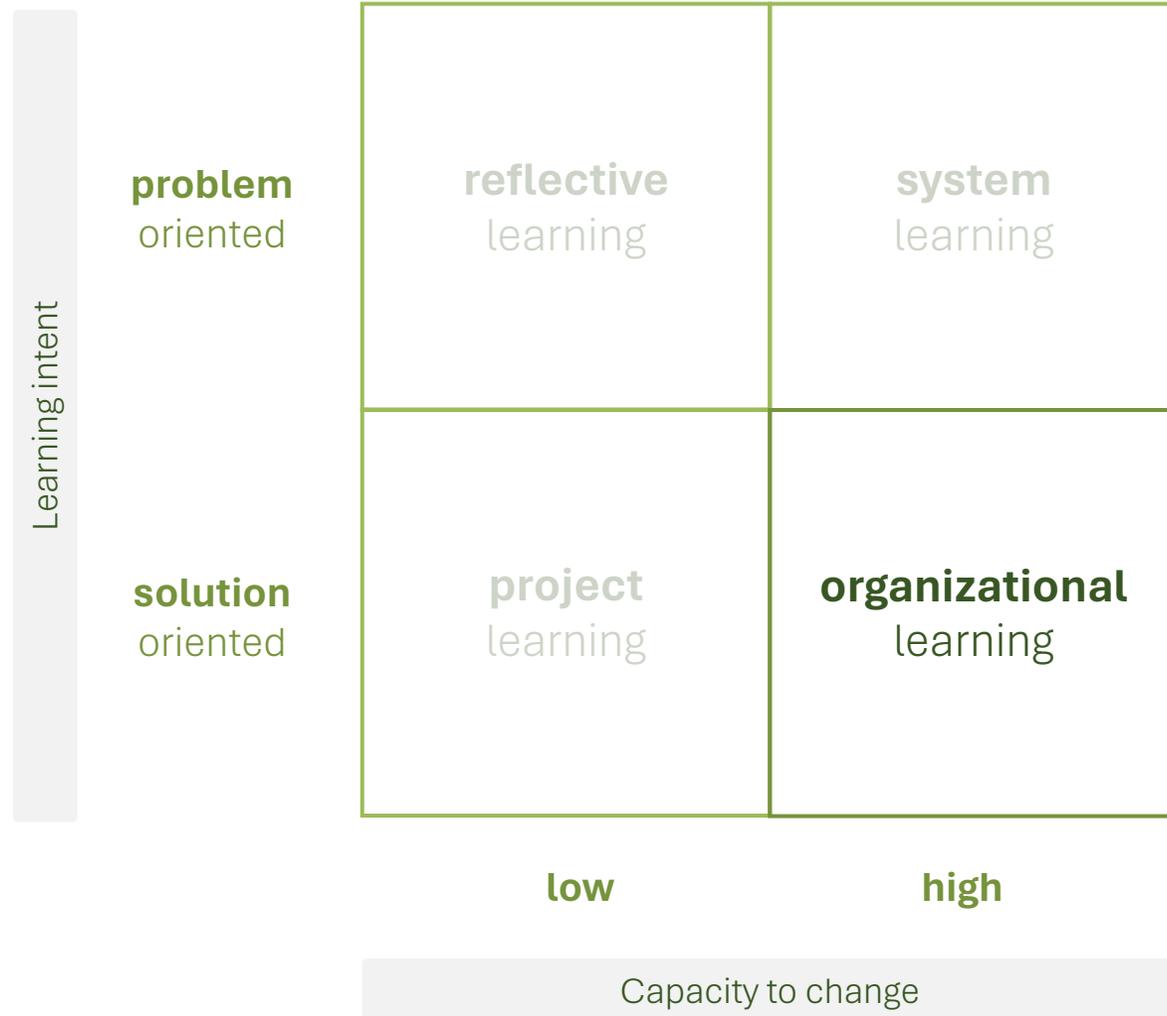
Organizational learning

The process by which organizations acquire, create, and **transfer knowledge to adapt, innovate, and improve performance** through shared experiences, collaboration, and a culture of continuous learning and development.

Transformation strategy for business-as-usual: starting point

Empirical research
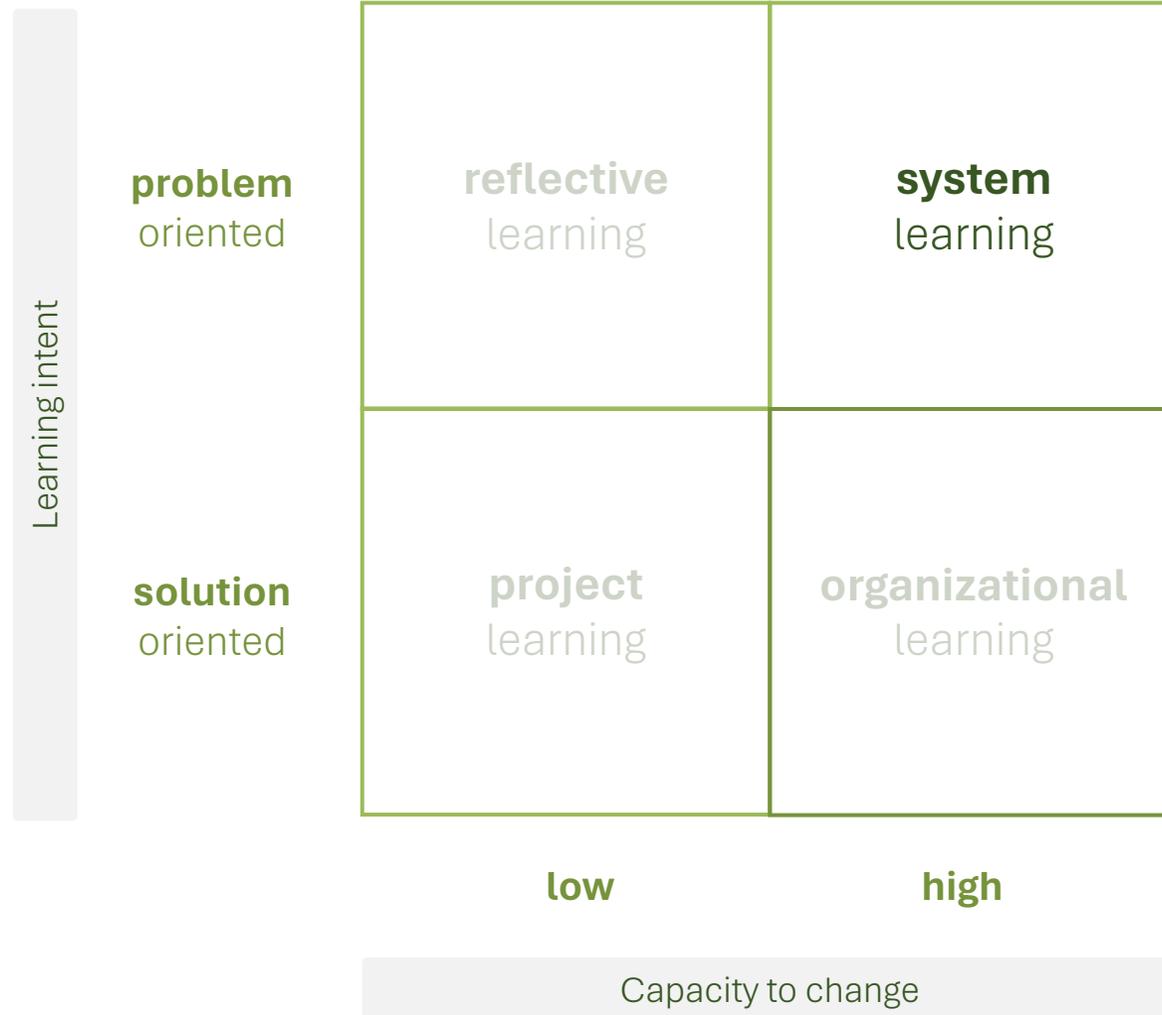
System learning

Understanding the interconnectedness and dynamics of complex systems, emphasizing the **relationships and interactions between components to identify patterns** and leverage feedback for continuous improvement.

Transformation strategy for business-as-usual: starting point
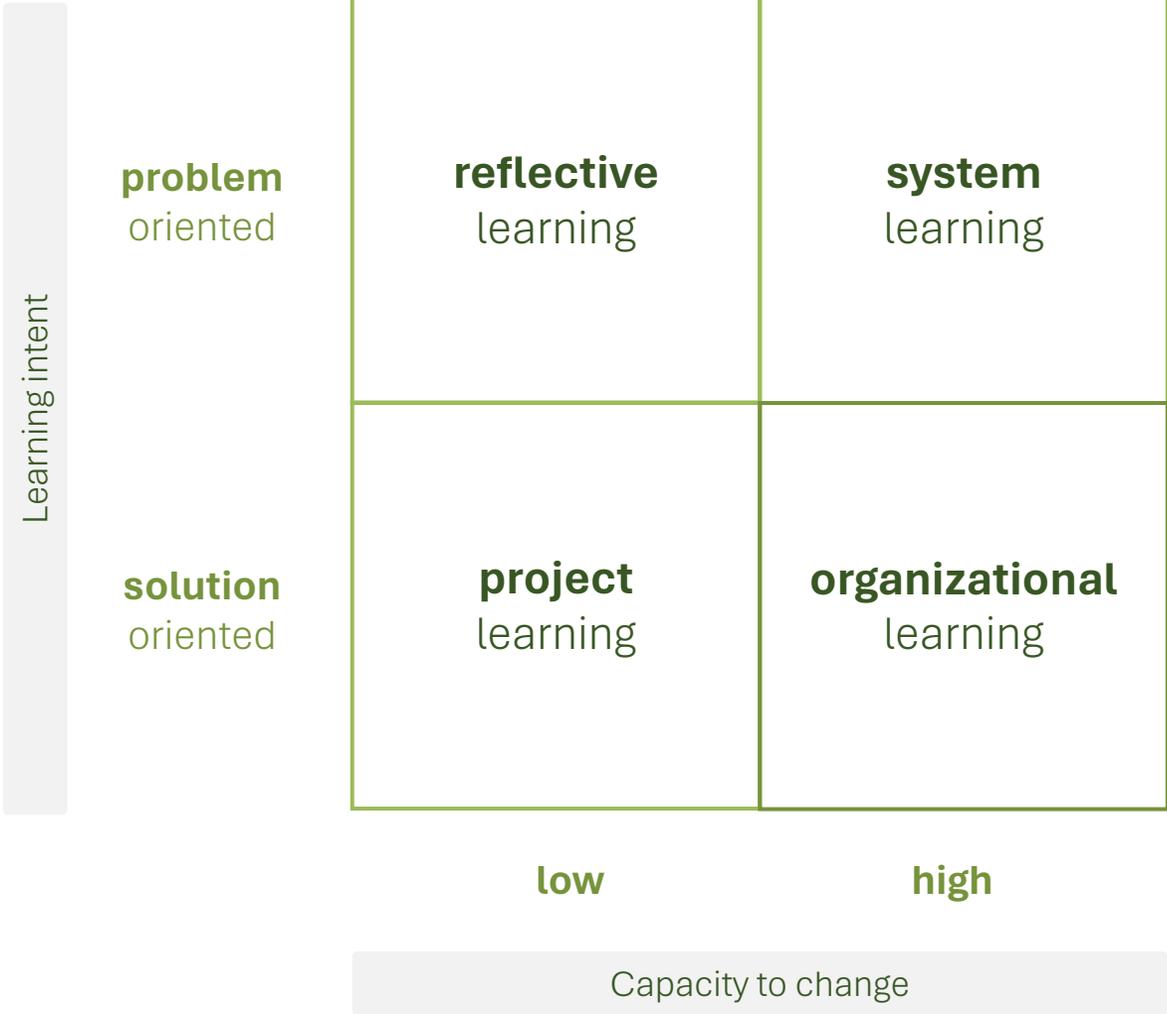
Empirical research

Learning intent

problem oriented

solution oriented

reflective learning

system learning

project learning

organizational learning

low

high

Capacity to change

Transformation strategy for business-as-usual: starting point

Empirical research

Changing business-as-usual in an organization only occurs with a **high capacity to change**

Transformation strategy for business-as-usual: starting point

Empirical research

Learning intent

problem
oriented

reflective
learning

system
learning

solution
oriented

project
learning

organizational
learning

low   high

Capacity to change

→ **Changing business-as-usual** in an
organization only occurs with
a **high capacity to change**

but **HOW TO** practically incorporate?

→ Inner-organizational
transformation strategy
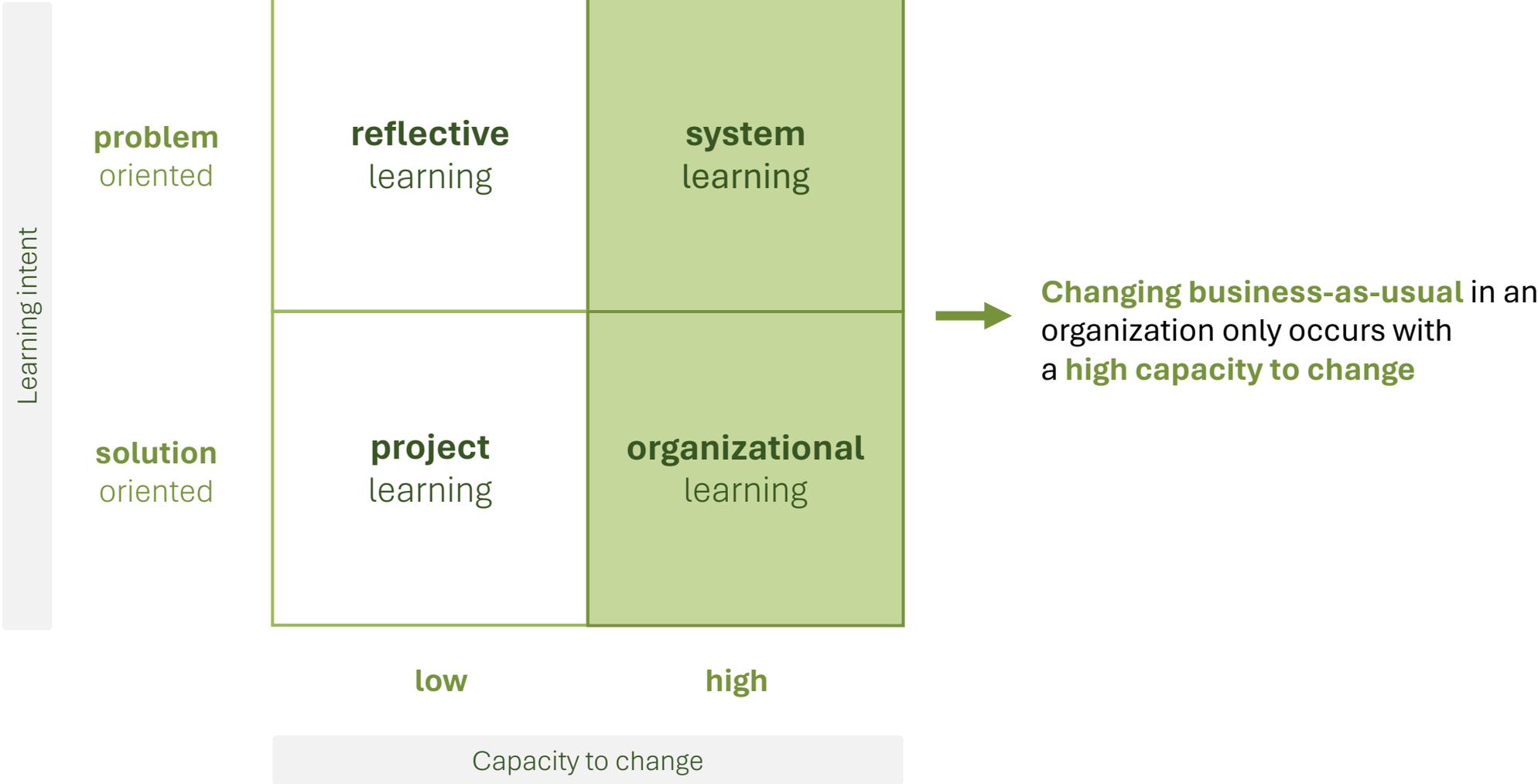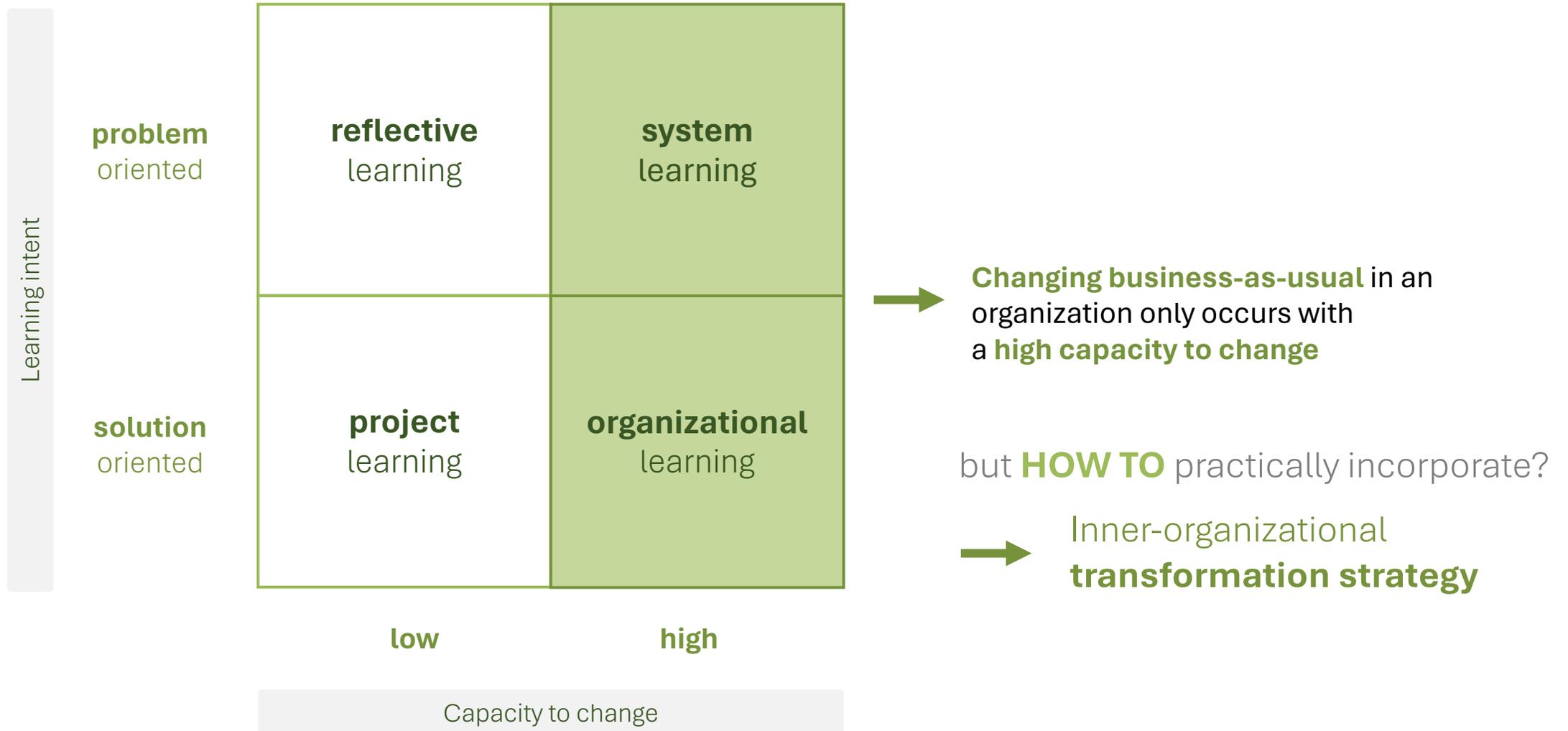
5

Transformation strategy: step-by-step approach how to transform business-as-usual

Synthesis
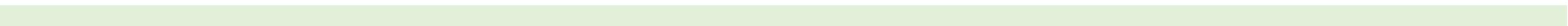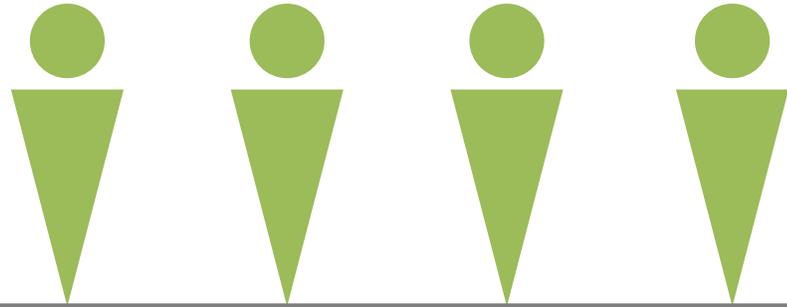
* focal actor

! enthusiastic employee

? reserved employee

$ top leadership department
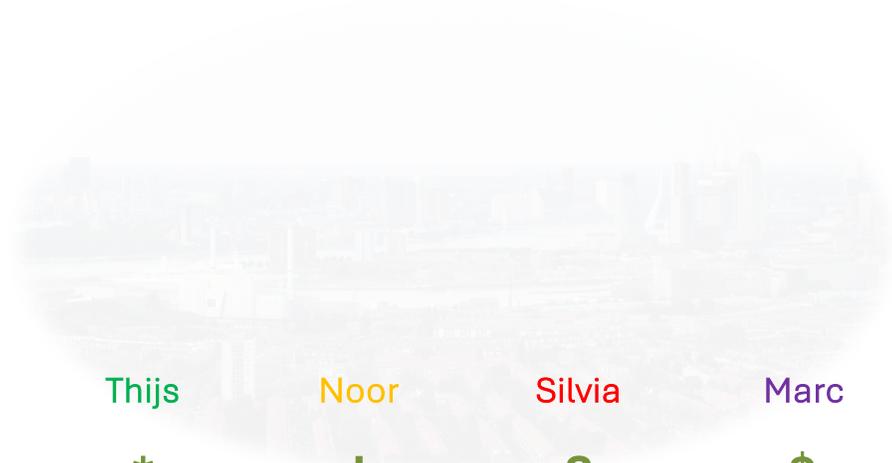
Thijs
Noor
Silvia
Marc

*
!
?
$

focal actor
enthusiastic employee
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top leadership department

Transformation strategy: Organization as an island

Synthesis

Business-as-usual state

Starting point: *Parent organization*

Organization is seen as an island, this is
business-as-usual:

- Normal way of working
- Established organizational culture
- Difficult to deviate from
- Stuck in its routine

State: **Business-as-usual**

Business-as-usual

Transformation strategy: Organization as an island

Synthesis

Business-as-usual state

Starting point: *Parent organization*

Organization is seen as an island, this is business-as-usual:
- Normal way of working
- Established organizational culture
- Difficult to deviate from
- Stuck in its routine

Running in parallel is the demand for renewal:
- Awareness of other islands
- Motivation comes forward from inner-organizational self

If this seed is planted, the process of transformation starts.

State: **Business-as-usual**
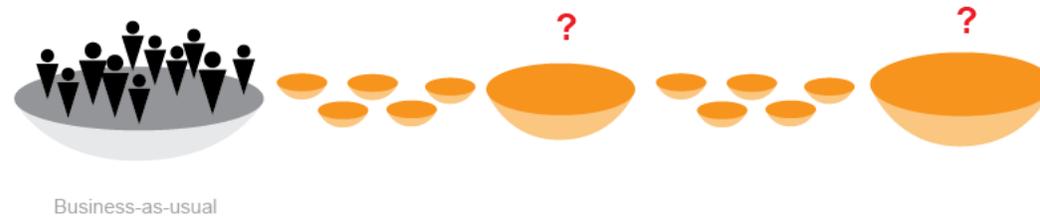
Business-as-usual

Transformation strategy: three phases

Synthesis

Phase 1: Activate & Explore

Starting point: **Activation**

Desire for renewal carried by both
organization and individual:
- Step off the island → focal actor(s)
- Pioneering
- Process of experimentation

State: **Business-as-usual**
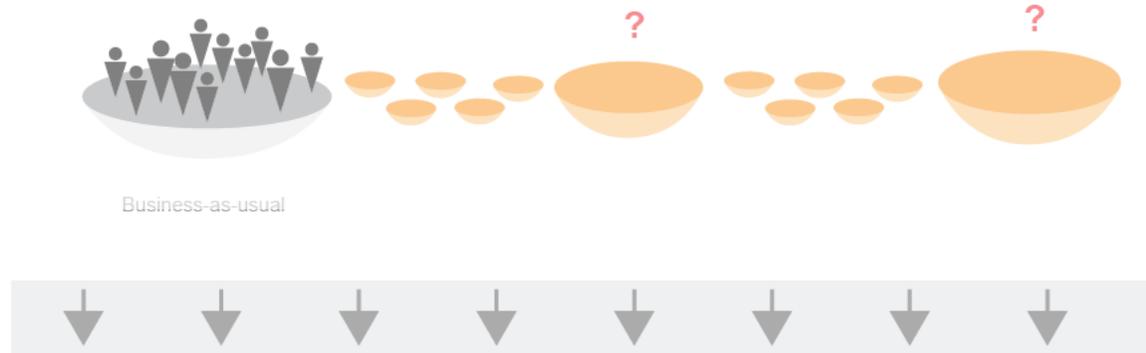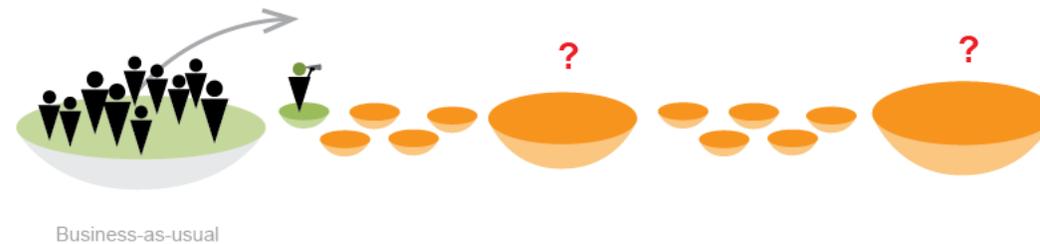
Business-as-usual

Phase 1: **Activate & Explore**

Business-as-usual

Transformation strategy: three phases

Synthesis

Phase 1: Activate & Explore

Starting point: **Activation**

Desire for renewal carried by both organization and individual:
- Step off the island → focal actor(s)
- Pioneering
- Process of experimentation

→ Speedboat approach
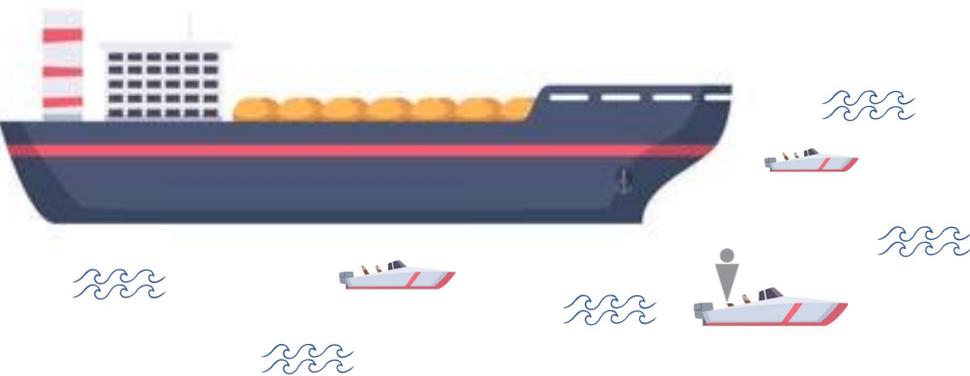
State: **Business-as-usual**
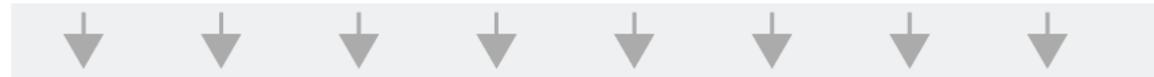
Business-as-usual

Phase 1: **Activate & Explore**

Business-as-usual

Transformation strategy: three phases

Synthesis

Phase 2: Aquire & Exhange

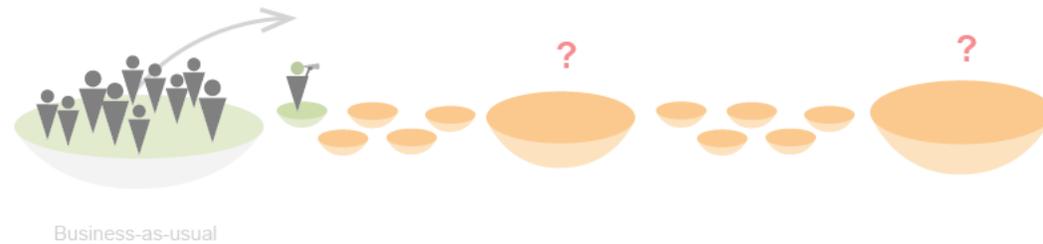Start: **Acquire knowledge from lessons learned** in the urban experimentation

Interact with other organizations (islands) and **gain knowledge** from both technical and social perspectives:
- Incorporate the learning by doing, thinking, researching, and watching
- **Sharing** new information within the organization → knowledge sessions
- Encourage others **to step onto the next island** → make a change
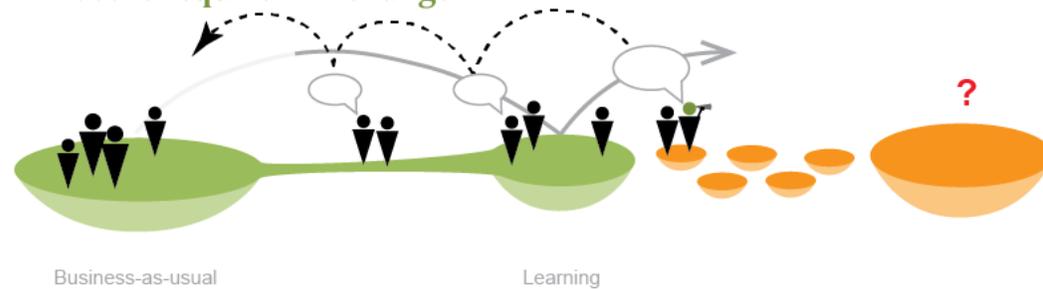 - Added value is established by focal actor

Phase 1: **Activate & Explore**
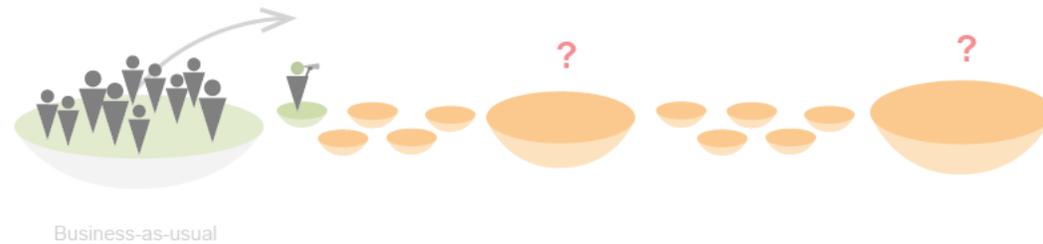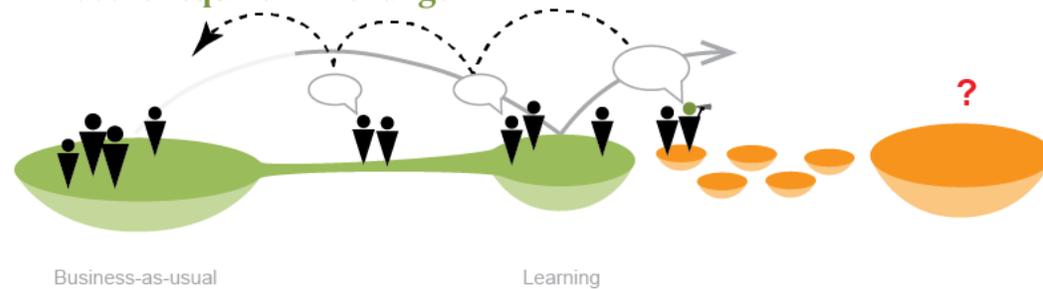
Business-as-usual

Phase 2: **Acquire & Exchange**

Business-as-usual   Learning

Transformation strategy: three phases

Synthesis

Phase 2: Aquire & Exhange

Start: **Acquire knowledge from lessons learned** in the urban experimentation

Interact with other organizations (islands) and **gain knowledge** from both technical and social perspectives:
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- **Sharing** new information within the organization → knowledge sessions
- Encourage others **to step onto the next island** → make a change
  - Added value is established by focal actor

→ Slow-dance approach

Phase 1: Activate & Explore

Business-as-usual

Phase 2: Acquire & Exchange

Business-as-usual   Learning

Transformation strategy: three phases

Synthesis

Phase 3: Acknowledge & Evaluate

Start: lessons learned are **seen back in practice**

Employees have **collectively become the focal actors** of their renewed way of working:
- Pioneer is not a pioneer anymore
- Communicate from **the top leadership department**
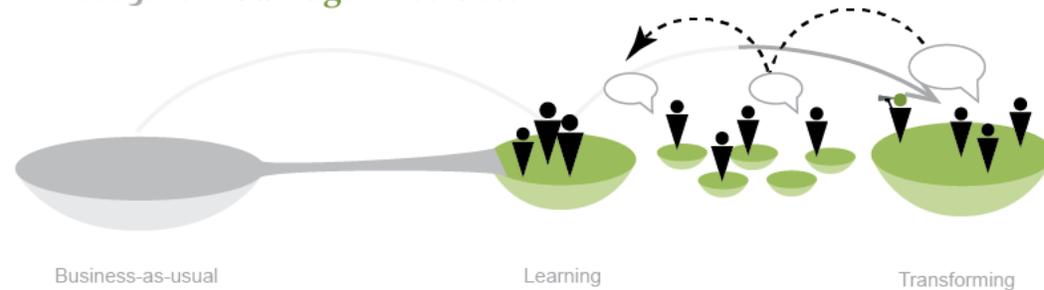   - Last push toward the acknowledgment of the steps that are made and **motivate stragglers**
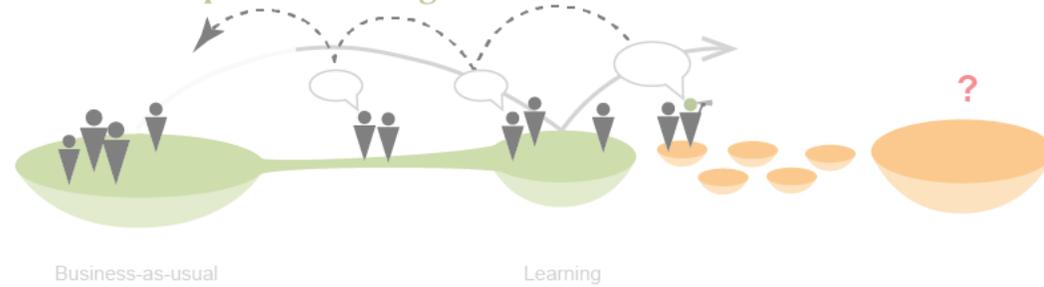
Transformation strategy: three phases

Synthesis

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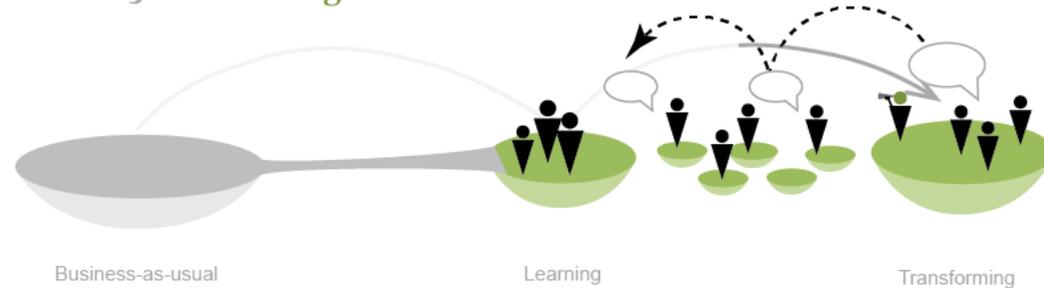
→ speedbird approach

Transformation strategy: three phases

Synthesis

Phase 3: Acknowledge & Evaluate

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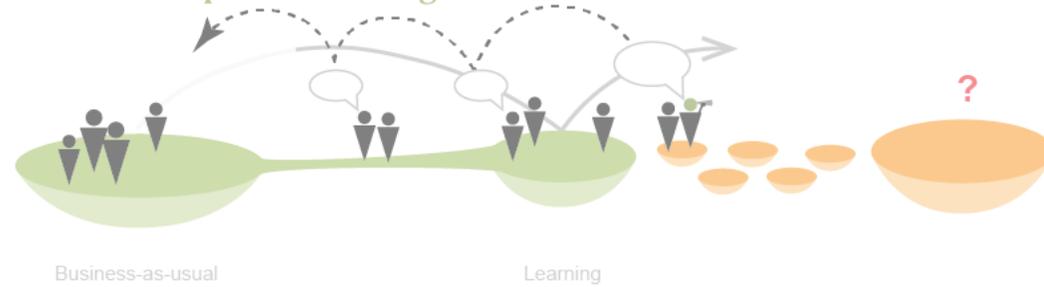
→ speedbird approach

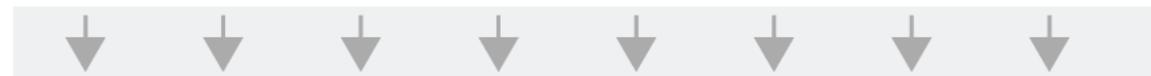Transformation?
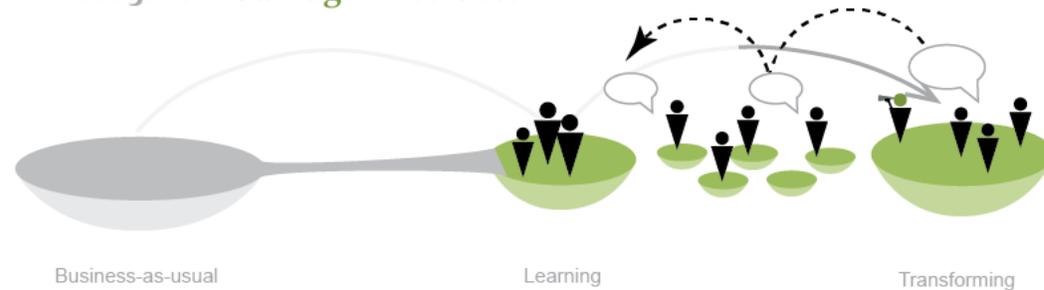
A rooted change in the way one works

Transformation strategy: three phases

Synthesis

State: New business-as-usual

To maintain: **Keep evaluating** what, why, and how things have changed.

Learning is an ongoing process that continues to keep its importance in the phase of transformation.

Transformation is not an end position.

Phase 2: Acquire & Exchange

Business-as-usual   Learning

Phase 3: Acknowledge & Evaluate

Business-as-usual   Learning   Transforming

State: **New business-as-usual**

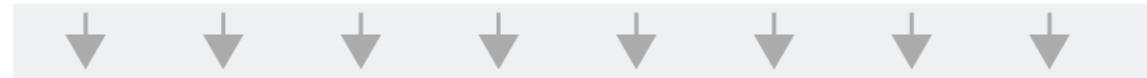Business-as-usual   Learning   Transforming

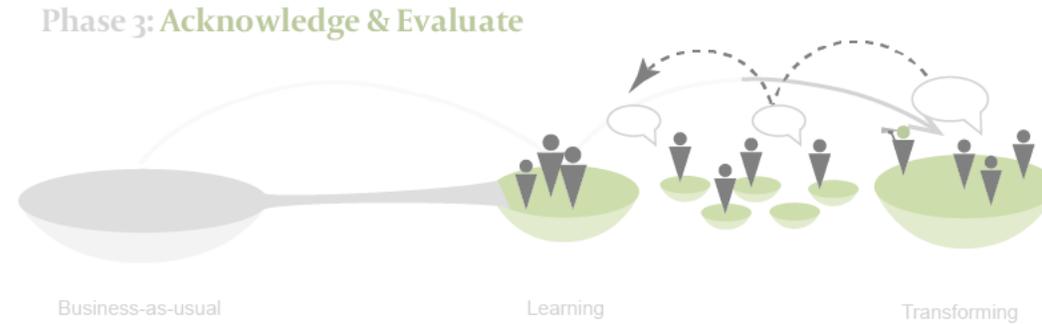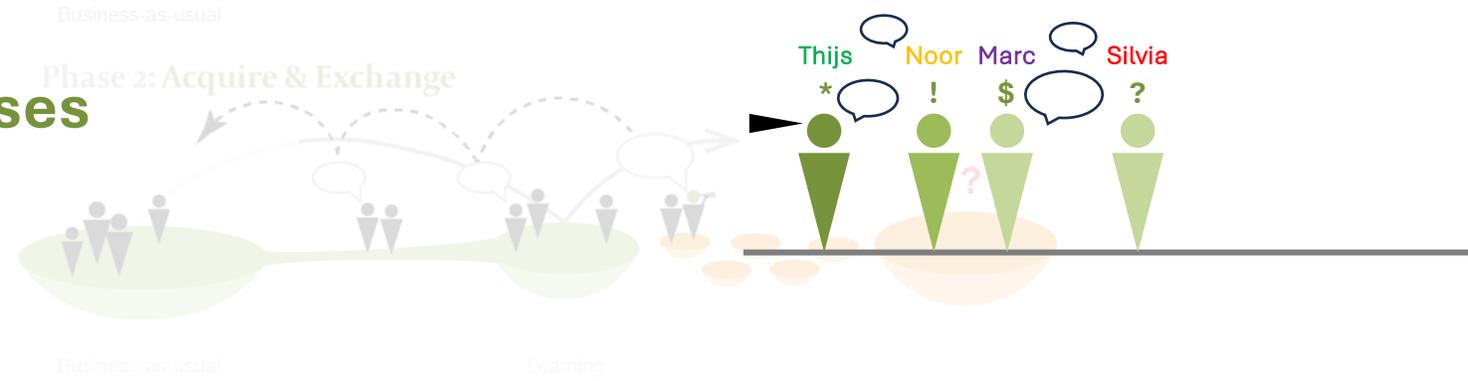# Transformation strategy: three phases

Synthesis
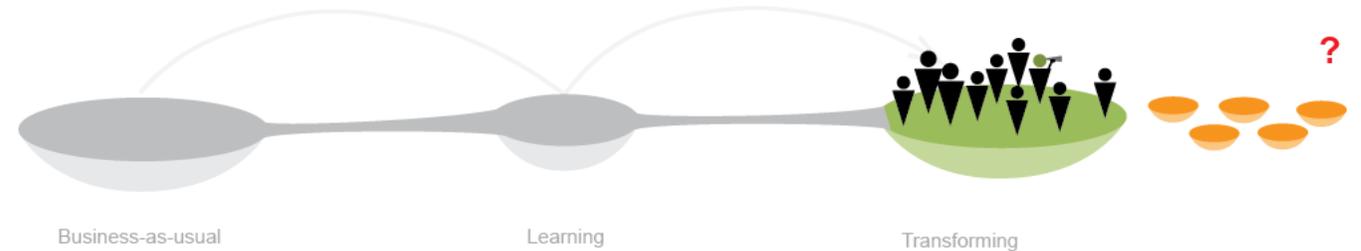
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Important note:

The transformation process is **not linear**
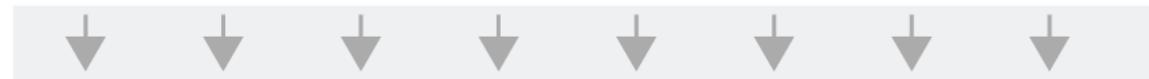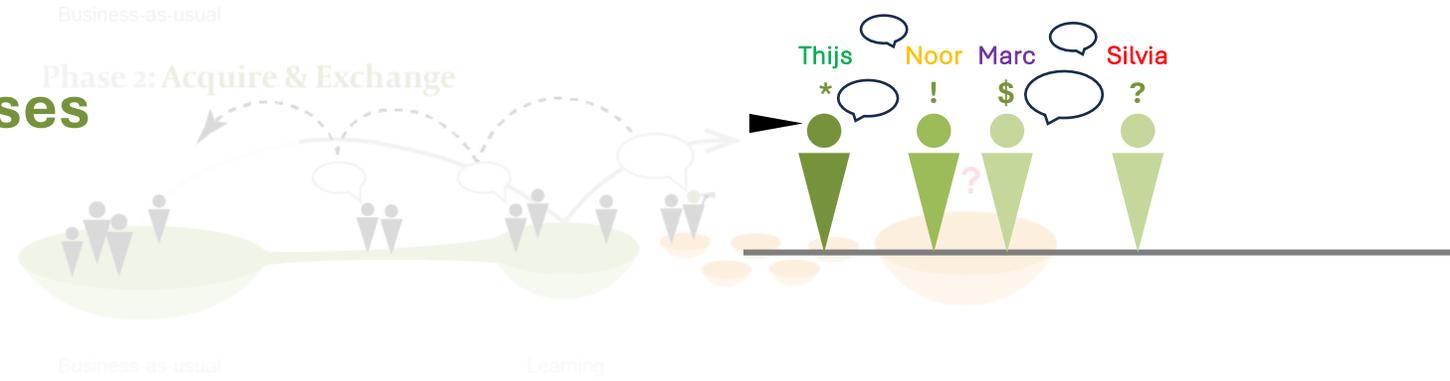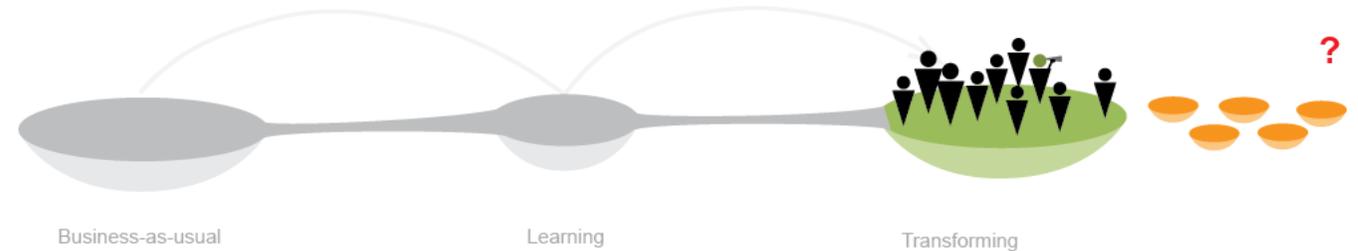
Thijs Noor Marc Silvia

Phase 2: Acquire & Exchange

Business-as-usual   Learning

Phase 3: Acknowledge & Evaluate

Business-as-usual   Learning   Transforming

State: **New business-as-usual**

Business-as-usual   Learning   Transforming

Transformation strategy: in a non-linear way
Concrete actions for organizations and individuals

Synthesis

Phase 1: Activate & Explore

action

elaboration

Transforming

Learning

Business-as-usual

organizational

Provide space to experiment

Give individuals space in wo
support and brain space to
kick-starts the learning proc
room for making mistakes.

Set-up a collective speedboat approach

Actively drive out individuals
Create cells at the edge of t
which new ways of working
Organize a general meeting
people are inspired and enc
their comfort zone. If neces
(governance) barriers that in

individual

Step off the island

Distance yourself from the e
working within the organizat
something different from ho
doing it. Discover new ways
inspiration from others.

Be persistent

With experiments come failu
trying new things. Take the s
creative. Without this persis
transformation will get off th

Transformation strategy: in a non-linear way **Concrete actions for organizations and individuals**

Synthesis

Phase 2: Acquire & Exchange

action   elaboration

organizational

Encourage knowledge sharing

Provide a stage for sharing k
and findings. Support the or
knowledge and evaluation s

Set up an internal process group

Set up an internal process g
things that are explored, tes
monitoring this at a central
capacities can be handled e
to the process team can be
scheduling repeated short u
and/or organizing an online
process is tracked.

Learn

Learn by doing, thinking, res
watching. Get into the field,
try on error. Be aware of the
your own perspective. If a se
for change comes up, perfo

individual

Capture lessons learned

Gather knowledge gained fr
What seems to work and wh
both technical and social in

Share by spreading the word

Share lessons learned with
feed back to top manageme
convey enthusiasm for the f
people know about new find
change is set in motion. Sha
be done through internal kn
evaluation sessions in proje
informal at the coffee or lun

Transformation strategy: in a non-linear way

Concrete actions for organizations and individuals

Synthesis

Phase 3: Acknowledge & Evaluate

organizational

individual

Transforming

Learning

Business-as-usual
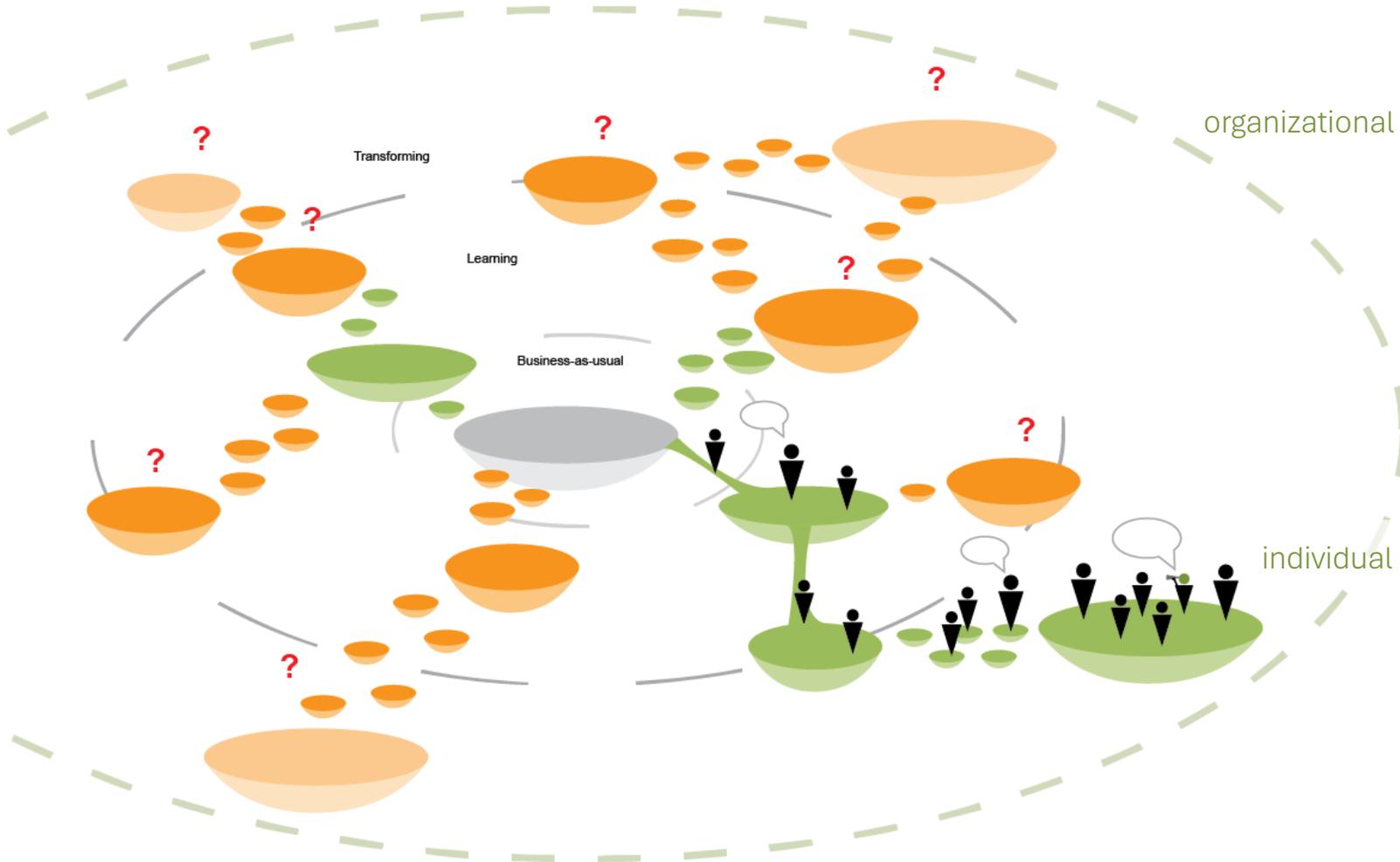
Acknowledge change that has occurred

By acknowledging changes individuals feel valued and s as a result. Recognize what taken and link this back to t the organization. Togetherne motivation that contributes

Implement the new way of working from the top down

Support from top managem more likely to be adopted by pioneers in implementing ch thought well and develop th Transformation is underway

Evaluate the acquiring and exchanging process

By evaluation the process, y overall picture and be able t that are relevant to the ques Evaluating allows you to co vision and re-evaluate what working toward or what you Acknowledge the change th and communicate it to both management.

Continue learning

The process of learning and ongoing. Continue exploring innovate oneself and the wa relevant tasks. This will ensu transform and keep up with tomorrow.

6

Conclusion: importance of learning intent vs. capacity to change

Discussion & conclusion

Overall conclusion

How can management practices
learn from experimental projects to transform business-as-usual
to stimulate sustainable urban transitions?

Overall conclusion

How can management practices
learn from experimental projects to transform business-as-usual
to stimulate sustainable urban transitions?

Whether *learning from experiments* results in *transforming business-as-usual* depends on the learning intent and the capacity to change.

With a **high** capacity to change, the opportunity to learn and transform as an organization **significantly increases**.

But to come to a transformed state, multiple phases must be passed.

Practically incorporate with
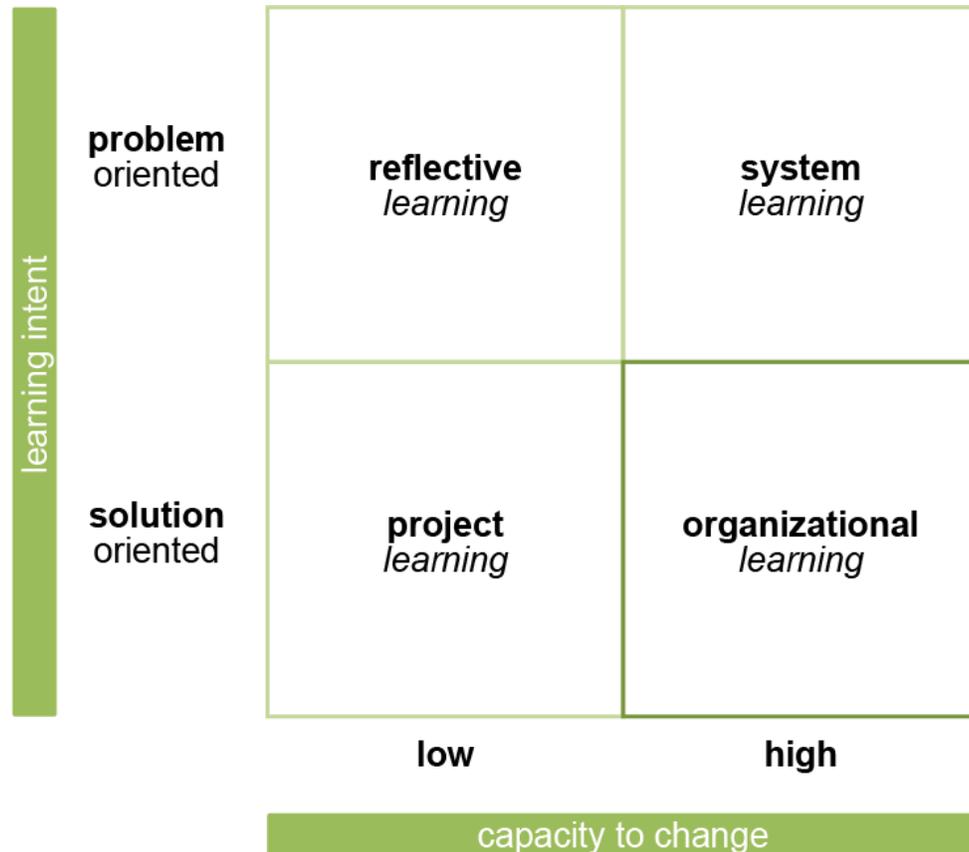Inner-organizational **transformation strategy**

75

Overall conclusion

How can management practices
learn from experimental projects to transform business-as-usual
to stimulate sustainable urban transitions?

Whether *learning from experiments* results in *transforming business-as-usual* depends on the learning intent and the capacity to change.

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Practically incorporate with
Inner-organizational **transformation strategy**

Recommendations for practise

Conclusion
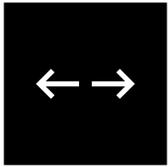
Provide space to experiment

Give workspace, financial resources and social support

start

Step off the island

Use the speedboat principle

Encourage knowledge sharing

From top-down

Evaluate the acquiring and exchanging process

Know what is done

Recommendations for practise

Conclusion

Provide space to experiment

Give workspace, financial resources and social support
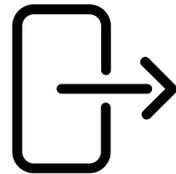
Step off the island

Use the speedboat principle
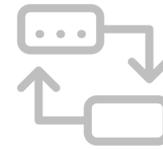
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Know what is done

start ———————▶ speedboat

Recommendations for practise
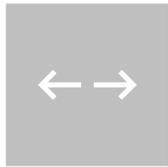
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Step off the island

Use the speedboat principle
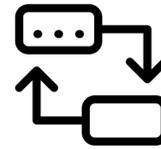
Encourage knowledge sharing

From top-down

Evaluate the acquiring and exchanging process

Know what is done

start ⟶ speedboat ⟶ slow dance

Recommendations for practise
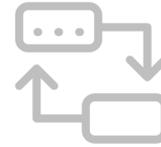
Conclusion

Provide space to experiment

Give workspace, financial resources and social support

Step off the island

Use the speedboat principle

Encourage knowledge sharing

From top-down

Evaluate the acquiring and exchanging process

Know what is done

start → speedboat → slow dance → speedbird

Continue learning

Process of learning and transforming is ongoing

Provide space to experiment

Give workspace, financial resources and social support

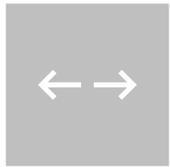Step off the speedboat principle

knowledge sharing

From top-down

Evaluate the acquiring and exchanging process

Know what is done

**Cities must change** their business-as-usual **to meet the sustainability goals** to prevent further climate change

1970 ——————————— 2024

(Rotterdam)

Cities must change their business-as-usual to meet sustainability goals to prevent further climate

Change starts with action.

2024

(Rotterdam)

From urban experimentation to management transformation:

Applying urban living lab findings to challenge business-as-usual management practices

Questions?

Feike Jansen

Graduation research | P5
June 2024

TUDelft

From urban experimentation to management transformation:

Applying urban living lab findings to challenge business-as-usual management practices

Feike Jansen

Graduation research | P5
June 2024

In collaboration with
Dr. A (Aksel) Ersoy & Prof. Dr. P.W. (Paul) Chan

TUDelft

Additional slides

From urban experimentation to management transformation:

Applying urban living lab findings to challenge business-as-usual management practices

Feike Jansen

Graduation research | P5
June 2024

TUDelft

Theoretical and empirical framework discussed

Discussion

Pioneering

Step off the island
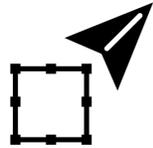
Capacity to change

low vs high

Sense of uncertainty

everything in the built environment is unique

Scaling

not everything should be scaled

Limitations

Discussion

Definitions

Learning from experimental projects; transforming business-as-usual

Case studies

Limited findings; participants scope of the areas
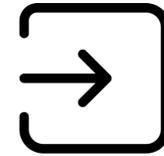
Limited input

Availability and time of participants and research

Recommendations for research
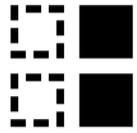
Implementation in different contexts

Learning intent vs capability to change outside urban context

Effectiveness on the long-term

Effectiveness of urban experimentation in driving organizational transformation

Influence of external stakeholders

Other stakeholders than parent organizations
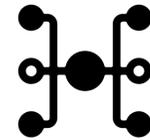
System learning

Next level above organizational learning

Conceptual model

Theory

How can management practices
learn from experimental projects to transform business-as-usual
to stimulate sustainable urban transitions?
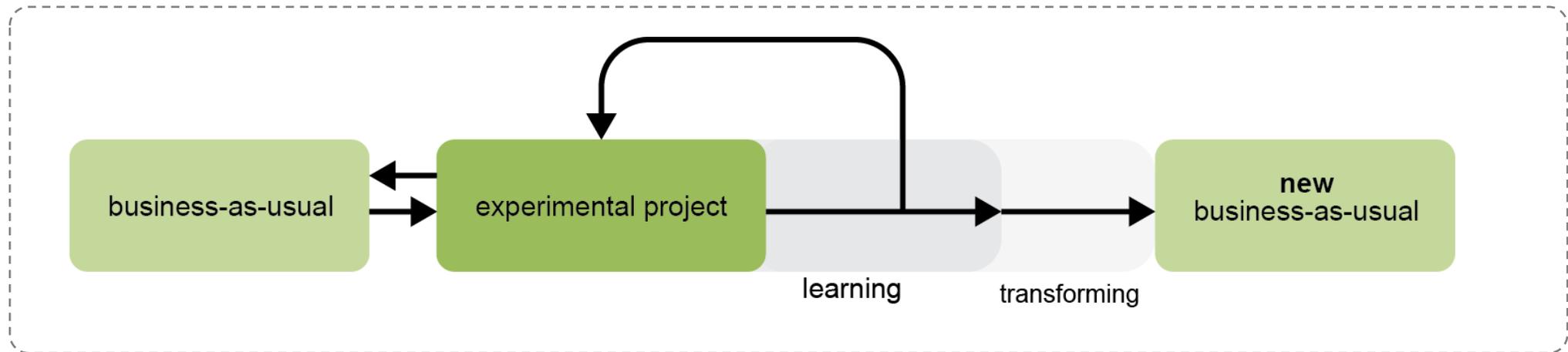
factors

categories
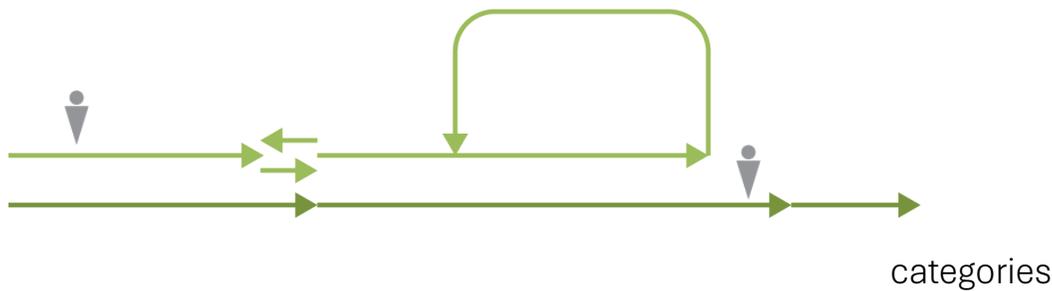
challenges

barriers

drivers

Behavioral / educational / governance / regulatory

Case analysis: Example

Empirical research

- **Effective communication and collaboration** are the key success factors in a transformative area development project (#5 - Municipality)
- Focus on **'cross-organizational' learning and 'inner-organizational' transforming** (#7 – Port Authority).
- Collaboration success by write down goals sharply and compare (#7 - Port Authority).
- **Balance flexibility and responsibility** (#7 - Port Authority)

Behavorial

- Pioneering **by telling the same story over and over** again (#7 - Port Authority).
- Understand each other's needs (#5 - Municipality).
- **Communication is key** (#5 - Municipality).

Governance

- Illusion that everything can be planned in advance (#7 - Port Authority).
- **Step-by-step approach** (#5 - Municipality).
- **Top-down support** for innovators / pioneering (#7 - Port Authority).

Educational

- '**Doing is the best way of thinking**' (#7 - Port Authority).
- Trail on error (#7 - Port Authority).
- Finding the right equilibrium in enforcement (#7 - Port Authority)

Regulatory

- Avoid legal hassles with temporariness to get things off the ground (#6 - Developer).
- **Need for umbrella permits** to streamline processes (#6 - Developer).

Merwe-Vierhavens
Rotterdam

Makers district that fosters integrated work-life synergy

Ruimtelijk Raamwerk

Municipality
Port Authority
Developer

business-as-usual → experimental project → *learning* → *transforming* → new business-as-usual

Conceptual model — case research — analysis findings

Case analysis: Example

Empirical research

Learning

- The **use of the speedboat-principle** stimulates capturing new knowledge (#7 – Port Authority)
- 'Doing is the best way of thinking' (#7 - Port Authority).
- Adopting a **step-by-step approach** in projects facilitates learning and progress (#5 - Municipality)
- Embracing a **learning-by-doing mentality** and learning from mistakes (#5 - Municipality, #7 - Port Authority)

Transforming

- **Perseverance**: willing to tell the same story over and over again (#7 - Port Authority).
- Be in the middle of your attention area to make a change (#6 - Developer).

Case 2: finding

- **Effective communication and collaboration** are the key success factors in a transformative area development project (#5 - Municipality)
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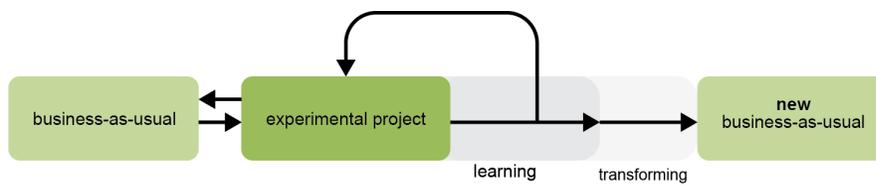
Governance

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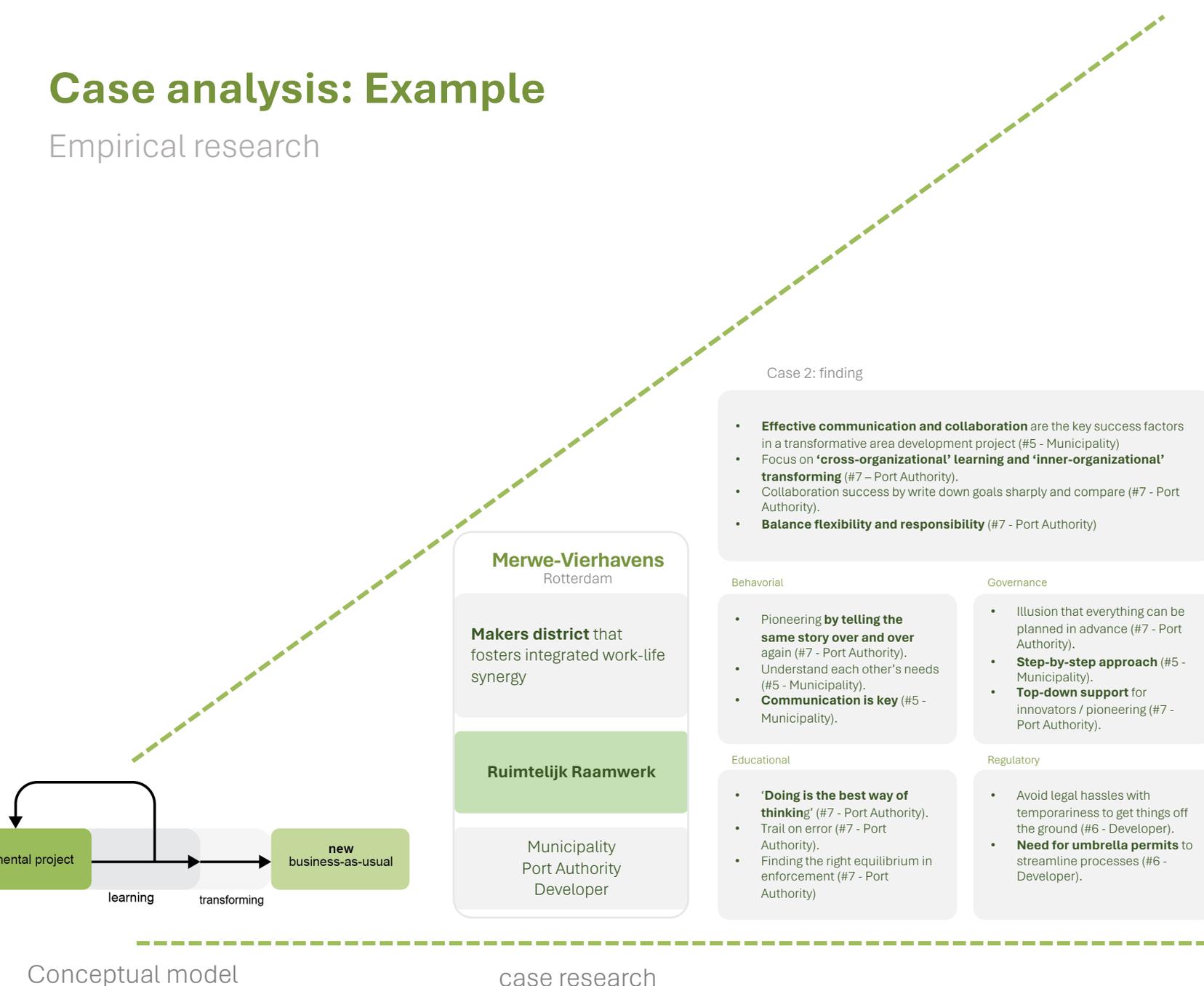- **Need for umbrella permits** to streamline processes (#6 - Developer).

mental project

new
business-as-usual

learning   transforming

Conceptual model   case research   analysis findings

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Three nested case-studies: thee different experimental instruments

Interviewees and expert panel

Interviewees

#	Organization	Function	Case
1	Municipality	Project manager	Haven-Stad
2	Water Authority	Project developer (Sr.)	
3	Grid operator	Area director	
4	Grid operator	Project manager (Sr.)	
5	Municipality	Project manager (Sr.)	Merwe-Vierhavens
6	Developer	Concept developer (Sr.)	
7	Port Authority	Program manager (Sr.)	
8	Municipality	Project manager (Sr.)	Binckhorst
9	Municipality	Project manager (Jr.)	
10	Developer	Development manager (Sr.)	

Expert panel

#	Organization	Function	Field
1	Consultancy	Partner	Real estate and energy transition
2	Consultancy	Market director	
3	Consultancy	Consultant	

Haven-Stad, Amsterdam
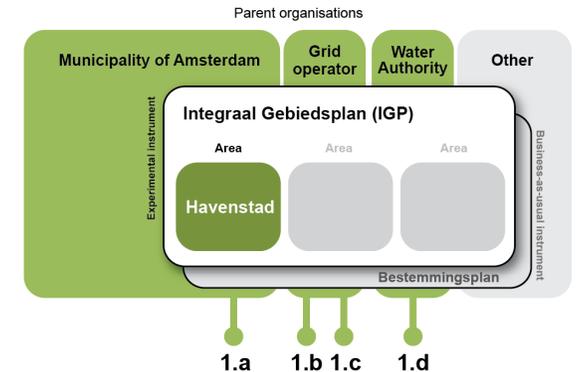
Merwe-Vierhavens, Rotterdam
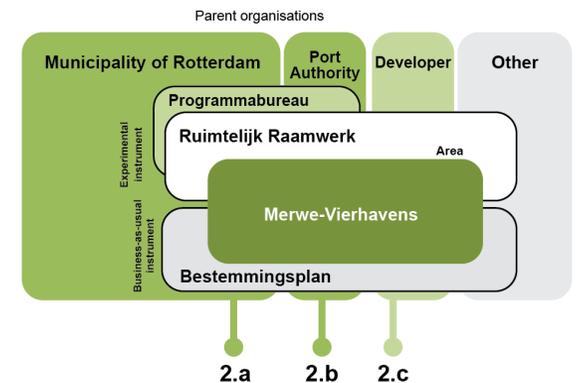
Binckhorst, Den Haag

References

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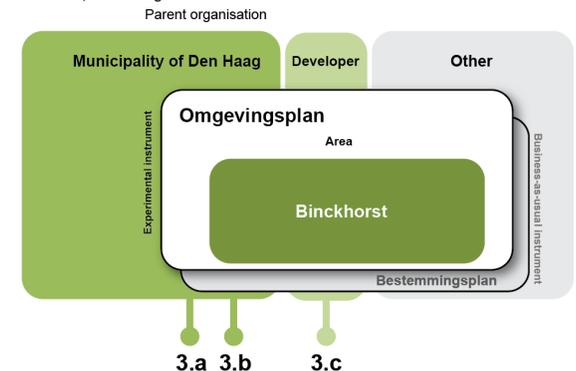
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