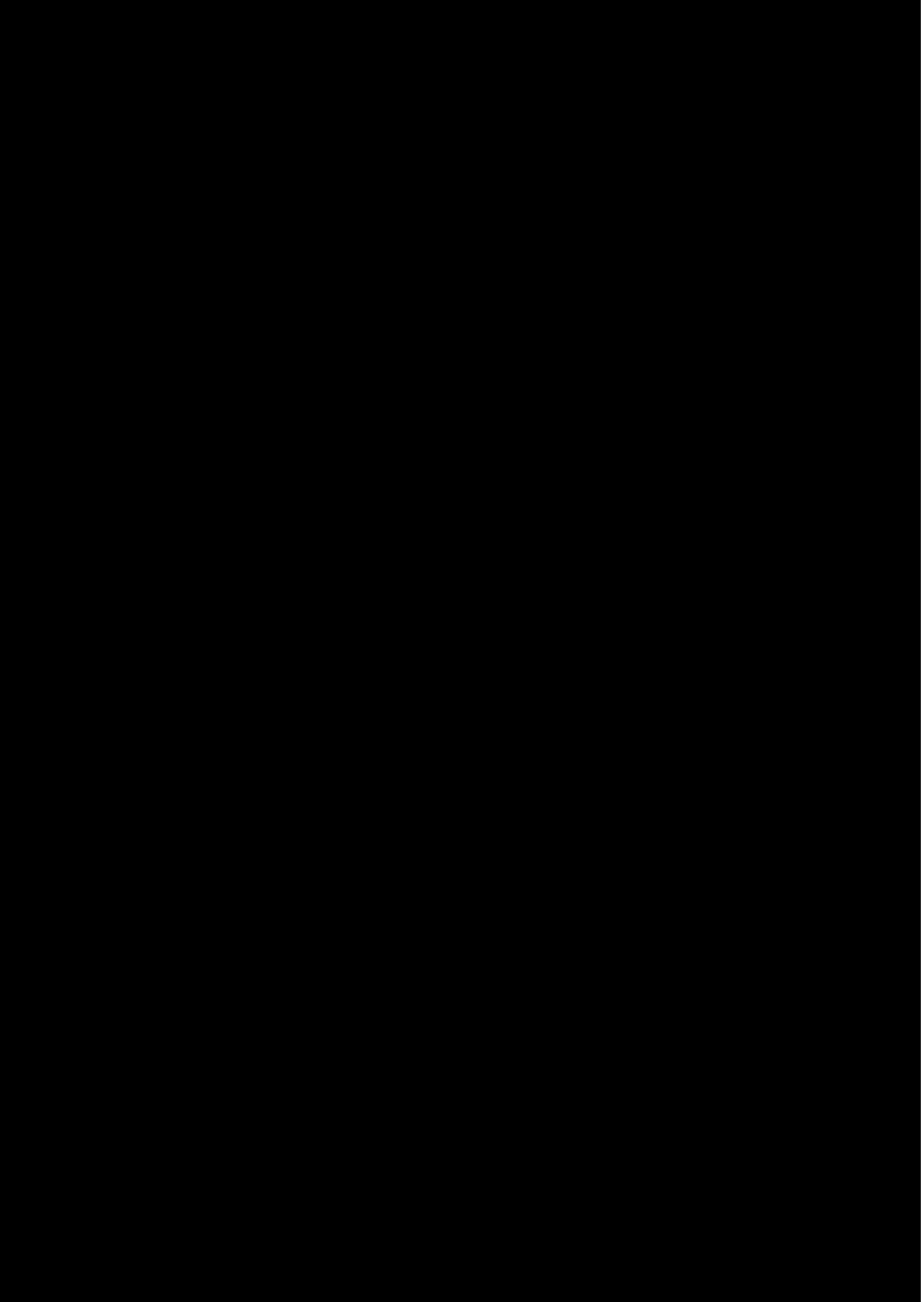
CHROMDESIGN

#toolkit

B



Carla Molins-Pitarch

2022

step 1

Grab 0. Write words that define your background, what you do, and what you like that inform your work.

0. Background

2’

step 2

Check the words you've written in step 1 and classify them among these 6 profile categories.

PROFILES

Sciences ("Lab")

Social Sciences + Communication

Arts & Design

Education ("Any level)

Research

Other

step 3

Grab 1. Take 5 minutes and think about the process you would follow from the Lab to the Street. What does Lab mean for you? And Street?

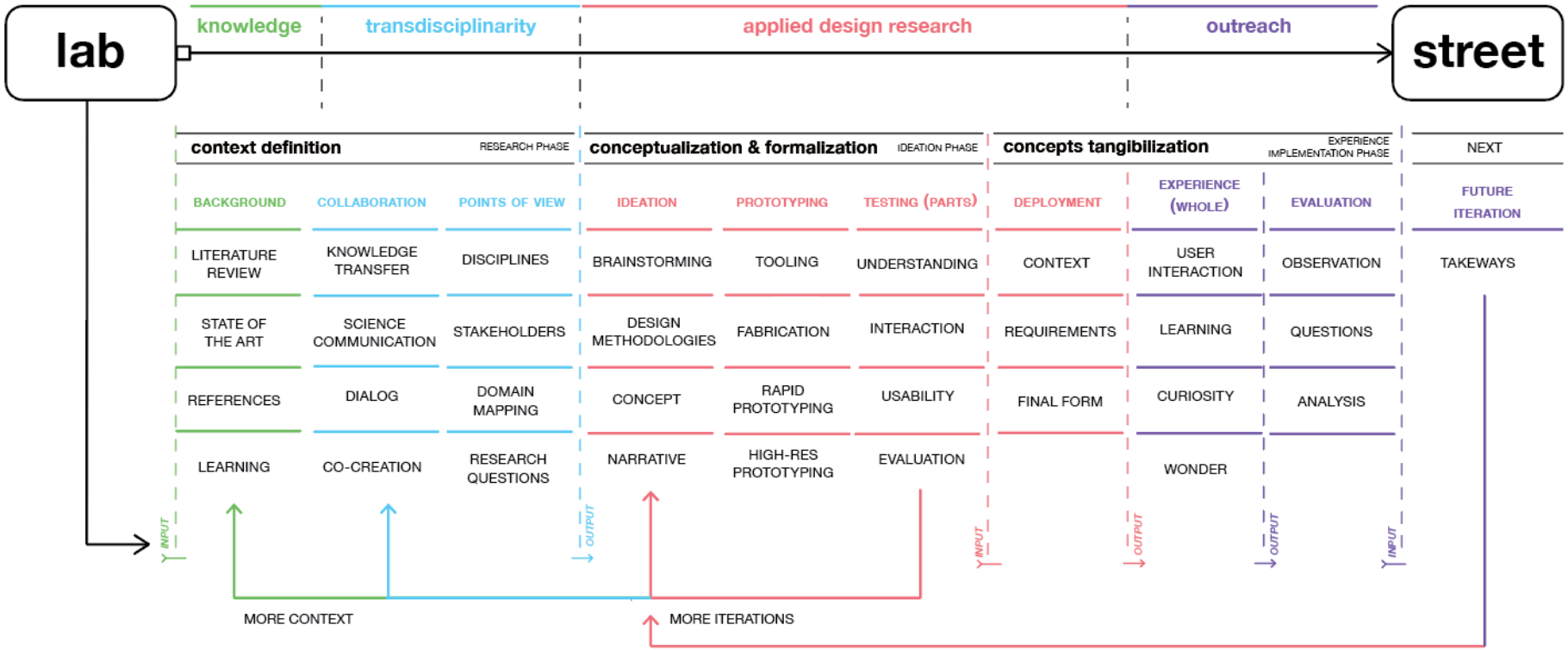
1. Draw your process to bring science “from the lab to the street”

5’

step 4

There are different stages and options to go from the Lab to the Street. The Tangible Science Framework considers different phases and proposes some alternatives to Iterate. Check booklet A if you want to learn more at any time.

Tangible Science Framework

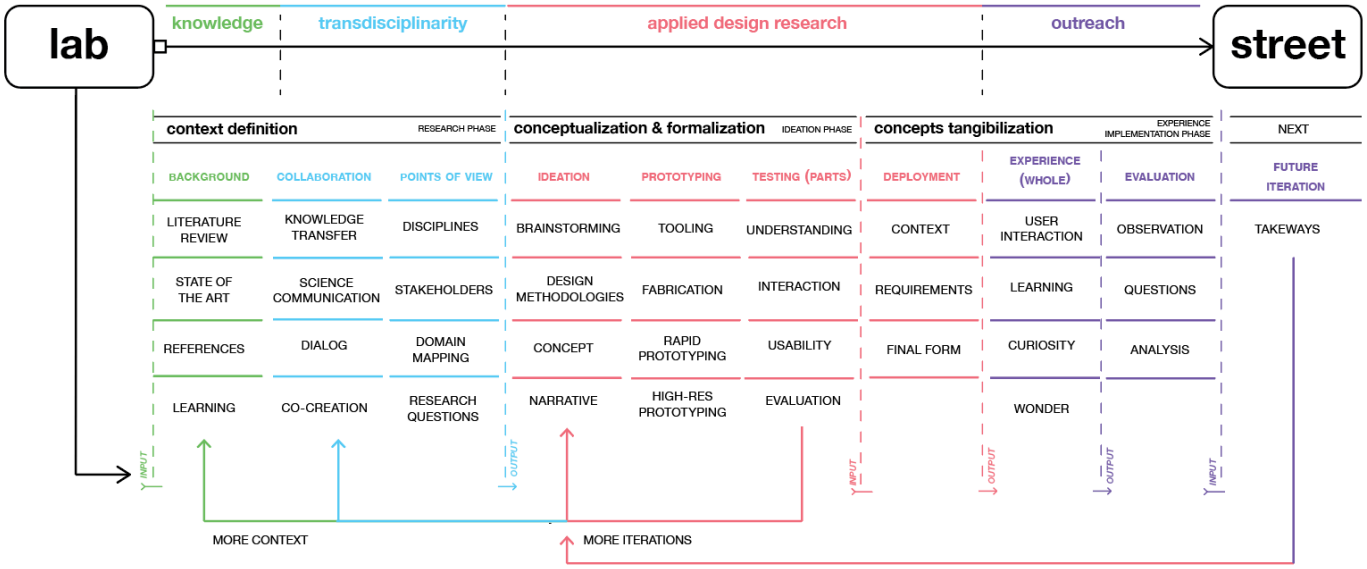


step 4

Grab 2. Look at the Tangible Science Framework and circle your area of expertise.

2. Choose your area of expertise or practice

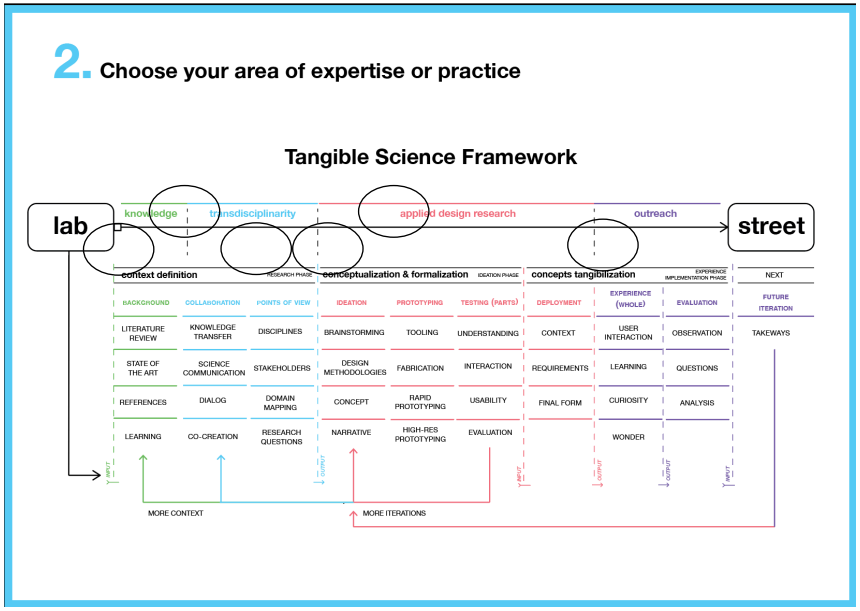
Tangible Science Framework

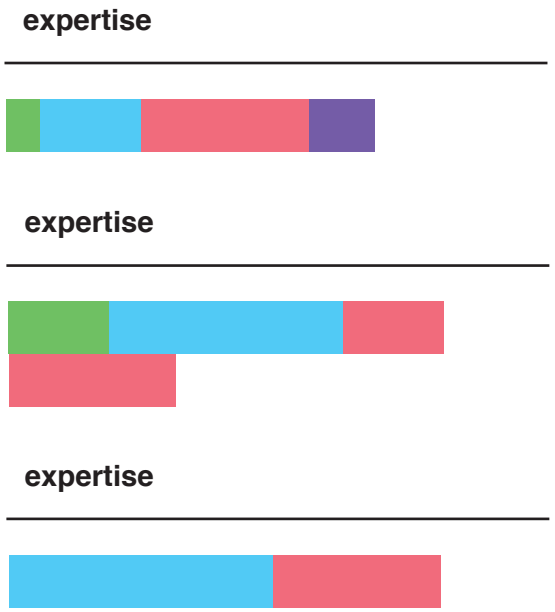


step 4

Check your circles to map your expertise within the T-Sci Framework using colors according to the legend.

knowledge | transdisciplinarity | applied design research | outreach





step 5

15 experts filled the same documents as you just did. Data was mapped using the legend below visually summarizing profile, expertise, and lab-> street process. Check them out and, afterward, see if you want to customize your own framework. Check the legend as you go:

PROFILES

Sciences (“Lab”)

Social Sciences + Communication

Arts & Design

Education (”Any level)

Research

Other

LAB -> STREET

BACKGROUND

TRANSDISCIPLINARITY
Collaboration
Points of view

APPLIED DESIGN RESEARCH
Ideation, Prototyping
Testing (Parts), Deployment

OUTREACH
Testing (whole), Evaluation
Future Iteration

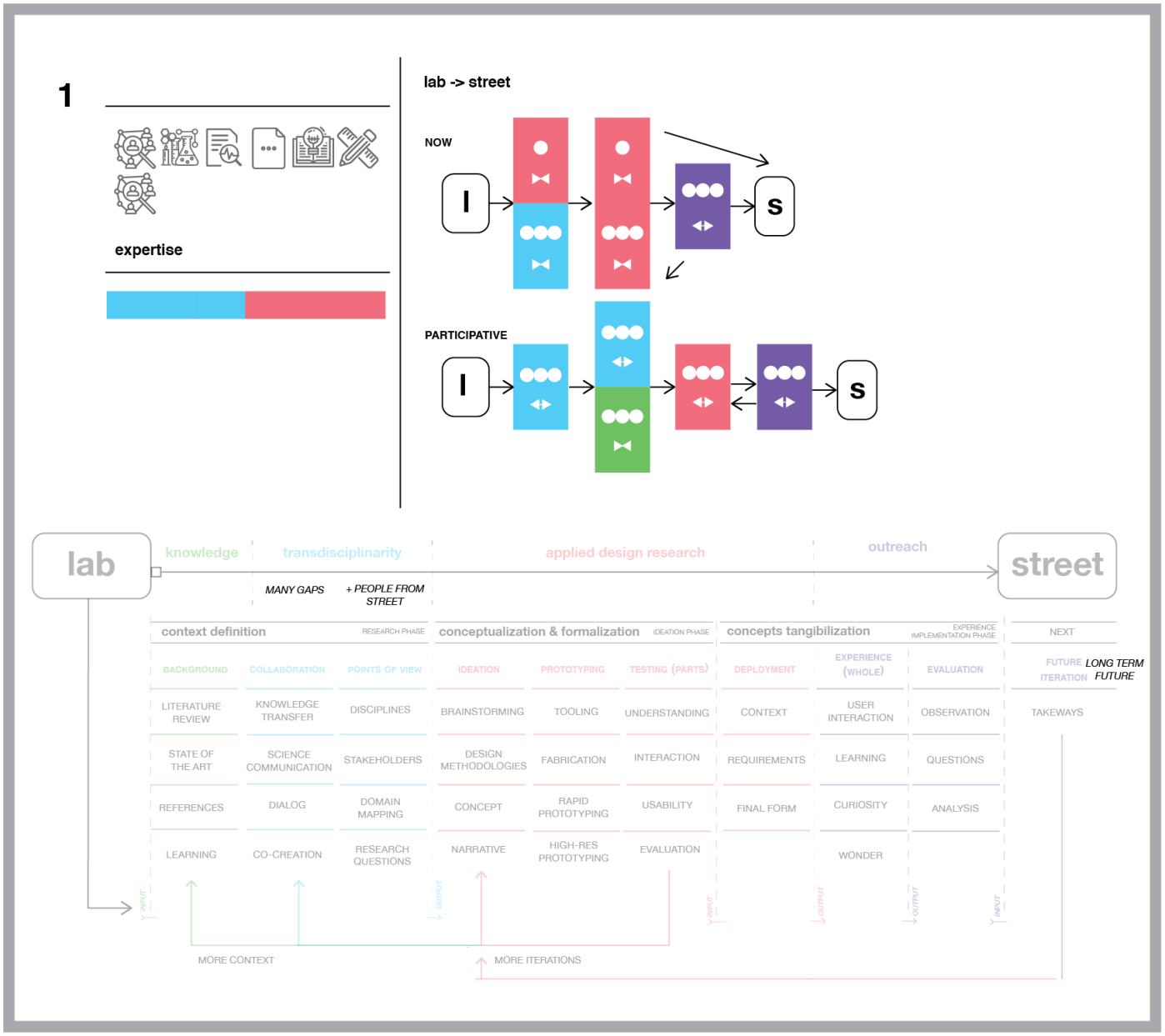
INDIVIDUAL

COLLABORATIVE

INTERNAL

EXTERNAL

OTHER


1
expertise
lab -> street
NOW
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PARTICIPATIVE
I
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lab
knowledge
transdisciplinarity
applied design research
outreach
street
MANY GAPS
+ PEOPLE FROM STREET
context definition
RESEARCH PHASE
conceptualization & formalization
IDEATION PHASE
concepts tangibilization
EXPERIENCE IMPLEMENTATION PHASE
NEXT
BACKGROUND
COLLABORATION
POINTS OF VIEW
IDEATION
PROTOTYPING
TESTING (PARTS)
DEPLOYMENT
EXPERIENCE (WHOLE)
EVALUATION
FUTURE ITERATION
LONG TERM FUTURE
LITERATURE REVIEW
KNOWLEDGE TRANSFER
DISCIPLINES
BRAINSTORMING
TOOLING
UNDERSTANDING
CONTEXT
USER INTERACTION
OBSERVATION
TAKEWAYS
STATE OF THE ART
SCIENCE COMMUNICATION
STAKEHOLDERS
DESIGN METHODOLOGIES
FABRICATION
INTERACTION
REQUIREMENTS
LEARNING
QUESTIONS
REFERENCES
DIALOG
DOMAIN MAPPING
CONCEPT
RAPID PROTOTYPING
USABILITY
FINAL FORM
CURIOSITY
ANALYSIS
LEARNING
CO-CREATION
RESEARCH QUESTIONS
NARRATIVE
HIGH-RES PROTOTYPING
EVALUATION
WONDER
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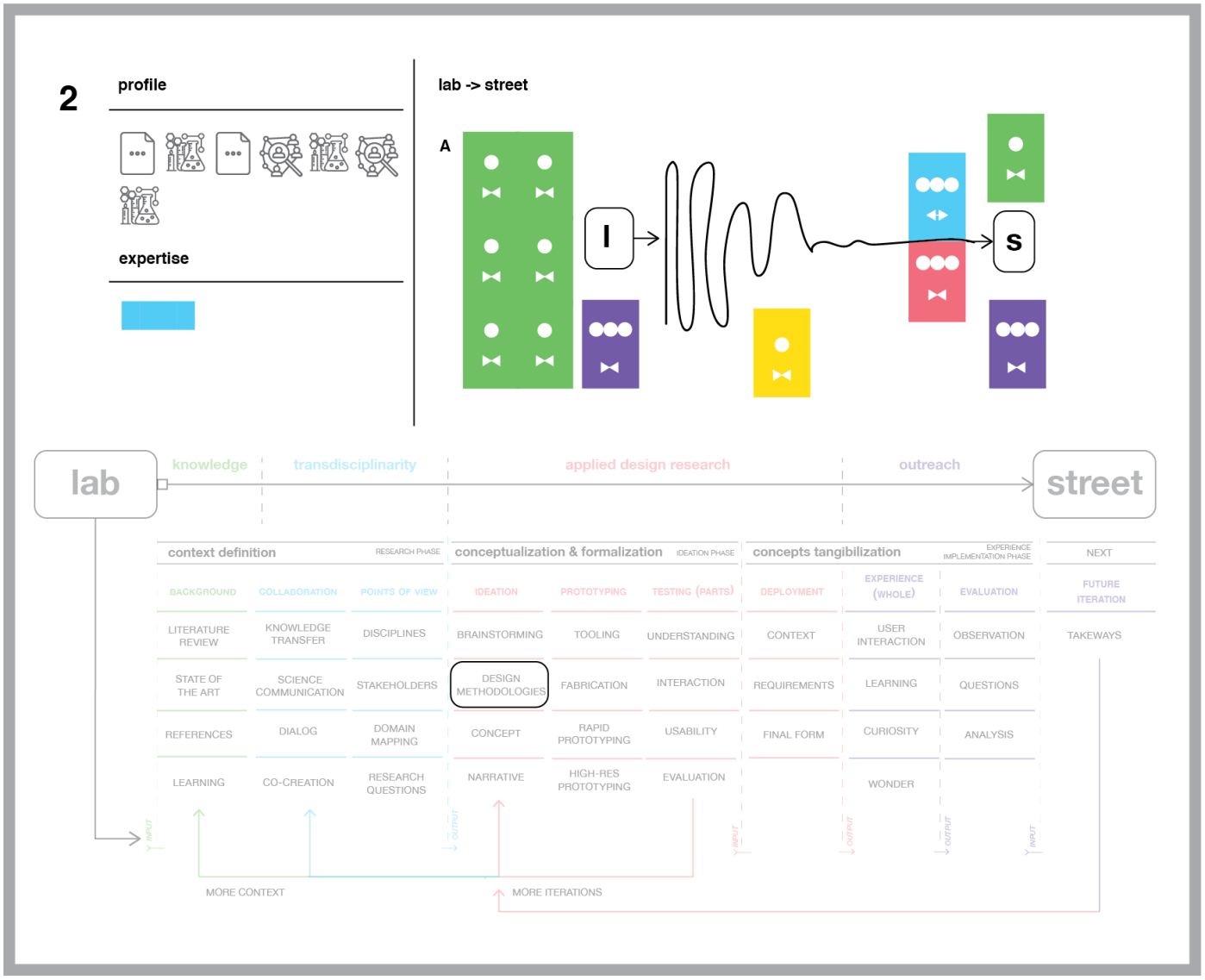
INPUT
MORE CONTEXT
MORE ITERATIONS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expertise
lab -> street
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knowledge
transdisciplinarity
applied design research
outreach
street
context definition
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conceptualization & formalization
IDEATION PHASE
concepts tangibilization
EXPERIENCE IMPLEMENTATION PHASE
NEXT
BACKGROUND
COLLABORATION
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PROTOTYPING
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DEPLOYMENT
EXPERIENCE (WHOLE)
EVALUATION
FUTURE ITERATION
LITERATURE REVIEW
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DISCIPLINES
BRAINSTORMING
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STAKEHOLDERS
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USABILITY
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CURIOSITY
ANALYSIS
LEARNING
CO-CREATION
RESEARCH QUESTIONS
NARRATIVE
HIGH-RES PROTOTYPING
EVALUATION
WONDER
INPUT
OUTPUT
INPUT
OUTPUT
OUTPUT
INPUT
MORE CONTEXT
MORE ITERATIONS

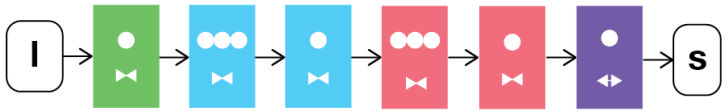
3

profile

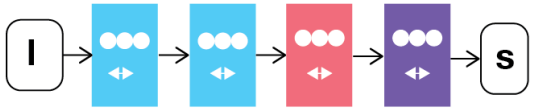
expertise

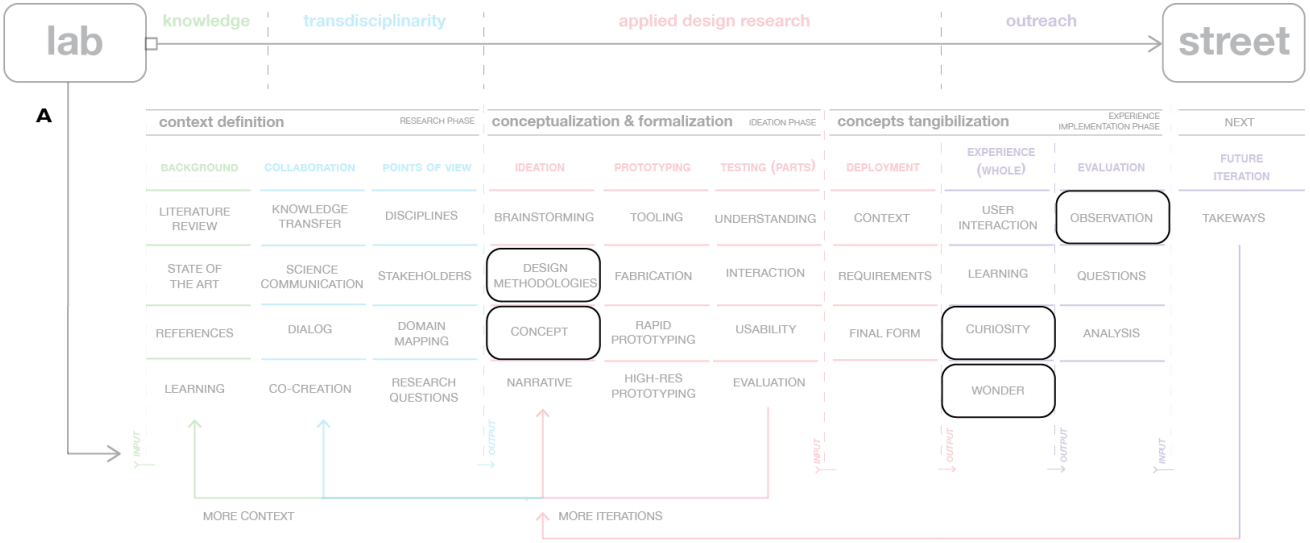
lab -> street

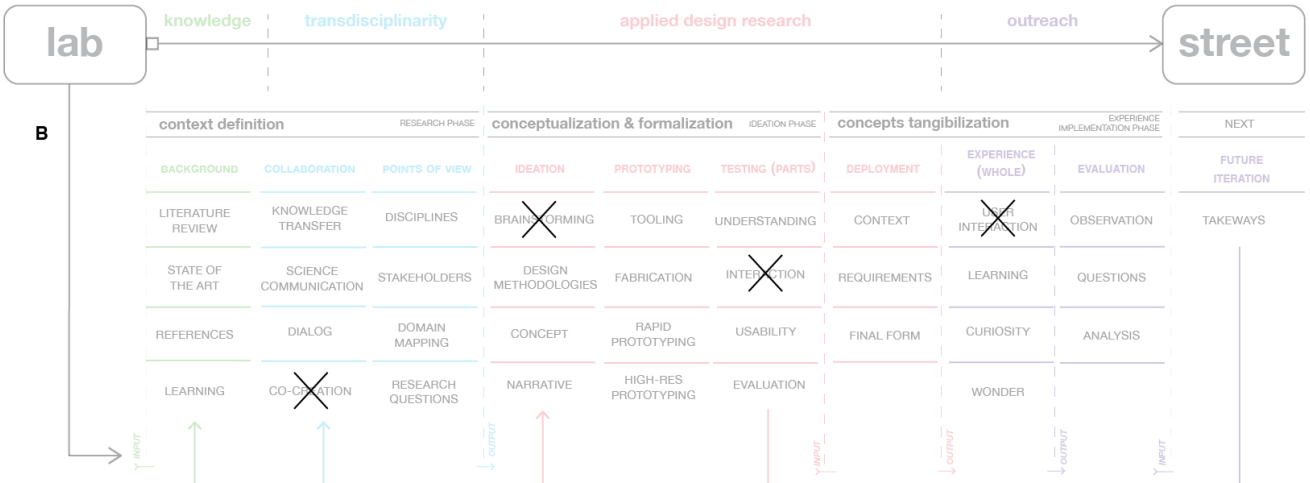
A.NEWS

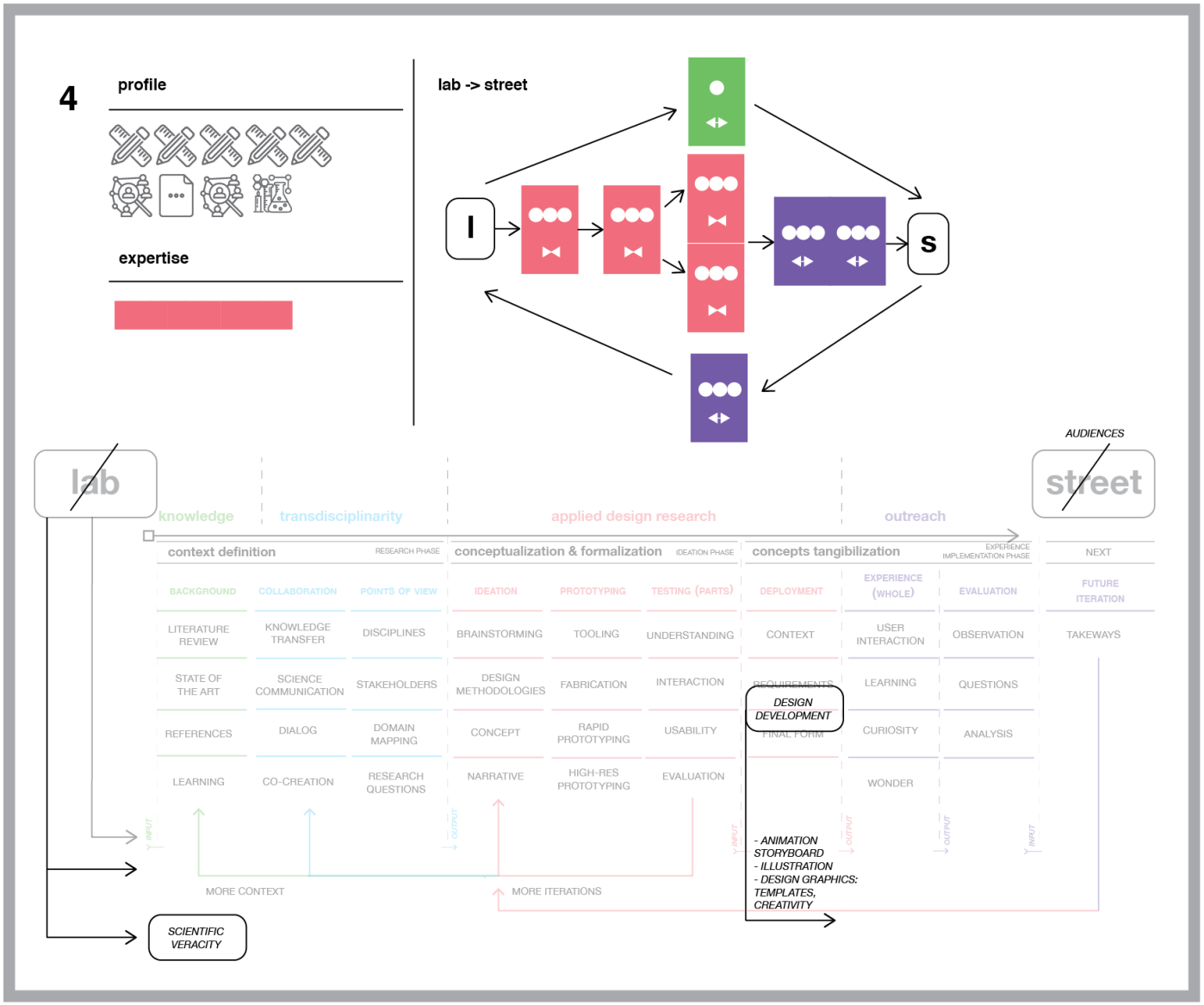


B. SCIENCE EDUCATION








4
profile
expertise
lab -> street
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lab
AUDIENCES
street
knowledge
transdisciplinarity
applied design research
outreach
context definition
RESEARCH PHASE
conceptualization & formalization
IDEATION PHASE
concepts tangibilization
EXPERIENCE IMPLEMENTATION PHASE
NEXT
BACKGROUND
COLLABORATION
POINTS OF VIEW
IDEATION
PROTOTYPING
TESTING (PARTS)
DEPLOYMENT
EXPERIENCE (WHOLE)
EVALUATION
FUTURE ITERATION
LITERATURE REVIEW
KNOWLEDGE TRANSFER
DISCIPLINES
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STAKEHOLDERS
DESIGN METHODOLOGIES
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REQUIREMENTS
LEARNING
QUESTIONS
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DOMAIN MAPPING
CONCEPT
RAPID PROTOTYPING
USABILITY
DESIGN DEVELOPMENT
FINAL FORM
CURIOSITY
ANALYSIS
LEARNING
CO-CREATION
RESEARCH QUESTIONS
NARRATIVE
HIGH-RES PROTOTYPING
EVALUATION
WONDER
INPUT
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INPUT
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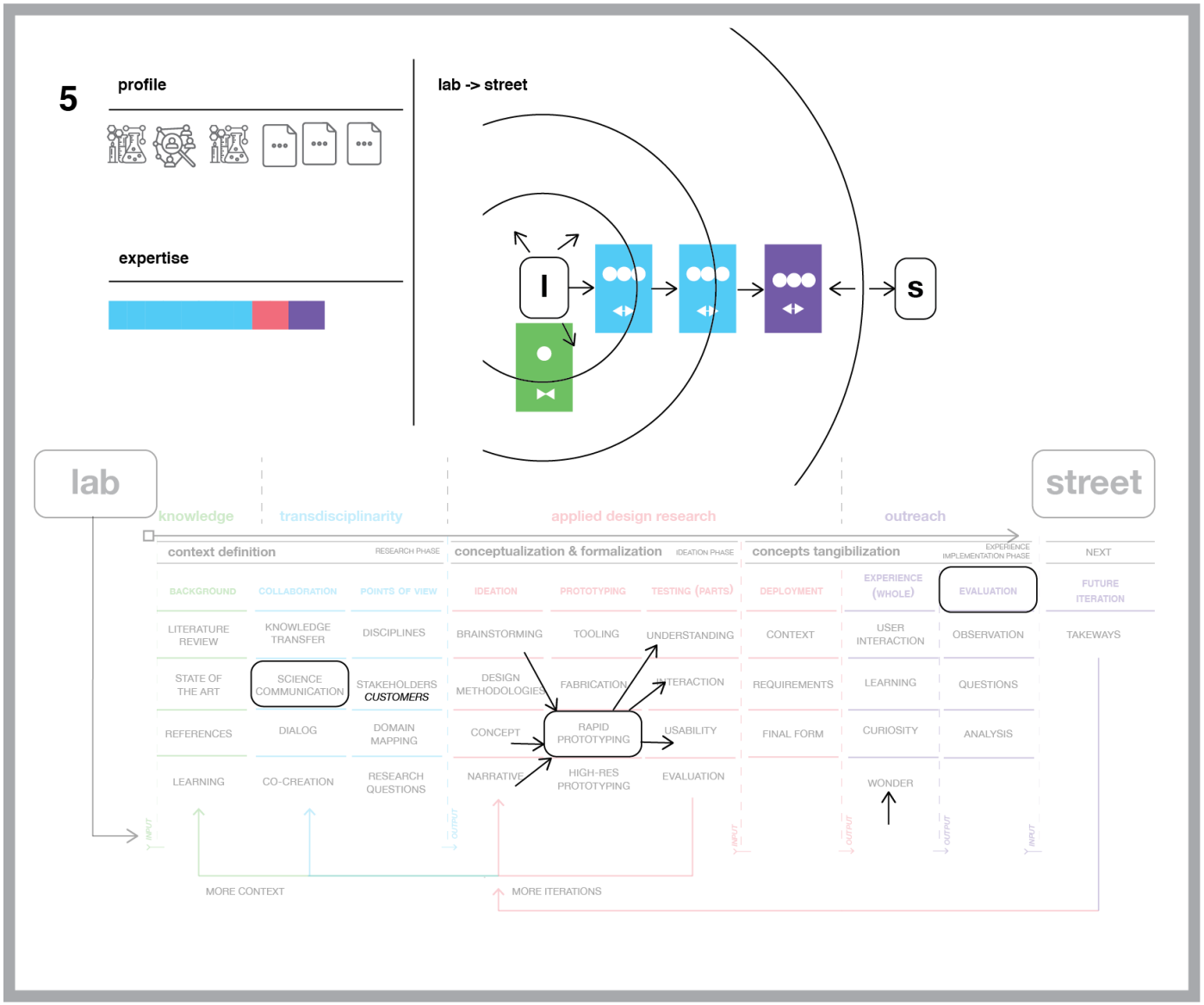
OUTPUT
INPUT
MORE CONTEXT
MORE ITERATIONS
- ANIMATION STORYBOARD
- ILLUSTRATION
- DESIGN GRAPHICS: TEMPLATES, CREATIVITY
SCIENTIFIC VERACITY


5
profile
expertise
lab -> street
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lab
street
knowledge
transdisciplinarity
applied design research
outreach
context definition
RESEARCH PHASE
conceptualization & formalization
IDEATION PHASE
concepts tangibilization
EXPERIENCE IMPLEMENTATION PHASE
NEXT
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COLLABORATION
POINTS OF VIEW
IDEATION
PROTOTYPING
TESTING (PARTS)
DEPLOYMENT
EXPERIENCE (WHOLE)
EVALUATION
FUTURE ITERATION
LITERATURE REVIEW
KNOWLEDGE TRANSFER
DISCIPLINES
BRAINSTORMING
TOOLING
UNDERSTANDING
CONTEXT
USER INTERACTION
OBSERVATION
TAKEWAYS
STATE OF THE ART
SCIENCE COMMUNICATION
STAKEHOLDERS CUSTOMERS
DESIGN METHODOLOGIES
FABRICATION
INTERACTION
REQUIREMENTS
LEARNING
QUESTIONS
REFERENCES
DIALOG
DOMAIN MAPPING
CONCEPT
RAPID PROTOTYPING
USABILITY
FINAL FORM
CURIOSITY
ANALYSIS
LEARNING
CO-CREATION
RESEARCH QUESTIONS
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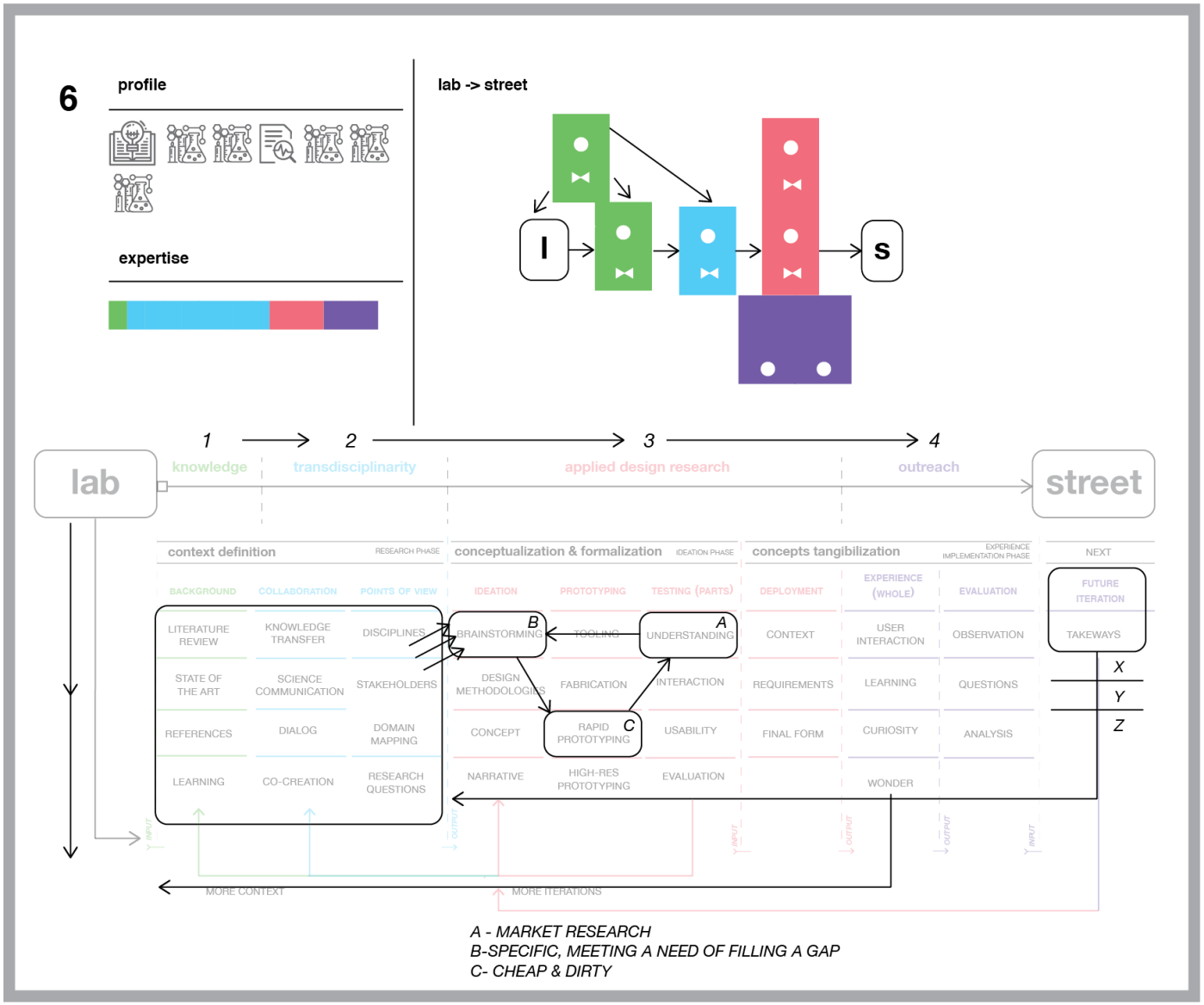
MORE CONTEXT
MORE ITERATIONS


6
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expertise
lab -> street
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applied design research
outreach
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RESEARCH PHASE
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EXPERIENCE IMPLEMENTATION PHASE
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POINTS OF VIEW
IDEATION
PROTOTYPING
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DEPLOYMENT
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EVALUATION
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STAKEHOLDERS
REFERENCES
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LEARNING
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RESEARCH QUESTIONS
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HIGH-RES PROTOTYPING
EVALUATION
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USER INTERACTION
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REQUIREMENTS
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FINAL FORM
CURIOSITY
ANALYSIS
WONDER
TAKEWAYS
X
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INPUT
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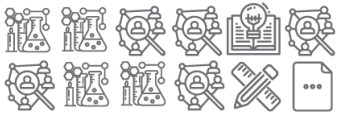
OUTPUT
INPUT
MORE CONTEXT
MORE ITERATIONS
A - MARKET RESEARCH
B-SPECIFIC, MEETING A NEED OF FILLING A GAP
C- CHEAP & DIRTY

7

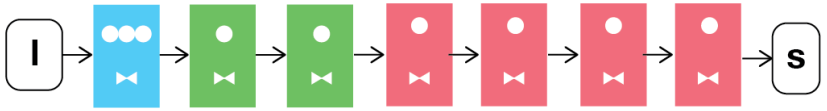
profile



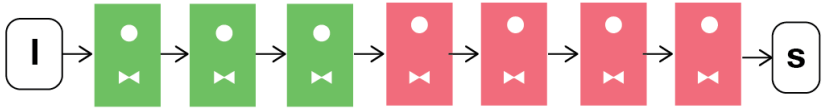
expertise

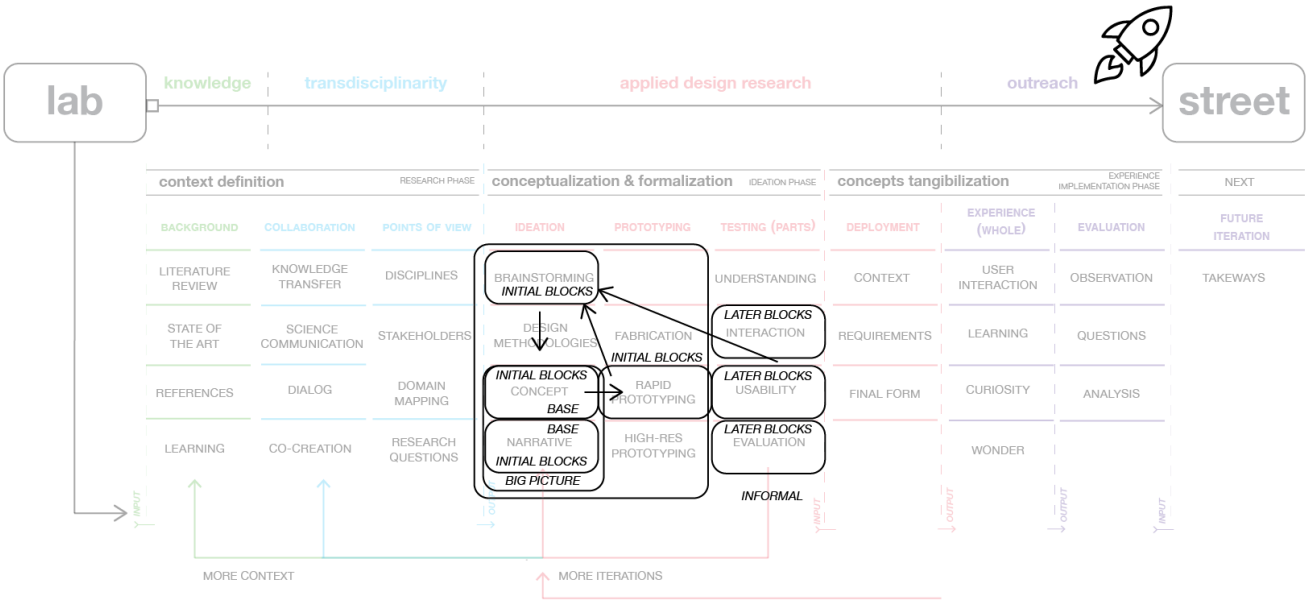
lab -> street

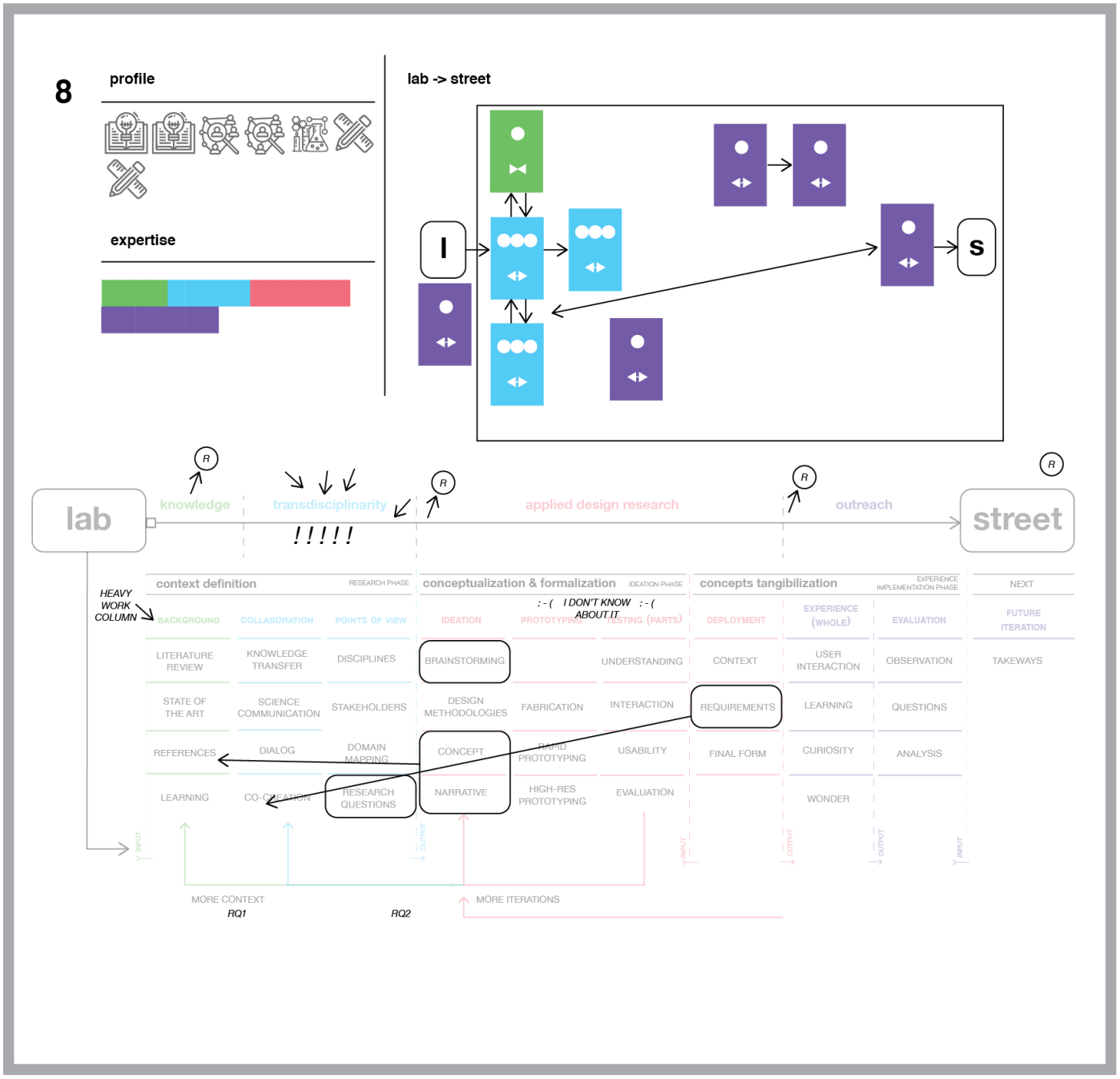
A



B






8
profile
expertise
lab -> street
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applied design research
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street
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!!!!!
HEAVY WORK COLUMN
context definition
RESEARCH PHASE
conceptualization & formalization
IDEATION PHASE
concepts tangibilization
EXPERIENCE IMPLEMENTATION PHASE
NEXT
:-(I DON'T KNOW ABOUT IT :-(
BACKGROUND
COLLABORATION
POINTS OF VIEW
IDEATION
PROTOTYPING
TESTING (PARTS)
DEPLOYMENT
EXPERIENCE (WHOLE)
EVALUATION
FUTURE ITERATION
LITERATURE REVIEW
KNOWLEDGE TRANSFER
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BRAINSTORMING
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USER INTERACTION
OBSERVATION
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CONCEPT
RAPID PROTOTYPING
USABILITY
FINAL FORM
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ANALYSIS
LEARNING
CO-CREATION
RESEARCH QUESTIONS
NARRATIVE
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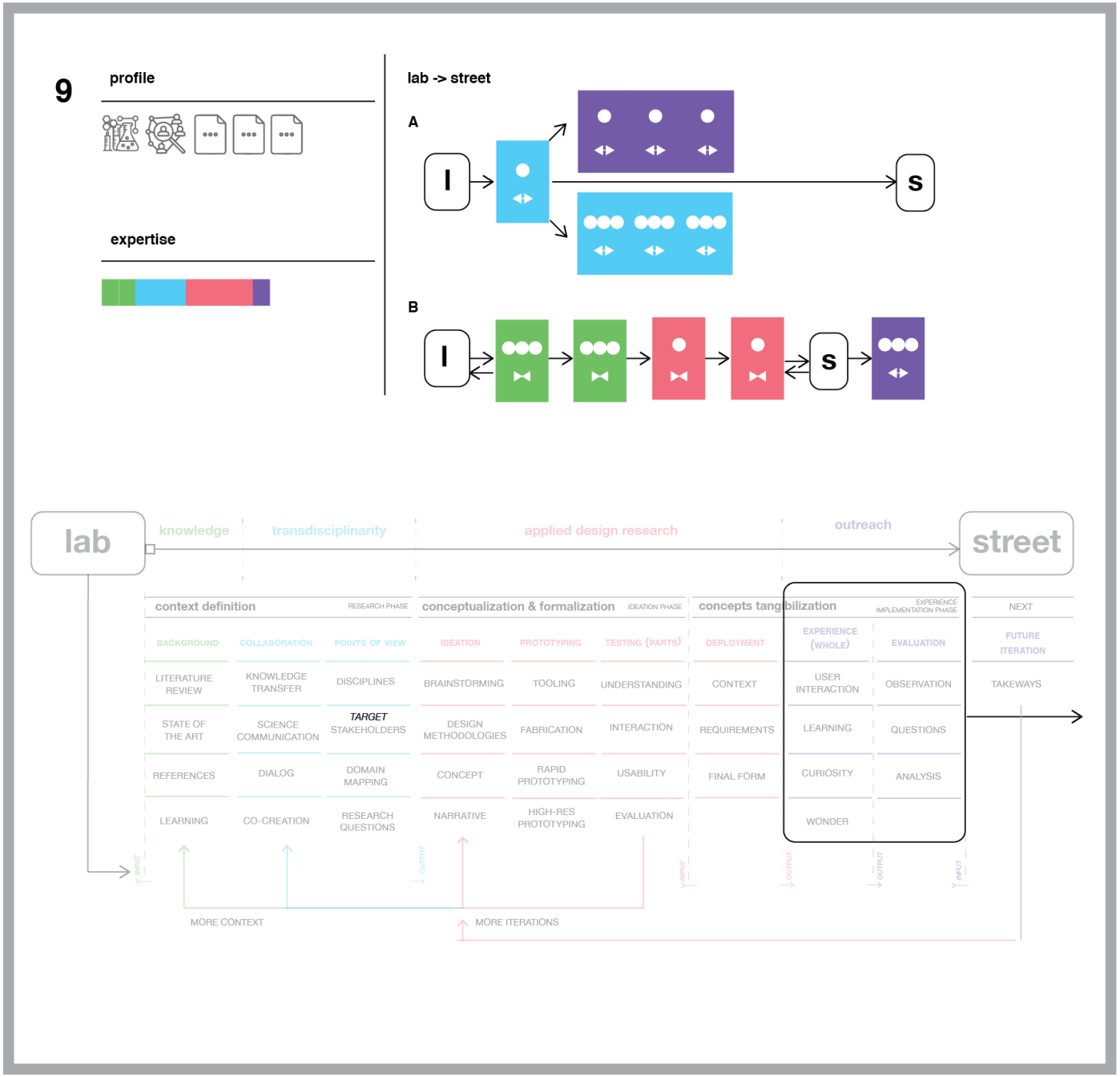
RQ2
MORE ITERATIONS


9
profile
expertise
lab -> street
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transdisciplinarity
applied design research
outreach
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context definition
RESEARCH PHASE
conceptualization & formalization
IDEATION PHASE
concepts tangibilization
EXPERIENCE IMPLEMENTATION PHASE
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BACKGROUND
COLLABORATION
POINTS OF VIEW
IDEATION
PROTOTYPING
TESTING (PARTS)
DEPLOYMENT
EXPERIENCE (WHOLE)
EVALUATION
FUTURE ITERATION
LITERATURE REVIEW
KNOWLEDGE TRANSFER
DISCIPLINES
BRAINSTORMING
TOOLING
UNDERSTANDING
CONTEXT
USER INTERACTION
OBSERVATION
TAKEWAYS
STATE OF THE ART
SCIENCE COMMUNICATION
TARGET STAKEHOLDERS
DESIGN METHODOLOGIES
FABRICATION
INTERACTION
REQUIREMENTS
LEARNING
QUESTIONS
REFERENCES
DIALOG
DOMAIN MAPPING
CONCEPT
RAPID PROTOTYPING
USABILITY
FINAL FORM
CURIOSITY
ANALYSIS
LEARNING
CO-CREATION
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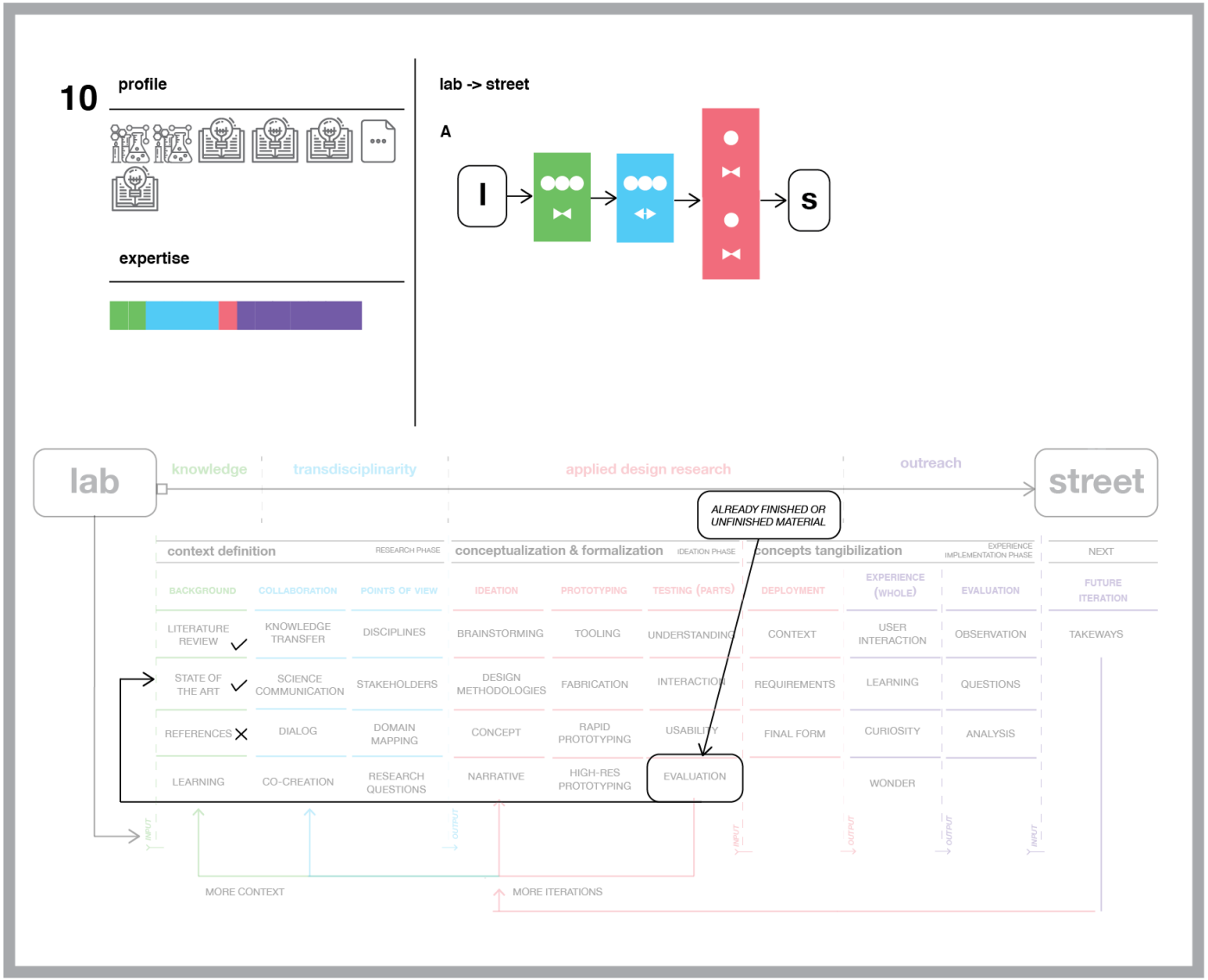
NARRATIVE
HIGH-RES PROTOTYPING
EVALUATION
WONDER
INPUT
OUTPUT
MORE CONTEXT
MORE ITERATIONS


10
profile
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lab -> street
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applied design research
outreach
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ALREADY FINISHED OR UNFINISHED MATERIAL
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concepts tangibilization
EXPERIENCE IMPLEMENTATION PHASE
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POINTS OF VIEW
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TESTING (PARTS)
DEPLOYMENT
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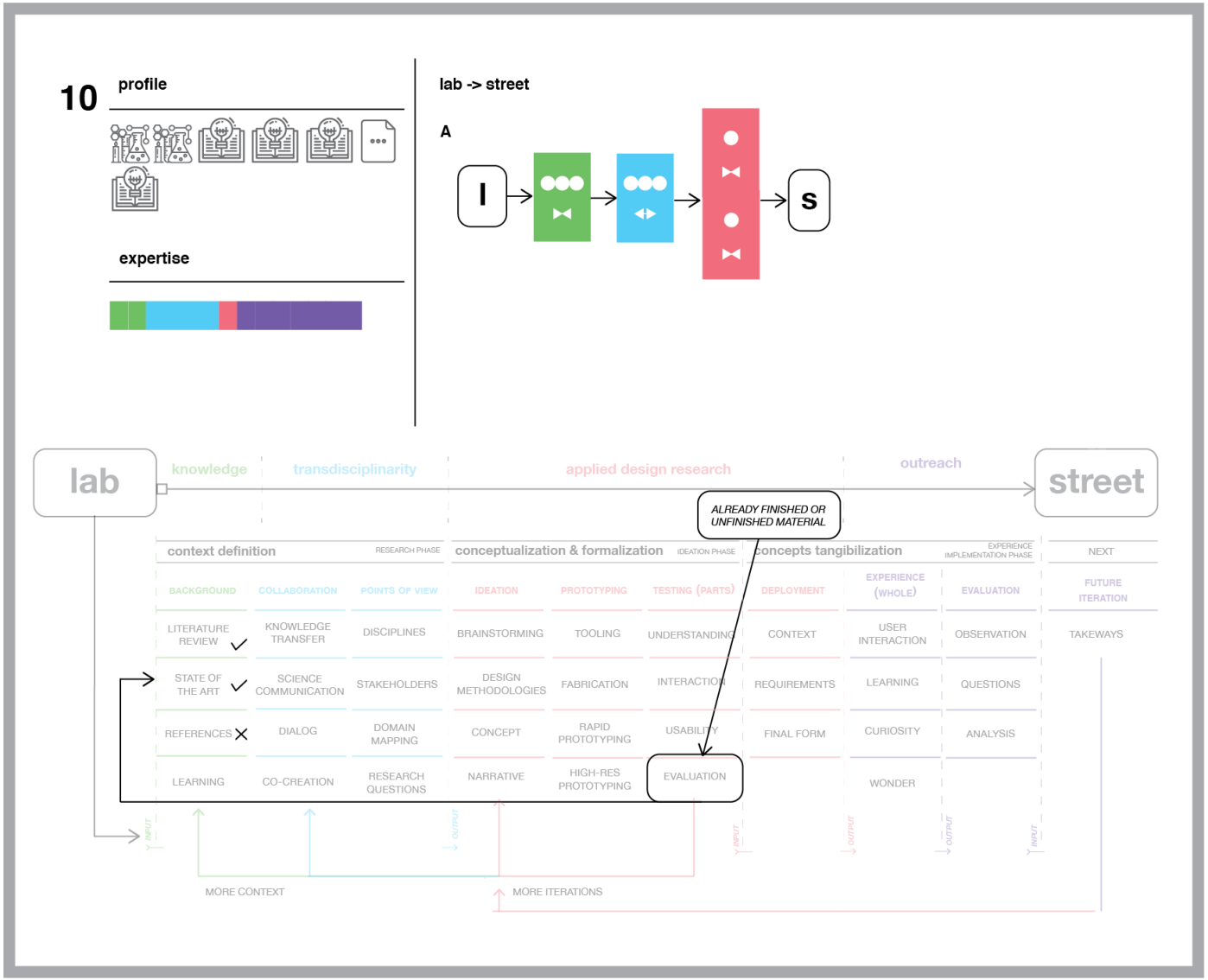
MORE CONTEXT
MORE ITERATIONS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outreach
street
ALREADY FINISHED OR UNFINISHED MATERIAL
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conceptualization & formalization
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concepts tangibilization
EXPERIENCE IMPLEMENTATION PHASE
NEXT
BACKGROUND
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POINTS OF VIEW
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PROTOTYPING
TESTING (PARTS)
DEPLOYMENT
EXPERIENCE (WHOLE)
EVALUATION
FUTURE ITERATION
LITERATURE REVIEW
KNOWLEDGE TRANSFER
DISCIPLINES
BRAINSTORMING
TOOLING
UNDERSTANDING
CONTEXT
USER INTERACTION
OBSERVATION
TAKEWAYS
STATE OF THE ART
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STAKEHOLDERS
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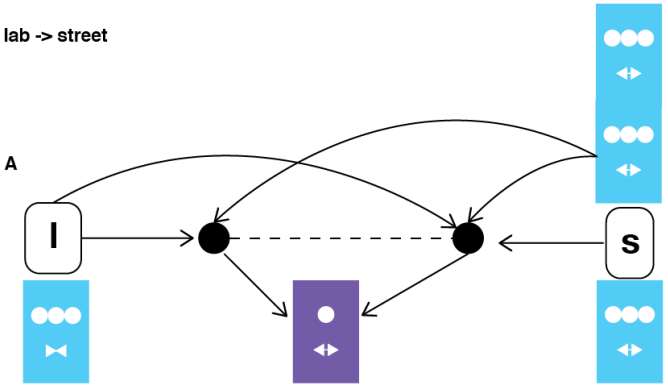
REFERENCES
DIALOG
DOMAIN MAPPING
CONCEPT
RAPID PROTOTYPING
USABILITY
FINAL FORM
CURIOSITY
ANALYSIS
LEARNING
CO-CREATION
RESEARCH QUESTIONS
NARRATIVE
HIGH-RES PROTOTYPING
EVALUATION
WONDER
INPUT
OUTPUT
MORE CONTEXT
MORE ITERATIONS

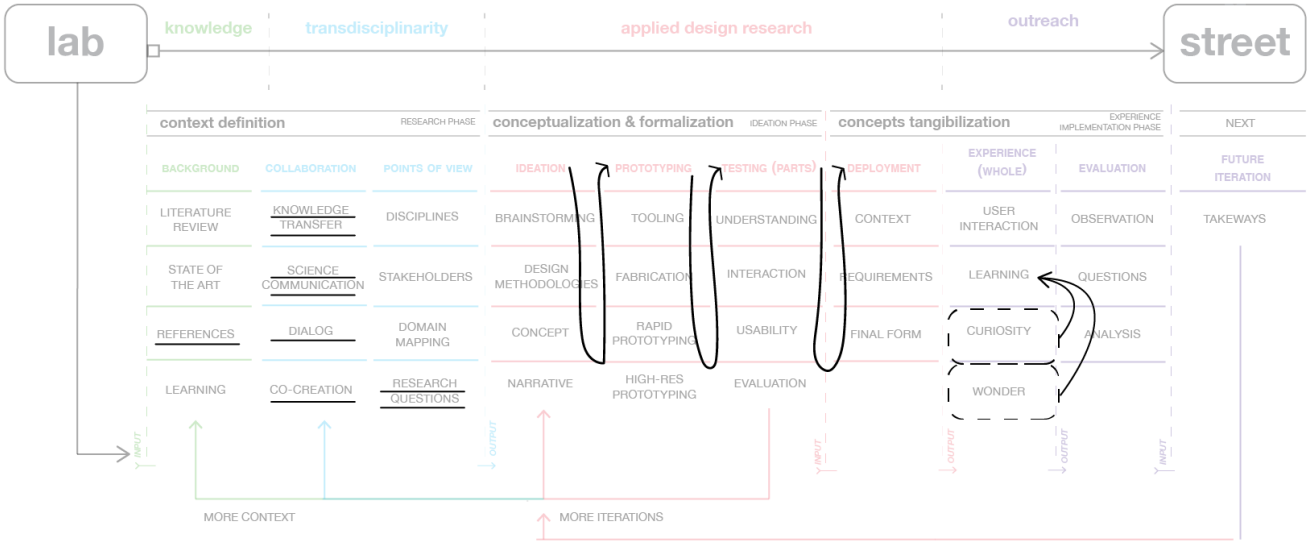
11

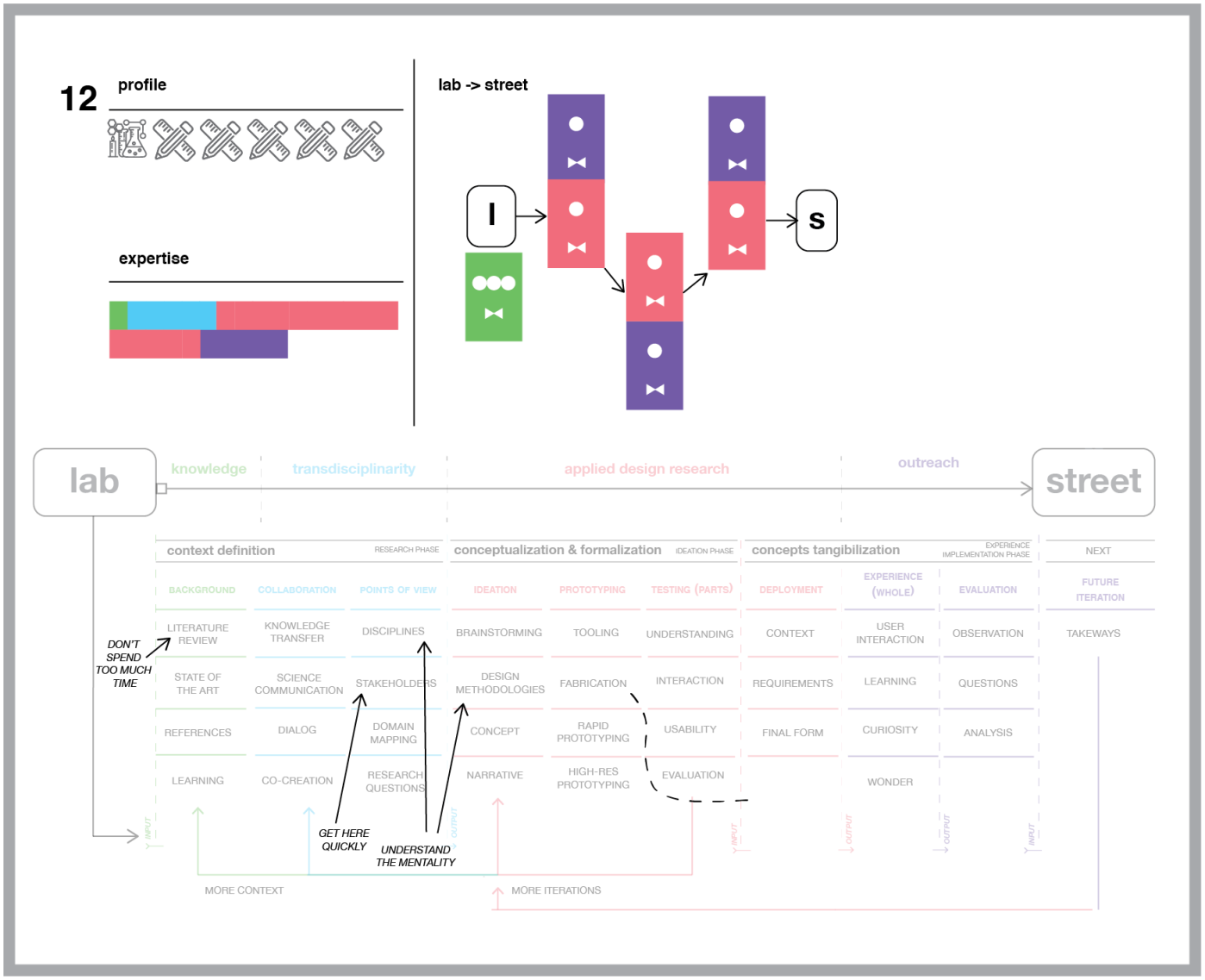
profile

expertise

lab -> street






12
profile
expertise
lab -> street
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knowledge
transdisciplinarity
applied design research
outreach
street
context definition
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conceptualization & formalization
IDEATION PHASE
concepts tangibilization
EXPERIENCE IMPLEMENTATION PHASE
NEXT
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POINTS OF VIEW
IDEATION
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TESTING (PARTS)
DEPLOYMENT
EXPERIENCE (WHOLE)
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FUTURE ITERATION
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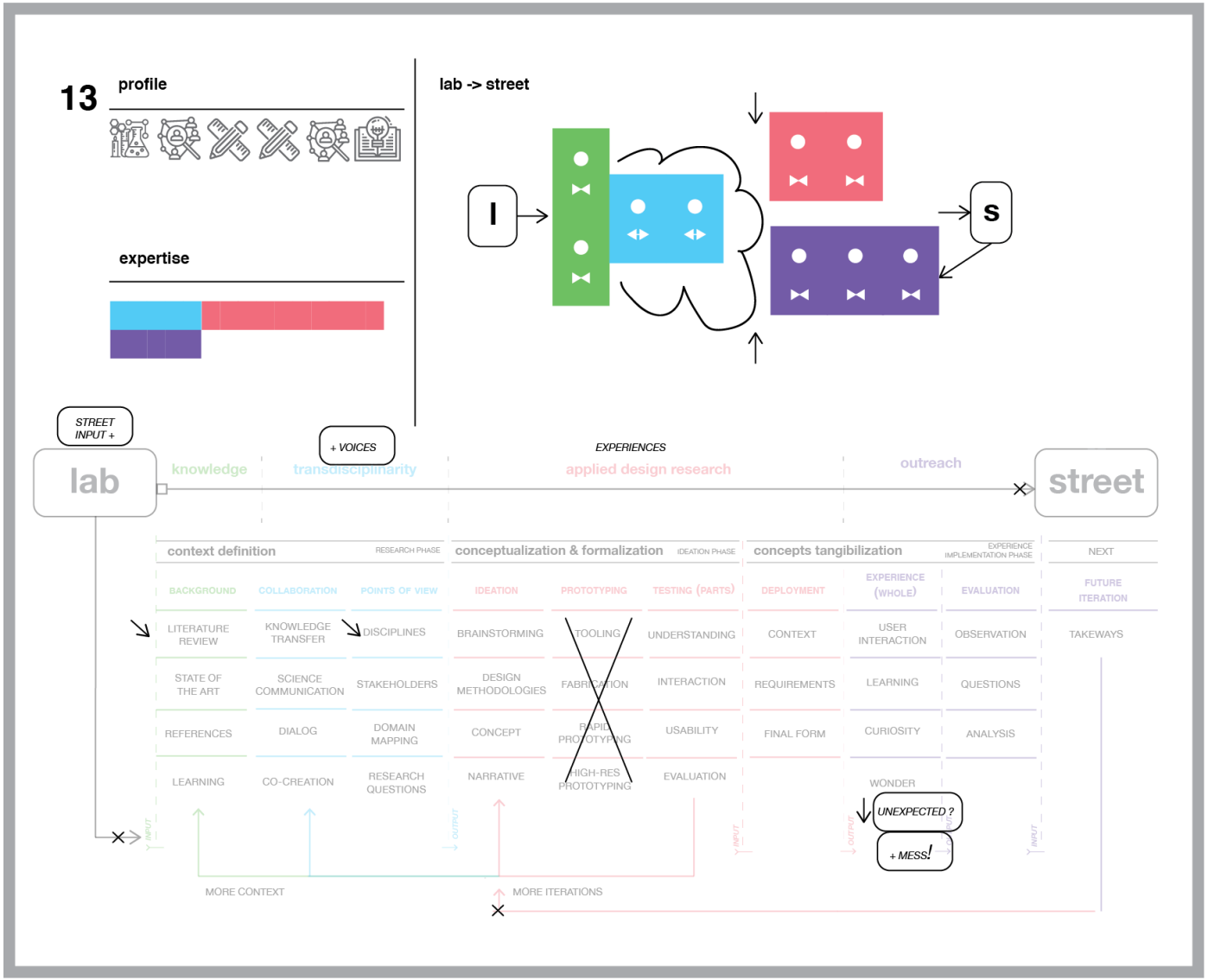
USABILITY
FINAL FORM
CURIOSITY
ANALYSIS
LEARNING
CO-CREATION
RESEARCH QUESTIONS
NARRATIVE
HIGH-RES PROTOTYPING
EVALUATION
WONDER
DON'T SPEND TOO MUCH TIME
GET HERE QUICKLY
UNDERSTAND THE MENTALITY
INPUT
OUTPUT
MORE CONTEXT
MORE ITERATIONS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+ VOICES
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context definition
RESEARCH PHASE
conceptualization & formalization
IDEATION PHASE
concepts tangibilization
EXPERIENCE IMPLEMENTATION PHASE
NEXT
BACKGROUND
COLLABORATION
POINTS OF VIEW
IDEATION
PROTOTYPING
TESTING (PARTS)
DEPLOYMENT
EXPERIENCE (WHOLE)
EVALUATION
FUTURE ITERATION
LITERATURE REVIEW
KNOWLEDGE TRANSFER
DISCIPLINES
BRAINSTORMING
TOOLING
UNDERSTANDING
CONTEXT
USER INTERACTION
OBSERVATION
TAKEWAYS
STATE OF THE ART
SCIENCE COMMUNICATION
STAKEHOLDERS
DESIGN METHODOLOGIES
FABRICATION
INTERACTION
REQUIREMENTS
LEARNING
QUESTIONS
REFERENCES
DIALOG
DOMAIN MAPPING
CONCEPT
RAPID PROTOTYPING
USABILITY
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CURIOSITY
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LEARNING
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RESEARCH QUESTIONS
NARRATIVE
HIGH-RES PROTOTYPING
EVALUATION
WONDER
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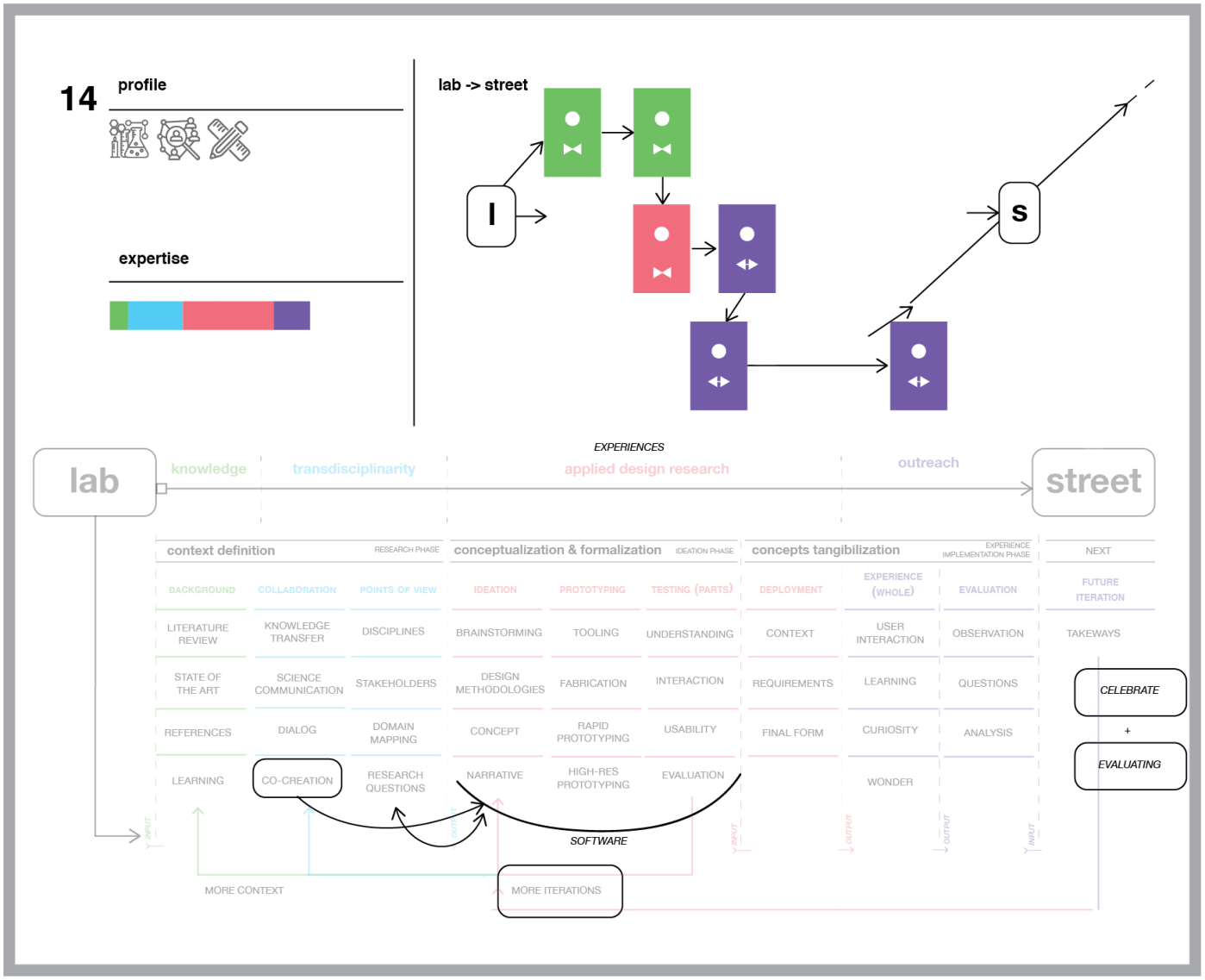
MORE CONTEXT
MORE ITERATIONS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CO-CREATION
RESEARCH QUESTIONS
NARRATIVE
HIGH-RES PROTOTYPING
EVALUATION
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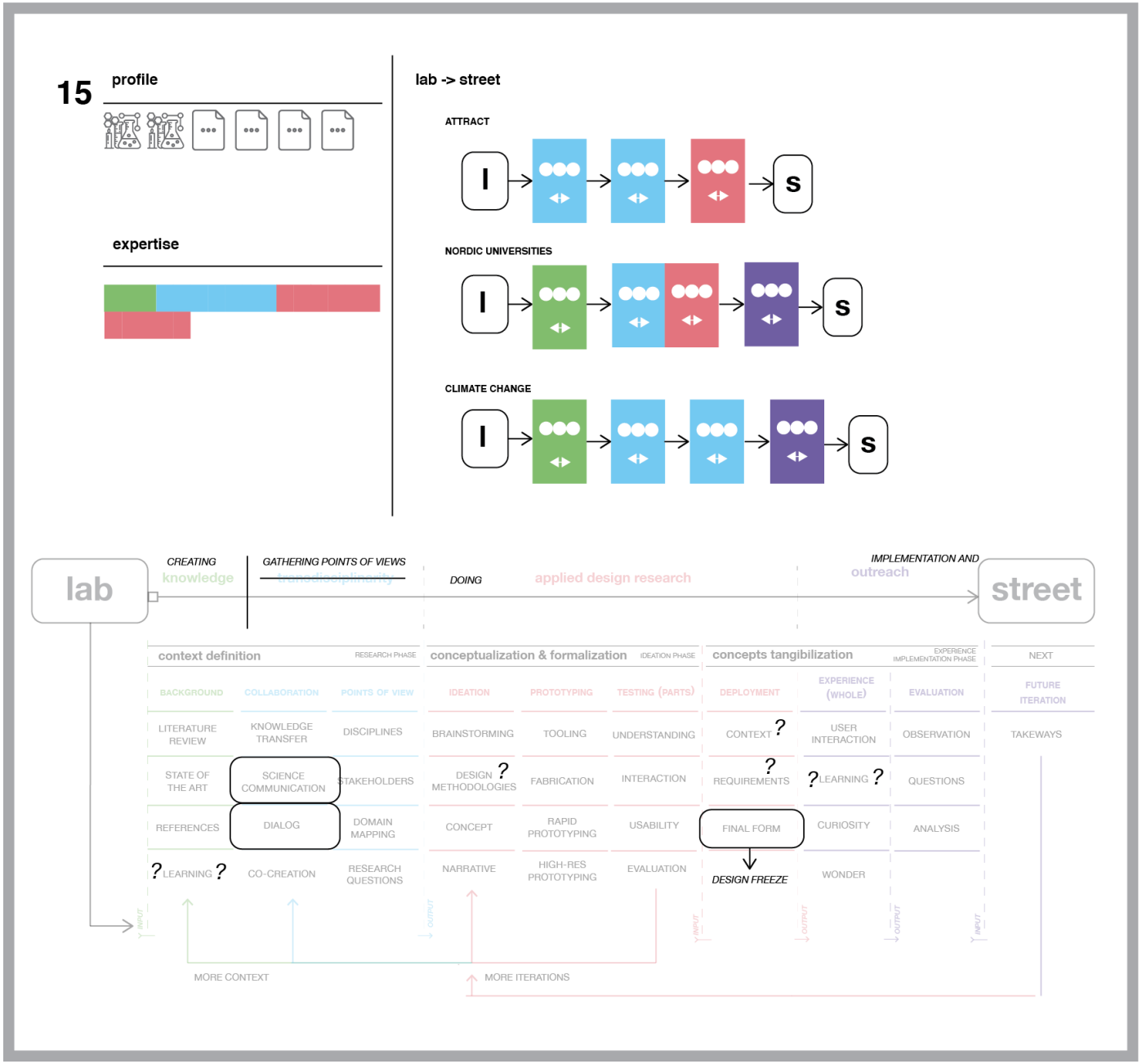
INPUT
OUTPUT
SOFTWARE
MORE CONTEXT
MORE ITERATIONS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GATHERING POINTS OF VIEWS
DOING
applied design research
IMPLEMENTATION AND
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INTERACTION
REQUIREMENTS ?
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? LEARNING ?
CO-CREATION
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NARRATIVE
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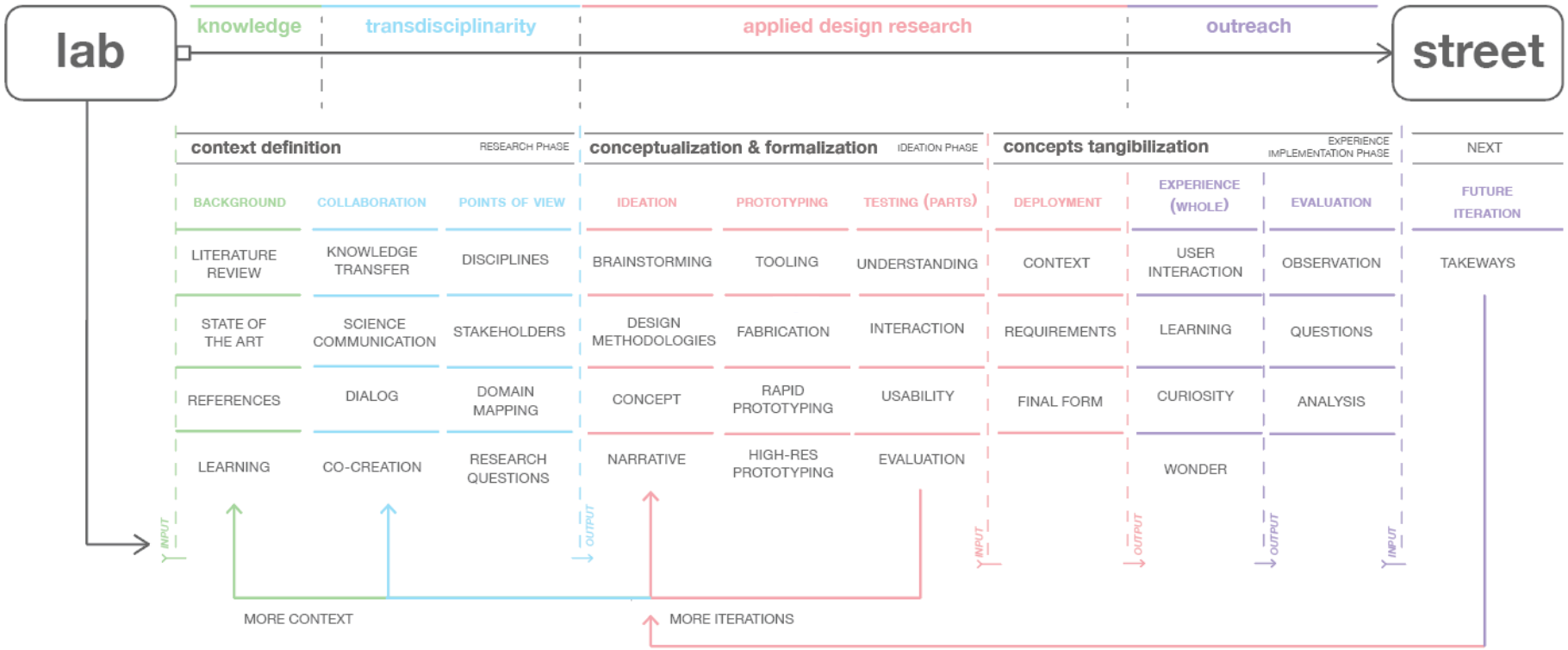
EVALUATION
DESIGN FREEZE
WONDER
INPUT
OUTPUT
MORE CONTEXT
MORE ITERATIONS

step 6

Now it's time to customize your Tangible Science Framework for you and/or your team!

Tangible Science Framework



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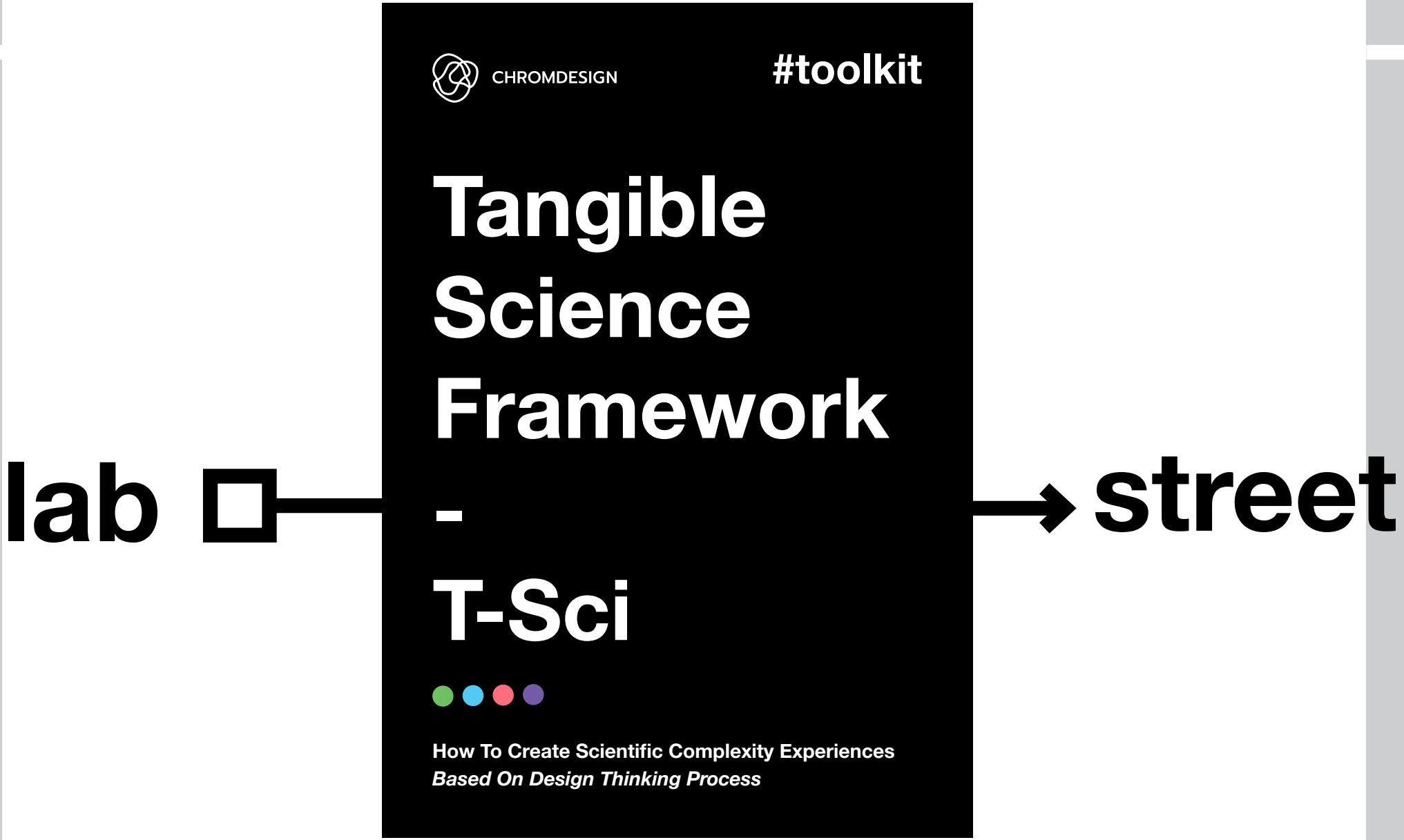
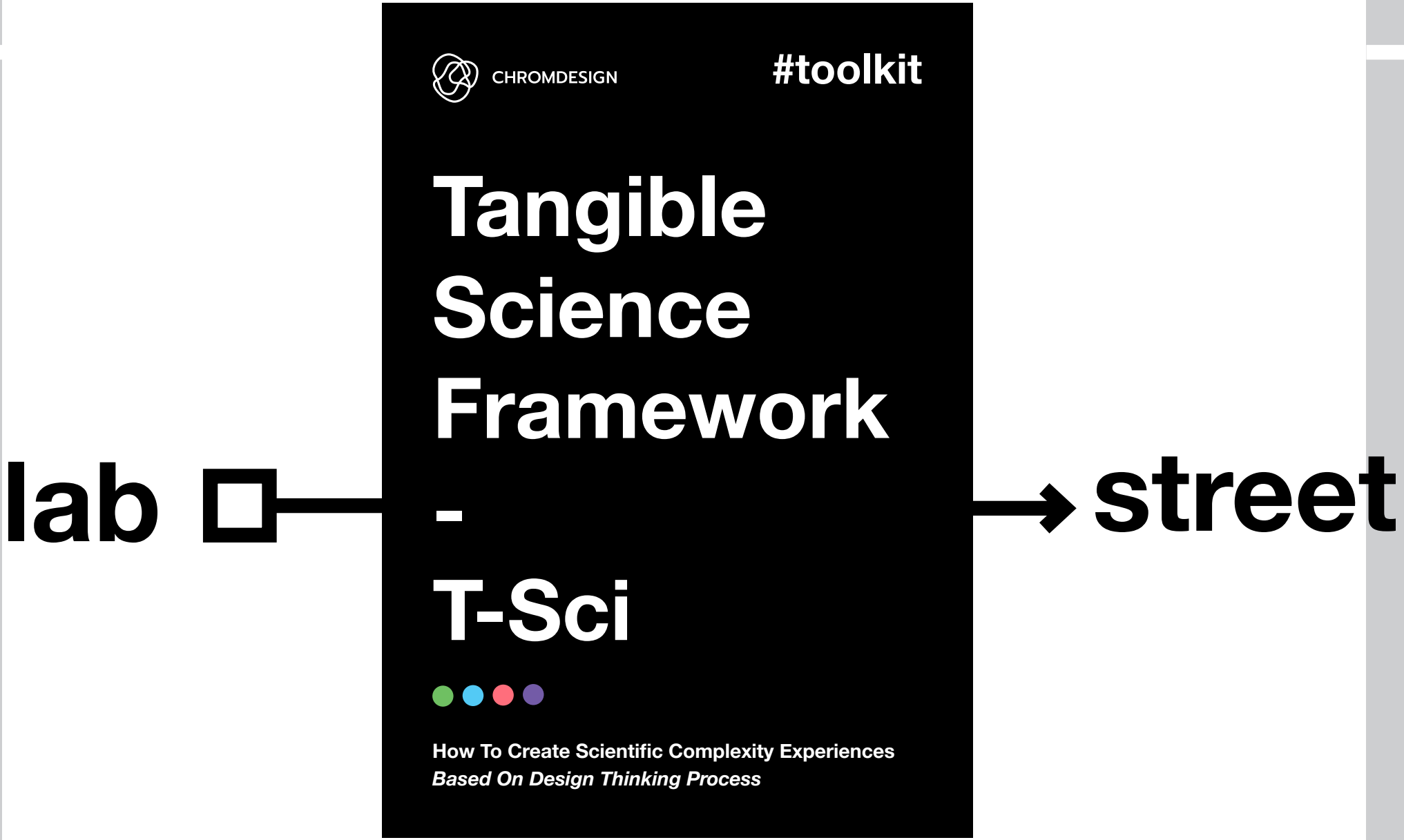

CHROMDESIGN
#toolkit
Tangible Science Framework - T-Sci
How To Create Scientific Complexity Experiences
Based On Design Thinking Process
lab
street

#toolkit


CHROMDESIGN
#toolkit
Tangible Science Framework - T-Sci
How To Create Scientific Complexity Experiences
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lab
street

CHROMDESIGN

#toolkit

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