METHODOLOGY

Double diamond model by Design Council

Designing the Right Thing
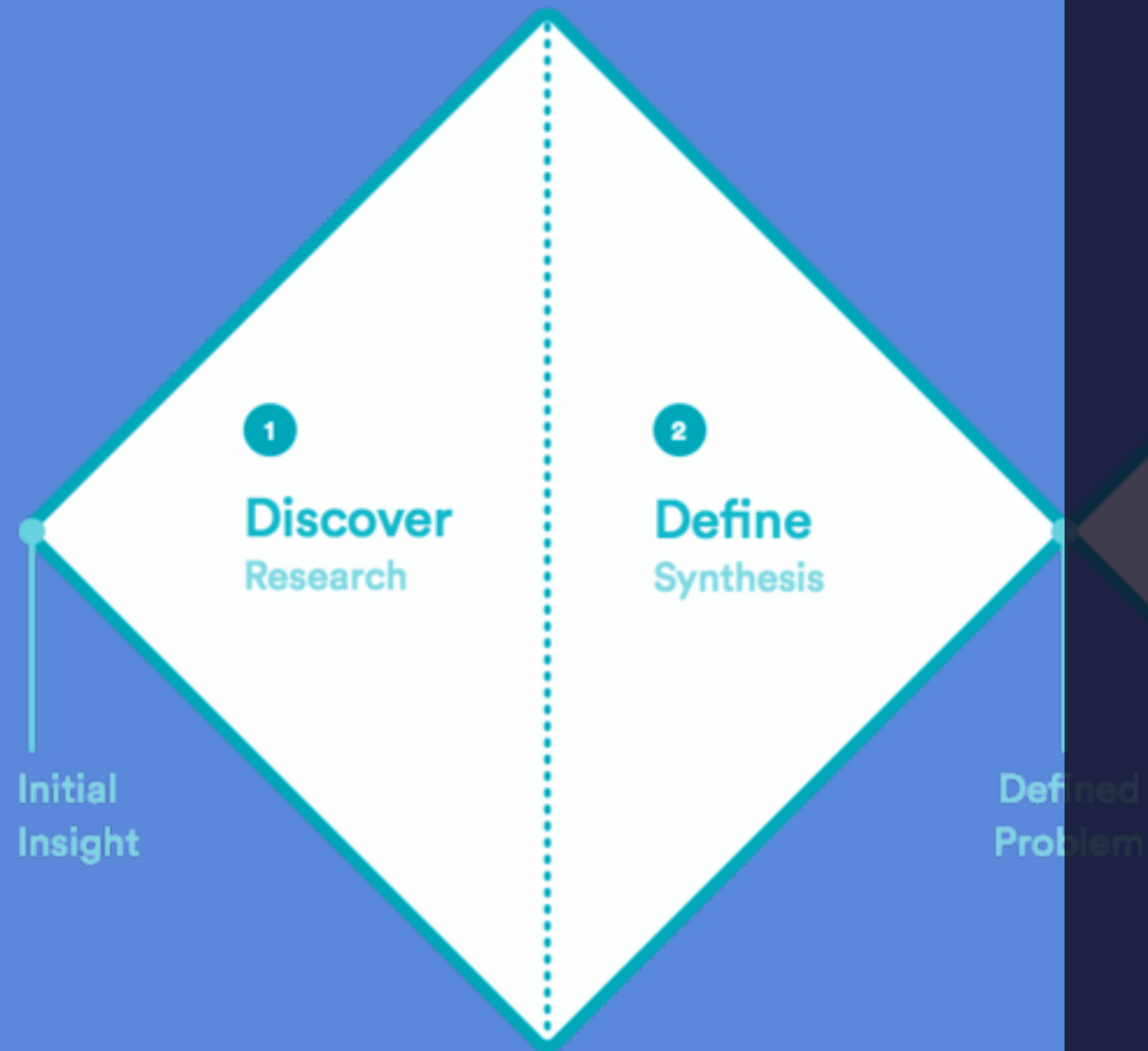
Designing the Thing Right

1 Discover
Research

2 Define
Synthesis

Initial Insight

Defined Problem

Ideation

Implementation

Refined Solution

DESIGN THE RIGHT THING

Double diamond model by Design Council
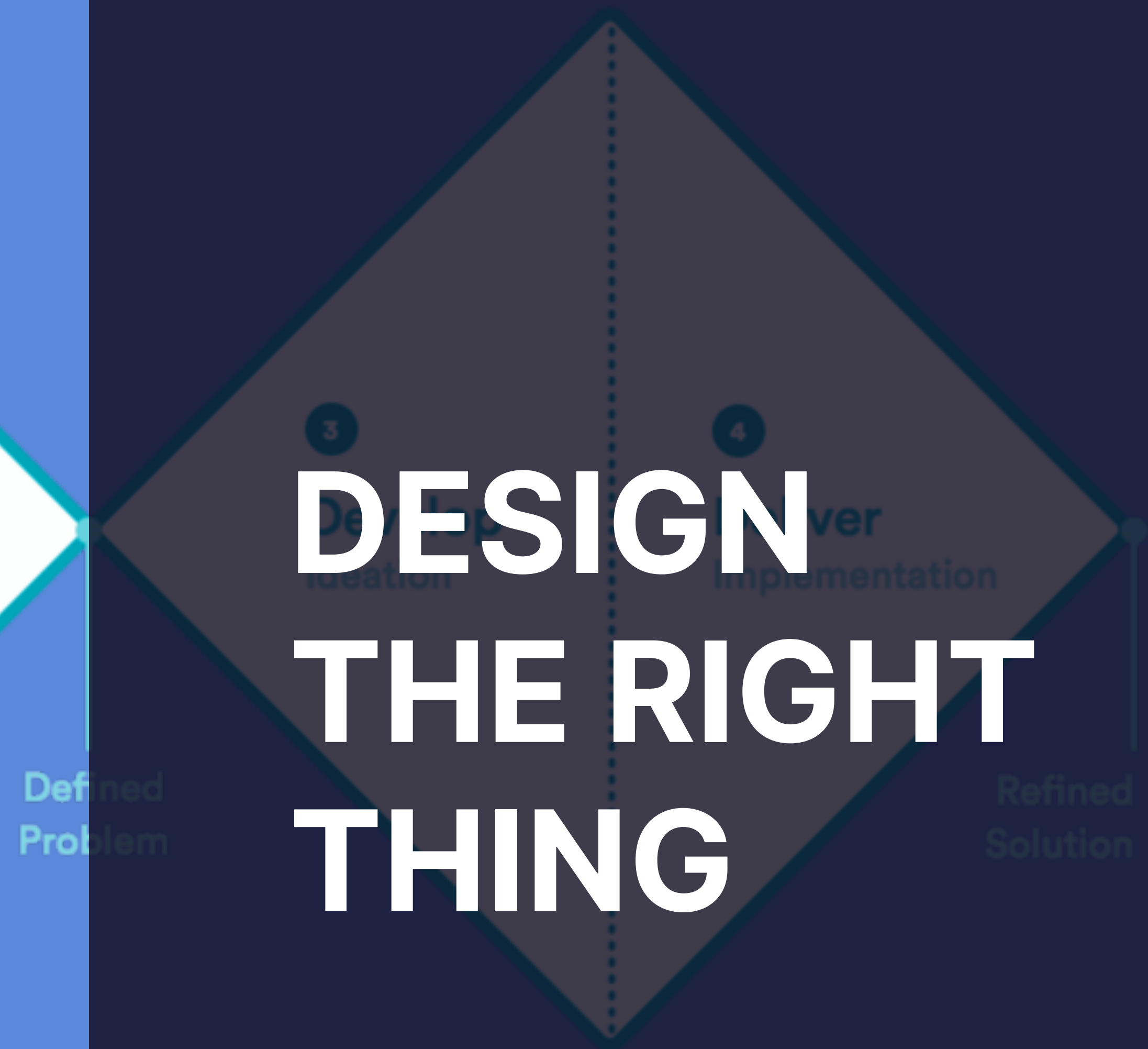
"We are all beginning to realize that one of the most intractable problems is that of defining problems … and of locating problems."
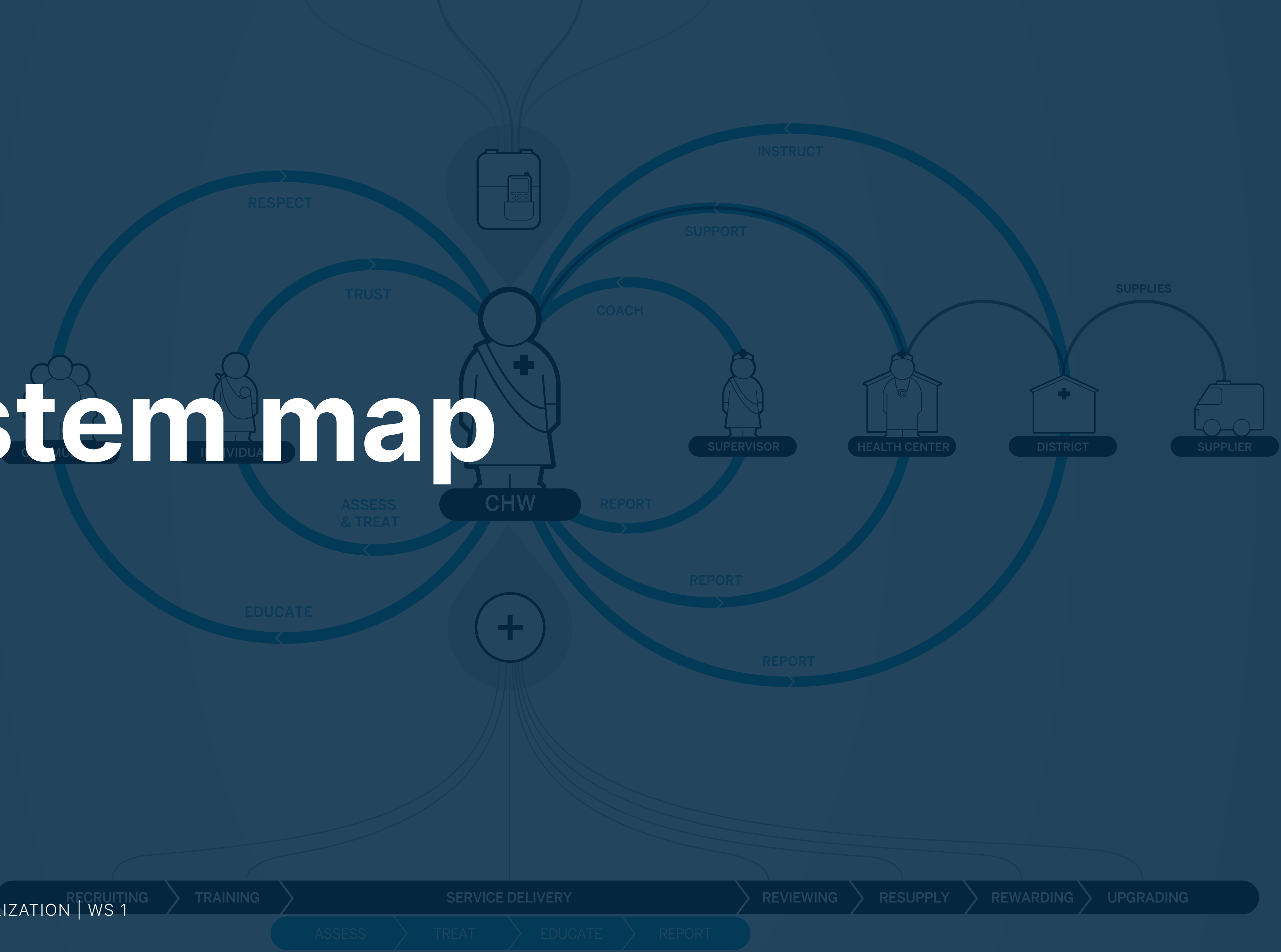
(Rittel and Webber: On the Wicked Problems, Dilemmas In a General Theory Of Planning)

Comprehensive assessment:

- **user needs**
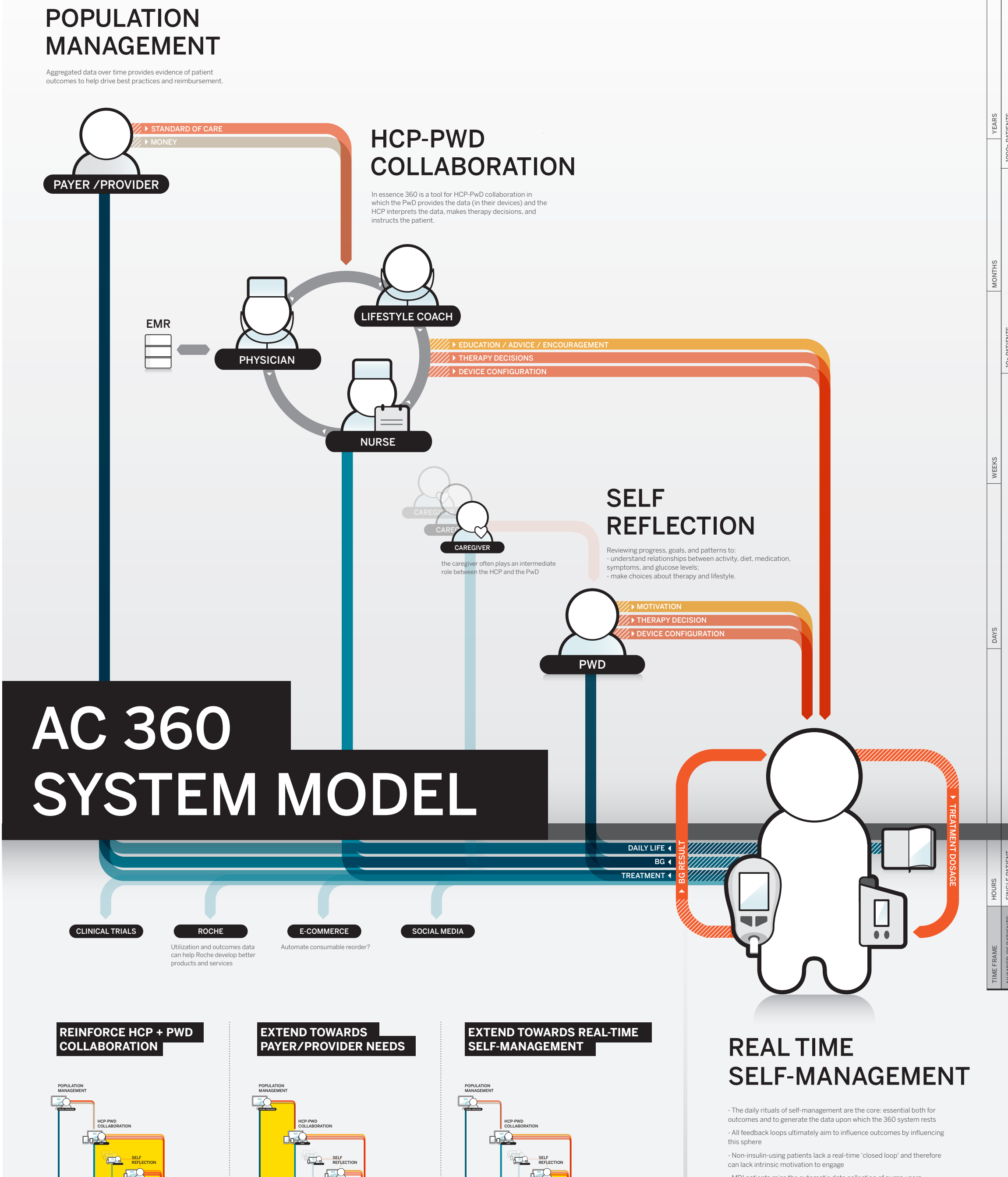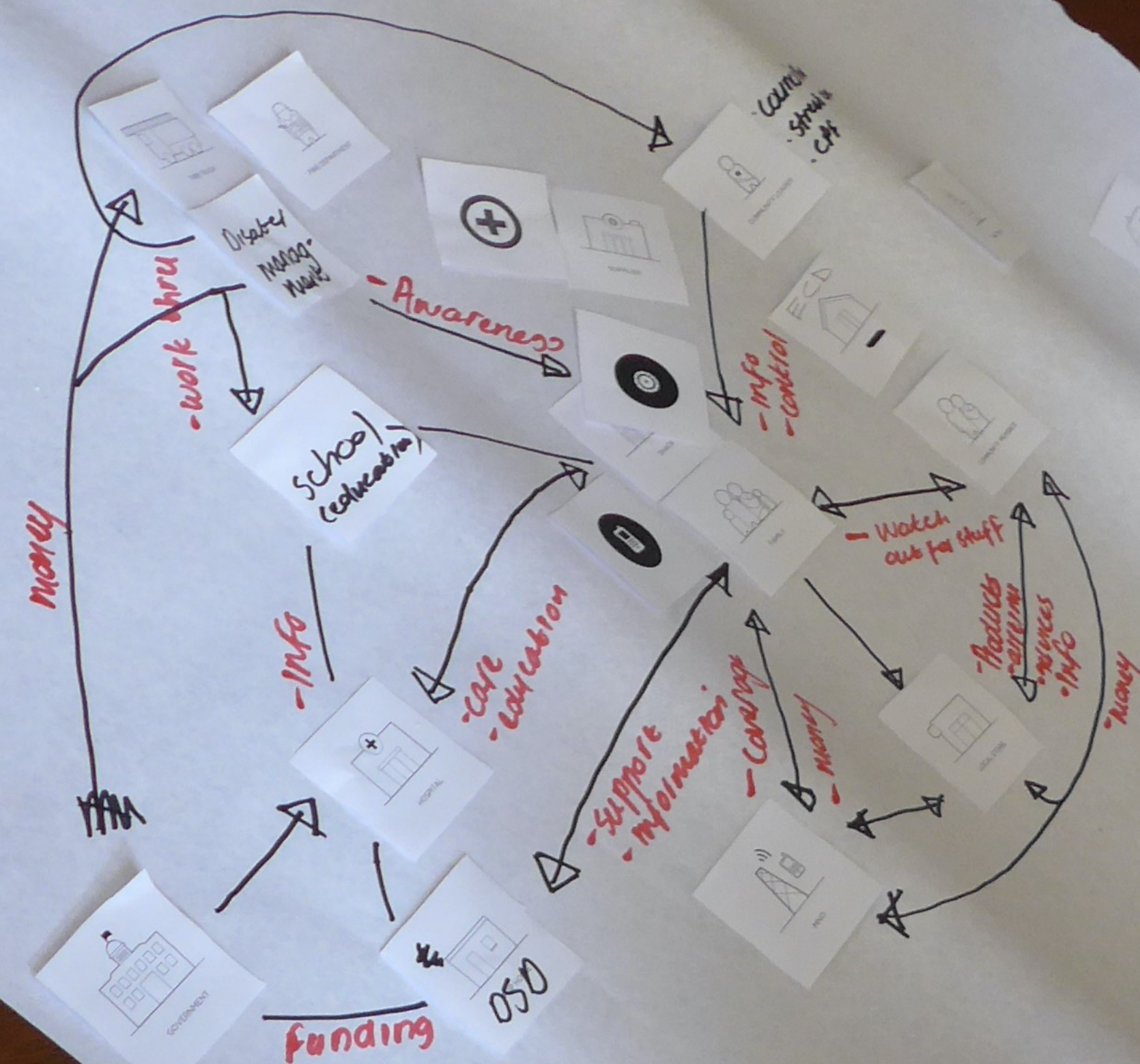- technical
- organisational
- regulational

feasibility

System map

FROM THE FINAL USERS UP TO THE SERVICE PROVIDERS AND ENABLING TOOLS, THE SYSTEM MAP DESCRIBES THE ROLES INVOLVED IN THE EXPERIENCE DELIVERY AND HOW THEY EXCHANGE VALUE.

The system map is a static picture of a moment in time, in relation to which flows of information/money/ physical objects are highlighted.
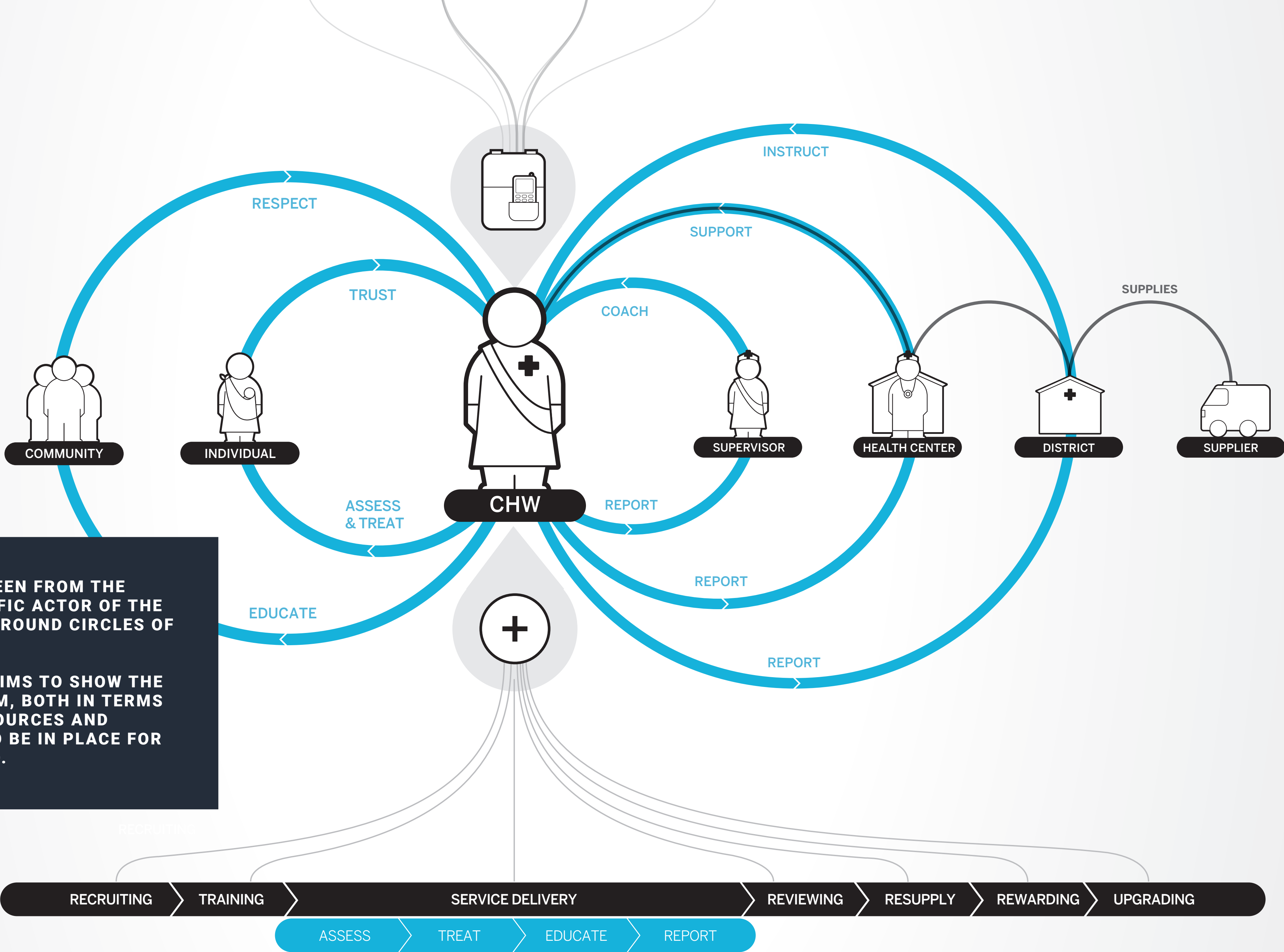
POPULATION MANAGEMENT
Aggregated data over time provides evidence of patient outcomes to help drive best practices and reimbursement.

PAYER /PROVIDER

STANDARD OF CARE
MONEY

HCP-PWD COLLABORATION
In essence 360 is a tool for HCP-PwD collaboration in which the PwD provides the data (in their devices) and the HCP interprets the data, makes therapy decisions, and instructs the patient.

EMR

LIFESTYLE COACH

PHYSICIAN

NURSE

EDUCATION / ADVICE / ENCOURAGEMENT
THERAPY DECISIONS
DEVICE CONFIGURATION

CAREGIVER

the caregiver often plays an intermediate role between the HCP and the PwD.

SELF REFLECTION
Reviewing progress, goals, and patterns to:
- understand relationships between activity, diet, medication, symptoms, and glucose levels;
- make choices about therapy and lifestyle.

PWD

MOTIVATION
THERAPY DECISION
DEVICE CONFIGURATION

AC 360 SYSTEM MODEL

DAILY LIFE
BG
TREATMENT

CLINICAL TRIALS   ROCHE   E-COMMERCE   SOCIAL MEDIA

Utilization and outcomes data can help Roche develop better products and services

Automate consumable reorder?

BG RESULT
TREATMENT DOSAGE

REAL TIME SELF-MANAGEMENT
- The daily rituals of self-management are the core: essential both for outcomes and to generate the data upon which the 360 system rests

- All feedback loops ultimately aim to influence outcomes by influencing this sphere

- Non-insulin-using patients lack a real-time 'closed loop' and therefore can lack intrinsic motivation to engage

REINFORCE HCP + PWD COLLABORATION

EXTEND TOWARDS PAYER/PROVIDER NEEDS

EXTEND TOWARDS REAL-TIME SELF-MANAGEMENT

YEARS   1000s PATIENTS
MONTHS   10s PATIENTS
WEEKS
DAYS
HOURS   SINGLE PATIENT
TIME FRAME   NUMBER OF PATIENTS

SYSTEM MAP

THE SYSTEM MAP CAN BE BUILT STARTING FROM RESEARCH ACTIVITIES DONE WITH PARTICIPANTS, SUCH AS THE 'CIRCLE OF CARE/TRUST'.

SYSTEM MAP

RESPECT

INSTRUCT

TRUST

SUPPORT

COACH

COMMUNITY

INDIVIDUAL

SUPERVISOR

HEALTH CENTER

DISTRICT

SUPPLIES

SUPPLIER
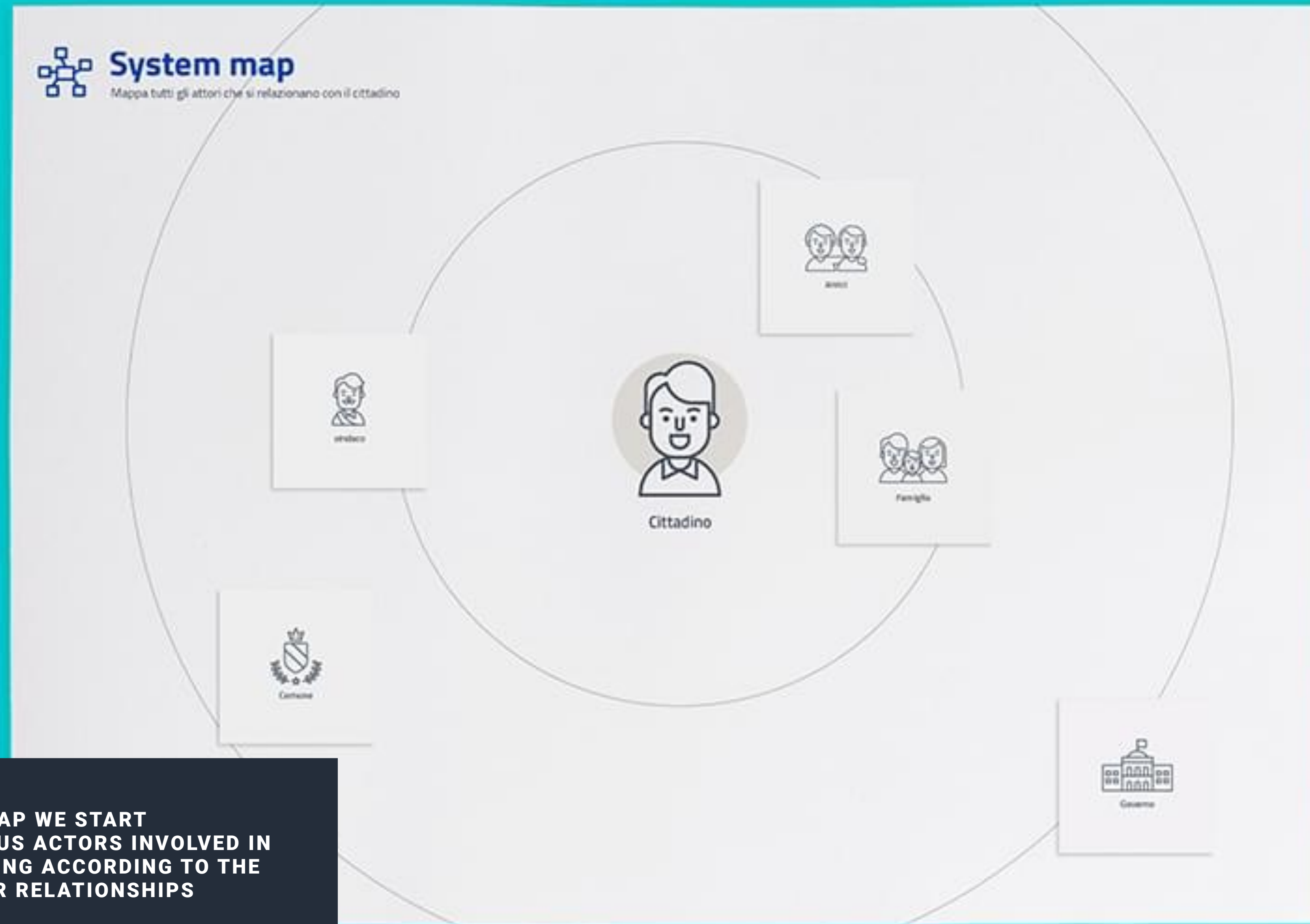
ASSESS & TREAT

CHW

REPORT

REPORT

EDUCATE

REPORT

ECOSYSTEM MAPS ARE SEEN FROM THE PERSPECTIVE OF A SPECIFIC ACTOR OF THE SYSTEM AND ARE BUILT AROUND CIRCLES OF RELATIONS.

IN THIS CASE, THE MAP AIMS TO SHOW THE ENABLERS OF THE SYSTEM, BOTH IN TERMS OF PHYSICAL TOOLS/RESOURCES AND RELATIONS THAT NEED TO BE IN PLACE FOR THE SERVICE TO SUCCEED.

RECRUITING

SOFT COMPONENTS

RECRUITING | TRAINING | SERVICE DELIVERY | REVIEWING | RESUPPLY | REWARDING | UPGRADING

ASSESS | TREAT | EDUCATE | REPORT

System map
Mappa tutti gli attori che si relazionano con il cittadino

Cittadino

amico

Famiglia

Comune

Governo

sindaco

Documenti

IN STAKEHOLDER MAP WE START ORGANISING VARIOUS ACTORS INVOLVED IN SERVICE FUNCTIONING ACCORDING TO THE STRENGTH OF THEIR RELATIONSHIPS
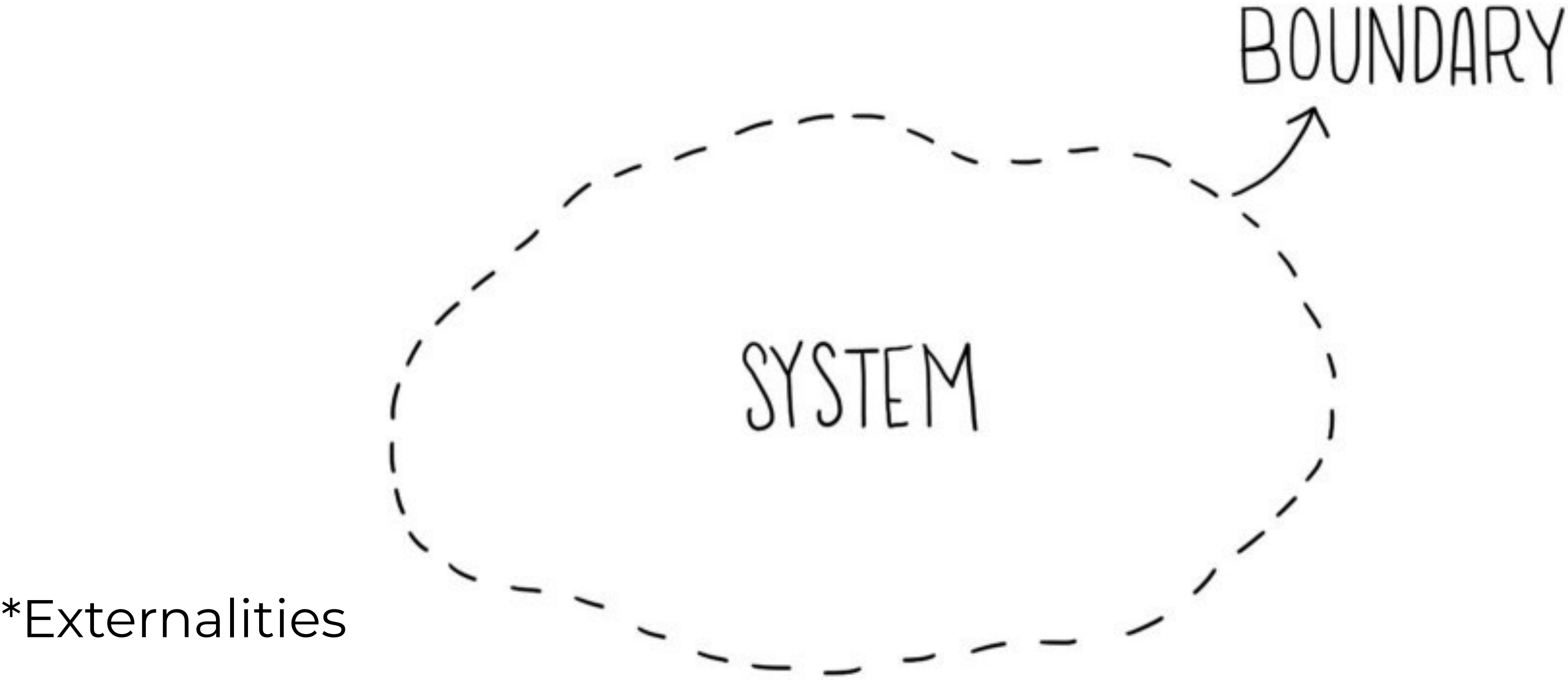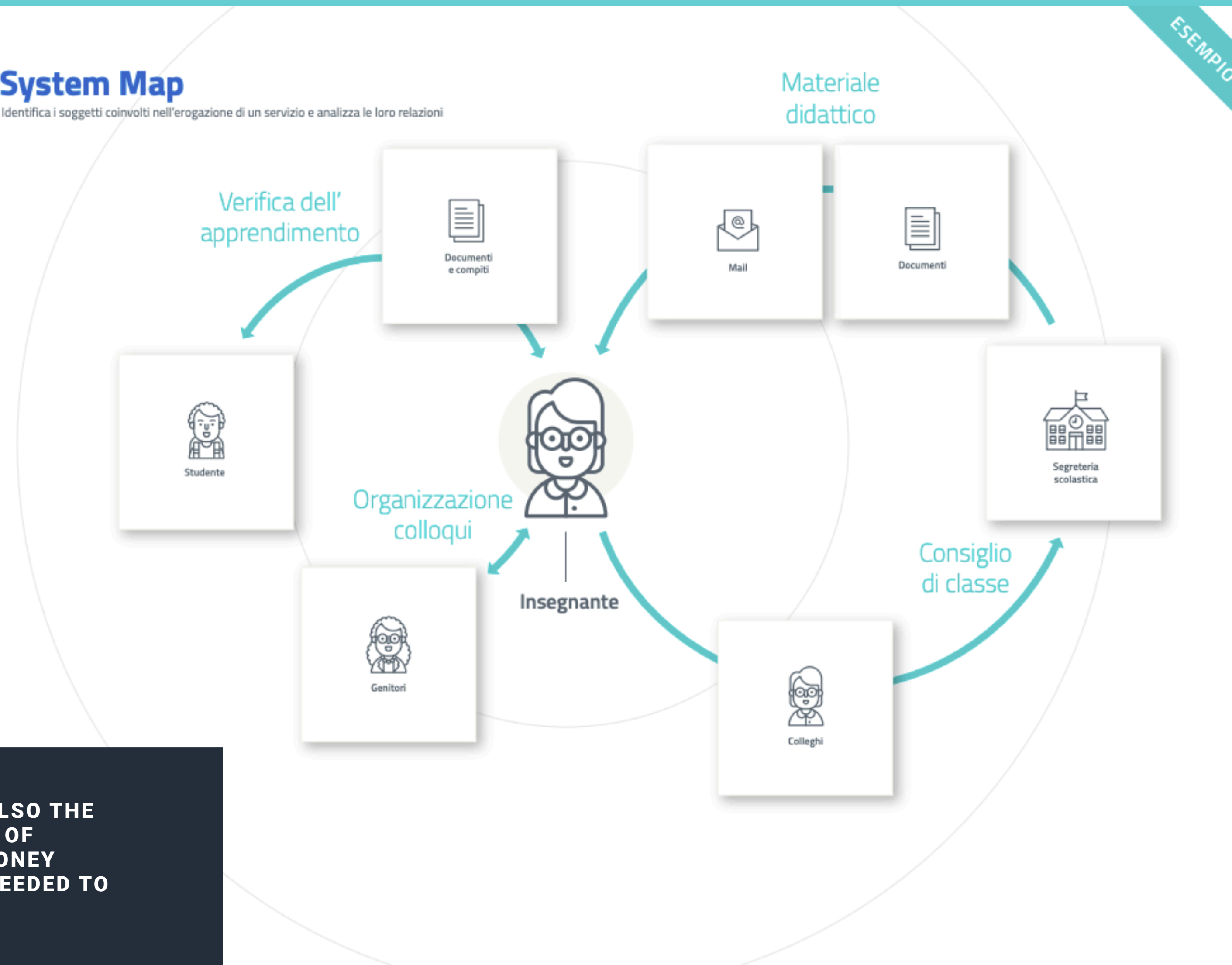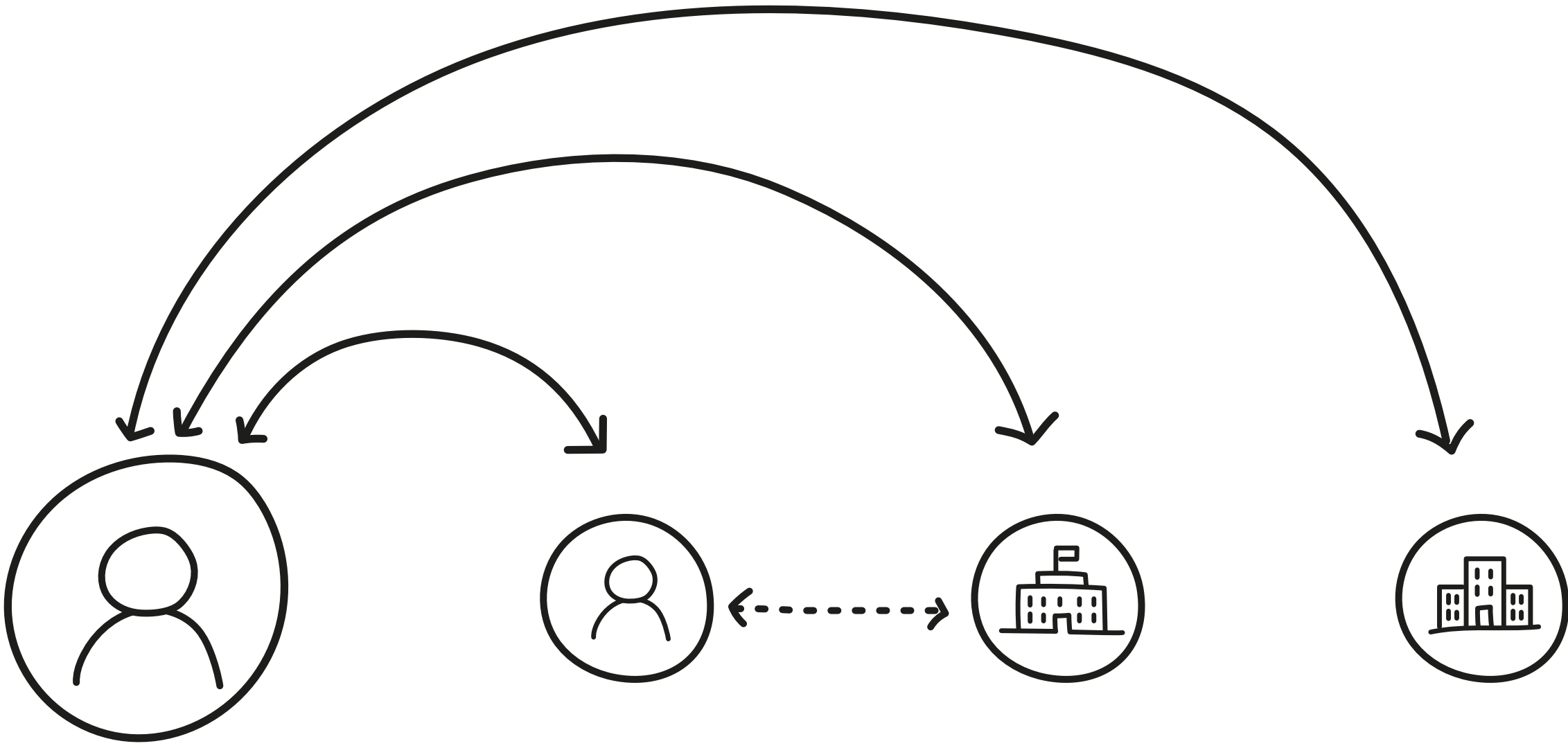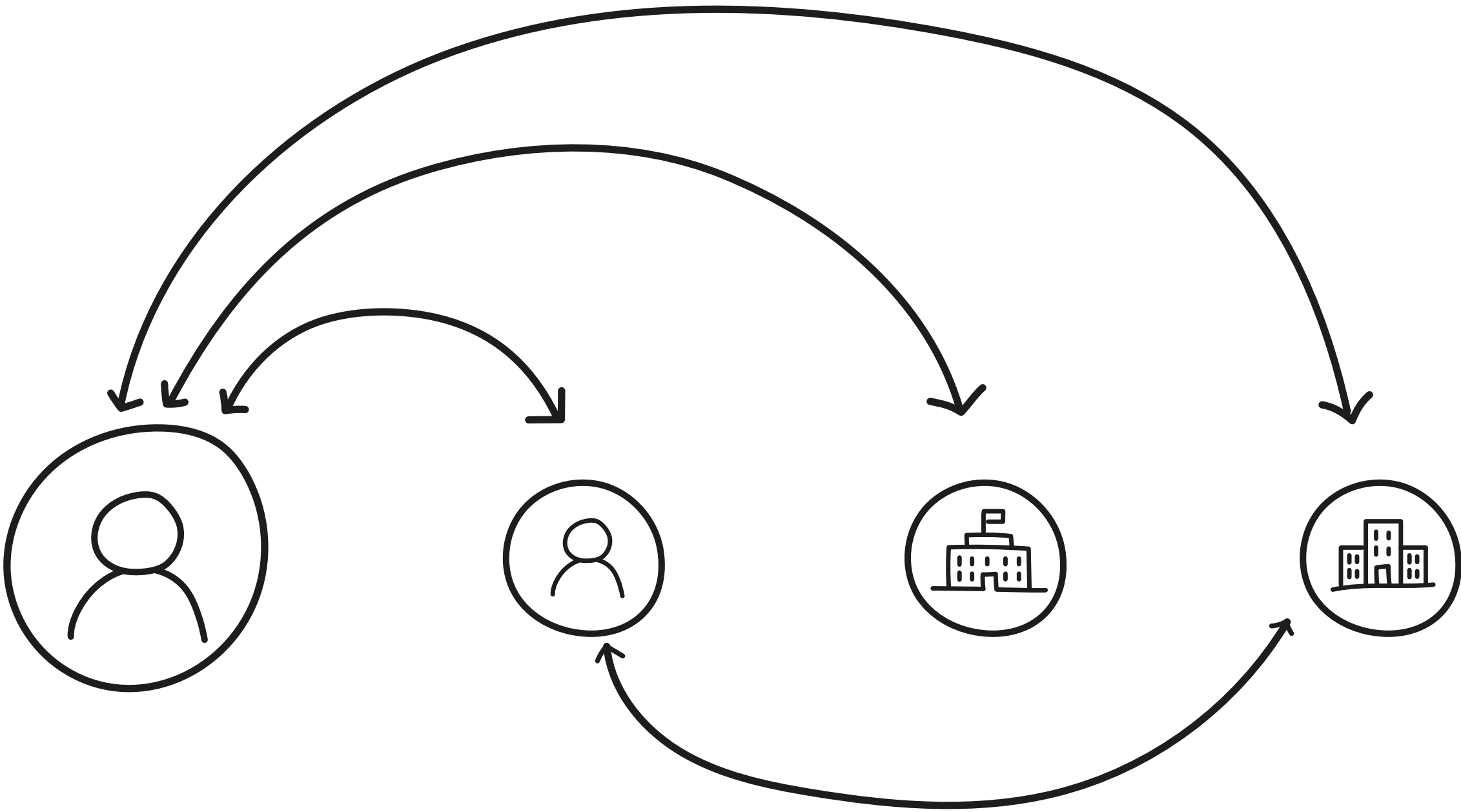
*Externalities

SYSTEM MAP TRACKS DOWN ALSO THE VARIOUS EXCHANGES - FLOWS OF RESOURCES, INFORMATION, MONEY BETWEEN THE MAIN ACTORS NEEDED TO PROVIDE THE SERVICE

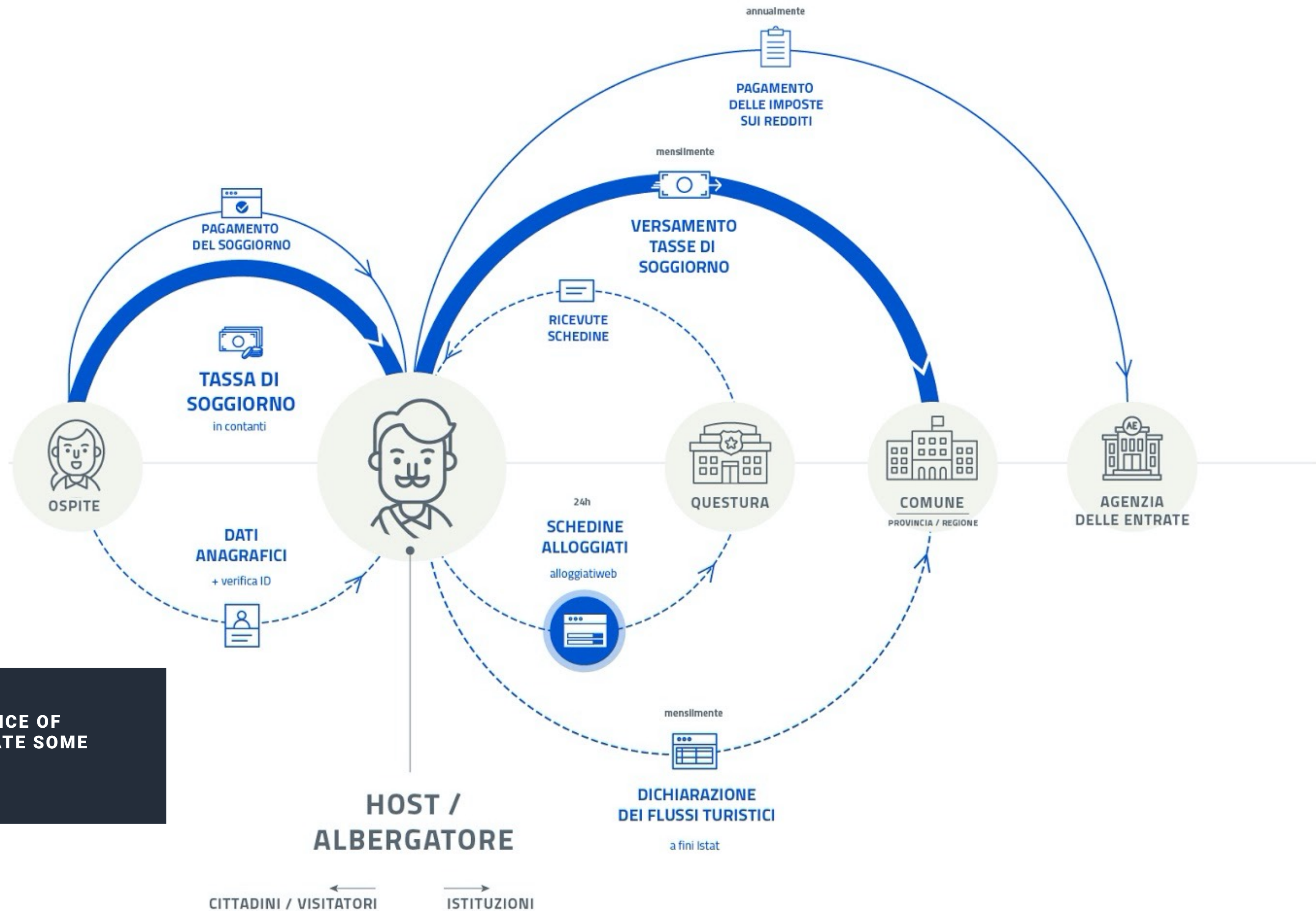# CHECK FOR THE GAPS BETWEEN ELEMENTS

OR SOME UNEXPECTED CONNECTIONS

SYSTEM MAP
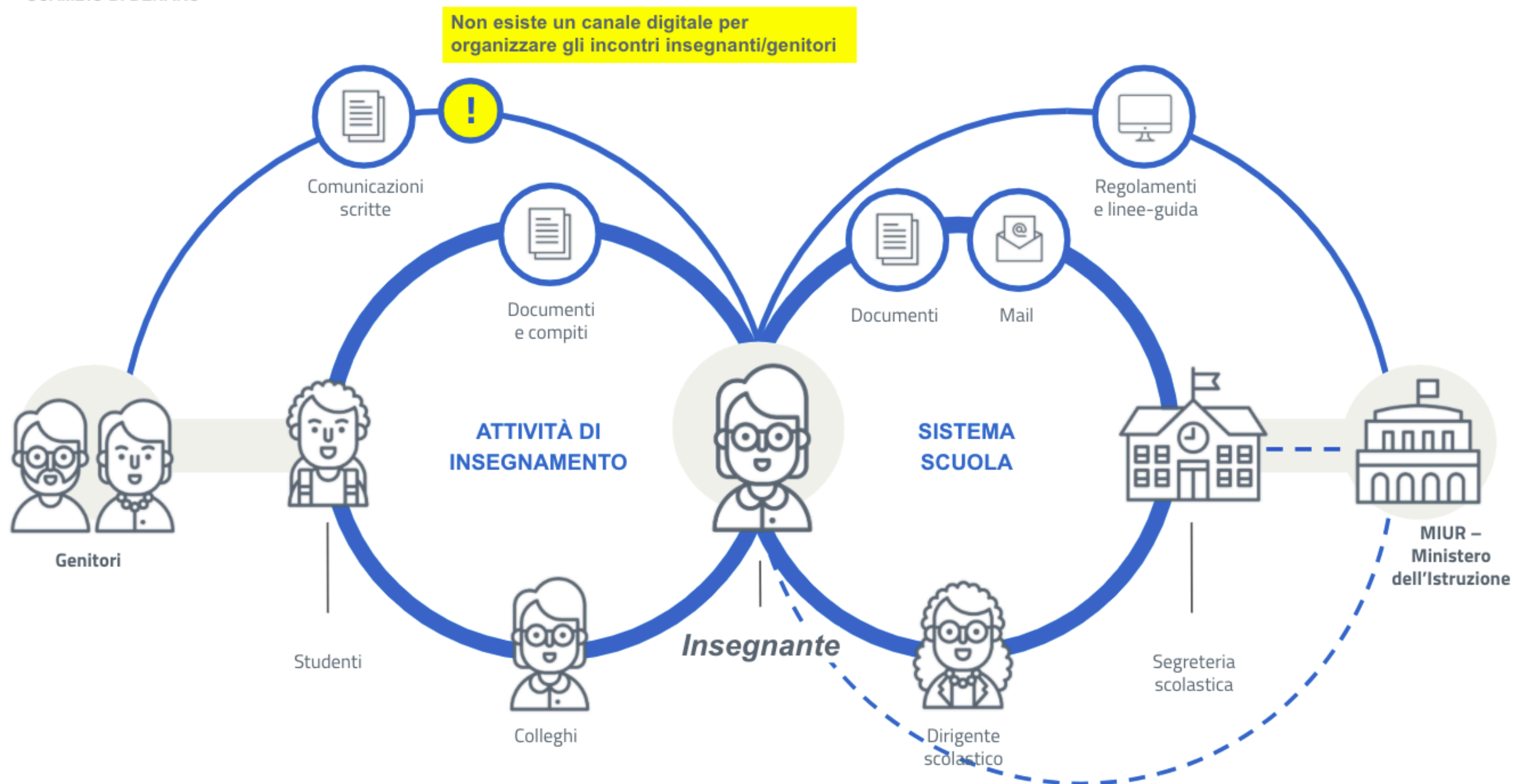

annualmente

**PAGAMENTO
DELLE IMPOSTE
SUI REDDITI**

mensilmente

**VERSAMENTO
TASSE DI
SOGGIORNO**

**PAGAMENTO
DEL SOGGIORNO**

RICEVUTE
SCHEDINE

**TASSA DI
SOGGIORNO**

in contanti

24h

**SCHEDINE
ALLOGGIATI**

alloggiatiweb

OSPITE

QUESTURA

COMUNE

PROVINCIA / REGIONE

AGENZIA
DELLE ENTRATE

**DATI
ANAGRAFICI**

+ verifica ID

mensilmente

**DICHIARAZIONE
DEI FLUSSI TURISTICI**

a fini Istat

HOST /
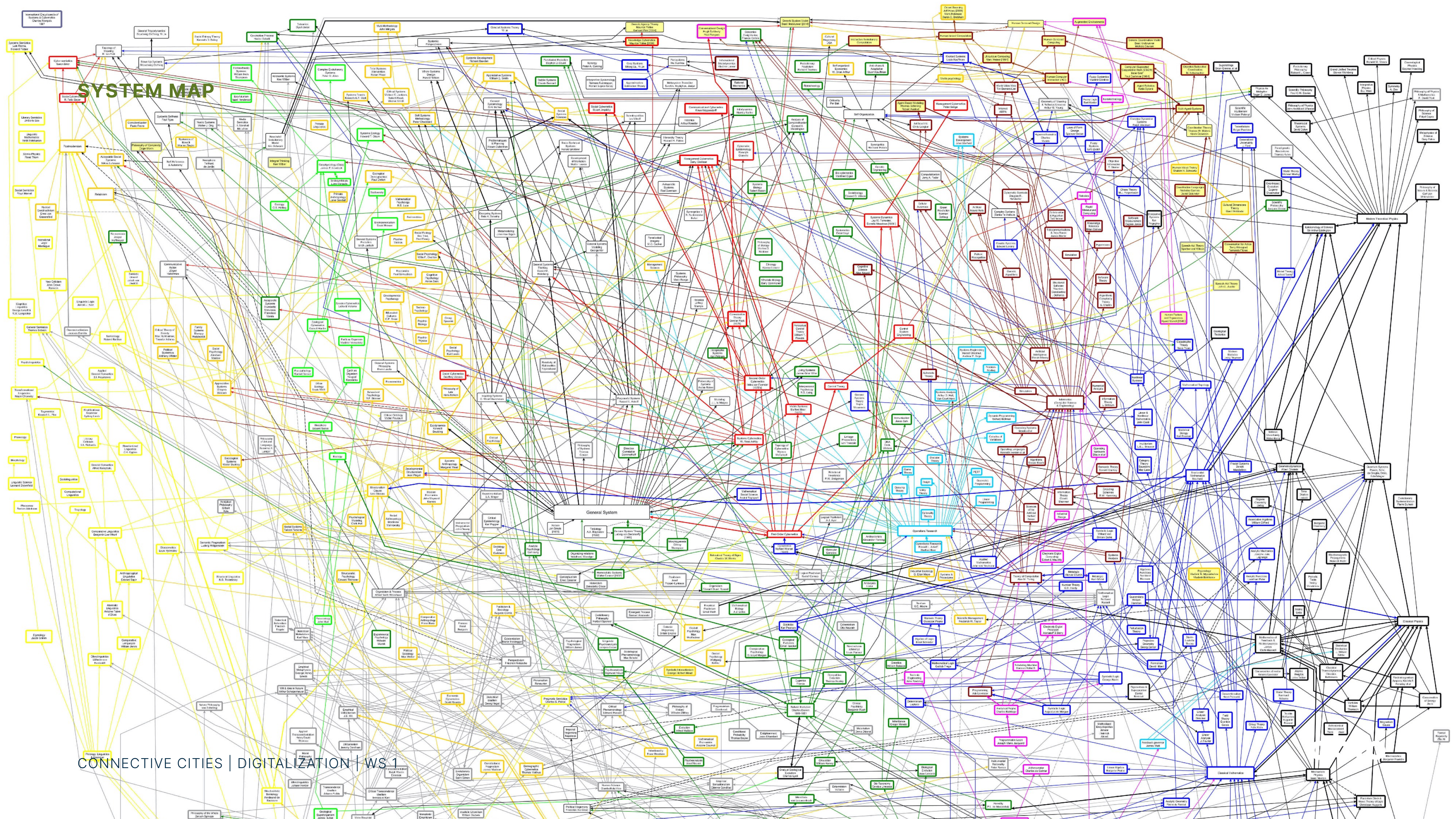ALBERGATORE

CITTADINI / VISITATORI   ISTITUZIONI

**OVERALL BALANCE OR MISBALANCE OF
CONNECTIONS WILL ALSO INDICATE SOME
WEAK POINTS IN THE SYSTEM**

Il sistema scolastico

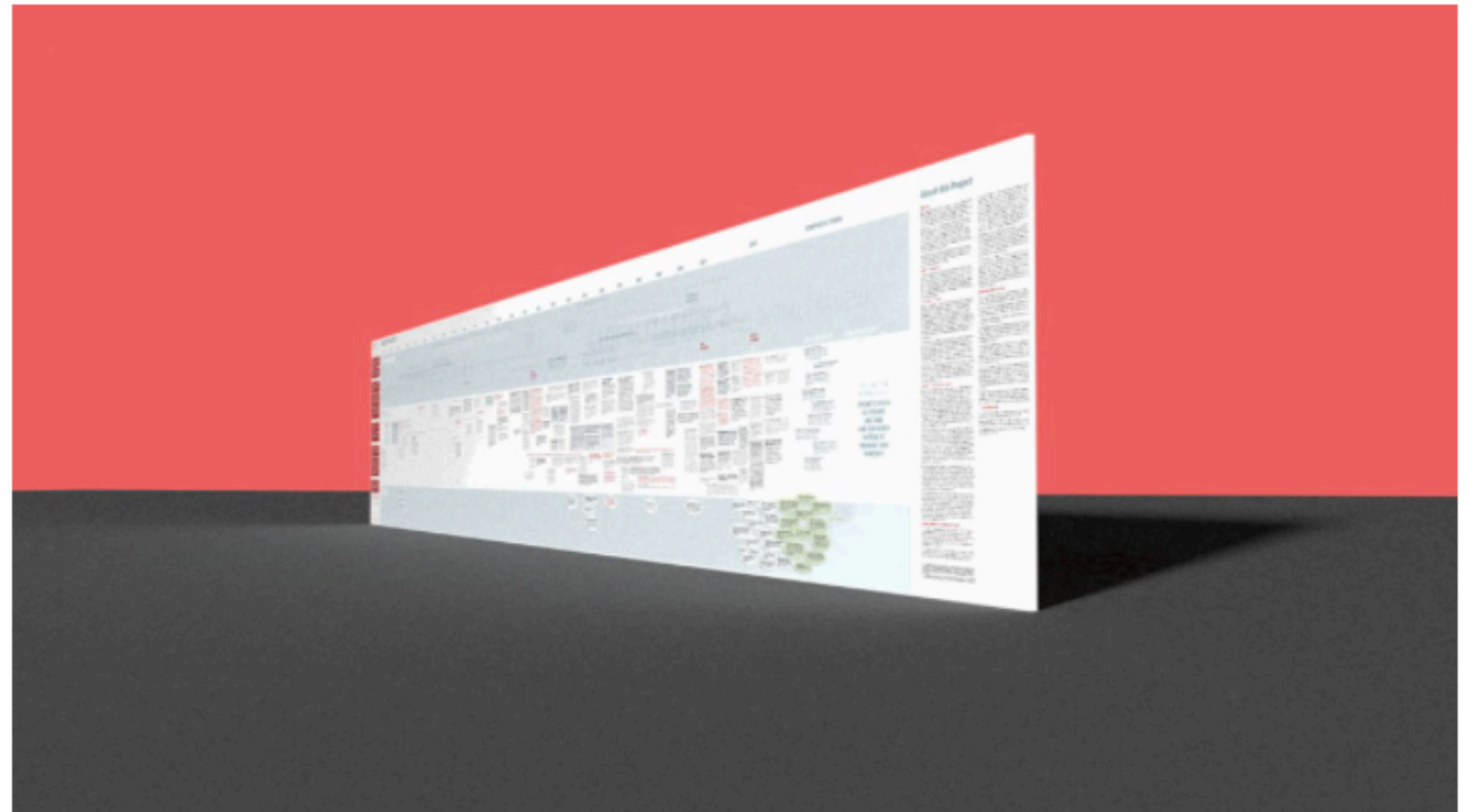**SCAMBIO DI INFORMAZIONI**

SCAMBIO DI DENARO

Non esiste un canale digitale per organizzare gli incontri insegnanti/genitori

Comunicazioni scritte

!

Documenti e compiti

Documenti

Mail

Regolamenti e linee-guida

ATTIVITÀ DI INSEGNAMENTO

SISTEMA SCUOLA

Genitori

Studenti

Insegnante

Colleghi

Dirigente scolastico

Segreteria scolastica

MIUR – Ministero dell'Istruzione

SYSTEM MAP
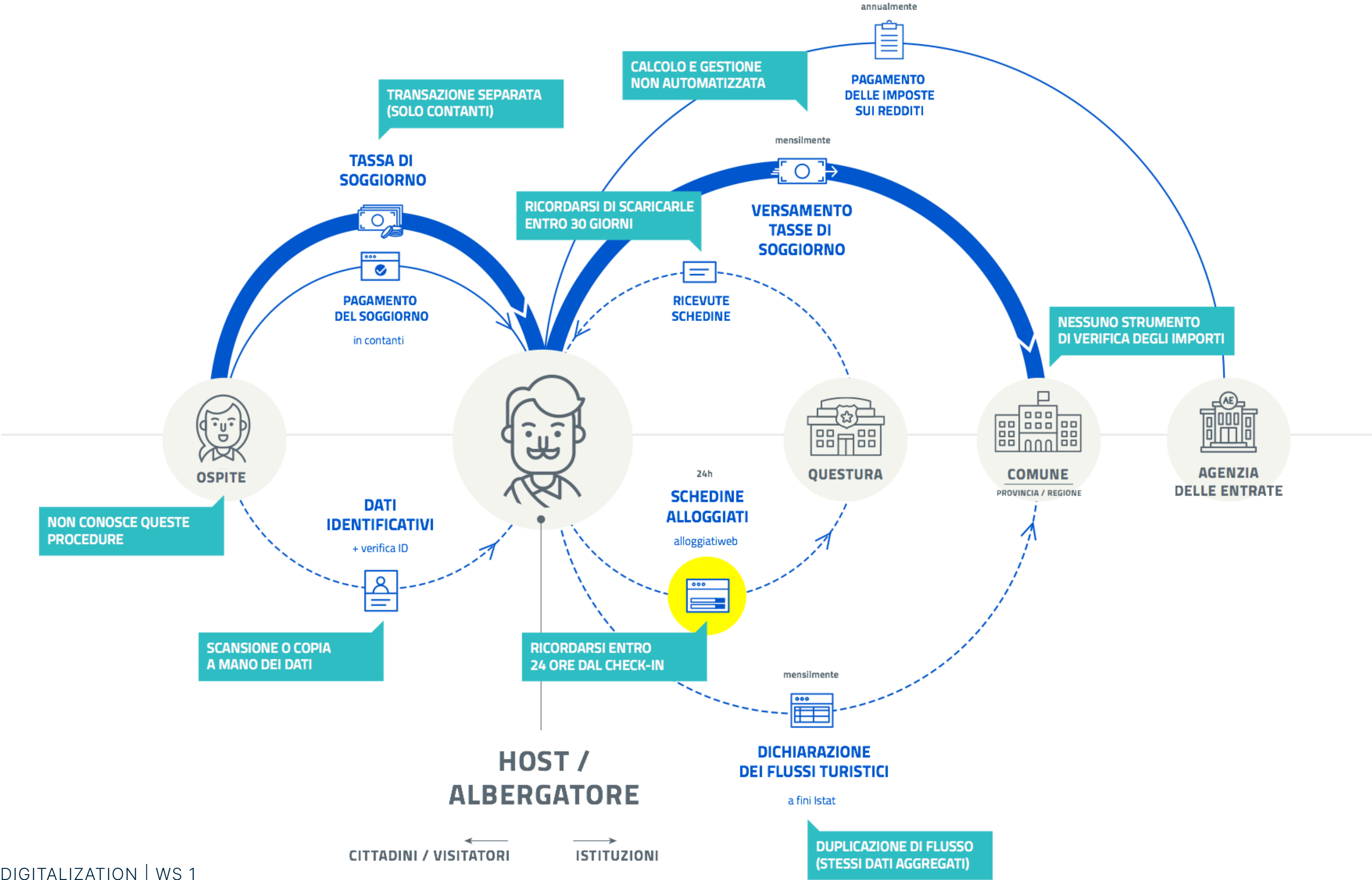
CONNECTIVE CITIES | DIGITALIZATION | WS 1

06-17-20 | 1:45 PM | CORONAVIRUS

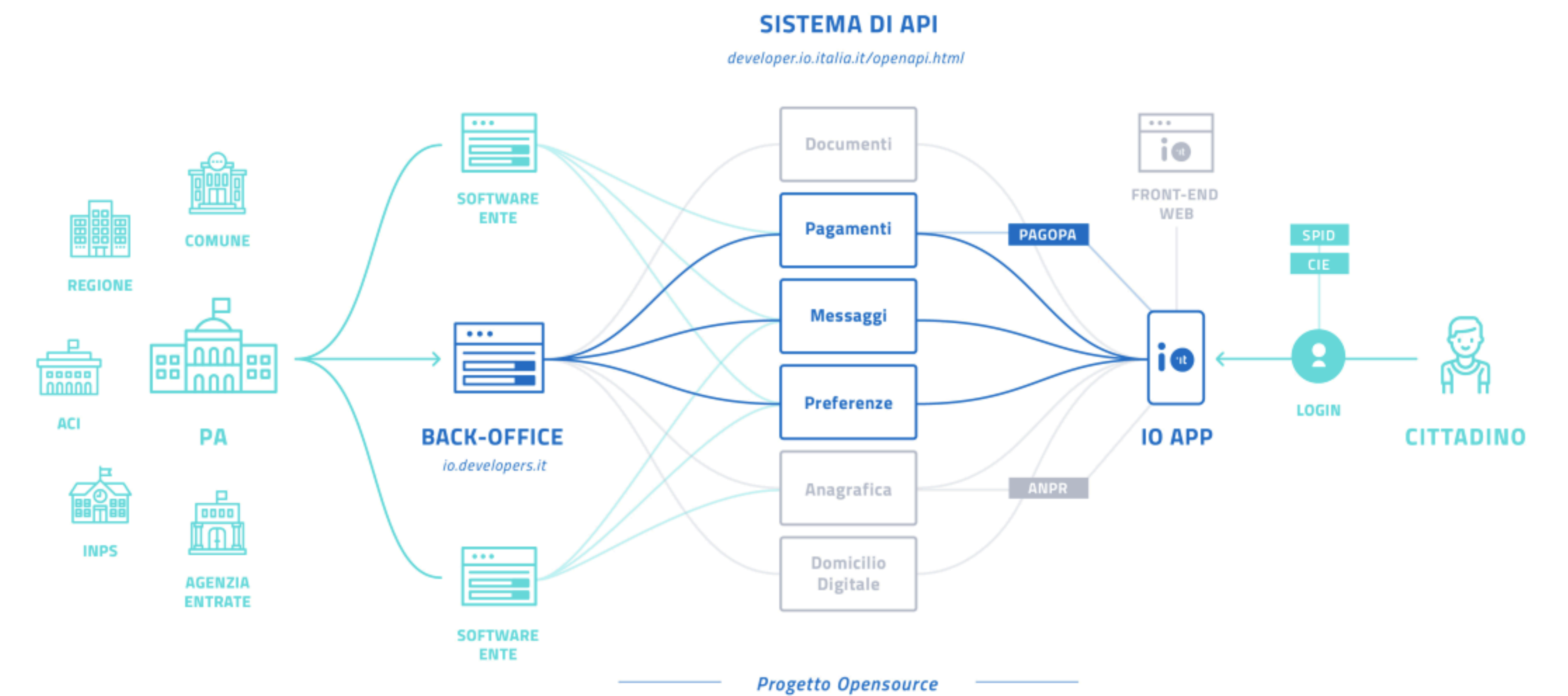# This 22-foot long 'problem map' looks at the systemic failures that made COVID spread in the U.S.

Can we use the pandemic to come up with broad solutions that fix more than just the virus?

SYSTEM MAP

TASSA DI SOGGIORNO

TRANSAZIONE SEPARATA (SOLO CONTANTI)

CALCOLO E GESTIONE NON AUTOMATIZZATA

PAGAMENTO DELLE IMPOSTE SUI REDDITI

annualmente

RICORDARSI DI SCARICARLE ENTRO 30 GIORNI

VERSAMENTO TASSE DI SOGGIORNO

mensilmente

PAGAMENTO DEL SOGGIORNO

in contanti

RICEVUTE SCHEDINE

NESSUNO STRUMENTO DI VERIFICA DEGLI IMPORTI

OSPITE

QUESTURA

COMUNE
PROVINCIA / REGIONE

AGENZIA DELLE ENTRATE

NON CONOSCE QUESTE PROCEDURE

DATI IDENTIFICATIVI
+ verifica ID

24h

SCHEDINE ALLOGGIATI
alloggiatiweb

SCANSIONE O COPIA A MANO DEI DATI

RICORDARSI ENTRO 24 ORE DAL CHECK-IN

mensilmente

HOST / ALBERGATORE

DICHIARAZIONE DEI FLUSSI TURISTICI

a fini Istat

CITTADINI / VISITATORI   ISTITUZIONI

DUPLICAZIONE DI FLUSSO (STESSI DATI AGGREGATI)

SYSTEM MAP

SISTEMA DI API

developer.io.italia.it/openapi.html

REGIONE

COMUNE

ACI

PA

INPS

AGENZIA ENTRATE

SOFTWARE ENTE

BACK-OFFICE

io.developers.it

SOFTWARE ENTE

Documenti

Pagamenti

Messaggi

Preferenze

Anagrafica

Domicilio Digitale

PAGOPA

ANPR

FRONT-END WEB

IO APP

SPID

CIE

LOGIN

CITTADINO

Progetto Opensource

How to build a system map?

PUT THE USER AT THE CENTER

LOOSER RELATIONS

STRONG TIES

ORGANISE IT IN SECTORS

Different sectors can be referred to different areas such as: personal relations, professional relations, clinic relations.

LOOSER RELATIONS

STRONG TIES

DIRECTLY FIRE-RELATED

INDIRECTLY FIRE-RELATED
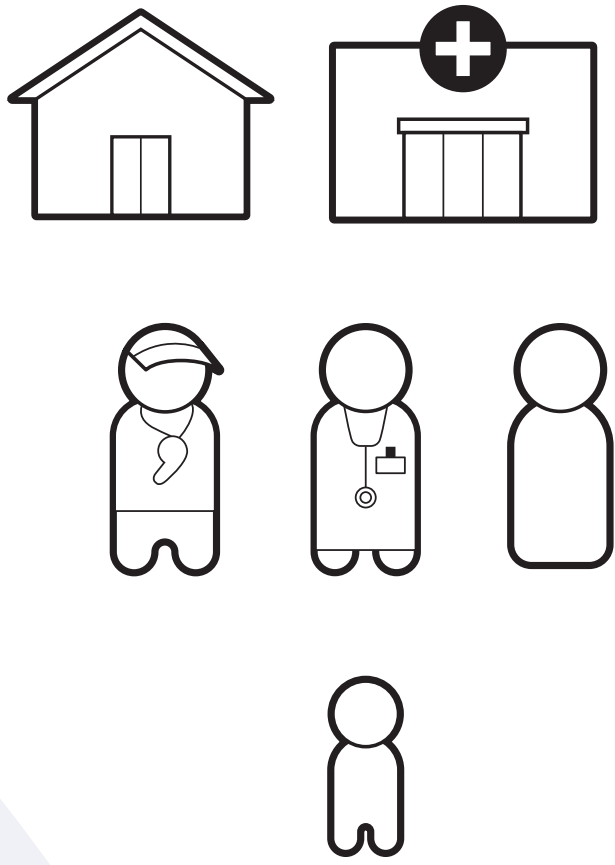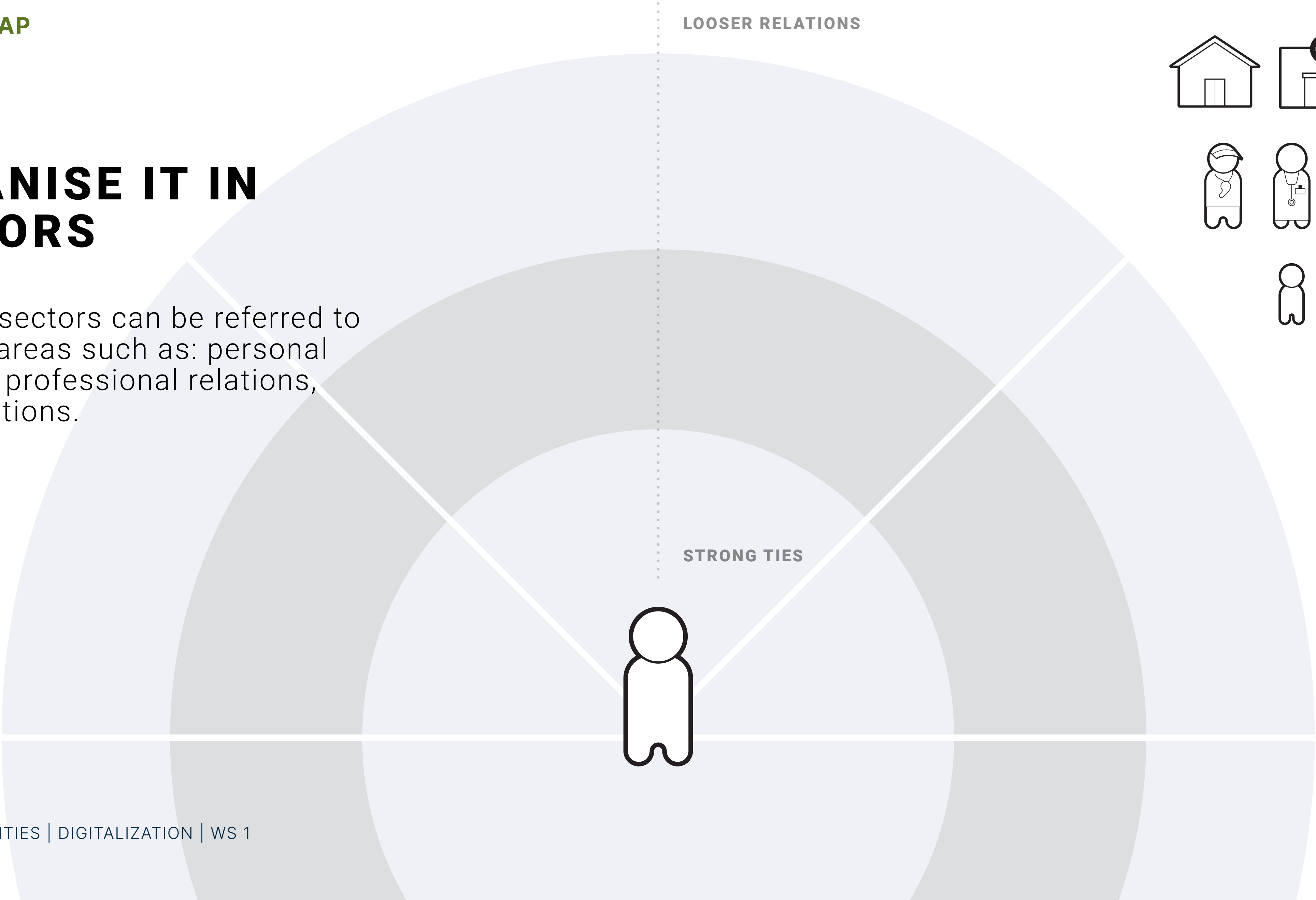
MINOR PRESENCE

ADD ALL THE STAKEHOLDER AND THEIR CONNECTIONS

FIRE SERVICES

HEALTHCARE

NGO

SECURITY

NGO

FIRE SERVICE

CLINIC

POLICE

FINANCIAL

PATROL

EDUCATION

NGO

BANK

SCHOOL

SAVING GROUPS

HOUSE

GOVERNMENT

HOUSEMATES

DWELLER

NEIGHBORHOOD

LEADERS

GOVERNMENT

SETTLEMENT

INSTITUTION   INFORMAL ROLES   COMMUNITY
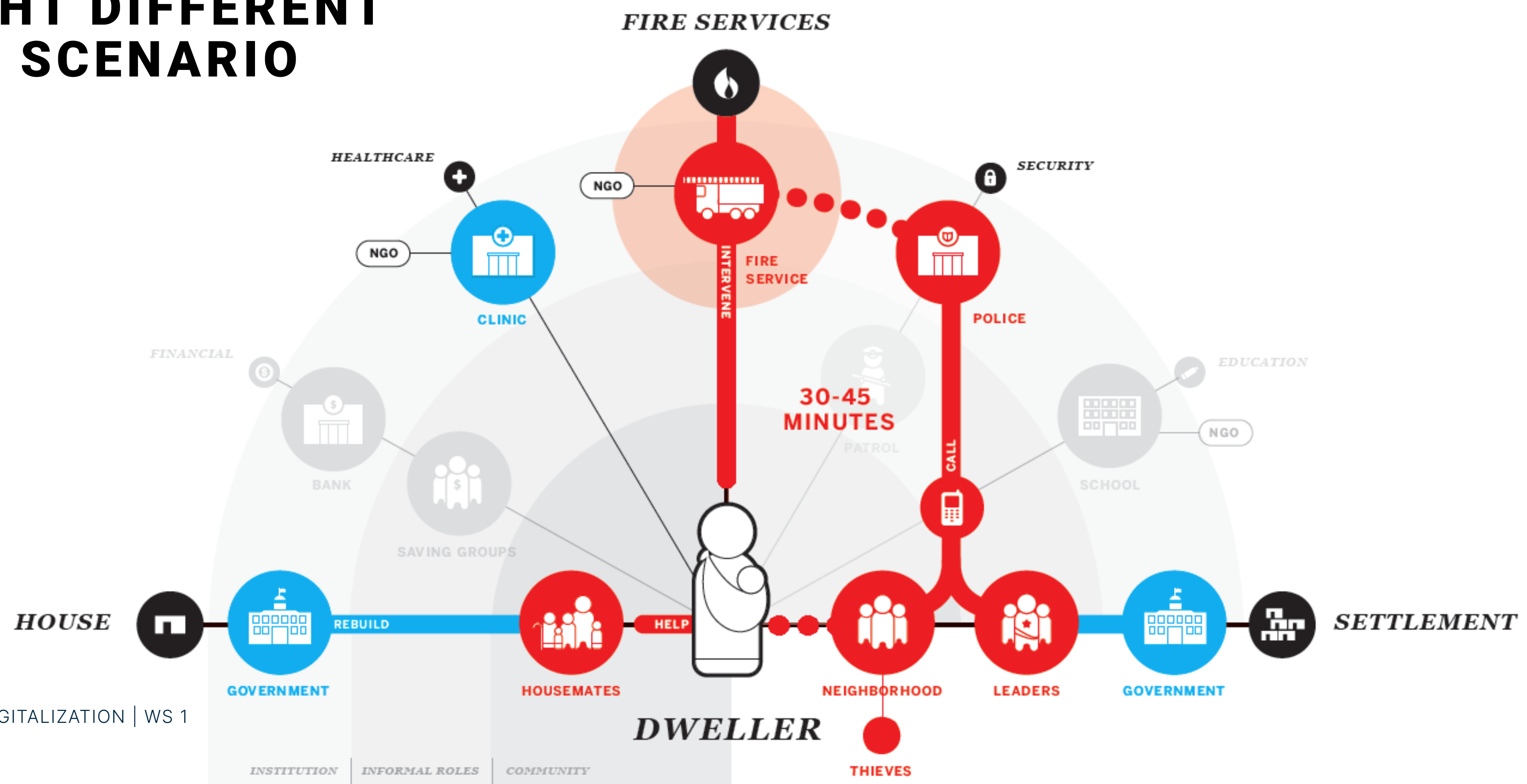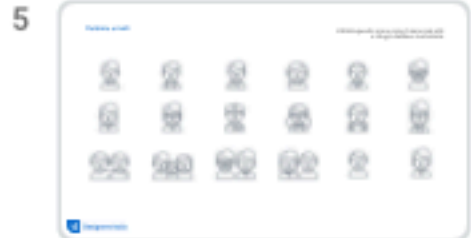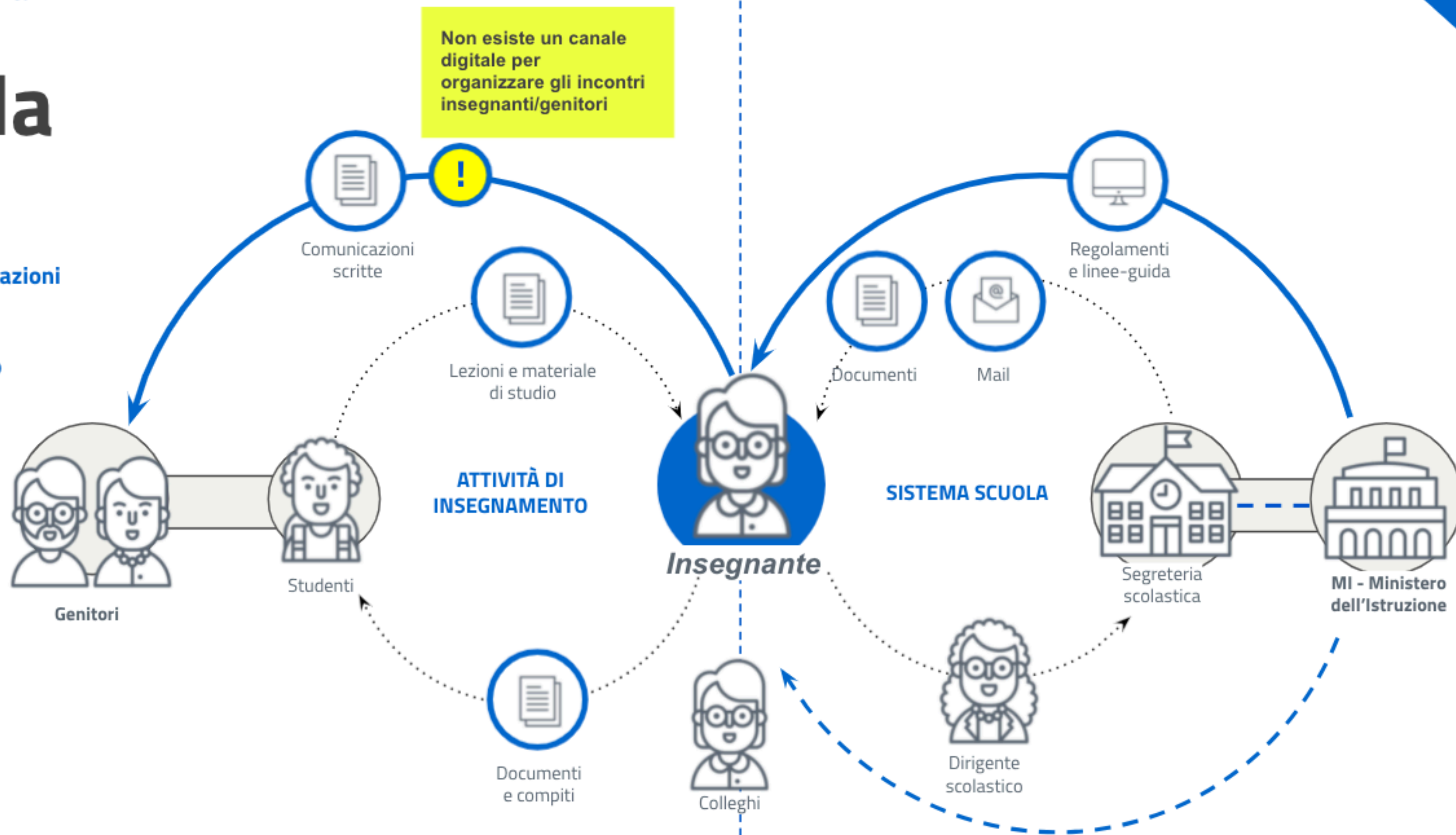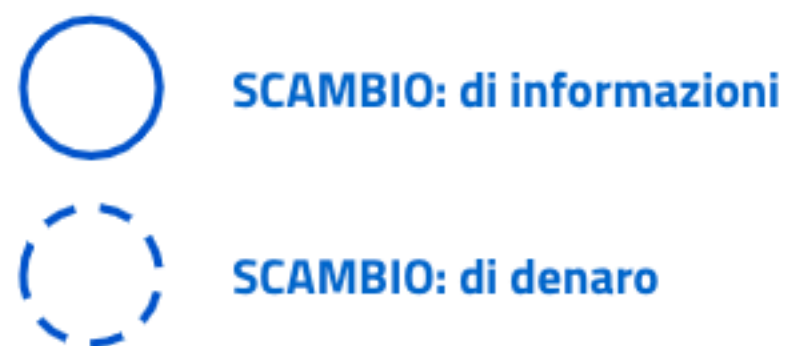
System map helps to analyze context and locate your challenges within it and see how they are connected to other aspects of the system, or identify new challenges you haven't noticed before.
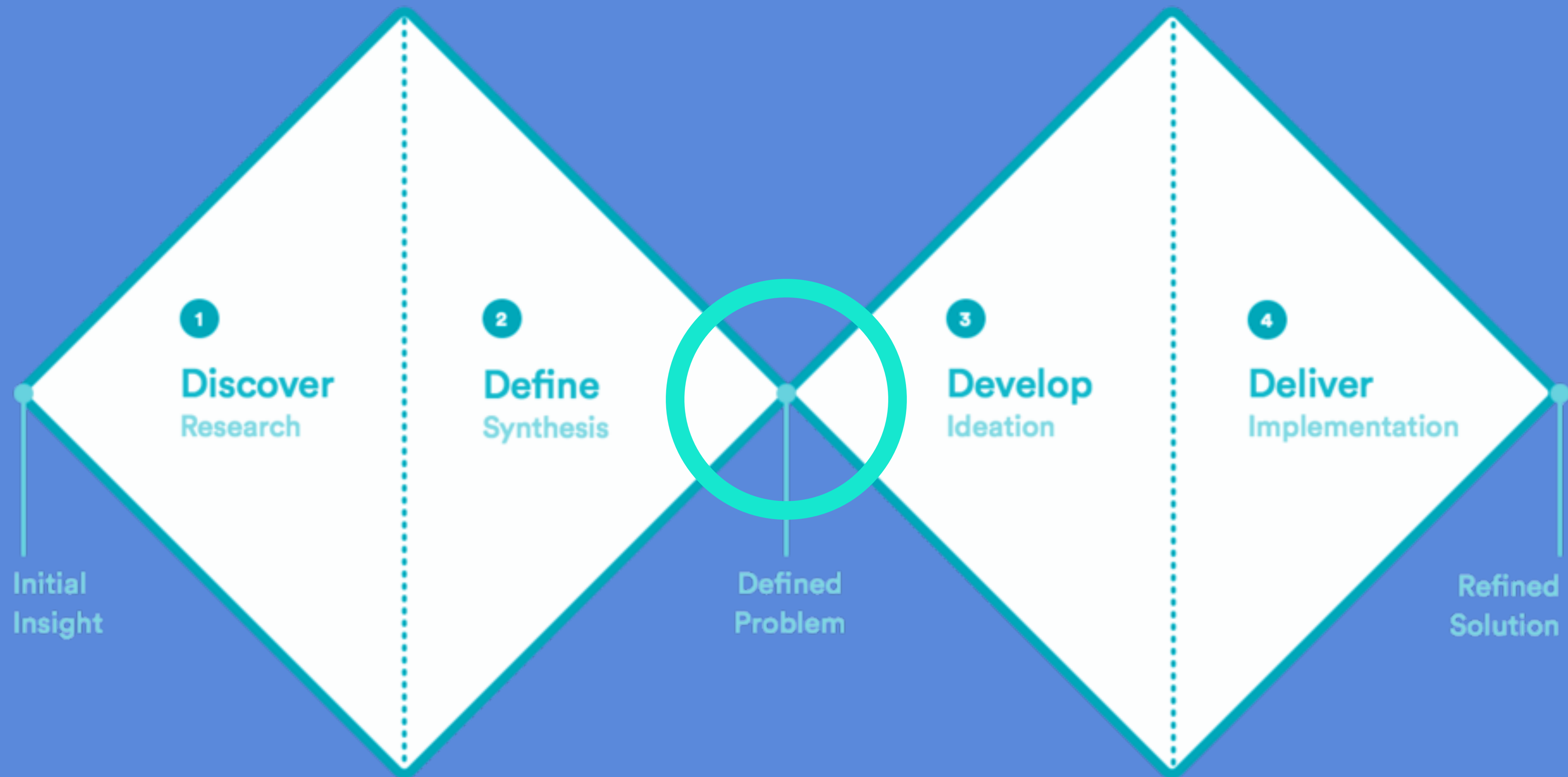
?

Any question?

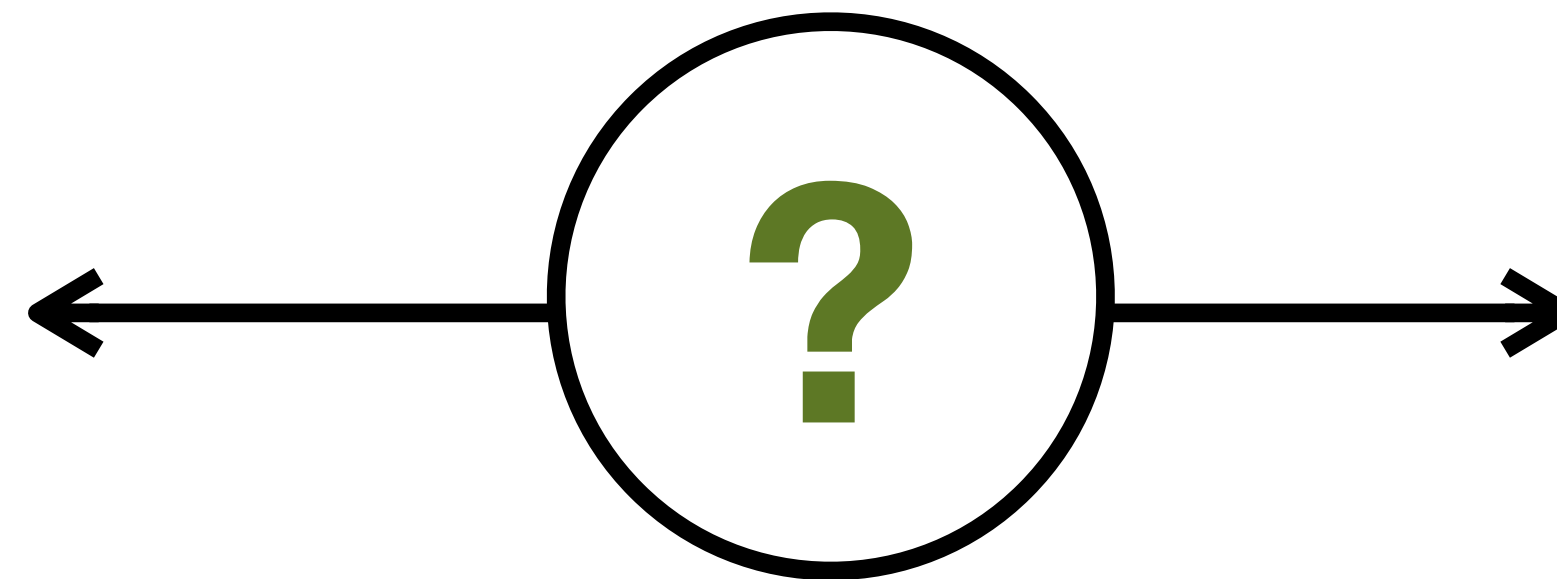# Problem/challenge framing

Double diamond model by Design Council

"If I had an hour to solve a problem and my life depended on the solution, I would spend the first 55 minutes determining the proper question to ask... for once I know the proper question, I could solve the problem in less than five minutes."

(Probably A.Einstein)

We need to restyle the website interface

?

We need to redesign overall system

Doesn't solve the real problem

Solves (some part) of the problem and is feasible

Very difficult to achieve

Restyle the website interface

Improve the property registration journey

Redesign the overall system

Doesn't solve the real problem

Solves (some part) of the problem and is feasible

Very difficult to achieve

Develop an automated tool to deal with sensitive data

Provide guidance to NGOs dealing with sensitive data

Become a central node for all sensitive data storage

Doesn't solve the real problem

Solves (some part) of the problem and is feasible

Very difficult to achieve

PROBLEM FRAMING

Too Broad	Just Right	Too Narrow
How might we end hunger?	***How might we connect institutional food surpluses to those in need?***	How might we design an app to help food pantries get more donations?
Hunger is a huge multifaceted problem and this statement doesn't target a specific area of intervention.	*This statement provides enough specificity while remaining open to a variety of possible solutions.*	This statement presupposes too many details about the solution (an app) and doesn't leave enough room for innovation.
How can we make cycling safer?	***How might we make urban cyclists more visible to drivers at night?***	How can we make better lights for cyclists?
What aspects of cycling? This is too broad.	*This statement provides enough specificity (urban, night time visibility) while remaining open to a variety of possible solutions.*	How do we know lights are the best solution? This statement doesn't leave enough room for creative problem solving.

DiY
Development Impact & You

by **nesta**

PRACTICAL TOOLS TO TRIGGER & SUPPORT SOCIAL INNOVATION

TOOLS | BLOG | ABOUT | BACKGROUND | DIY LEARN

FIND YOUR TOOL

HOME > TOOLS > TOOLS > CLARIFY MY PRIORITIES > PROBLEM DEFINITION

https://diytoolkit.org/tools/problem-definition-2/
https://www.open.edu/openlearncreate/course/
view.php?id=2213

I want to clarify my priorities
by focusing on key critical issues.

PROBLEM DEFINITION

GO TO DIY LEARN MODULE   DOWNLOAD

DiY**08**

I want to clarify my priorities
by focusing on key critical issues

PROBLEM DEFINITION

| What is the key issue you are trying to address and why is it important? | Who is it a problem for? | What social or cultural factors shape this problem? | What evidence do you have that this is worth the investment? | Can you think of this problem in a different way?

Can you reframe it? |

CONNECTIVE CITIES | DIGITALIZATION | WS 1

DIY Kit Problem definiton

What is the key issue you are trying to address and why is it important?

Who is it a problem for?
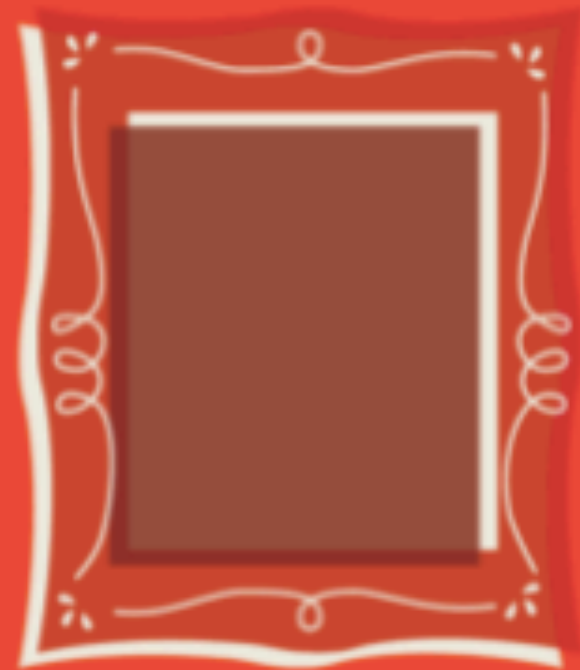
What social/ cultural factors shape this problem?

What evidence do you have that this is worth the investment?

Can you think of this problem in a different way? Can you reframe it?

https://www.designkit.org/methods/frame-your-design-challenge
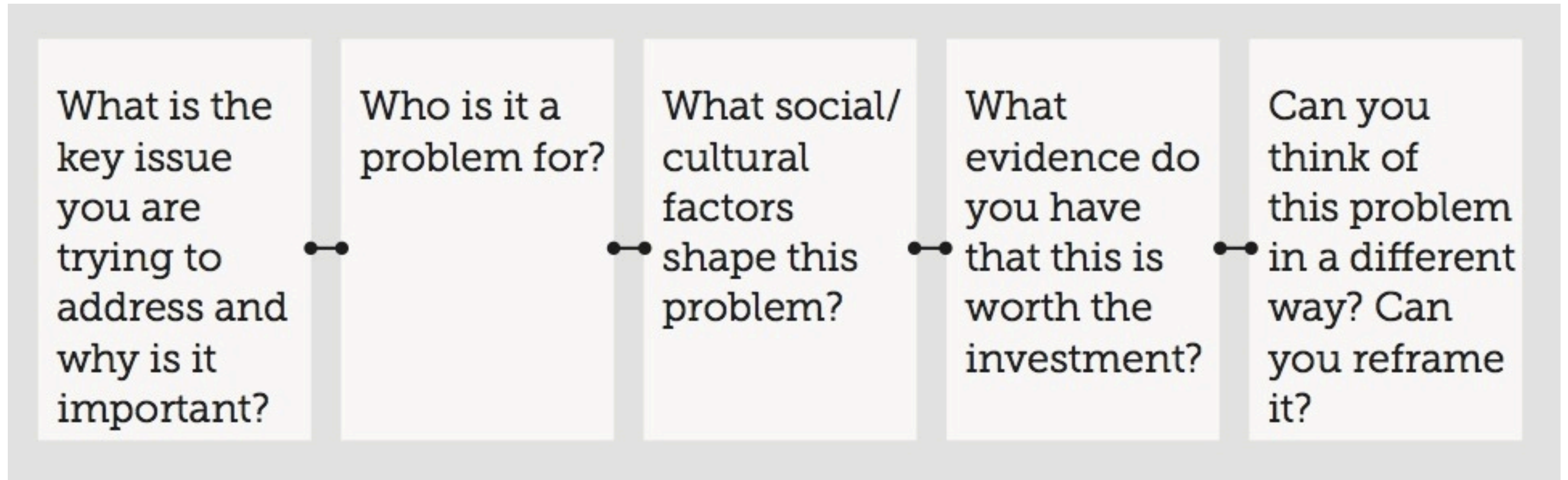
Frame Your Design Challenge

Properly framing your design challenge is critical to your success. Here's how to do it just right.

STATS

Suggested Time
1-2 days

Level of Difficulty
Moderate

A design challenge articulates the problem you are trying to solve, and helps you define a scope that is neither too narrow nor too broad. The **Frame Your Design Challenge worksheet** will guide you through a series of steps to get the right frame on your challenge and get started on the right foot. As you do this you'll ask yourself: Does my challenge drive toward ultimate impact, take into account context and constraints, and allow for a variety of potential solutions? You'll dial those in, and then refine your challenge until it's one you're excited to tackle.
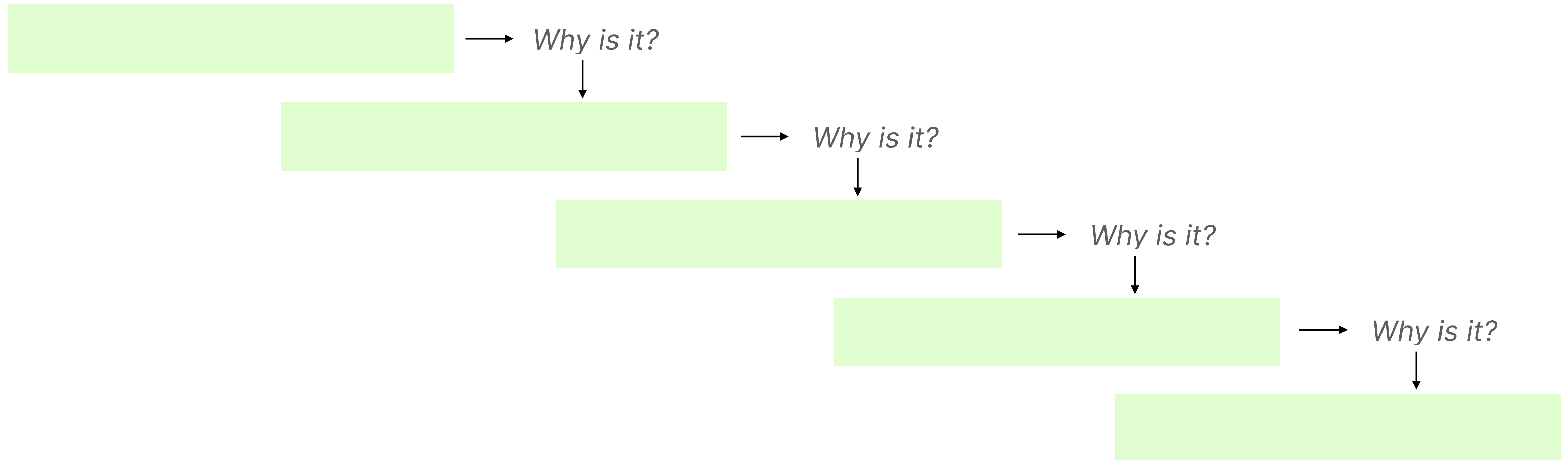
IDEO Challenge Framing

1. Describe a problem you want to solve

2. Rewrite it in a form of a short question

3. Define the goal or desired outcome / impact

4. Think of the context, audience, constraints

5. Review the initial question (step 2) and rewrite it

Root cause identification (5 whys)

Define the problem

Why is it happening?

→ *Why is it?*

Why is it?

→ *Why is it?*

→ *Why is it?*

Why is it?

Root cause identification (5 whys)

Hosts don't register guests properly

Why is it happening?

They cannot use the portal when guests arrive → *Why is it?*

They don't have a suitable device with them → *Why is it?*

Portal cannot be used from mobile → *Why is it?*

It has a specific security protocol → *Why is it?*

The personal information should be better protected

Root cause identification (5 whys)

One of the route causes

Possible design challenge

The personal information should be better protected

→

How might we protect personal information while ensuring the usability?

NB

There is no one single perfect challenge for a project or some problem, but multitude of them that can be framed from different perspective.

The goal is to find the most useful among them.

Root cause identification (5 whys)

Hosts don't register guests properly

Why is it happening?

They cannot register
on the portal

→ *Why is it?*

They do not want to register
their property

→ *Why is it?*

They think it is
too difficult to do

→ *Why is it?*

They don't find the proper
information about it

→ *Why is it?*

The process is fragmented
between cities

One of the route causes

Possible design challenge

The process is fragmented between cities

➡️

How might we create a more unified property registration journey ?

Challenge definition checklist

- It was analysed to be (one of) a core problem(s)
- It is within the boundary of your control (feasible)
- It is not too broad or narrow
- It has a large impact
- It cannot be further reframed to become clearer

?

Any question?

CONNECTIVE CITIES

Thank you very much for your attention!
Get connected on www.connective-cities.net

See you in 10 minutes!