



# Contents

<u>Introduction</u>	<u>5</u>
<u>Welcome to the adventure of resilience!</u>	<u>6</u>
<u>How to use this road map?</u>	<u>7</u>
<u>By using the REFACE road map, you can be better</u>	<u>8</u>
<u>I. Why?</u>	<u>9</u>
<u>Who am I &amp; in what position?</u>	<u>9</u>
<u>Self-assessment questionnaires</u>	<u>10</u>
<u>II. What?</u>	<u>13</u>
<u>WHAT is resilience and its main characteristics?</u>	<u>14</u>
<u>The core components of resilience</u>	<u>17</u>
<u>Resilience lifecycle</u>	<u>17</u>

<u>WHAT types of resilience do we recognize?</u>	<u>18</u>
<u>WHAT is the framework for building the regional resilience?</u>	<u>24</u>
<u>III. How?</u>	<u>30</u>
<u>Identification &amp; engagement of regional key players</u>	<u>32</u>
<u>Assessment of a region: Planning process</u>	<u>38</u>
<u>Resilience goals setting – resilience strategy plan</u>	<u>45</u>
<u>Self-Reliant Resilience Financing</u>	<u>50</u>
<u>Monitoring and Evaluating</u>	<u>50</u>

<u>Instead of the conclusion</u>	<u>52</u>
<u>Resources</u>	<u>54</u>



Acknowledgement: ReFace is co-funded by the Erasmus+ Programme of the European Union under Grant Agreement n° 2020-1-SK01-KA202-078307

Disclaimer: The European Commission's support for the production of this publication does not constitute an endorsement of the contents, which reflect the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.



Co-funded by the  
Erasmus+ Programme  
of the European Union

# Legend



Follow the white rabbit



Attention! Good to know!



You might be interested

# Introduction

Do you agree with them? RESILIENCE

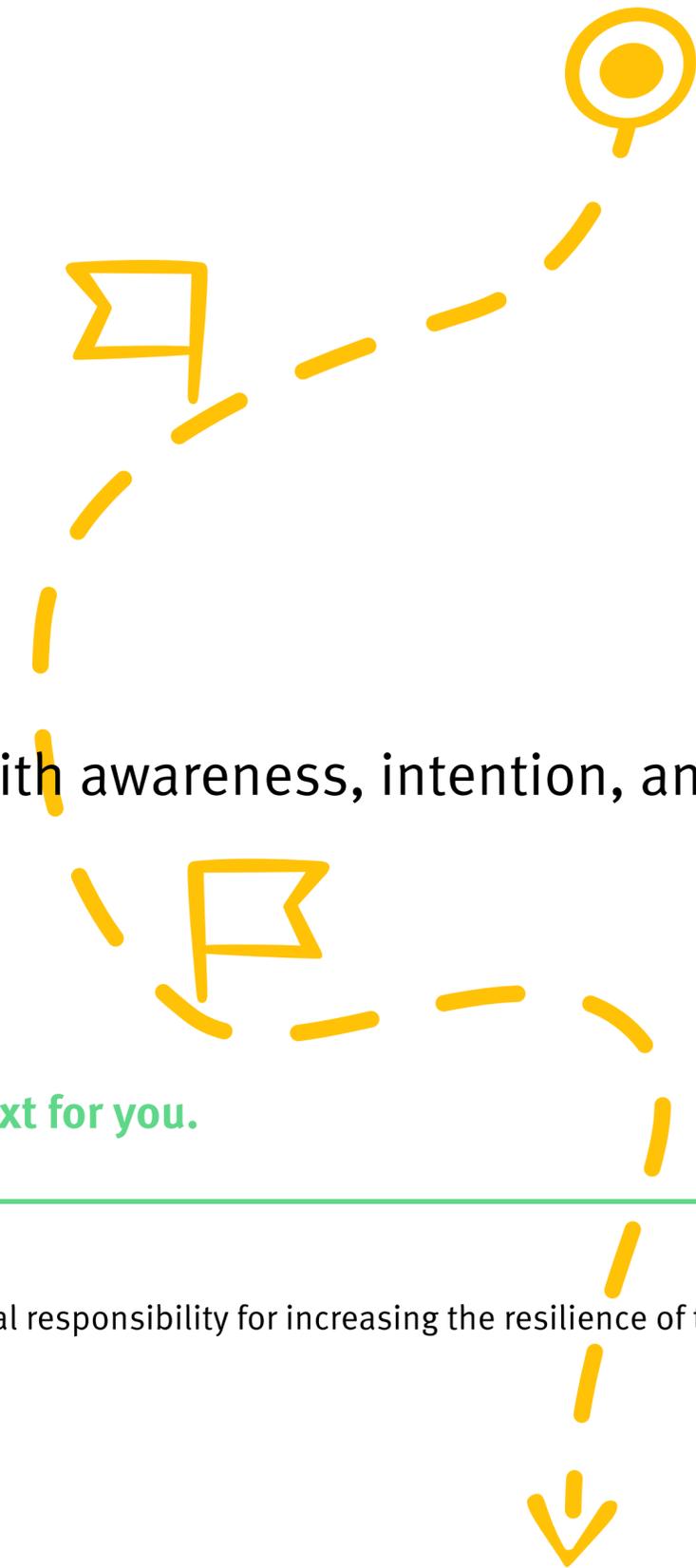
- R** relatively familiar concept to me
- E** ehmm:-)
- S** sometimes I feel like I could be more resilient
- I** I am interested in the concept of resilient communities, cities, regions
- L** learning how to be resilient is a challenge for me
- I** I want my community, city, region to have a resilience plan
- E** eventually, ability to bounce back from difficulty, to navigate challenges with awareness, intention, and skill
- N** never say never
- C** the concept of a resilient region has multiple dimensions
- E** engagement is an important success factor



If you agree with at least half of it, you're in the right place and you're reading the right text for you.

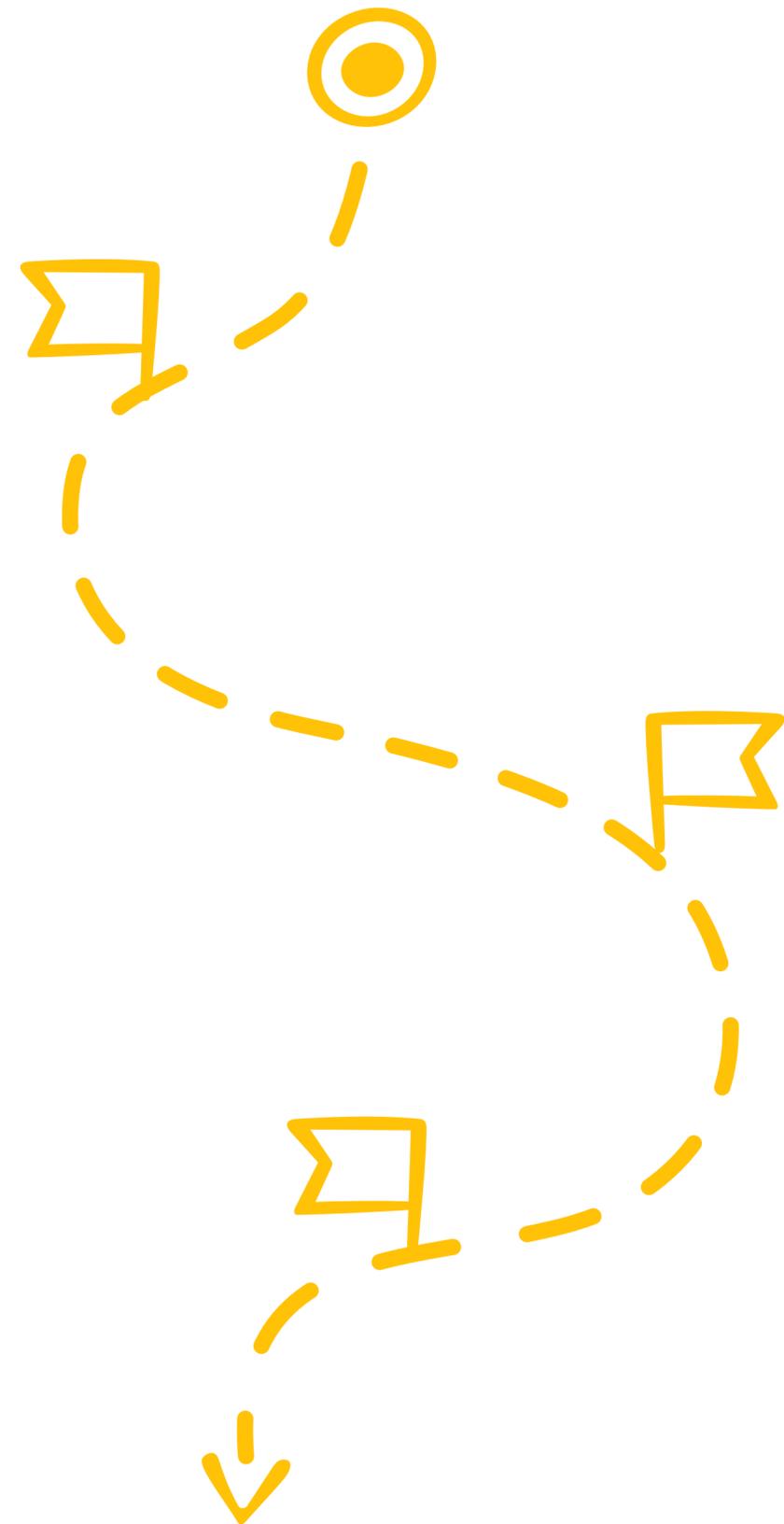
This road map is an output of the project ReFace. <https://reface-project.eu/sk/>

Road map is intended for anyone interested in the topic of resilience, but is primarily intended to assist those who also have a formal responsibility for increasing the resilience of the areas they manage — regional and local government.



# Welcome to the adventure of resilience!

Why adventure? When we set out on an adventurous expedition, we go into uncertainty and only anticipate what may occur. Whether we'll get bitten by a snake or lost in the woods... In the theme of resilience, we play the same "game of uncertainty" and prepare for anticipated threats...



# How to use this road map?

This map can be your essential survival guide to building resilience.



## WHY—WHAT—HOW

If going on an adventure journey, it's also good to be personally prepared, have a clear reason, a goal, and know about your strengths and weaknesses



## Read chapter WHY

If I'm going into the wilderness, I need to have a map that I know my way around, to know how much and what supplies of food and water I need, what I'm at risk of and how to avoid, what to do if I get bitten by a spider.

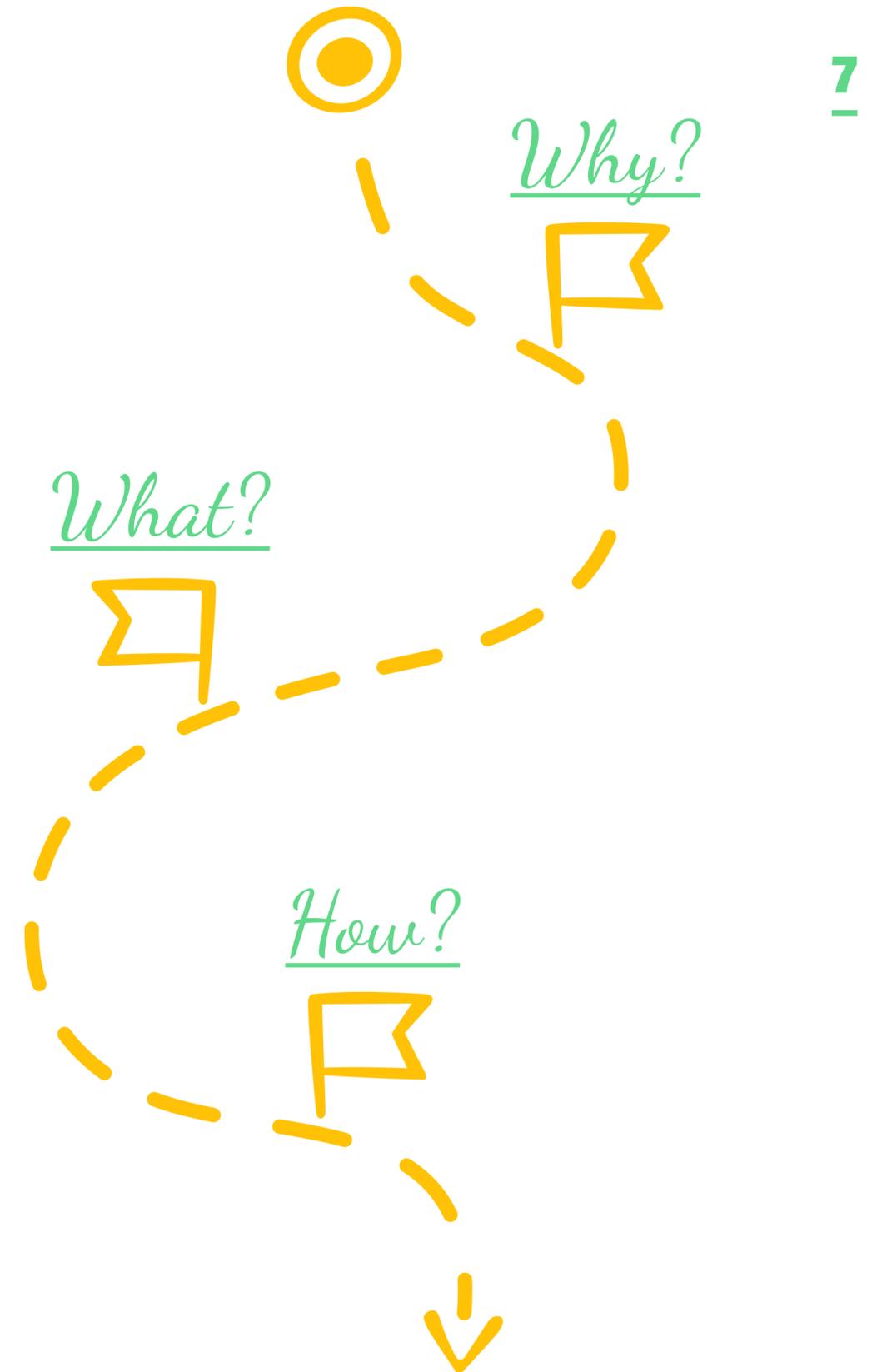


## Read chapter WHAT

If I'm already committed to the journey, it's helpful to have a clear plan, to know what the best route is to get to my destination, who my companions on the journey are and what their roles are, how to encourage each other and not give up.



## Read chapter HOW



## By using the REFACE road map, you can be better

**INFORMED** (You can gain more knowledge & broaden your portfolio)

**UNDERSTANDING** (start changing your attitude toward real use of resilience concept & your role)

**MOTIVATED** (You are aware the need to solve the problems connected with increasing resilience of region).

On the path of building resilience with the map, you will be able to

- explain resilience, its basic frameworks and characteristics, including related concepts
- know the aspects of personal, community and regional resilience
- define the framework for building the region's resilience
- know what is needed to prepare a good strategic plan for the region's resilience
- be able to identify the basic financial resources for the preparation of a region's strategic resilience plan



# I. Why?

Before I embark on further exploration of what I should and could... test yourself!

## Who am I & in what position?

MAYOR

STUDENT

LOCAL GOVERNMENT EMPLOYEE

ENTREPRENEUR

CIVIC ACTIVIST

REGIONAL GOVERNMENT EMPLOYEE

NGO MEMBER

CITIZEN

CORPORATE EMPLOYEE

SENIOR CITIZEN

I want to

I have to

I'm not sure

I should

I don't know what's going on

I'm interested

I'm worried

I have an obligation

Stop and think! How many roles with what setting describes you?

# Self-assessment questionnaires



Before any challenging expedition, it is important to answer the question: What condition am I in? Why am I going there? What do I expect from it? Am I ready? Do I know everything I need to know about it?

Take the self-assessment tests!

Self-assessment questionnaire questions: WHY am I interested in this topic?		yes	no
1	A resilience plan for the community, the region where I live is very important to me		
2	I want to create a resilience plan for my community, city, region.		
3	I want to initiate a resilience plan for my community, city, region.		
4	I want to contribute a resilience plan for my community, city, region.		
5	I am in a work position that allows me to actively input into the resilience planning process.		
6	I have plenty of time to devote to resilience planning.		
7	I know the key actors (personalities, organisations) who are important for the development of my community, city, region.		
8	I am aware of the risks of the cooperative planning process and am willing to deal with them.		
9	My personality strengths include perseverance.		
10	I used to take an active interest in what's going on around me, in my community, city, region.		
11	I like learning new things.		
12	I have practical experience in strategic planning.		
13	I have no problem fighting for political support for the things I care about.		



**ACTIVE MODE** — If I've answered yes to more than half...

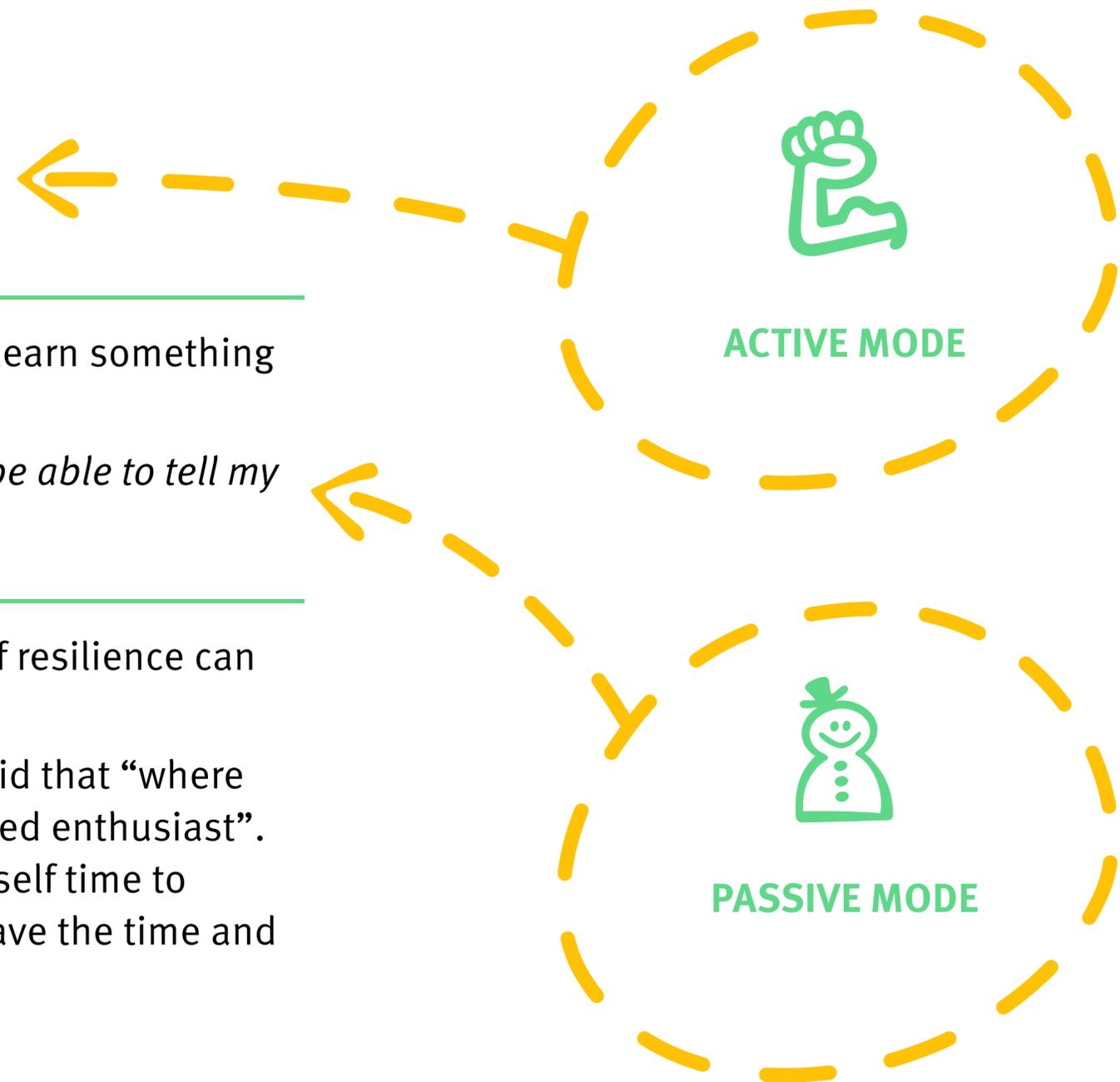
*I want to be an active part of the expedition, maybe even lead it*

**PASSIVE MODE** — If I more than half answered no... “I just want to learn something new”

*I want to read about this expedition in National Geographic:-) and be able to tell my friends about it*

Both modalities are important and necessary so that the concept of resilience can be used in practice.

Motivation is a key determinant of everything we do. It has been said that “where there's a will, there's a way” but also that the worst is the “exhausted enthusiast”. When embarking on a new agenda, it is very important to give yourself time to reflect on the issues: Am I really ready to make a difference? Do I have the time and resources?



Now grade yourself as you did in school, 1 — excellent, 5 — poor.

Self-assessment questionnaire questions: level of knowledge and expertise		1	2	3	4	5
1	I know what the black swan phenomenon is.					
2	I am able to explain the concept of resilience in different contexts.					
3	I know the different types of resilience					
4	I can describe different Dimensions and Trends of Vulnerability and Exposure					
5	I know how to measure the vulnerability of a territory.					
6	I know the difference between risk and hazard.					
7	I know how to create a good strategic plan.					
8	I could create a stakeholder analysis.					
9	I am familiar with the financial resources for resilience plans.					
10	I know what mitigation, adaptation, absorption is in the theme of resilience.					



**If you got an average grade**

- 1 — excellent, please apply to us as a tutor, you are welcome
- 2 — read the road map and give us a feed back
- 3 — come with us on a journey of resilience
- 4 — we look forward to exploring together
- 5 — there's a surprise waiting for you in Moodle — check the ReFace on line course

## II. What?

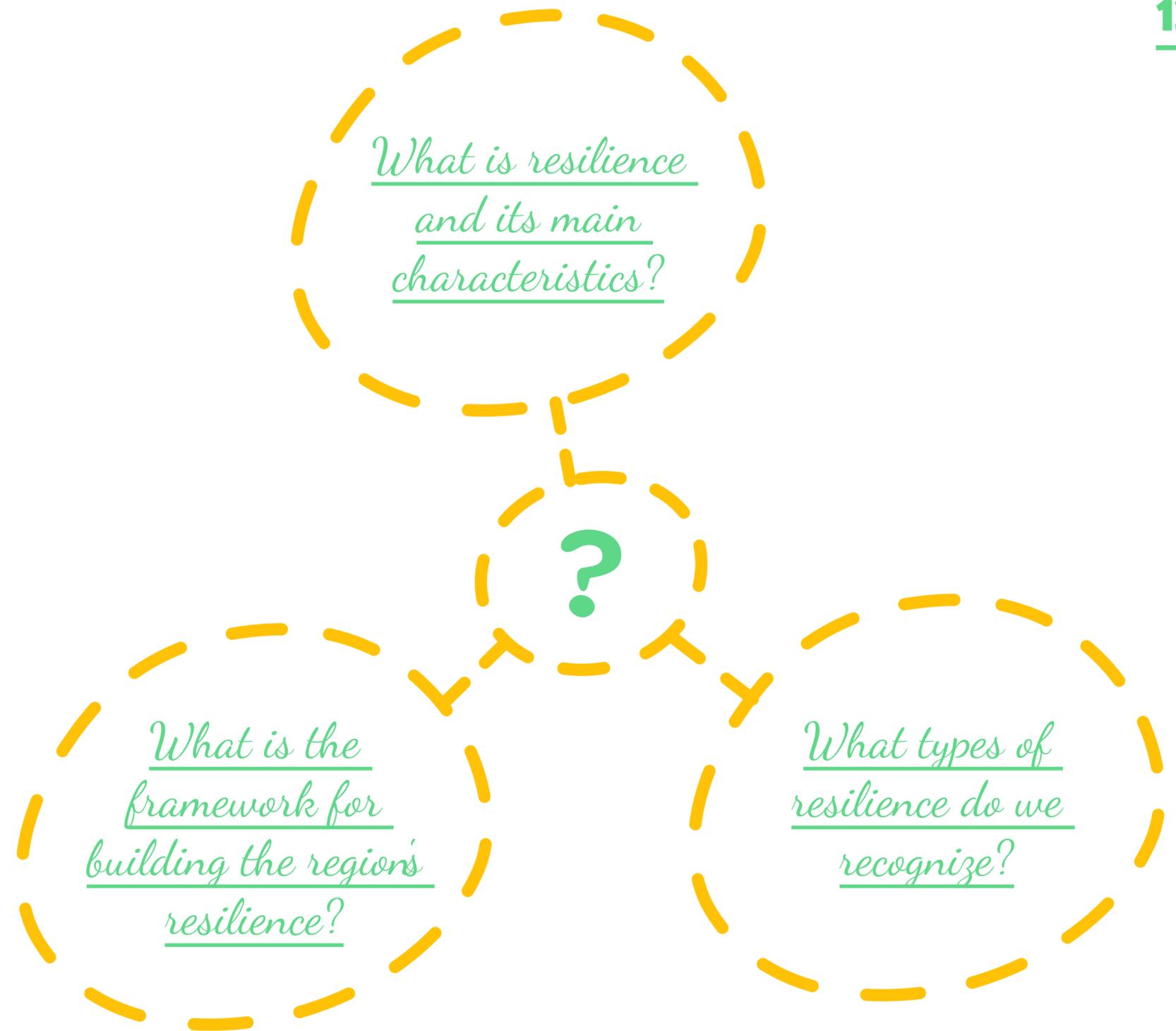
Once, that you know what your motivation is on the road to learning resilience and you are really committed to go, step on the road with us. At the same time, don't forget to notice the things you see around you.

### **Ged ready for your journey!**

Before we start preparing a plan for our trip, we need to know the place we want to enter. Its character, specific features and can be inspired by experiences from other, very similar places. Let's find answers to the questions of what our place “resilience” is about.

Key questions in the preparation phase:

- WHAT is resilience and its main characteristics?
- WHAT types of resilience do we recognize?
- WHAT is the framework for building the region's resilience?



# WHAT is resilience and its main characteristics?

## WHAT IS RESILIENCE?

Firstly, the concept “resilience” has been most often used to respond to environmental change, in relation to climate resilience — the capacity to adapt and thrive to react to climate change — and community resilience — linked to disaster preparedness and emergency response.



But the term resilience has been associated to several other fields ranging from psychology, economic, politics, urbanization or international development. Risk, hazard and vulnerability are closely linked to the resilience. Resilience is certainly a complex concept that can be analysed at multiple scales (e.g. city, urban, community, individual), strictly interlinked between them.



Between 1998 and 2018, disasters related to climatic and geophysical events caused the loss of 1.3 million lives and left 4.4 billion people injured, homeless or displaced. During the same period, the disasters caused direct damage worth more than 3,000 million euros, with climate-related disasters causing approximately 75% of the total (UNISDR and CRED, 2018).



## WHAT DOES THE TERM RESILIENCE MEAN?

**Resilience** is generally understood as the ability and capacity of individuals, organizations, and systems (including communities and regions) **to cope, adapt, and recover from shocks and stresses** (natural disasters, economic crises, demographic changes, health epidemics and others), in a way that reduces the overall vulnerability to possible shocks and stresses in the long term.

It can be said, that it is about how much everything can change. That is, whether we know a sudden stimulus (a shock) that has come to resist sufficiently and little or nothing will change, or whether we can transform into another satisfactory state.

There are two ways to respond to a change:

**ADAPTATION** — the ability to remain in the same state

**TRANSFORMATION** — the capacity to transform into a different stable state

Recognizing and using these two approaches is a basic prerequisite for building resilience.



The noun resilience, meaning ‘the act of rebounding’, was first used in the 1620s and was derived from ‘resiliens’, the present participle of Latin ‘resilire’, ‘to recoil or rebound’. In psychology, resilience has been identified as something more than the quality to repair and renovate in the face of adversities. Here, resilient entities are expected to maintain their integrity and return to their original state, at least as strong as they were before the significant event occurred. This interpretation carries an aspect of potentiality for enhancement—growing better and stronger—through the capacity of individuals to take advantage of negative events and foster positive and enduring developments within and around them.



## RESILIENCE TO WHAT?

An important prerequisite for building resilience is to know what kind of threat can occur and to what extent. Events that have a negative impact on systems and thus affect their vulnerability include hazards, disasters, shocks, and stresses. They can be of natural, anthropogenic, or socio-natural origin.

**Stop and think!** *Do you know what the differences in these terms are?*

**The black swan** phenomenon is a rare, hard-to-predict, high impact event beyond normal expectations.

**Disaster** is a serious disruption of the functioning of a community or a society involving widespread human, material, economic or environmental losses and impacts, which exceeds the ability of the affected community or society to cope using its own resources.

**Hazard** is a process, phenomenon or human activity that may cause loss of life, injury or other health impacts, property damage, social and economic disruption or environmental degradation.

**Shocks** are abrupt events with (negative or positive) impacts on the region or parts of the region.

**Slow burn** is a long-term (gradual) deterioration of a region resulting from accumulated stress and struggle that affects competitiveness of the regions and make them more vulnerable to shocks and disturbances.

**Stresses** are long-term trends and factors that damage regions and their actors.

**Vulnerability** means conditions determined by physical, social, economic and environmental factors or processes which increase the susceptibility of an individual, a community, assets or systems to the impacts of hazards.



SLOW BURN



HAZARD



STRESSES



DISASTER



VULNERABILITY



SHOCKS



THE BLACK SWAN

# The core components of resilience

Resilience is the ability of a **system** to **anticipate, absorb, accommodate, or recover** from the effects of a hazardous event in a timely and efficient manner, including through ensuring the preservation, restoration or improvement of its essential basic structures and functions.

Resilience includes three main components:

**RESISTANCE** — the ability of a system to tolerate impact

**RECOVERY** — the ability of a system to bounce back

**TRANSFORMATION** — the direction of system to change (re-orientation, renewal)

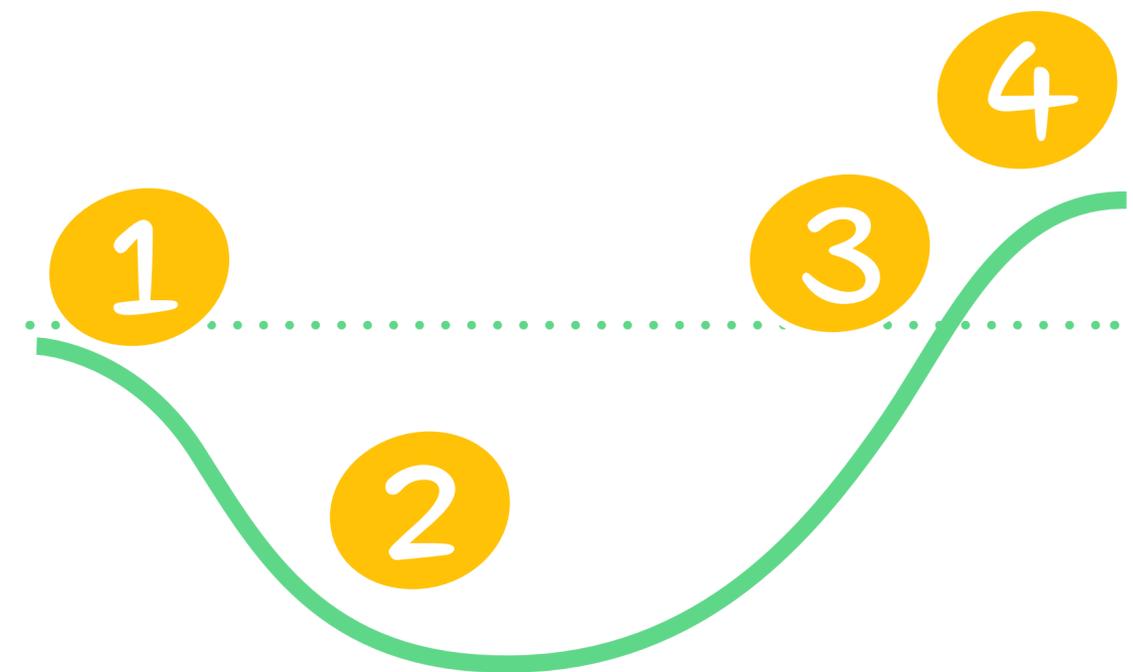
# Resilience lifecycle

Building the resilience is not a linear sequence towards success but can be imagined as a roller coaster, involving several adversities along your path.

Four basic phases can be identified in a resilience cycle



The lifecycle of resilience depends on the type of system, the scope and how the system responds to an adverse event. For example, in the case of resilience of the local or regional economy, the principle of the product lifecycle can be used.



- 1. Deteriorating — the first effect of an adverse event
- 2. Adapting — actions are taken to transform the adversity
- 3. Recovering — the return to the status quo
- 4. Growing — transformation the adversity in a lesson to strengthen resilience

## WHAT types of resilience do we recognize?

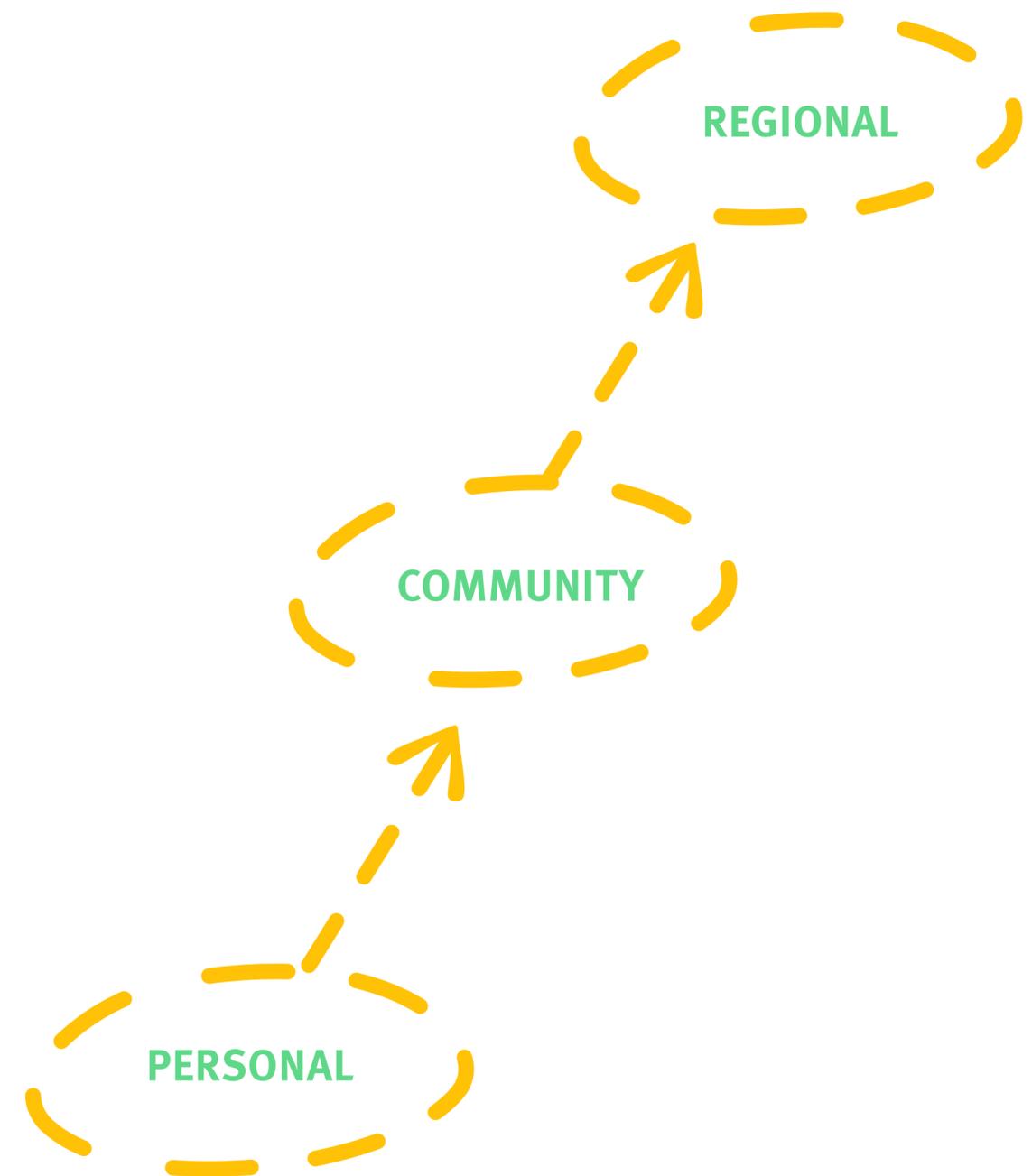
### FROM PERSONAL TO REGIONAL RESILIENCE.

The concept of the resilience can be encountered on several levels. In fact, from the self resilience to the resilience of the entire planet. Regarding the goal of our journey, we focus our attention on regional resilience and related types of resilience (mainly personal and community resilience), which will help us to understand its essence.

#### What is a personal resilience?

Personal resilience is the first necessary building block for the creation of resilient communities and regions. A resilient member of the community is the foundation of the resilience of the whole community. Personal resilience defines our ability to learn from adversities and transform them in a positive lesson for growth. Thus, it connects to the physical, emotional, and psychological dimensions:

- Physical: body capability to remain strong and recover quickly from challenging situations
- Emotional: ability to understand feelings, remain optimist even in difficult situations, and manage stressors
- Psychological: capacity to cope with uncertainty and adversities, remain calm and move on



So, **who is a resilient person?** By summarizing the results of research, we can say that a resilient person is someone, who:

- is able to make realistic plans
- has a positive and confident attitude to personal strengths and abilities
- is communicative and can solve problems
- has a capacity to regulate emotions, including strong feelings and impulses

### Stop and think!

*With whom would you go on an adventurous jungle expedition?*

*Who in your neighborhood would you say is a resilient person?*

*Can you say that you are a resilient person?*

*Can you imagine yourself as an expedition leader?*

There are three basic types of personal resilience:

Natural resilience — the resilience you are born with, marked by the enthusiastic attitude that can be typically noticed in children under the age of 7

Adaptive resilience — ability to change and adapt to overcome adversities

Restored resilience, or learned resilience, can help you regain your natural resilience through a series of specific learning techniques



## WHAT IS A COMMUNITY & COMMUNITY RESILIENCE?

### What is COMMUNITY?

Community is a group of people who may or may not live within the same area, village or neighbourhood, share a similar culture, habits, and resources. People who live in one community are also exposed to the same threats and risks such as disease, political and economic issues, and natural disasters.

### What is community resilience?

Community resilience is the sustained ability of a community to use available resources (energy, communication, transportation, food, etc.) to respond to, withstand, and recover from adverse situations (e.g., economic collapse to global catastrophic risks).

### What does term 'community resilience building' mean?

Building a resilient community is a process for and within the community, with activities and measures differing from one community to another. It means above all:

- to meet basic needs (if a survival is the sole focus of a community, it will be unable to build a resilient approach)
- to build assets thus ensuring buffering elements to respond to shocks (e.g., economic, human, social...)
- to have access to external support (e.g., post-disaster assistance from local governmental or non- governmental organisations)
- to ensure quality of assets (assets and resources should be redundant, robust, diverse, well located and equally distributed)



- to have a capacity to adapt, change, and learn from experiences

### How can we characterize a resilient community?

Resilient community:

- can recognise, manage, and control risks, learning from past experiences (knowledgeable & healthy)
- is capable of setting priorities (organised)
- possesses different links to external actors (connected)
- is built on an efficient network of housing, transport, power, water, and sanitation systems (infrastructures and services)
- offers different opportunities of employment (economic opportunities)
- is capable of protecting, improving, and preserving its ecosystems (natural assets)

### Stop and think!

*Do you live in a resilient community?*

*What do you see as the biggest challenges in terms of resilience for your community today?*



To shift the humanitarian response “The One Billion Coalition for Resilience” (1BC) was launched in December 2015 at the 32nd International Conference of the Red Cross and Red Crescent. The One Billion Coalition for Resilience (1BC) provides an opportunity for individuals, households, communities, and organisations to work together to increase collective impact in resilience-building in communities world-wide. <https://onebillioncoalition.org/alt-about-the-coalition/>



## WHAT IS A REGION & REGIONAL RESILIENCE?

### What is a REGION?

A region is generally interpreted as a territorial unit, a portion of a bigger entity, namely a state or the entire world, with its own natural, demographic, social, and economic conditions. More recently, regions are defined as open and dynamic systems, made of smaller units and part of larger ones, with components linked by different kinds of interactions.

### What is a regional resilience?

Regional resilience is the capacity of a region to withstand and recover from external stresses or shocks in order to maintain region's growth or if it is necessary to reorganize its structure and move towards new growth.

Building regional resilience requires in particular:

- solid and efficient institutions
- the availability of a financial buffer
- the possibility to spread the risk through different economic activities and markets
- constant monitoring of economic performance and challenges
- skills supply and demand
- flexibility and adaptability
- trust among regional actors

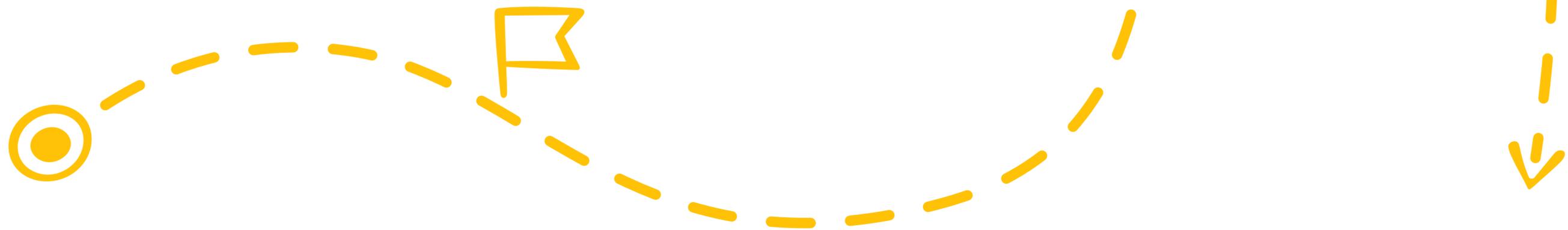


## Who can contribute to regional resilience building?

- Public authorities (by providing a regulatory framework, support institutions, infrastructures and security; education and skills programmes; implementation of actions and strategic plans, mobilisation of actors, stimulating of new partnerships and business ideas, spurring trust and citizens' participation)
- Financial and private actors (by funding businesses and generating new opportunities, boosting innovation, assisting business promotion, as well as supporting R&D and start-ups)
- Human agencies and social relations (by making solidarity an essential piece of the overall community system).



Now we have basic information about the destination of our journey. Let's take a deeper look at the things that interest us more. In our case, it is regional resilience and its specificities.



# WHAT is the framework for building the regional resilience?

## REGIONAL RESILIENCE FRAMEWORK / CONCEPT

Resilience building is a cross-context and cross-sectoral concept to address increasingly complex risks and their impact on vulnerable people, communities, or regions. It is a long-term integrated planning, which through an immediate shock can lead to new or better opportunities for the development of the community / region.

Six actions to build a common framework for strengthening regional resilience:

- 1) Determine the scoping questions — after consultation with key stakeholders, create scoping questions that are realistic, not excessively broad, relevant, and linked to future policy programming processes
- 2) Understand root risks and flow on effects to secondary risks — develop a one-page overview of the interconnections between primary and secondary risks and related stresses.
- 3) Prevent the risk occurrence — complete the analysis of the risk profile, by determining risk and hazard type, related stresses, risk description, historical occurrences of the shocks, potential impacts, reference to consulted documents
- 4) Identify the key components of the system

①

Determine the scoping questions

②

Understand root risks

③

Prevent the risk occurrence

④

Identify the key components

⑤

Analyse the potential impact of identified risks

⑥

Determine severity of risks

- 5) Analyse the potential impact of identified risks on the system key components — analysts will examine the average impact that the risk may have on each group of assets
- 6) Determine severity of risks on the system — severity depends on the likelihood of occurrence of a risk, multiplied to its impact on the system

At the international level, there are different frameworks and guidelines: Transforming our World: The 2030 Agenda for Sustainable Development; the Paris Agreement, or the Sendai Framework for Disaster Risk Reduction 2015—2030.

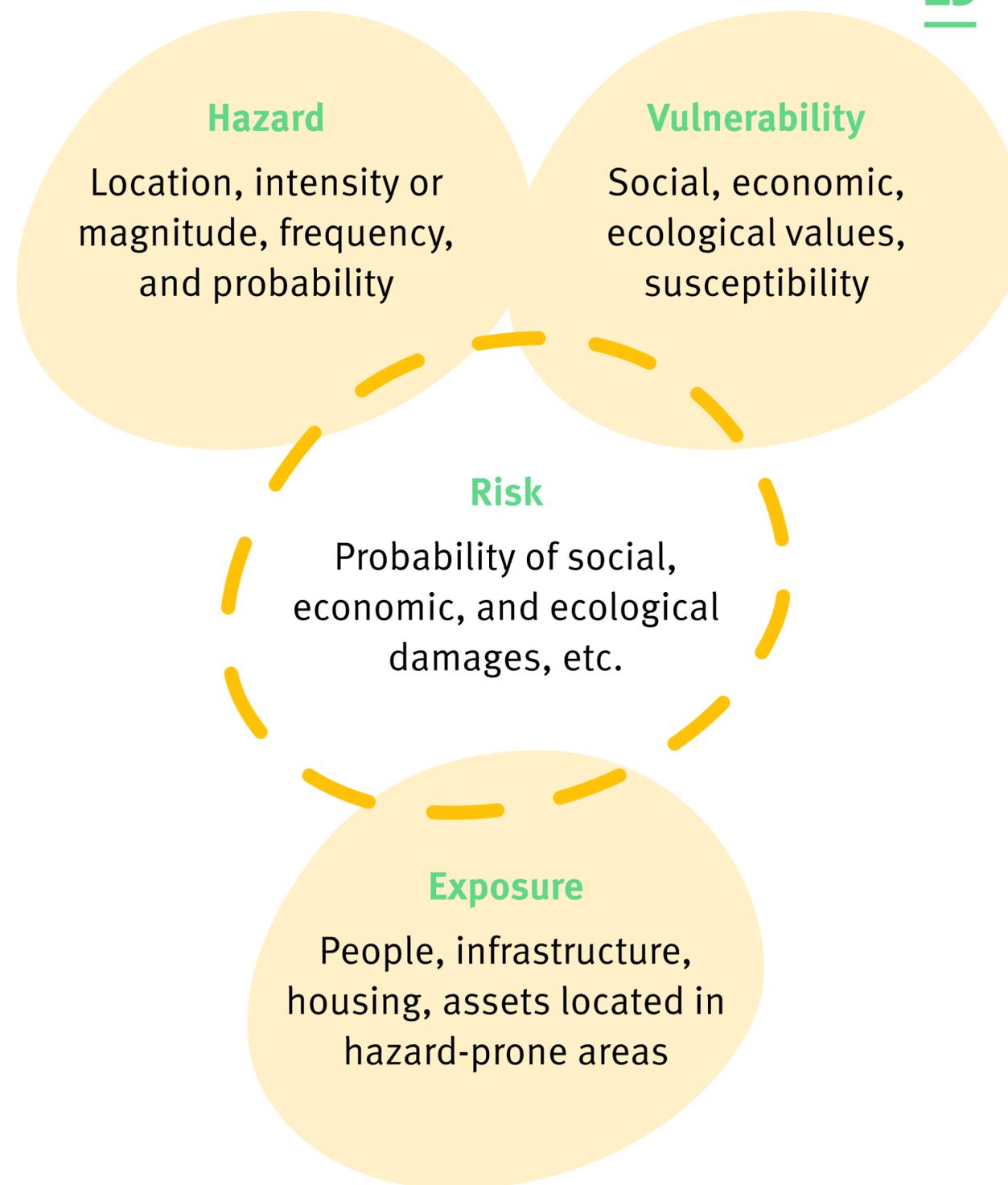


Do you know the Sendai Framework? It is an international document signed to achieve the substantial reduction of disaster risks and losses in lives, livelihoods, and health and in the economic, physical, social, cultural and environmental assets of persons, businesses, communities, and countries. It outlines four priorities for action to prevent new and reduce existing disaster risks: Understanding disaster risk; Strengthening disaster risk governance to manage disaster risk; Investing in disaster reduction for resilience, and Enhancing disaster preparedness for effective response, and to "Build Back Better" in recovery, rehabilitation and reconstruction. The Framework was adopted at the Third UN World Conference on Disaster Risk Reduction in Sendai, Japan, on March 18, 2015.

**RISK, HAZARDS, EXPOSURE & VULNERABILITY**

A Risk is the degree of likelihood that harm will be caused. It is a combination of three components: hazard, exposure, and vulnerability. Disaster risk is defined as the possibility that a region will suffer adverse effects in the future. It comes from the interaction of social and environmental factors, and from the combination of physical hazards and the vulnerability of the elements that are exposed.

**Defining risk** .....▶ *Figure*



## Hazards

A process, phenomenon or human activity that may cause loss of life, injury or other health impacts, property damage, social and economic disruption, or environmental degradation. Hazards may be natural, anthropogenic or socio natural in origin.

## Exposure

Exposure refers to people, property, systems, or other elements that are in hazardous areas and exposed to potential losses. Exposure is important in relation to the risk incurred but does not necessarily imply risk (it is not a determinant of risk). Even if someone/something is exposed to a hazard, it does not necessarily mean that losses will occur (it is not vulnerable).

## Vulnerability

The conditions determined by physical, social, economic and environmental factors or processes which increase the susceptibility of an individual, a community, assets or systems to the impacts of hazards.



The multidimensional nature of vulnerability and exposure makes any organizing framework arbitrary, overlapping, and contentious to a certain degree. The three basic dimensions are addressed according to other subcategories; environmental (physical dimensions, geography, location, place, settlement patterns), social (demography, education, health, well-being, cultural dimension), and economic dimensions.

### Hazard

Location, intensity or magnitude, frequency, and probability

### Exposure

People, infrastructure, housing, assets located in hazard-prone areas

### Vulnerability

Social, economic, ecological values, susceptibility

Resilience building can be represented as an iterative, dynamic process covering how a risk is analysed, how decisions are taken to respond to the risk and how these choices make the system stronger and more prompt to respond to adversities.

### HOW TO MEASURE REGIONAL RESILIENCE?

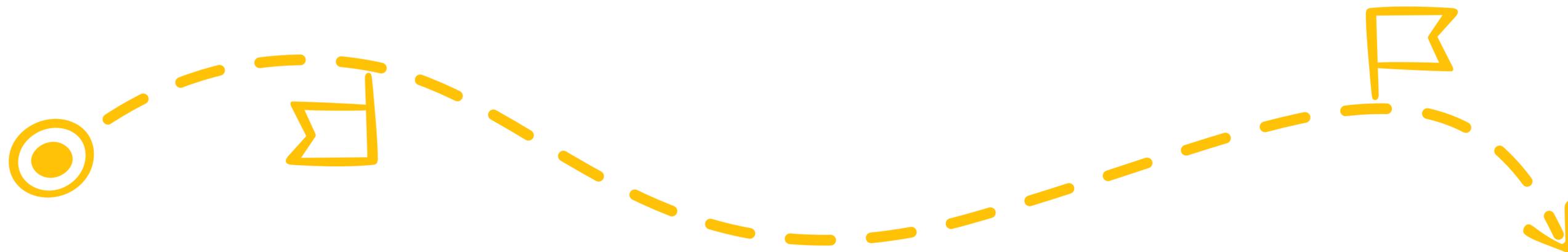
Resilience is not directly observable per se but must be placed in relation to a given outcome e.g., resilience to identifiable shocks. By measuring trends or patterns in resilience, we can try to determine whether the measures for enhancing resilience have worked.

#### Resilience Indicators

One way to measure resilience is through indexes, which are organized on the basis of indicators in four categories – social economic, infrastructural, and environmental. In each category the index matrix can be used to set median resilience and vulnerability:

Category	Resilience Index	Vulnerability Index
Environmental	<ul style="list-style-type: none"> <li>Environmental diversity</li> </ul>	<ul style="list-style-type: none"> <li>Drought</li> <li>Seismic hazard</li> <li>Proximity to levees</li> <li># of severe storm events</li> <li>Diversity of storm events</li> </ul>

<b>Economic</b>	<ul style="list-style-type: none"><li>• Average nonfarm proprietor income</li><li>• Proprietors as a percentage of total nonfarm employment</li><li>• Establishment births</li><li>• Employment sector diversity</li><li>• Labor force participation</li></ul>	<ul style="list-style-type: none"><li>• Business vacancy rate</li><li>• % of household spending 30% or more of total income on housing costs</li><li>• Unemployment rate</li><li>• % of population employed in extractive industry and/or manufacturing</li></ul>
<b>Infrastructure</b>	<ul style="list-style-type: none"><li>• % of persons in emergency response occupations as a percentage of total county population</li><li>• % of population within 1 mile of a grocery store</li><li>• % of population within 10 miles of a hospital with an emergency room</li><li>• # of primary care physicians per capita</li><li>• Per capita expenditures on police and fire</li><li>• Evacuation routes – lane miles</li></ul>	<ul style="list-style-type: none"><li>• High-detour bridges</li><li>• % of homes built before 1960</li><li>• % of housing units that are mobile homes</li><li>• % of population within 16 km of a dam</li><li>• % of population with no motor vehicle</li><li>• % of population within 16 km of a nuclear facility</li><li>• Unsafe drinking water</li></ul>



**Social**

- # of nonprofits per capita
- # of associations per capita
- Voter participation rate
- % of population with a Bachelors degree or higher
- Life expectancy
- % of housing units that are owner occupied
- % of population living in same county as one year prior
- % of population age 65+
- % of population under the age of 18
- % population disabled
- Violent crime rate
- Income inequality (GINI Index)
- # of jurisdictions
- % of households that are linguistically isolated
- % of population living below 100% of poverty
- % of population without health insurance

**Stop and think!** *Are there any other indexes specific to your region?*



There are several concepts how to measure regional resilience. The World Economic Forum (2013) developed a prototype framework that nations might use to build their resilience, including five subsystems: economic, environmental, governance, infrastructure, and social. Another possibility is to use the Resilience Capacity Index, based on direct and indirect proxy measures.



**Now you have the basic information you should know as a member of an adventure expedition. For more information, see the course on Module 1 and Module 2 at <https://reface-projectmooc.eu/login/index.php>**

# III. How?

In the part “**WHAT**” we learned how to read a map. We know what we might encounter on our journey, and we know the basic terminology to understand the situation.

Now we are facing an imaginary choice:

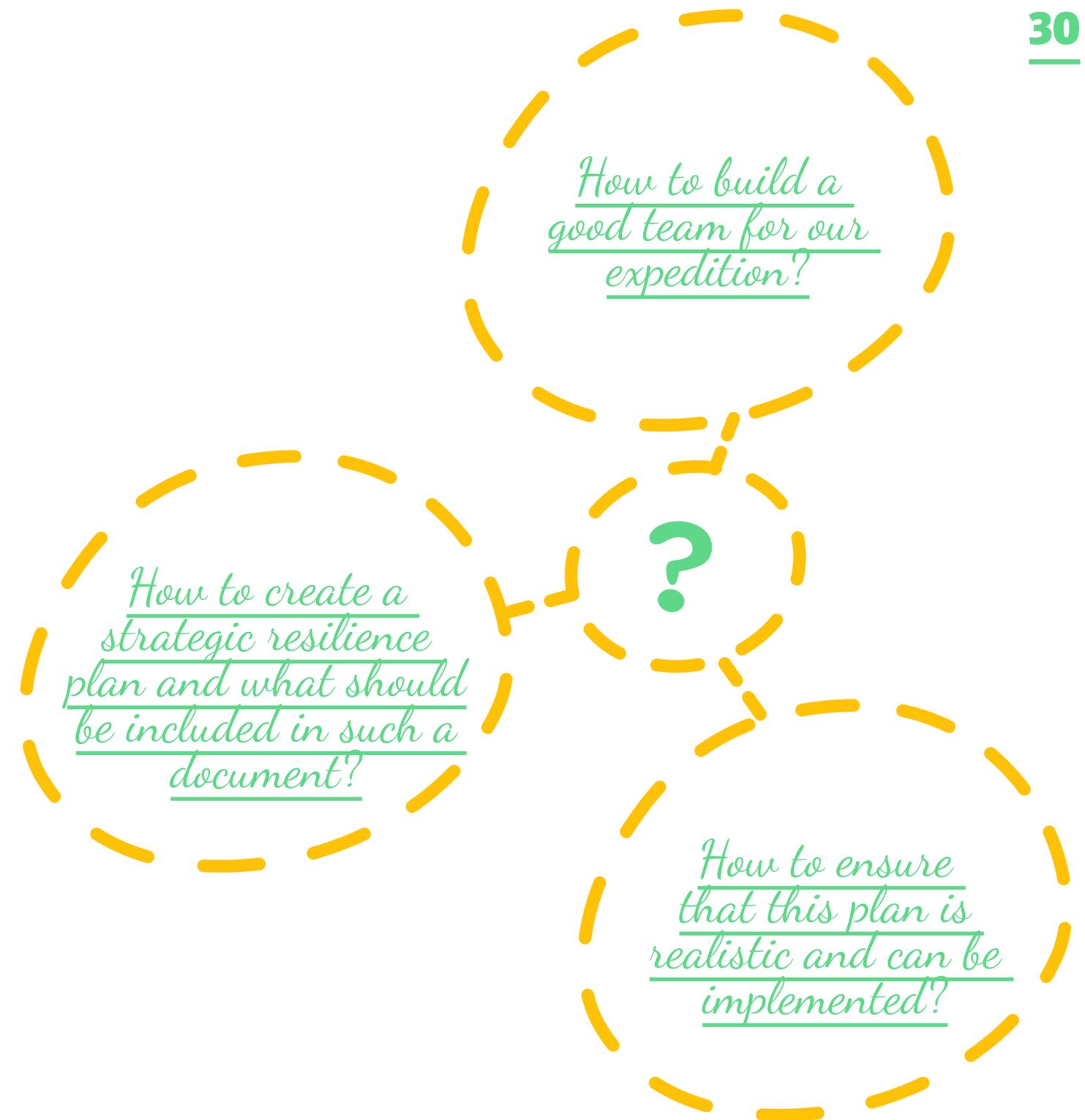
- we are no longer beginners on the subject of resilience, but for now, that is enough for us, or
- we are taking a resilience journey.

However, it is easier to take any journey or expedition if

- we are not going it alone
- we have a good plan.

In the next step of our preparation, we will search for answers to the following questions:

- HOW to build a good team for our expedition?
- HOW to create a strategic resilience plan and what should be included in such a document?
- HOW to ensure that this plan is realistic and can be implemented (funding and evaluation)?





The preparation of any plan is a separate project. So is the building of a strategic resilience plan. Based on this, it is possible to use any tool or approach from project management.

Do you have any experience in project management? What are the approaches or steps you could use here?

### Stop and think

*Now let's return to the chapter WHY? and remind yourself which role you are in.*

*Are you responsible for developing and implementing the regional resilience plan?*

*Are you interested in having such a plan prepared for your community/region? Are you committed to doing more than just studying things?*

It is important to note that the preparation of the resilience plan should already be done in a cooperative spirit. Resilience plans operate in a complex social context where a good understanding of the roles of different actors and the relationship is essential in order to ensure a good plan design. Ultimately, plans are about people and therefore it is fundamental to understand who the different players are, their expectations and interest, their influence over others, etc. In particular, it is crucial to understand the key relationships between collaborative planning process, the target population, and stakeholders.

**The key question is:** who are the members of our expedition?

... and others, such as: Do we need a medic on our team? Does he/she have to come with us, or will he/she just need to be available on the phone? Who will we influence with our expedition?

**HOW to build a good team for our expedition?**

# Identification & engagement of regional key players

In identifying regional players, it is important to distinguish what is a stakeholder and what is a target group.

Do you know what is the difference between them?

Stakeholder	Target audience/group

The most widely used definition of the term **stakeholder** is that it is anyone who can influence or have an influence on an organization, plan, strategy, or project. Stakeholders come from various entities (e.g. from local community: families, employees, local political organisations, politicians, local and national NGOs, etc.). thus stakeholders are considered to be heterogeneous

**Target audience** is the entire group of people identified as the people who are most likely to want or need your solution or product. Essentially your target audience is everyone you want to target your message towards.

**Stakeholder Management** is the systematic identification, analysis and planning of actions to communicate with, negotiate with and influence stakeholders.



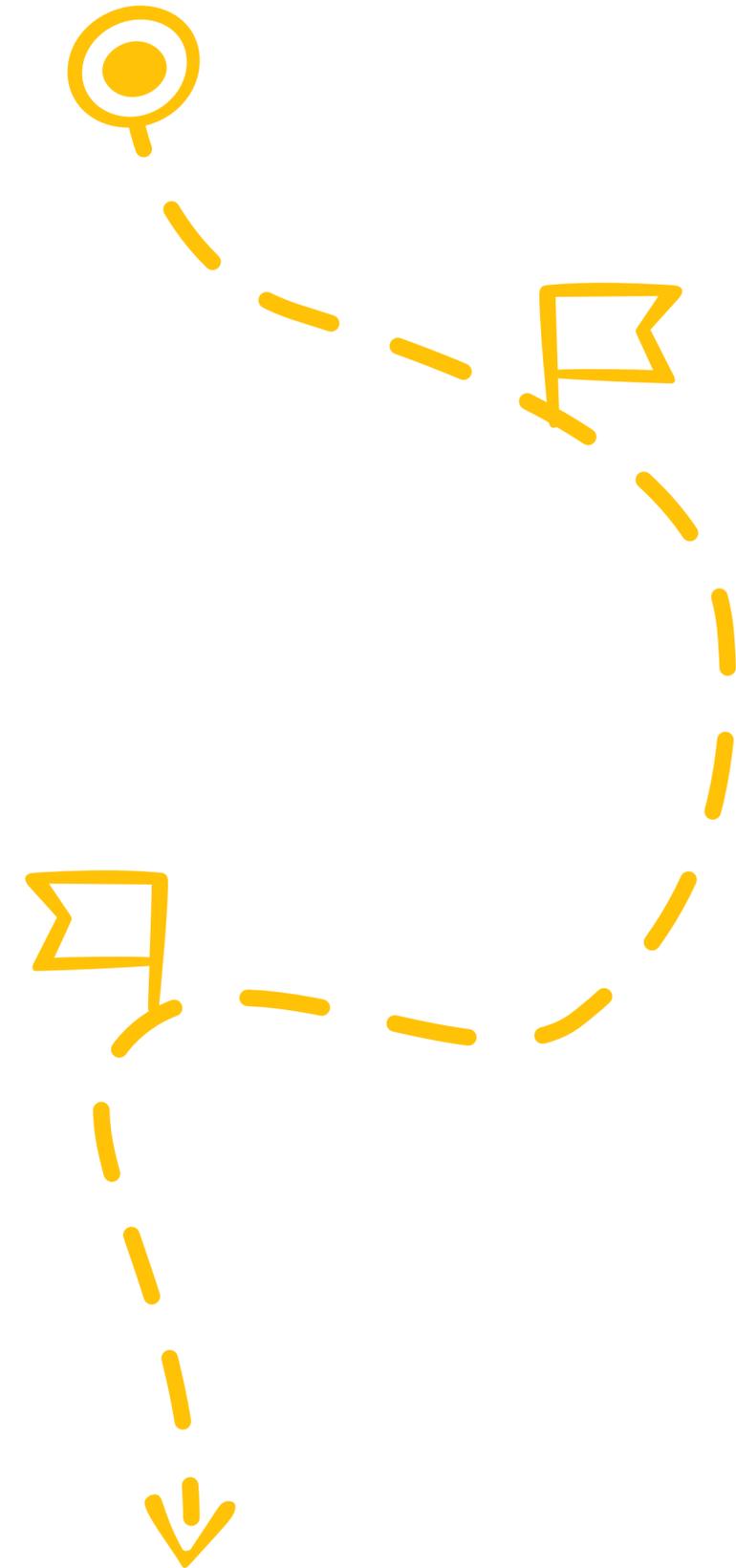
**Stakeholder analysis** is part of stakeholder management and an important technique for stakeholder identification and the analysis of their needs. It is used to identify all key stakeholders, who have a vested interest in the issues covered by the plan. Every good stakeholder analysis starts with a list of potential stakeholders, from which the actual list of stakeholders is then generated. Brainstorming can be a great start to create a first list of potential stakeholders. Start by writing a list of everyone you can think of who will be affected. Your list could include public authorities, private company, professional institutions, partners, NGOs, those who will feel positive and negative impacts, media, political organisations etc.

Stakeholder can be internal or external, individuals or groups, powerful or weak, activists or advocates, senior or junior, formal or non-formal...

Do not limit yourself or your team, have no restrictions in the first phase of stakeholder list creation.

### **STAKEHOLDER MAPPING**

The most common tool used in practice is a stakeholder map. Stakeholder mapping involves the identification of the interested parties, their interests, possible impacts and influences and the ways in which they interact. For each of the relevant parties, as part of the stakeholder mapping, it is important that we understand their knowledge and initial opinion about the resilience plan or activity, as well as their attitudes and behaviour, so we are able to communicate with them. Based on the results of the stakeholder mapping, appropriate communication approaches can be developed.



## Communication is essential!

Typically, the dimensions of the stakeholder map are the influence of stakeholders and their level of interest in the plan, such as shown in Picture below.

- The stakeholders in the bottom right corner of the grid have low power but high interest. You need to keep them informed about the progress and changes.
- The stakeholders in the bottom left corner of the grid have low power and low interest. You need to keep an eye on them and monitor their interest levels.
- The stakeholders in the top right corner of the grid have high power and high interest. You need to work closely with these and ensure that they are consulted, collaborated with and engaged completely.
- The stakeholders in the top left corner of the grid have high influence but less interest. You need to keep this category satisfied but not go in communication into the details and on daily basis

## STAKEHOLDER ENGAGEMENT, BUILDING TRUST

**If you're going with a group of diverse individuals on a challenging expedition, a core value to survive is a trust. Trust that you can rely on each other.**

You already know that throughout the planning, design, and implementation of your resilience plan, there will be many stakeholders and audiences to engage in order to create a system that works best for everyone.



Picture Dimensions of stakeholder map

Taking the time to manage these relationships and understand the needs and concerns of these groups will facilitate effective communications, which, in turn, will help fuel the success of the resilience plan.

What tools would you use to build trust and maintain motivation for situations when your group is hungry and exhausted? Do you have specific tips?

Here are some recommendations how to become a member of a team that others can rely on:

- Seek first to understand before being understood.
- Have empathy and think in win/win solutions.
- Set a good example as a leader and resilience plan project manager. Always turn up to meetings prepared and have the necessary information ready at hand.
- Be honest and open about project progress. Have the confidence and courage to talk openly about project issues and to ask for help when required.
- Be proactive and take responsibility for your actions
- Maintain a positive mental attitude
- Create Timelines. Keep it to 1 page and in a table format for an easy read. Don't forget to include milestones.
- Stay Organized. Utilize project management tools to create to-do lists with due dates and descriptive deliverables.
- Communication, Communication, Communication.





To learn more about stakeholder mapping, read SubModule 3.1 The role of regional government in resilience planning and implementation: identifying and engaging key regional stakeholders.

It is important to know the current state of play before we set out together to define the main goal of our journey. Be sure to take the time to assess the state of the region in terms of its resilience.

At this point, we come to the next important part of our preparation — and that is the development of a comprehensive plan.

### **HOW to create a strategic resilience plan in the form of a document and what all should it contain?**

If you have made it this far — congratulations, but it is essential to take a deeper look at more important terms — a glossary — this can be found at <https://reface-project.eu/sk/>

#### **Stop and Think:**

*Find explanations of words like adaptation, mitigation, transformation, responsive approach, resistance, recovery.*



The whole effort should manifest itself in a document that corresponds to a long-term strategic plan. Such a document should include

- an assessment of the state of the region in terms of vulnerability, and
- the definition of targets for resilience increasing.

---

An integrated approach is often applied in the development of comprehensive plans. Integrated approach in strategic planning looks at planning from several perspectives:

- horizontal – cross-cutting policy sectors
- vertical – cross-cutting various government layers (multilevel governance).

It also views:

- multi-sectoral (bringing together different combinations of thematic objectives).
  - multi-scale (delineating a functional territorial perspective);
  - multi-partner (including the delegation of management tasks to the local level); and
  - multi-fund (mixing support from different funds, programmes, or priorities).
- 



### Stop and think

*Both the COVID-19 crisis and the Global Financial Crisis (GFC) fall into that pattern, albeit with an important difference regarding the nature of the shock triggering the crisis. These are just two illustrative examples from the recent past, yielding lessons that policymakers can draw from to make sure that economies are as resilient as possible to future shocks whose nature, magnitude and complexity cannot be known in advance. The combination of global interdependencies and local vulnerabilities create the conditions for shock events to cascade across borders and sectors of the global economy. Hence, there is a need to understand those sources of vulnerability, invest in risk management and strengthen international cooperation to build economic resilience.*

## Assessment of a region: Planning process

Basic steps are:

- risk & vulnerability assessment of a region,
- identification of hazards & assets,
- assessment of community assets vulnerability,
- risk assessment,
- hazard & risk maps preparation,
- prioritization of hazards and risks, and finally,
- resilience goals setting.

A region or community resilience assessment is not a small task. To identify risks and vulnerability requires sufficiently description of all possible hazards and affected assets .....▶ *Figure*

A vulnerability assessment is the process of defining, identifying, classifying, and prioritizing vulnerabilities in different economic infrastructures. Vulnerability assessments also provide the necessary knowledge, awareness, and risk backgrounds to understand and react to threats to its environment. A vulnerability assessment process is intended to identify threats and the risks they pose. They typically involve the use of automated testing tools.



*Figure Risks & Vulnerability*

A risk assessment usually uses qualitative and quantitative data and includes data from primary and/or secondary sources. This is done to get information from the existing evidence base, as well as the perspectives of various stakeholders in the target.

Vulnerability and inequity are intrinsically related to each other and to the social dimensions of disaster, disaster risk, and disaster impacts. When combined with assessments of hazards, assessments of vulnerability, and inequity can inform a community about the overall risk.



Assessing climate, social or security vulnerability is a challenging and highly technical process. Therefore, do not hesitate to contact professionals in these fields who can prepare the required documents for you in a high content quality and user-friendly format.

## HAZARDS & ASSETS IDENTIFICATION

A **hazard** is a source or a situation with the potential for harm in terms of human injury or ill-health, damage to property, damage to the environment, or a combination of these. When considering hazards in society it is necessary to think about the past but also it is wise to look at industrial and technological developments expected in the future. Prediction of other possible scenarios and making plans for these are just as important for effective risk management.

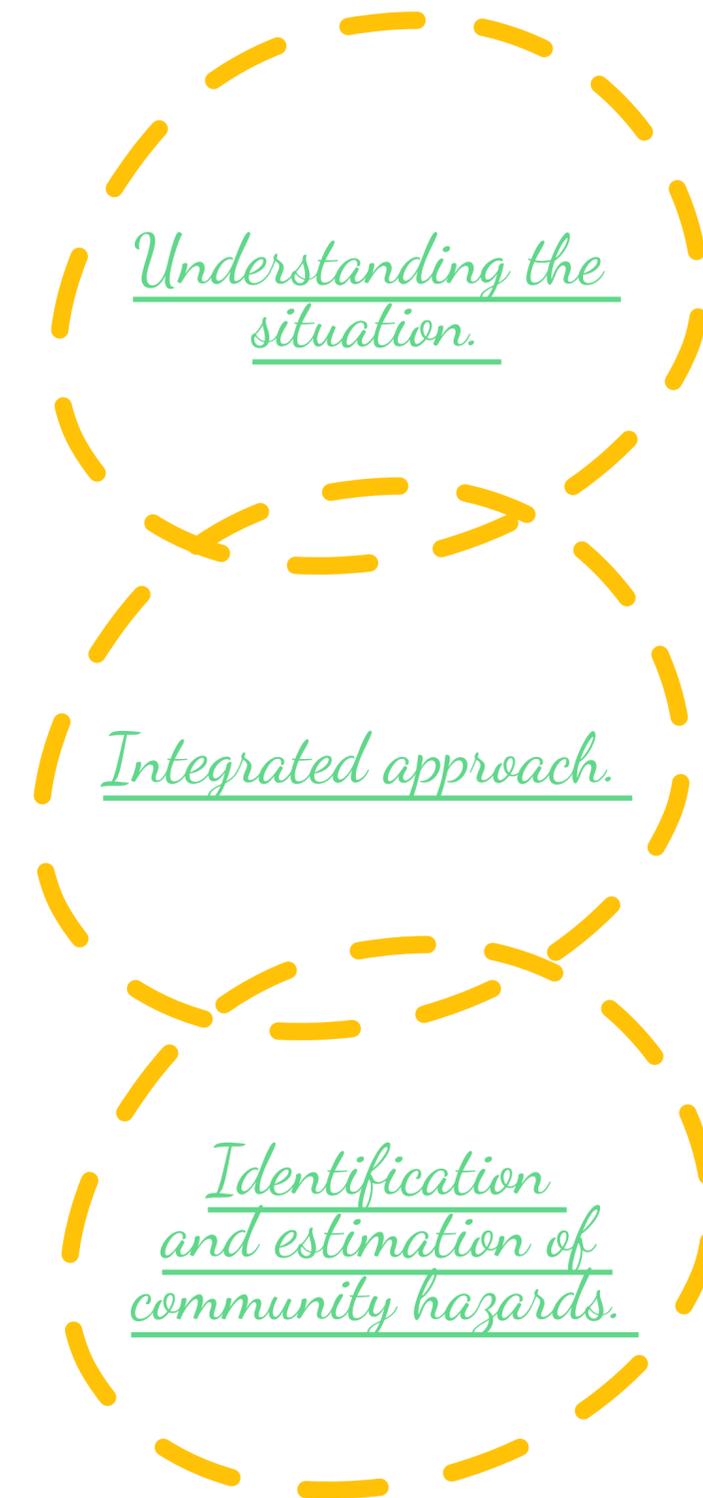


HAZARDS



General recommendation:

1. **Understanding the situation.** Understanding the situation is a necessary starting point of any planning. To develop a clear understanding about the objectives, level of effort, and scope of the task, it is necessary to cooperate with decision makers and stakeholders. Various methods & techniques can be used (discussions, rounds, interviews).
2. **Integrated approach.** Planning for resilience can and should build on other plans that are already in place. It should be integrated with existing:
  - a. regional and national resilience goals and
  - b. community goals that can be found in General Plans, Specific Plans, Climate Mitigation Plans, Climate Adaptation Plans, Sustainability Plans, Local Hazard Mitigation Plans, or other local planning documents.
3. **Identification and estimation of community hazards.** Hazard identification is not straightforward — people may have quite different perceptions of what constitutes a significant hazard. For this reason, seeking the views of a few people in the community is essential. Various methods & techniques can be used here (brainstorming, mind mapping, discussions, rounds, etc.).



## ASSESSMENT OF COMMUNITY ASSETS VULNERABILITY, RISK ASSESMENT

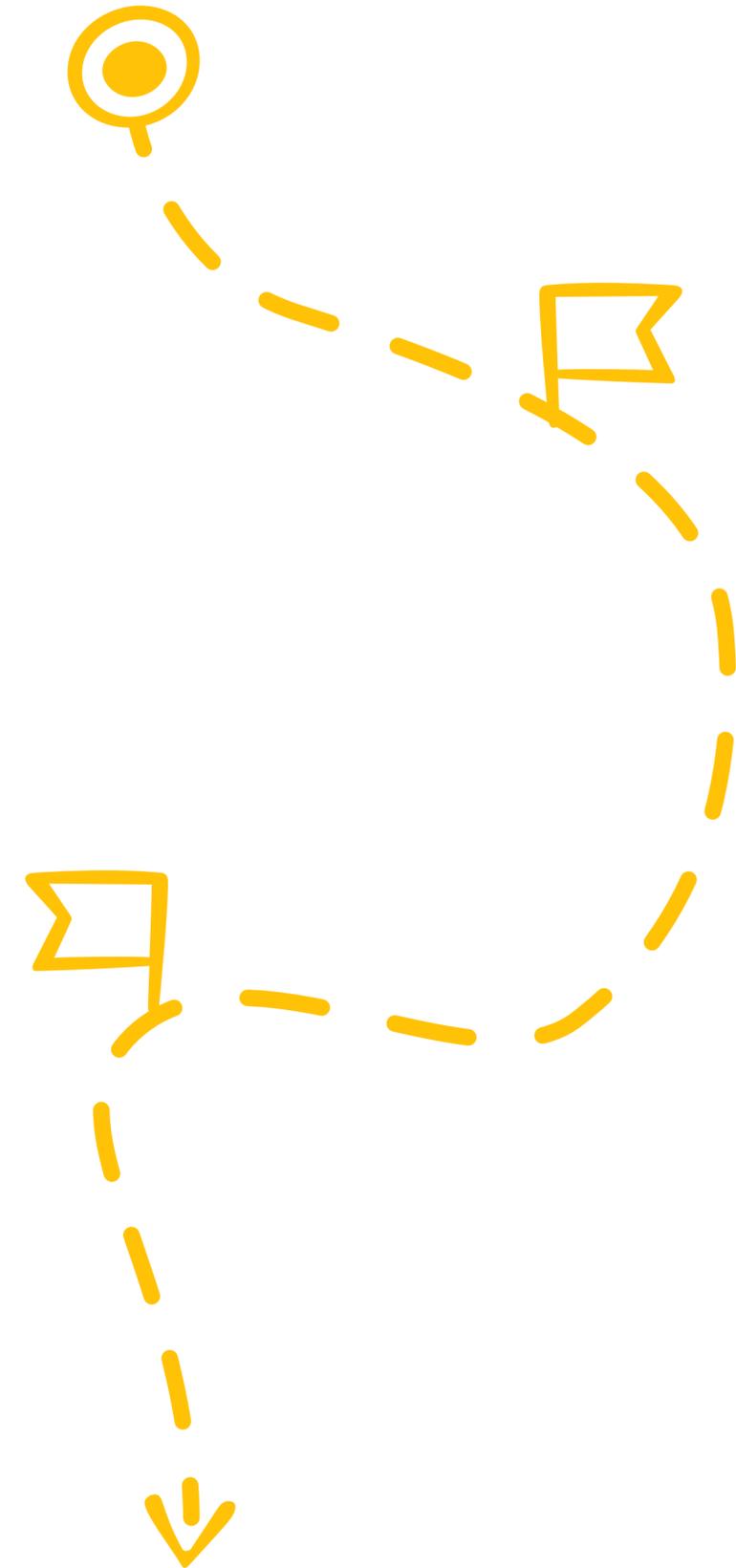
This process should give answers what community loves and what is important to protect. The following questions may help to identify important community assets:

- What are the places and elements that the community loves?
- Which assets are critical for maintaining safety, health, and productivity in the community?
- Are there unique or critical facilities that the community relies upon?
- Which assets would have significant consequences to the community if they were not functioning?

Community assets include the people, structures, facilities, and infrastructure systems that have value to the community. Assets are defined broadly to include anything that is important to the character and function of a community and can be described very generally in the following four categories: People — Economy — Built environment — Natural environment.

### Stop and think

*What do you consider to be the most important assets of the community, the region you live in, that need to be protected? In what ways is your community, region most vulnerable?*



It is crucial and inevitable to start the assessment process with a dedicated organized group which possess the capacity, skills, and time needed to work with diverse community stakeholders, collect and process data over a period of months or even years.

Possible data collection methods to be used are as follows: participants' observations (workshop for varied groups — group of civil servants, traders, visitors etc.), interviews with key informants (strategic environmental planners, spatial planners, crisis managers, etc.), survey, review of official documents related to sustainability, and crisis management.

### The key term, in addition to vulnerability, is RISK

**The risk** is the potential for damage, loss, or other impacts created by the interaction of natural hazards with community assets. Risk is defined as the probability of harmful consequences, or expected losses (deaths, injuries, property, livelihoods, economic activity disrupted, or environment damaged).

All information on hazard, vulnerability and risk needs to be summarized so that the community can understand the most significant risks and vulnerabilities.



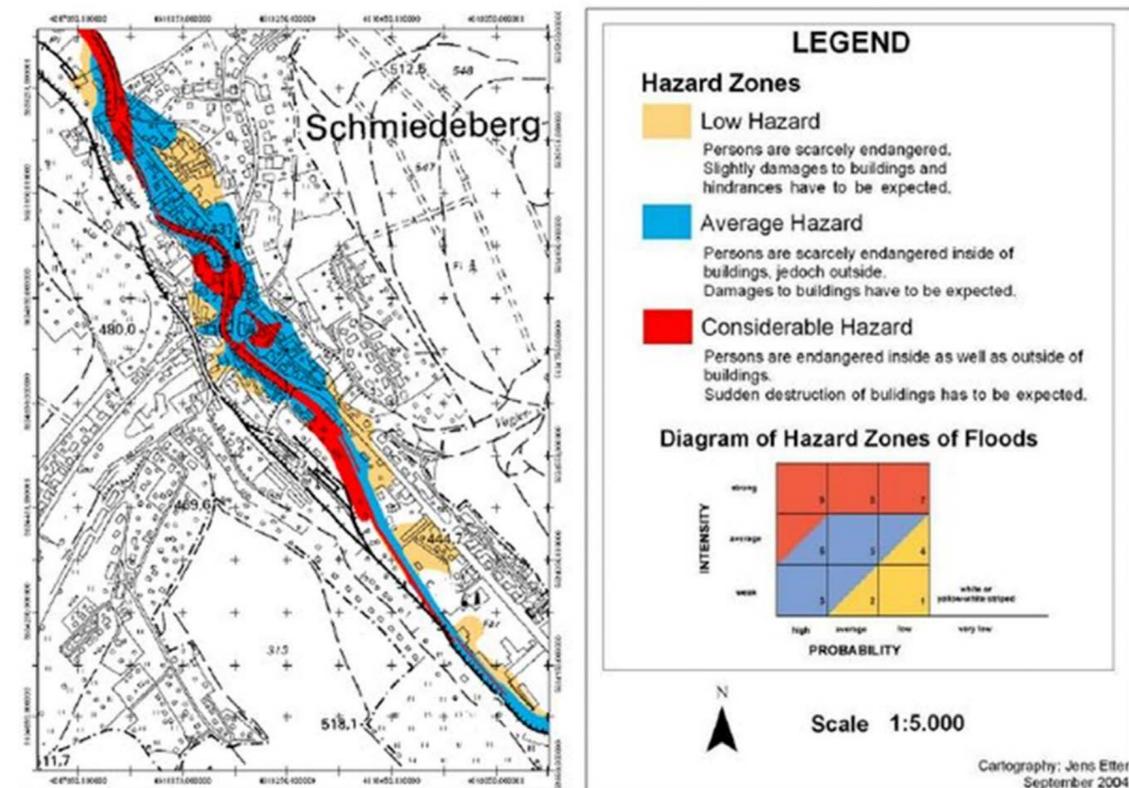
There are many ways to map various hazards and risks. Geographic information systems (GIS) are widely used for hazard and vulnerability mapping. GIS is a spatial system that combine all types of data with spatial interpretation and output.



Use Google to find other examples to get an idea of possible map visualizations.

To complete the risk assessment, prioritize the hazards that could have the strongest impact on the community. Prioritization of hazards should be based on already developed hazard profiles, ongoing assessments, and analysis. Different prioritization techniques can be used. Some of them based on quantitative criteria such as history and probability, and individually given a numerical score (for example FEMA model). On the other hand, some of them compares hazards directly using a few criteria, in a stepwise fashion, and is qualitative. The key to prioritizing hazards is community involvement. As in the other steps of vulnerability assessment, consultative and participative processes are necessary.

Finally, the decisions as to who and what should be protected, and to what degree, should be made by the consensus of whole community.



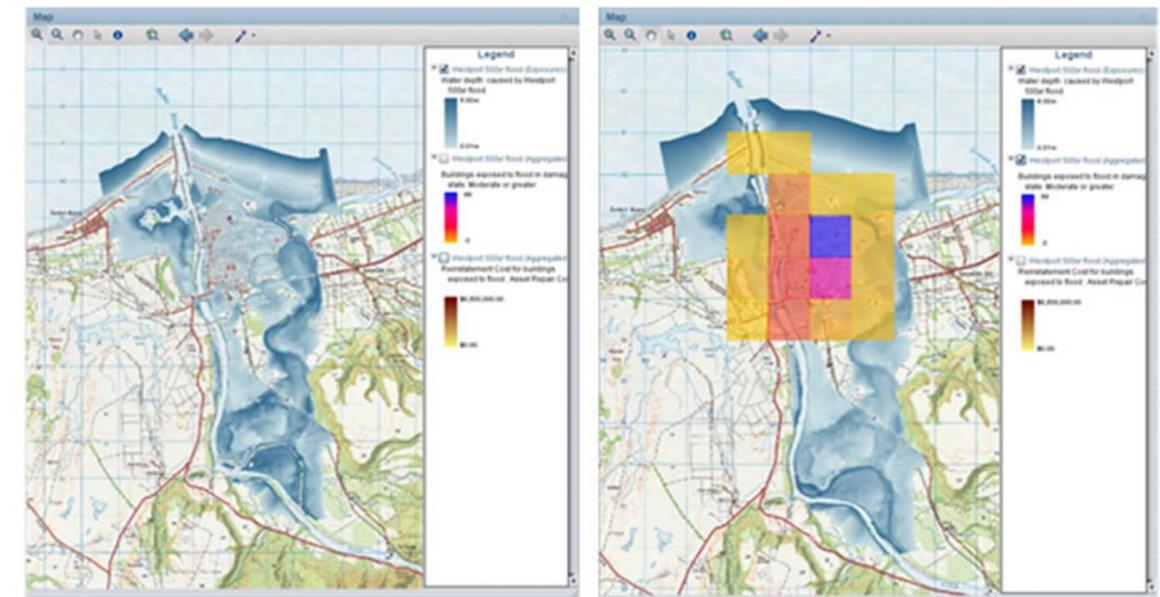
*Example Hazard map — Example of hazard map of Switzerland*

Getting agreement in an involved community and stakeholders can sometimes be easy but more often than not, it takes considerable discussion. In some situations, groups may conclude to disagree for the given time or close the topic for some time, before taking up the matter again at a later date. For prioritization, the following techniques can be used: decisions by majority or consensus, voting techniques, listening for agreement, or break-out groups to reach agreement.



The FEMA model uses four criteria rated in three levels for hazards evaluation: low (1 points), medium (5 points), high (10 points) score. Some criteria have been determined as more important than others, and the following weightings have been established: History  $\times$  2, Vulnerability  $\times$  5, Maximum threat  $\times$  10, Probability  $\times$  7.

The FEMA model suggests a threshold of 100 points. All hazards that score total more than 100 points may receive higher priority in emergency preparedness. Hazards totalling less than 100 points, while receiving a lower priority, should still be considered.



(Risk maps generated from Riskscape 2.82, May 2013, [www.riskscape.org.nz](http://www.riskscape.org.nz))

*Example Risk map — Risk maps of Westport*

# Resilience goals setting – resilience strategy plan

Goal setting is a process that starts with careful consideration of what you want to achieve (a vision) and ends with a lot of hard work to reach it. In between, there are some very well-defined steps that transcend the specifics of each goal to cover all gaps.

Community resilience is a very specific topic. Building community resilience should be based on long-term community growth (a vision and goals) and collaborations of key players. This is followed by strategies and action plans in the mid-term.

The key is to define a shared vision. That means to find something general enough that people can agree to it, without losing the essence of what you want to achieve.



The example of a vision and values: A resilient vision of Barcelona

We have a view of a fairer, welcoming city that looks after the quality of today’s generations and those that will live here tomorrow. Therefore, we want to turn Barcelona into a resilient city model in all those areas that affect the lives of its citizens.

Values: Sustainability, Proactivity, Flexibility, Proximity, Holistic approach, Co-responsibility, Ongoing learning, Creativity, Security, creating co-benefits (Barcelona building a resilient city)

1 [http://www.centralcoastclimate.org/wp-content/uploads/2018/05/Building-Resilience-Workbook\\_DRAFT-.pdf](http://www.centralcoastclimate.org/wp-content/uploads/2018/05/Building-Resilience-Workbook_DRAFT-.pdf)



Figure Planning process<sup>1</sup>

### How to properly define the goals to fulfill our vision?

Now that we know where we are heading to, it is important to define how we can get there. We already know what vulnerabilities of our region are and what threatens the region. Thus, set goals that will lead to the fulfilment of the established vision.

Resilience is specific, so it is possible to strengthen it in several ways according to its three basic components, namely

- resistance,
- recovery, and
- transformation.

Following defined hazards, risks, and vulnerability, it is necessary to consider what is the problem in each case and what needs to be done to set the desired status. So, we need to set different scenarios and define problems statements for each of them.

#### Problems statements

A problem statement is a clear description of the problem that needs to be solved. If you find a solution to your problem, you will find what has to be done — define your goal.



There are a few helpful elements to create a problem statement:

- Describe, how it should be, how it should work.
- Explains, where you see the problem (organizational, material, financial).
- Propose a solution and indicate its other benefits.
- Summarize the problem and its solution.

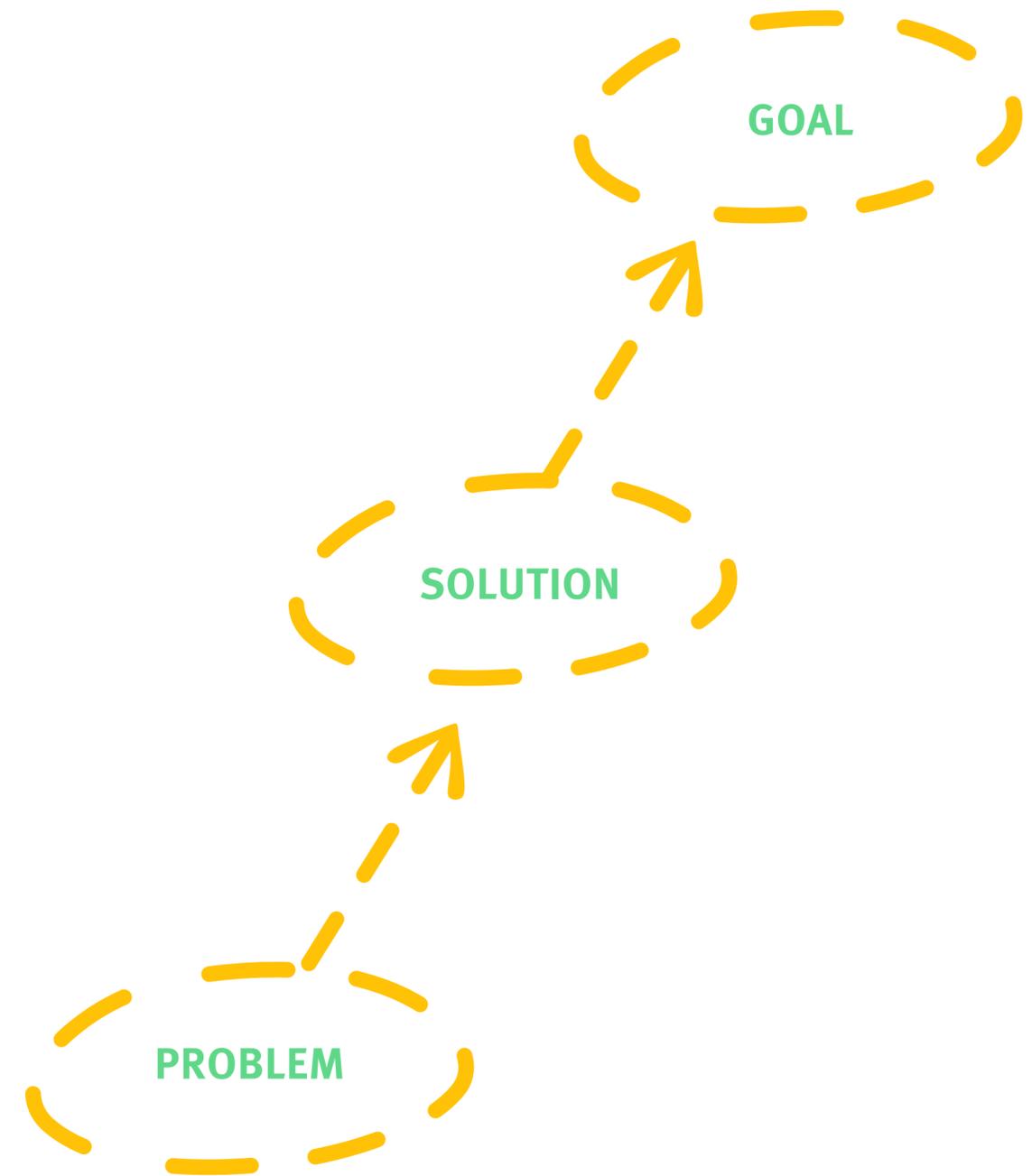
Problem .....▶ Solution = GOAL



The statement of problem may also be useful for other purposes. For example, it can identify and explain the problem in a concise but detailed way in order to provide stakeholders with a comprehensive view of the matter. This may include identifying who is affected by the problem, where the problem may still appear, and why and when it needs to be resolved.

Areas to keep in mind while setting goals:

- Natural environment (natural resource areas, water, and forest areas, etc.)
- Critical infrastructures (electricity, water, sewer, communication infrastructure, emergency response systems and facilities, public health/hospitals, transportation, waste collection, etc.)
- Economy (protecting major economic drivers as large businesses, financial facilities — banks, etc.)



- Built environment (public buildings, community facilities, etc.)
- Existing functions/activities (preserving the function of an airport, etc.)
- Specific communities and people (vulnerable populations, culture and ethnicity, etc.)

### **GOALS should be SMART**

- Specific — goals must be clear and well defined
- Measurable — to measure degree of success (include precise amounts, dates, level to be achieved)
- Attainable — goals must be achievable, realistic (avoid possible spatial, legal, and financial restrictions)
- Relevant — goals should be relevant
- Time Bound — goals must have a deadline (date when they have to be reached)

Once you have set your SMART goals, it's time to break them down into smaller steps.

### **Terms of planning**

Big goals often consist of a few milestones that you must achieve. Everyone should define own short- or medium-term goal. Think of them as checkpoints on your journey — you must go through them all, to get to the destination of your journey.



**Challenging expeditions are always planned with the group setting milestones, what needs to be achieved and in what time frame. Resources are then planned with this in mind, too — e.g., food and water supplies.**

The statement of the problem can help to give answers as to what needs to be done and when. It is therefore necessary to divide the individual goals according to whether these are short-term or long-term.

Basic differences between short-term and long-term planning:

- In terms of plan length:

Plans are made for a specific term, say for a month, quarter, year or decade. Generally, short (near) -term planning is one which covers a period from one to twelve months. Long-term planning usually covers a period of usually more than five years. In between, there may be medium-term plans.

- In terms of complexity:

Long-term planning is more sophisticated, tactical, and covers more steps. Short-term planning is often quite simple. Short-term goals usually serve as milestones that get you to your long-term goal. Medium-term planning means applying long-term solutions to short-term problems.

Umbrella plans ·····▶ Long-term plans ·····▶ Annual plans, Projects

**HOW to ensure that the set plan can be implemented (funding and evaluation)?**

Define the basic metrics for regional resilience tracking, evaluating, and reporting, and propose a simple funding strategy (SubModule 4.2).

## Self-Reliant Resilience Financing

Develop an initial financial strategy that starts with locally based funding opportunities. The strategy should consider the following elements:

- Integrate resilience budgeting into community fiscal planning.
- Identify external grants and explore all available sources of funding as possible means of resilience that can open up new possibilities for faster project implementation.
- Influence community-wide conversations and day-to-day decisions about long-term capital improvements to inform the public and gain support for future funding campaigns.

## Monitoring and Evaluating

Monitoring success and evaluating actions are critical elements in ensuring the effective implementation of resilience strategies and projects. Identification of what to measure (metrics) and how to monitor and evaluate these metrics over time is the basis of quantification the results.

### **Measure Outputs or Outcomes?**

Metrics can be designed to measure output (quantitative) and / or outcome (qualitative). If data is available, the outputs are relatively easy to monitor.

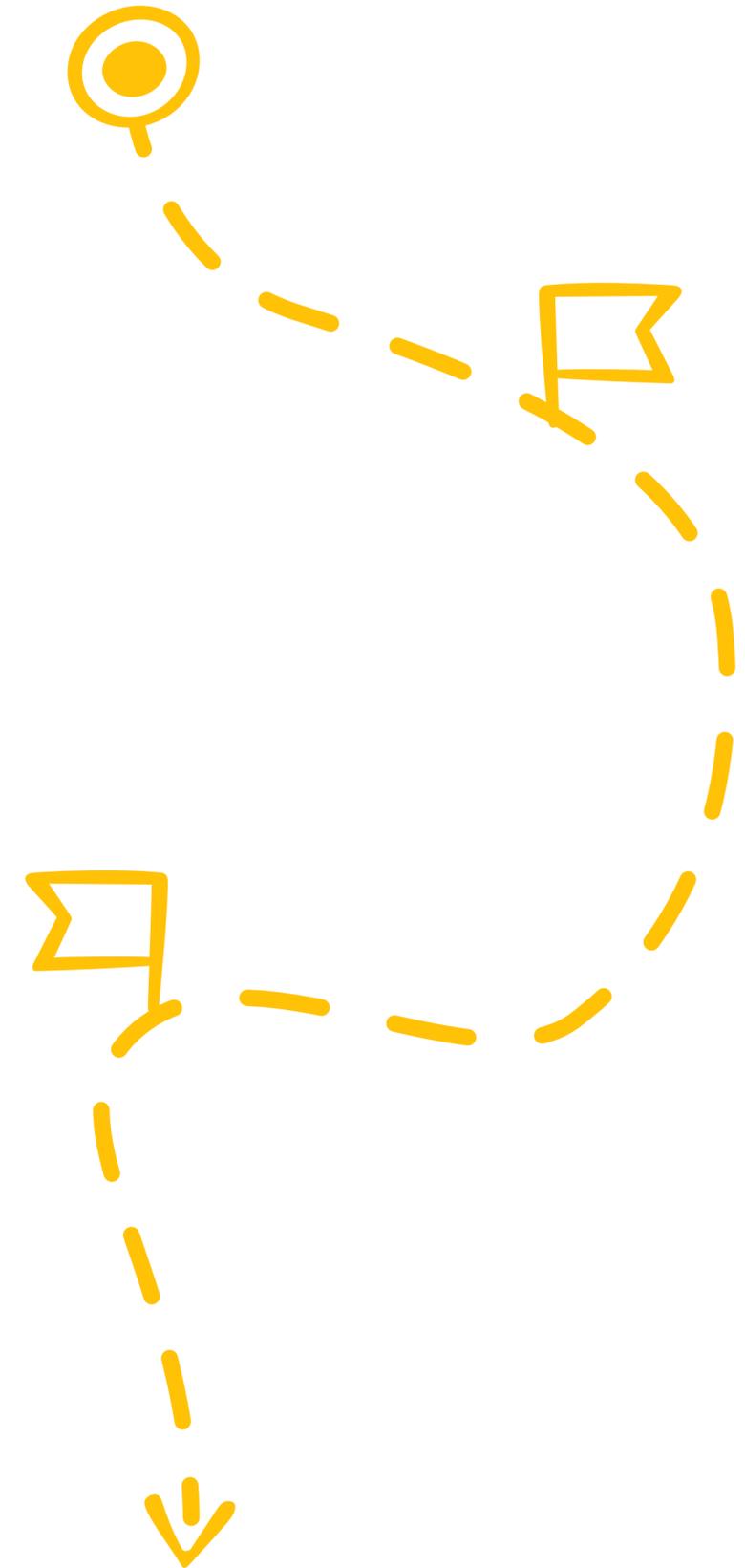
Output based metrics — usually talk about something that has been done. However, this does not automatically mean a shift in quality or success, for example amount of spent money, number of course participants, etc.)

Outcome based metrics - is more about quality and tends to measure the value and effectiveness of a strategy, for example community preparedness for a disaster.

### How to design good metrics?

Good metrics should be / are:

- Connected to goals, community values, and desired outcomes.
- If you cannot get data on some indicator, do not put it on your list.
- Actual, express something (the number of people who complete the training necessarily means increasing the level of knowledge of the population).
- Acceptable number of metrics that won't be difficult to evaluate.
- Tracked data that can express your success and better present your goals.



# Instead of the conclusion

The six foundations were formulated within a programme “Resilience” implemented by Post Carbon Institute, a non-profit organization, to support building community resilience, no matter where or how resilience-building efforts are undertaken:

1. **People.** The power to envision the future of the community and build its resilience resides with community members.
2. **Systems thinking.** Systems thinking is essential for understanding the complex, interrelated crises now unfolding and what they mean for our similarly complex communities.
3. **Adaptability.** A community that adapts to change is resilient. But because communities and the challenges we face are dynamic, adaptation is an ongoing process.
4. **Transformability.** Some challenges are so big that it’s not possible for the community to simply adapt; fundamental, transformative changes may be necessary.
5. **Sustainability.** Community resilience is not sustainable if it serves only us, and only now; it needs to work for other communities, future generations, and the ecosystems on which we all depend.
6. **Courage.** As individuals and as a community, we need courage to confront challenging issues and take responsibility for our collective future.



People



System thinking



Adaptability



Transformability



Sustainability



Courage

- Building sustainable resilient communities or resilient regions require simultaneous investing in the implementation of activities in three dimensions:  
Social resilience: activities that enable social cohesion and co-operation and ensure that the most vulnerable can access social and health systems without putting themselves at risk. The pandemic crisis has taught us that building resilience to climate change and other shocks must include health system resilience.
- Economic resilience: Jobs need to be created in sectors that contribute the most to a more sustainable and resilient economy.
- Ecosystem resilience: a focus on healthy ecosystems is needed to reduce the risk of future pandemics. That will mean protecting and rebuilding natural capital and biodiversity in Europe while mitigating climate change to minimize climatic impacts on ecosystems.

### **Final consideration**

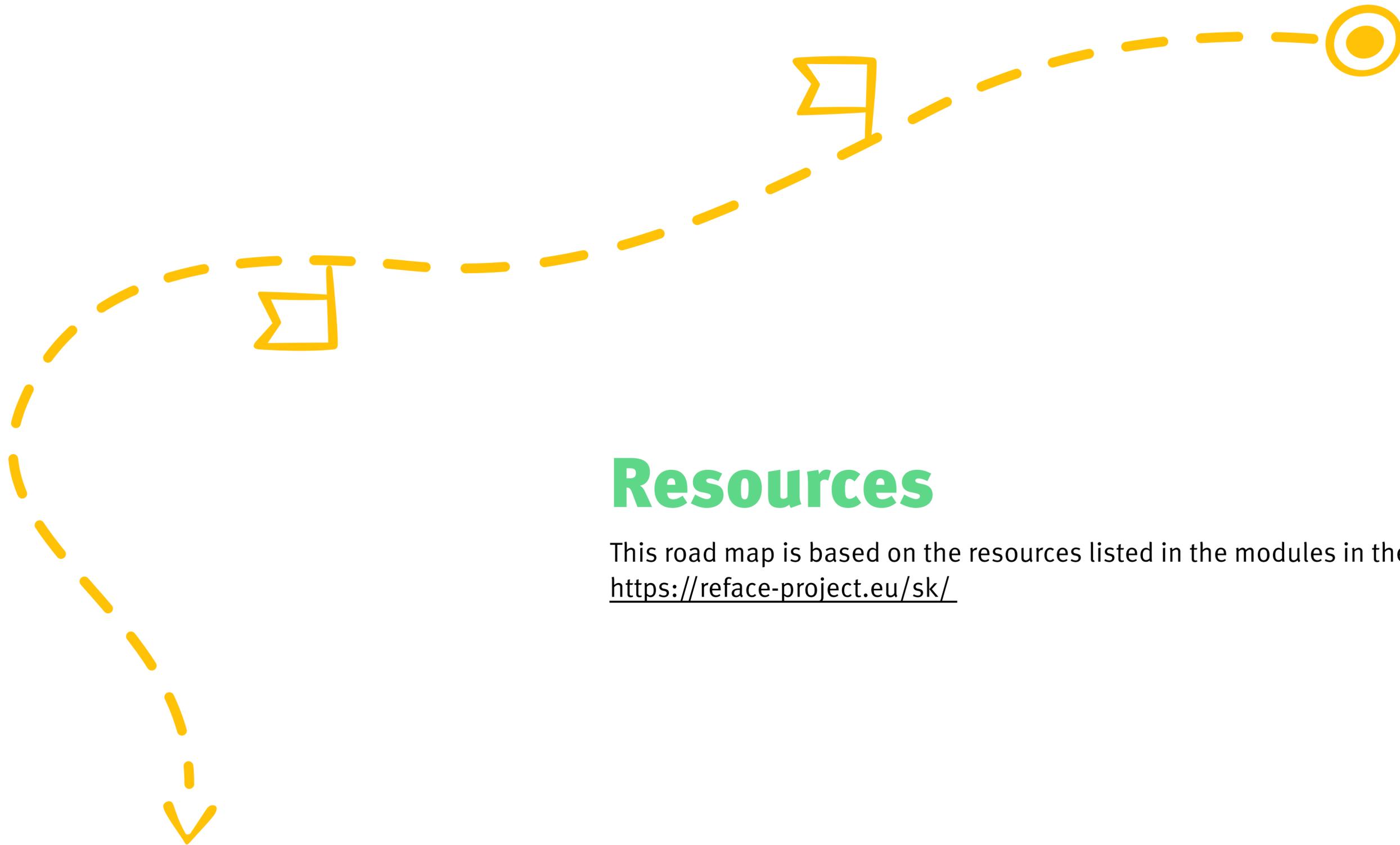
Is it even possible to prepare fully for an adventure expedition?

Is it even possible to prepare for the various future threats?

Probably not for all situations, but taking the time and attention to prepare will certainly increase our ability to react properly and prevent more damage...

We hope that the journey you have taken while reading this road map will encourage you to embark on the path of resilience building in your community, region...

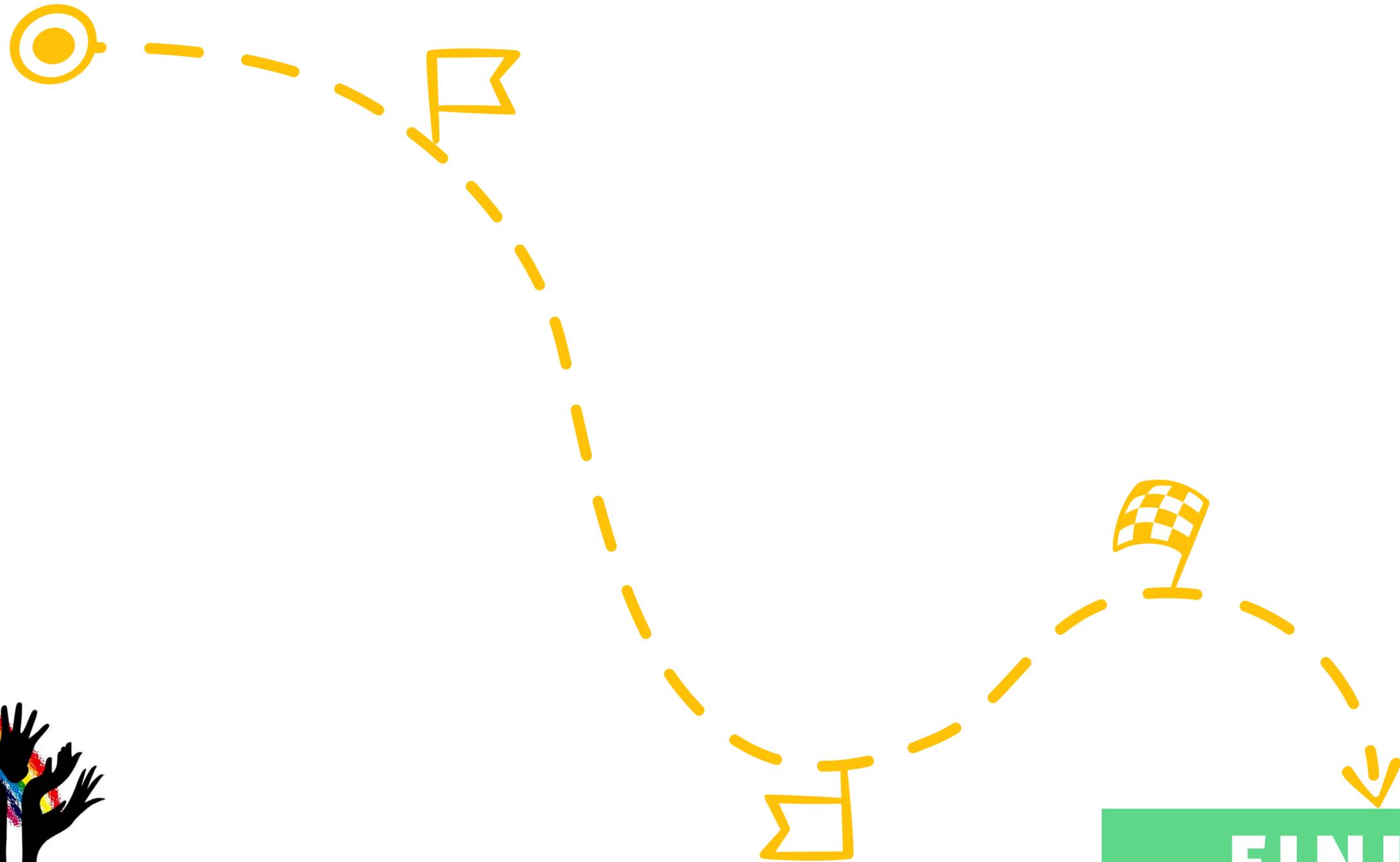




## Resources

This road map is based on the resources listed in the modules in the ReFace course.

<https://reface-project.eu/sk/>



**FINISH**

