PIP TRAVEL GUIDE

workbook for socio-technical transitions

Climate-KIC

Transition pathway
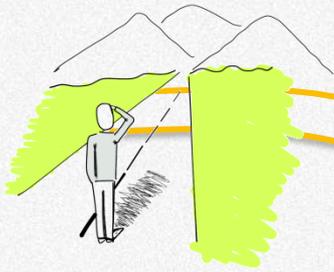
Introductory Workshop

The Pioneer Program
a journey through new models and paradigms

Reg. Placement

Crucible I

Int. Placement

Festival and Crucible II

Working teams
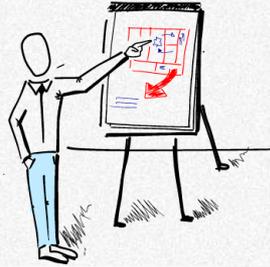
Group Challenge

Group assignments

Project idea
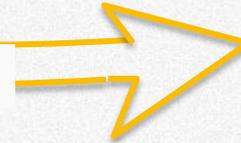
A coherent pathway of coached TEAMWORK
Based on hands-on and collaborative assignments, starting with a group challenge

TRANSITION WORKSHOP
TOPICS &
ASSIGNMENTS

The document will lead you through different transition topics, providing a practical perspective on the transition theory as well as a set of tools aimed to deal with transition projects. As you go forward you are expected to go through some assignments to put in practice the tools you learnt on real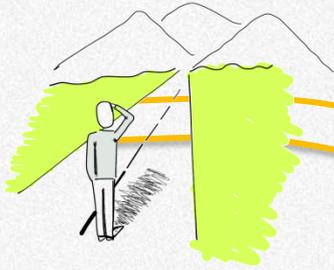 cases. For more information on transition methods, visit the website www.transitionsinpractice.nl/ In addition to the transition exercises an introduction on climate change and some instructions on general dynamics are included.

1
General Instructions

2
Group Challenge

3
Actor Analysis

4
Interview

5
MultiLevel Perspective

6
Dealing with barriers

7
Nurturing and Empowering

8
Visioning and Backcasting

1
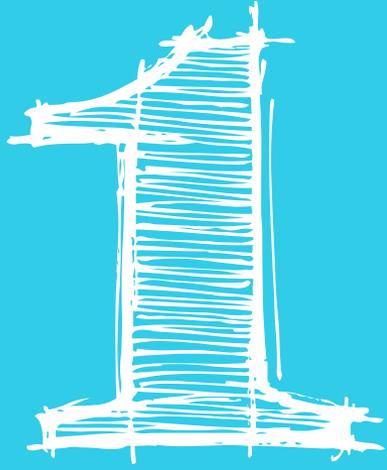
GENERAL INSTRUCTIONS

for making the most of the workshops

Some learning rules

LISTENING

Listen patiently: Listening needs more time because much of what you can take for granted in a disciplinary conversation falls away – even the definition of terms.

RESPECT

Show respect and try to make sense of what you are hearing: confusion and discomfort are often a sign of progress.

EMPATHY

Try to imagine how it would be if you were speaking from the other's position: How would you ask the question? How would you begin to answer it?

SUSPENSION

Try to imagine what you can make together out of the interaction between you: dialogue is the thing you create together, not merely the conversation.

Before starting…

Go with your group
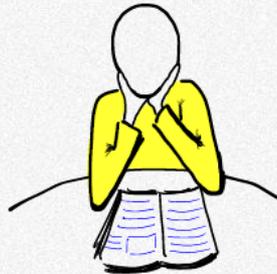
Read the hand-out

Get Involved
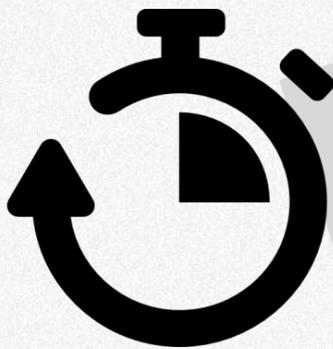
… Be aware of timing …and Dont forget *Have fun!!!*

BRAINSTORMING

General rules to run a creative session

Brainstorming
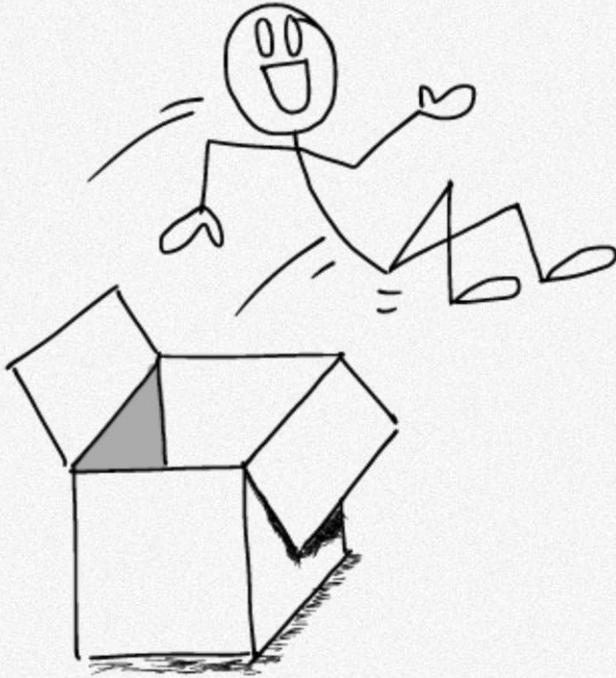
... When it comes to system innovation, thinking out-of-the-box is crucial to get to creative and disruptive solutions!!

Throughout the processes of resolving problems you will be confronted with the need to generate new ideas nearly from scratch. Mastering the basics of brainstorming therefore is an essential skill to boost that ideas generation and preventing teams getting stuck.

Brainstorming combines a relaxed, informal approach to problem solving with lateral thinking, encouraging people to come up with thoughts and ideas that can, at first, seem a bit crazy.

Classical brainstorming became popular in the fifties, since then many different approaches and techniques were published. Despite this variety of techniques all of them share the same scheme and ground rules.

Brainstorming

Some examples of brainstorming variations... explore to find out far more....

REVERSE BRAINSTORMING
1. identify the problem or challenge and reverse it.
2. Brainstorm the reverse problem to generate reverse solution ideas.
3. Reverse these solutions into solution ideas for the original problem or challenge.

If the initial problem is difficult to understand, or to improve a current product/problem/situation

BRAINWRITTING
1. Each team member writes down or sketches three ideas on a piece of paper.
2. Pass the concepts around the table, at least one complete round.
3. Repeat more times to encourage ideas connection and creativity.

If emphasis on sketching of ideas is wanted or ensuring an even participation

STARBUSTING
1. Sketch a Star and write the words "Who", "What", "Why," "Where," "When," and "How" at the tip of each point of the star.
2. Brainstorm questions about the problem. Don´t try to answer any of the questions as you go along.
3. explore the answers to these initial questions.

In case of questioning is a goal in your exercise

Some basic rules

1. *Explain the problem* you want to solve in the most clear possible way . It is essential to be precise. The more accurate the question you want to answer, the better the result of the brainstorming. Describe the problem and the objectives of your solution but don´t define or hint at the solution.

2. *Generate ideas First working individually (around 10 min) and then present ideas and go on working all together (10-15 min). In this phase:*
- *The more ideas the better.*
- *No matter how crazy an idea sounds, don´t rule it out.*
- *Avoid criticizing and judgments.*
- *Avoid discussion and doubts.*
- *Copy and link ideas form others.*

3. *Analyze results Once ´the creative step is over time comes to cluster, link and refine or redefine ideas. When clusters have been defined the team can rank the best ideas, clusters… The ranking method can be based on any variable that the team is looking for: effectiveness, feasibility, impact, effort…*

FEEDBACK

Giving and receiving feedback

Giving and Getting FEEDBACK

Giving and getting feedback is one of the most valuable ways to improve a situation or performance. Nevertheless it is important to give feedback in an effective way avoiding being harsh, critical, or offensive.

It is vital for the person giving feedback, not to mix up judgments with observations. Feedback is focused on the latter and never on personal judgments. **So, describe what you noticed; focus on the behavior, not the impression you had of it or on a person or their intentions**.

Effective feedback involves what or how something was done, not why.

Don't take for granted the person receiving feedback is understanding you, so check it by using a feedback loop, such as asking a question.

1
BE SPECIFIC.
Tell the person exactly what you noticed. This ensures that you stick to facts and there is less room for ambiguity

2
USE "I" STATEMENTS
Give the feedback from your perspective. This way you avoid labeling the person

3
FOCUS ON … RATHER THAN.
Observation rather than inference.;
Description rather than judgments.;
Behaviour rather than the person

Four steps to diving deeper

1 *Describe what you saw.* Focus on a specific storyline and elements:

Avoid comments on the first feelings; Try to make an own narrative of the presentation; Confirm you understand the logic used by the speaker.

2 *Describe the effect* that have caused on you. For example:

Confusion, Uncertainty, Clear understanding, Curiosity, Surprise.

3 *Check the LISTENER has understood* your comments Make confirmation questions. Place your comments on a a common knowledge area.

Provide examples to clarify specific situations or elements.

4 *Comment a type of result or analysis* that you would like to see in the presentation/idea and make suggestions in a positive way.

Suggest alternatives within the same idea or different variables to be considered.

'You did/did not look much at the audience when you chaired'.. It made it easy/difficult, in my perception to ask the questions that I wanted to ask"

After the first part of your presentation, you quickly introduced system innovations, and in a theoretical way."… "I noticed that I got lost then, because I tried to understand and started to think about examples."

2

GROUP CHALLENGE

A project idea or challenge to be faced by groups

Group Challenge

Each work team is expected to adopt a specific challenge related to the proposed subject. You will work on this challenge along the workshop assignments, so that you´ll get a comprehensive and coherent idea about the theory and its implementation.

Starting with the topic proposed to your group (eg: Waste management and recovery or Ecosystem Services) a specific challenge, preferably an innovative idea, must be set out . The challenge can be as concrete as "Second generation biofuels produced by bio-refinement of biomass material are adopted by public transport" or as loose as "Create conditions where a bunch ecosystem services can be marketable laying on a common framework".

Bring together your group

Give yourself a couple of minutes to think about

You all discuss and work together

Pose your proposal in a clear statement
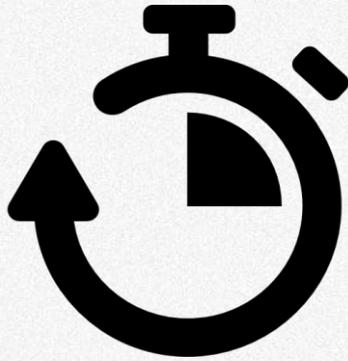
Even though you are expected to think out of the box you are also expected to cut to the chase

3
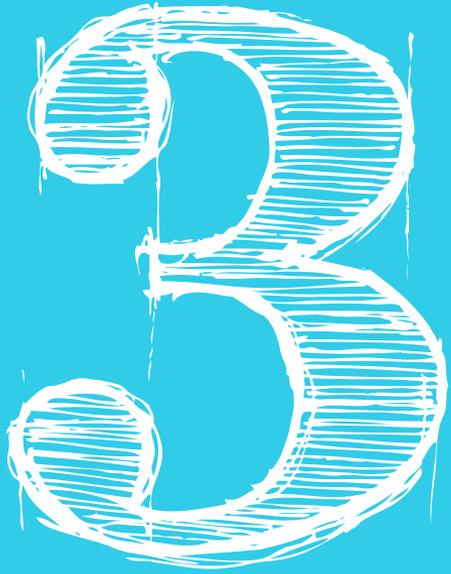
ACTOR ANALYSIS

understanding a network of relations

"The most important lesson we learned in the first three years of our company is: 'try to fail as soon as possible'. We explore in an early phase what relevant stakeholders think of our innovation ideas, and if there could be barriers for our innovation, in the chain of production and consumption. If so, we adapt our plan, eg. in terms of niche or strategy."

Gert-Jan Gruter Avantium,
Catalytic R&D for ground breaking innovation
Industrial Research Congress SHT 2014

Assignment

This assignment is to help you make an initial actor analysis. Such an analysis is important because it may help you to identify actors that are important for the realization of your idea or for the success of your project. Indeed they might endanger the whole project unless you are aware of their perspectives, concerns and roles. It helps you identify key actors and risks.

What are you going to learn/get out of this:

- *You will know how to make a systematic inventory 'actors' that are/might be relevant to achieve your (system)innovation goal/new practice*

- *You are able to characterize the actors in a simple way as a first step in exploring what they could mean for your innovation goals?*

- *You have got (initial) ideas about consequences in terms of actions for your case*

Step

1

Identify stakeholders network

Step

2

Assess and map out their position

Step

3

Summarize who are the Key actors?

Step

4

Adopt a strategy

1 stakeholders network

Taking into account the scope of your project and the goal, identify the main actors. **Use the categories from the figure and list the actors according to these categories. Try to be as specific as possible: call them by name**. For example, Friends of the Earth (Societal groups) or the Polytechnic University of Valencia (Research network) or the municipality of Wrocław (Public authority).

The range of stakeholders relevant to consider for analysis varies according to the complexity of the challenge and the type of actions proposed and, where the stakeholders are not organized, the incentive to include them.

Stakeholders can be of any type, size and capacity. They can be individuals, organizations, or unorganized groups.

Don't fall into the temptation of NOT mapping those less important, outsiders and surrounding stakeholders… They might not look so important, but they definitively can give you the out-of-the-box approach you need later on and can play a key role especially at the beginning

2 Assess and map out

Once you have listed all possible stakeholders, now you should know how they relate to the challenge and how they relate to each other.

To structure the list and filter out more important from less important stakeholders, map the information gathered according to different variables. This way you can visualize different relationships .This will help you set out your stakeholder strategy.

Different approaches have been used for years, to explore the nature of the actors' involvement and their views, namely matrixes, tables and graphics. **We are going to use a couple of matrixes and one graph to analyze and compare significant characteristics of each acto**r. These kind of maps will allow us to clearly characterize the stakeholder network and visualize their relations.

Here you will find a specific combination of variables to make maps, but you can use others such as attitude, legitimacy or urgency. Just give it a try!

Power

Power capacity of the actors to influence, modify or drive your initiative. How much influence do they have over your project because of their Authority, Hierarchy, Resources, Relations…?

Attitude

Will they support the project or program?
Will they be neutral?
Are they expected to fight against?

Interest

Do Stakeholders have a large or small interest in the project? Is their position one of indifference to your project?
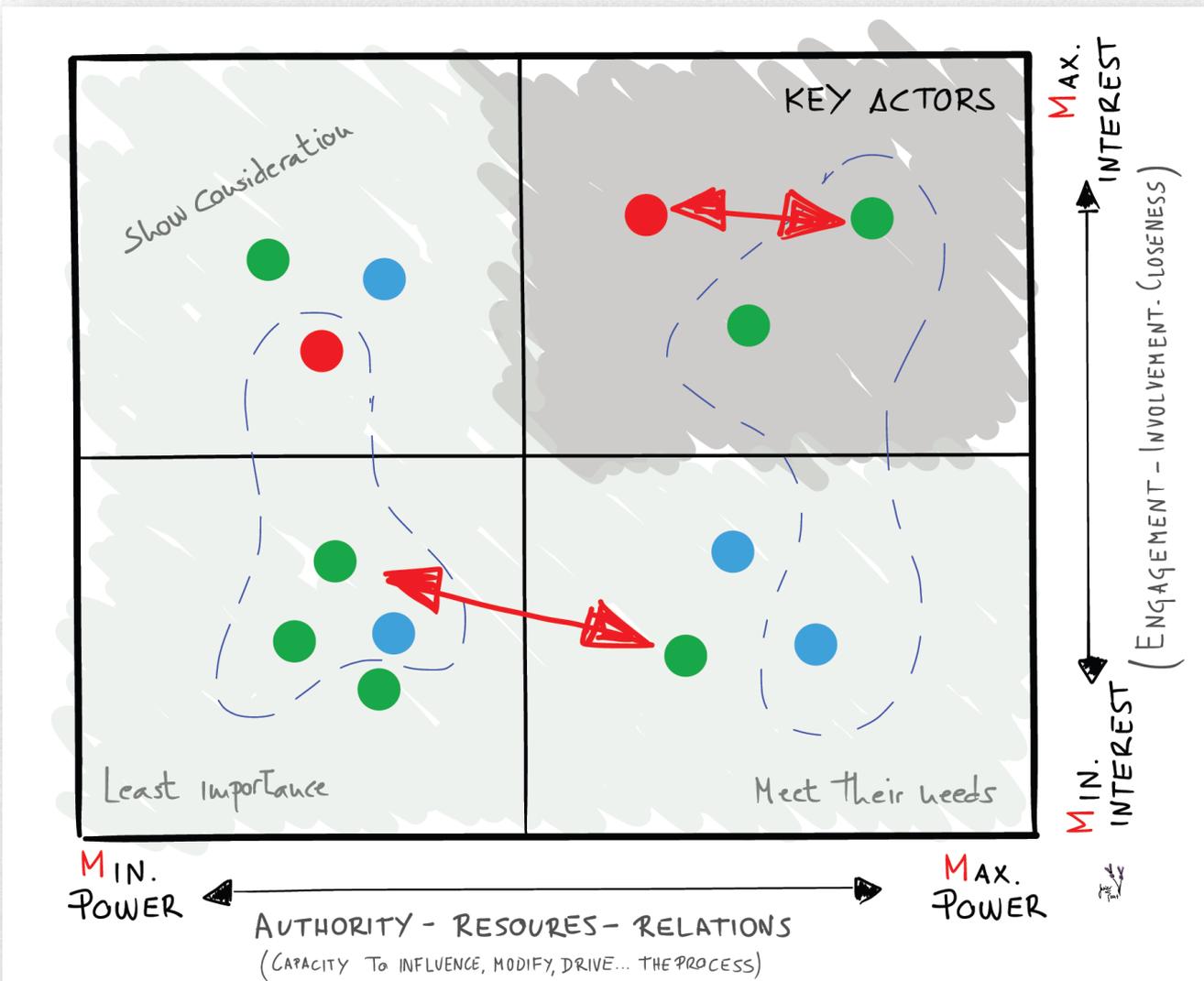What is their level of engagement, involvement, closeness or even commitment?

Adaptation

How adaptable is the stakeholder to the changes? What is their path dependence, their willingness to break the current regime. What is the likelihood for them to change their position throughout the process?

Power/Interest (Bryson, 1995): highlights coalitions that can be encouraged or discouraged, whose buy-in should be sought or co-opted.

Attitude

Will they support the project or program?
Will they be neutral? Are they expected to fight against it?
Are there alliances or conflicts that can affect the process?

Legend:
- 🟢 Supporter
- 🔵 Neutral
- 🔴 Fighter
- ➡ Conflict
- ⭕ Alliances

KEY ACTORS

Show Consideration

Least importance

Meet their needs

MAX. INTEREST

MIN. INTEREST

(ENGAGEMENT – INVOLVEMENT – CLOSENESS)

MIN. POWER

MAX. POWER

AUTHORITY – RESOURCES – RELATIONS
(CAPACITY TO INFLUENCE, MODIFY, DRIVE... THE PROCESS)

The position of stakeholder is not fixed throughout the life of the project. According to their adaptability to the changes, their expectations or any other external/internal factors, their position can change. This movements in stakeholders´ position can seriously affect the innovation process by e.g. holding it back or conversely, speeding it up in different stages. So it is vital to analyze and keep track of the stakeholders 'adaptability and positioning' all along the process of change.
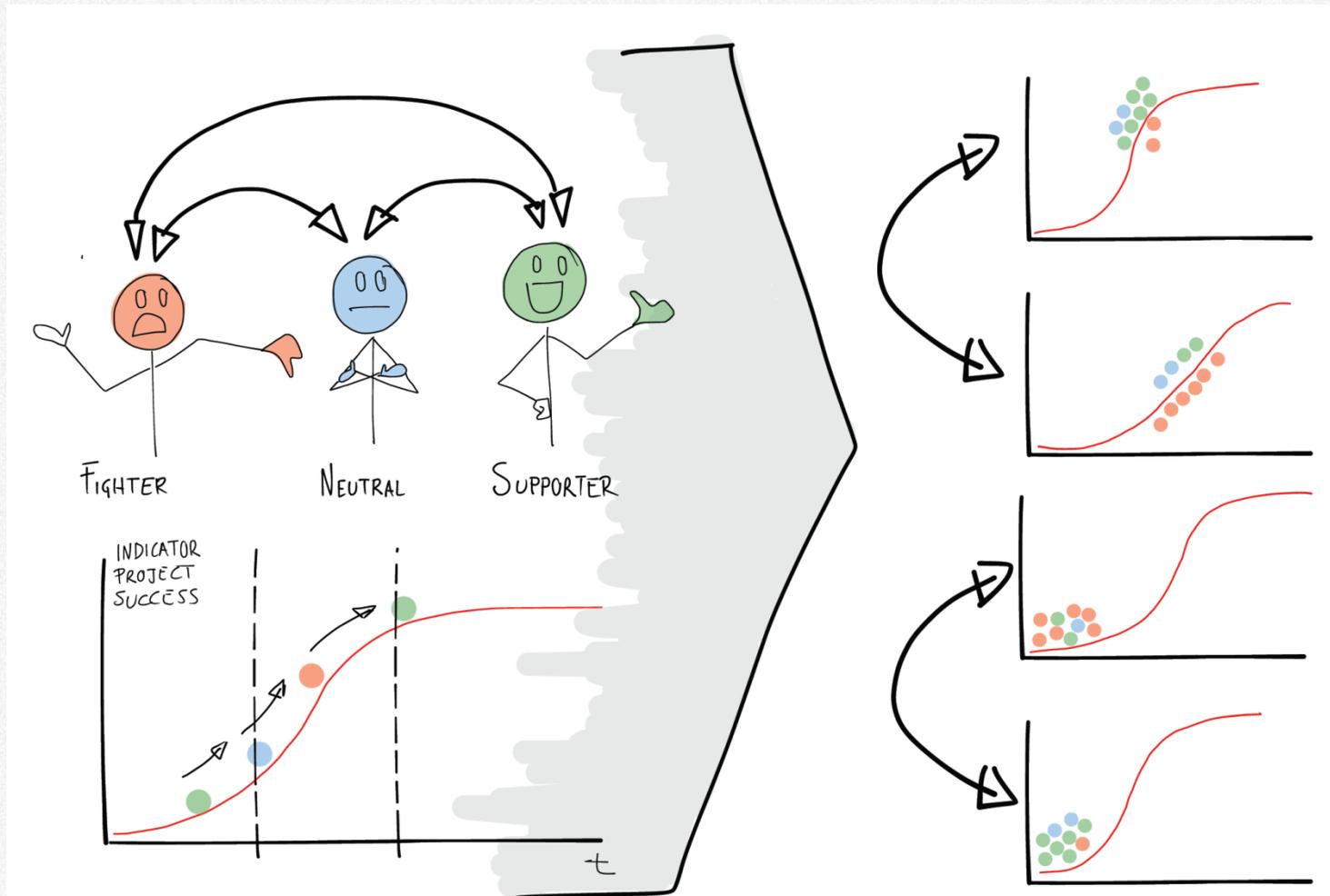
Adapted from Gardner at al. (1986):
When adaptation is low the stakeholder's position/attitude is predictable and their expectations can often be met in a relative easy way

impredictable but manageable

Greatest > Danger Opportunities

MAX. ADAPTATION

CHANGE CAPACITY – PATH DEPENDENCY

LEARNING – WILLINGNESS TO BREAK...

MIN. ADAPTATION

Powerful but predictable

fewer problems

MIN. POWER

MAX. POWER

HIERARCHY – RESOURES – RELATIONS
(FORMAL AUTHORITY, CAPACITY TO INFLUENCE, MODIFY, DRIVE... THE PROCESS)
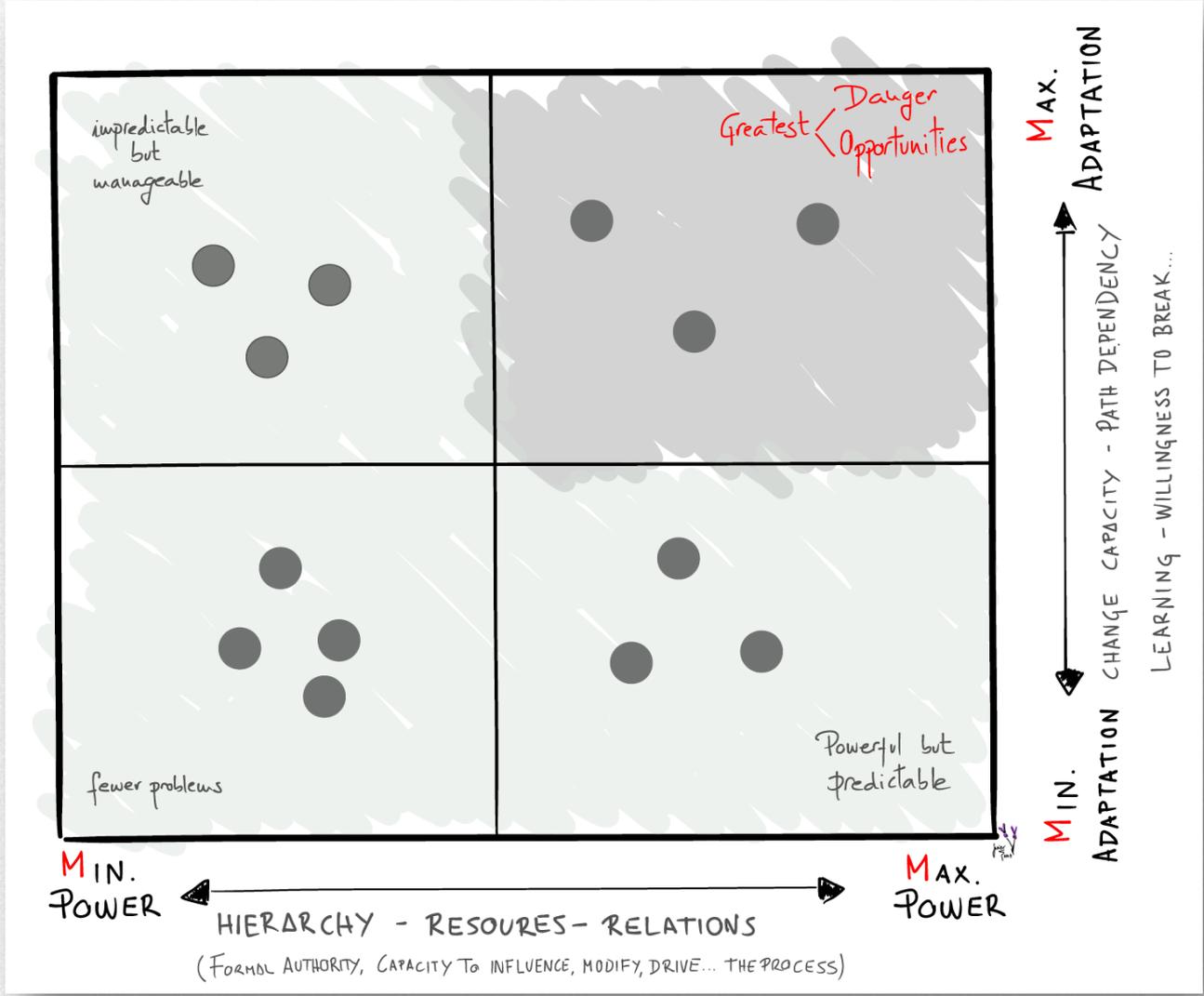
3 Summarizing key actors

By overlapping the main actors spotted in previous matrixes you will be able to identify the predominant roles for each one of them, which allows you to define and adopt an adequate strategy:
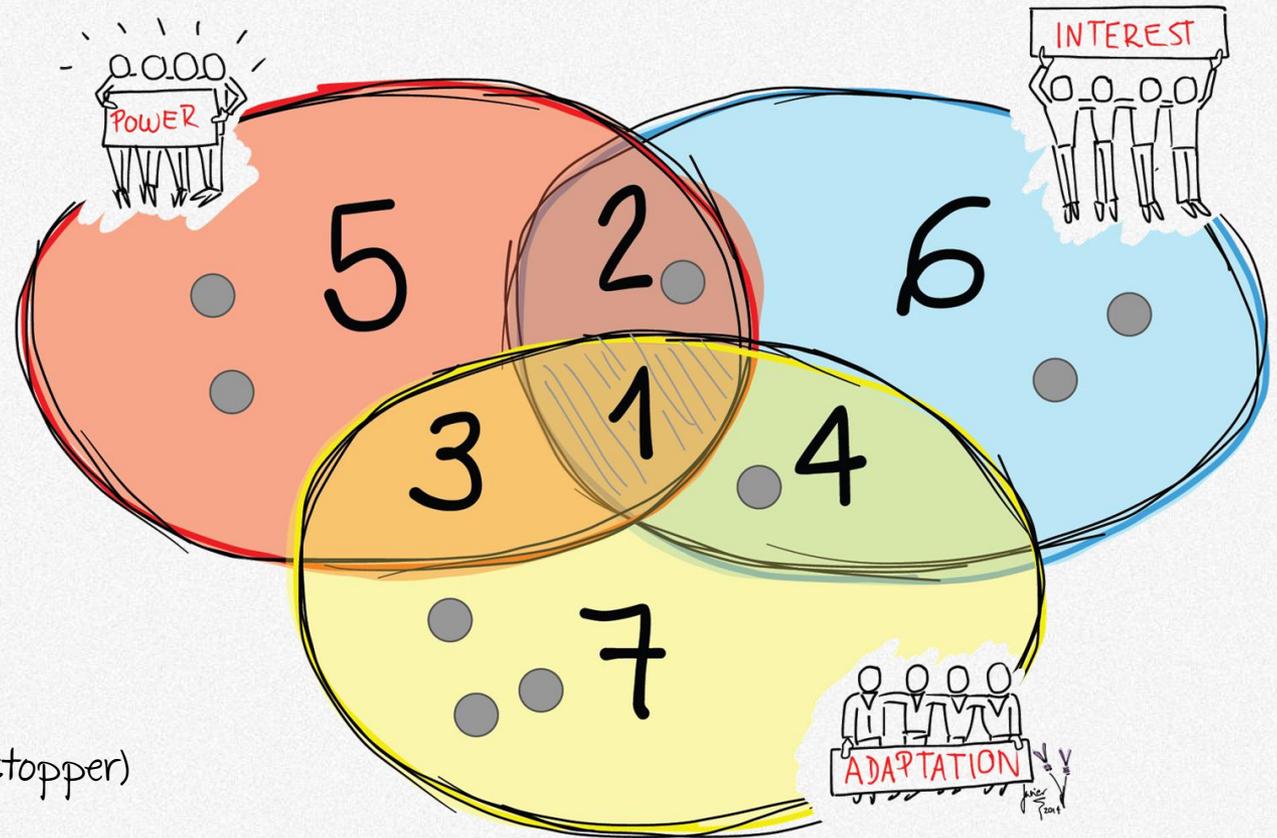

1.- Agents of Change
2.- Innovation Broker
3.- Gate Keeper
4.- Risky Agent (pusher/stopper)
5,6,7.- Latent Agents

4 Adopting a strategy

Summarize the main outcomes of the analysis pointing out the key features and then identify strategies. Then draw your own conclusions: . *A conclusion could be that you do not know enough yet about specific actors that you have identified. This could, for example, result in efforts to learn more about these actors. Conclusions could also be in terms of identifying potential resistance against your initiative or potential support. This might trigger you towards other actions.*

DIFFERENT STAKEHOLDERS
⇩
DIFFERENT STRATEGIES !
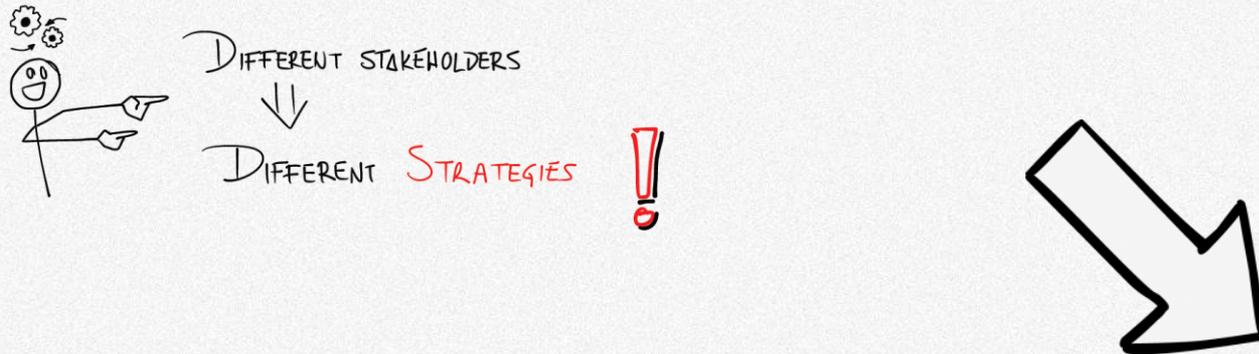
Actor	Interest:	Attitude:	Power:	Adaptation	CHARACTERIZATION	STRATEGY
Category Suppliers						
…Actor 1						
….Actor 2						
….						
Category research						

FINAL REMARKS

Be aware that stakeholder management is an essential part of innovation strategy. Actually it is part of strategic management.

Know that you have to deal with dynamics in you network, eg. because your project develops, actors change position. Therefore network analysis should be done more than once during a project or programme. Eg. the involvement of regime actors is often essential for final success, but many studies show that their involvement in early stages could frustrate your innovation project.

Stakeholders can be of any form, size and capacity. They can be individuals, organizations, or unorganized groups.

for more suggestions and guide lines on how to deal with stakeholders
www.transitionsinpractice.nl
(creating a vision/drafting an action plan)

4

INTERVIEW ASSIGNMENT

Exploring what matter to others

Assignment

Once you have identified and assessed the main stakeholders **time comes to in-depth analysis of Key actors**. It is vital to know the deepest concerns, feelings, expectations, approaches… of the key actors towards the problem, the solutions and the project.

In order for you to carry out this analysis there are a number of techniques and tools that can help. Here we are using the open interview method, with elements of what is called 'Interpretative Frame Approach'. See for this on the website. www.transitionsinpractice.nl The website also refers to other actor network tools, e.g. the 'Cognition model' or 'ESTEEM'.

This in-depth analysis could be done relying on available information in the media or on the Internet. Nevertheless face-to-face interviews, preferably on location, are highly recommendable.
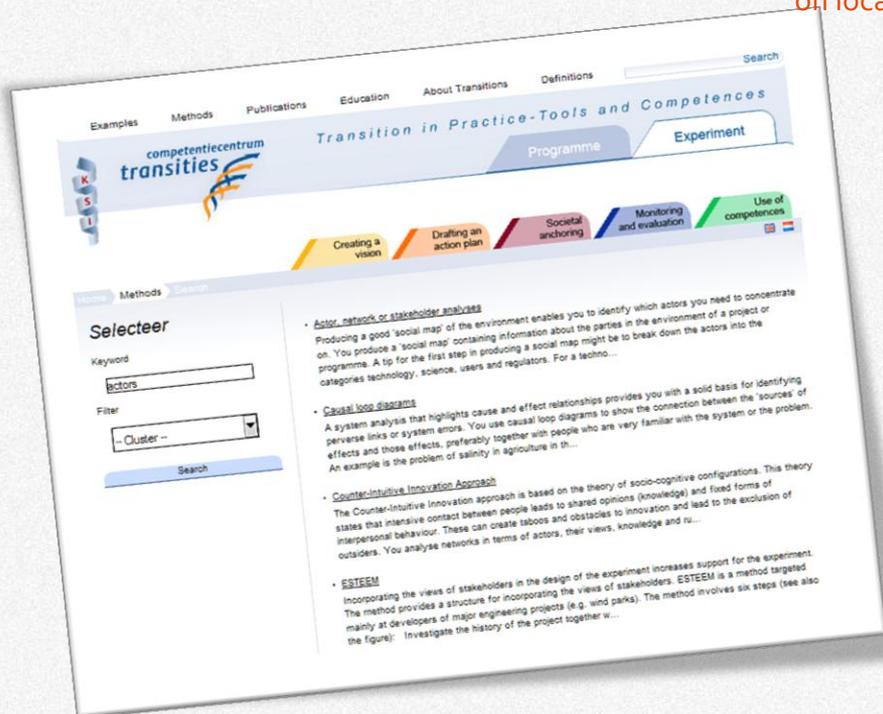
The goal of the assignment is to better know the key stakeholders of your network, by putting in place a couple of techniques:

- Interview them to gather information in a direct way

- Use the Empathy Map to sketch out their points of view, worries and the main points you got out of them.

Step

1

Interview in a role play situation

Step

2

Sketch out the empathy map

1 Interview
How?

You are going to go through a three round interview process so that you will be able to train your competences to be prepared for a real-life interview, exercise feedback, get to know how some other participants see the (regional) context of low carbon innovation, etc.
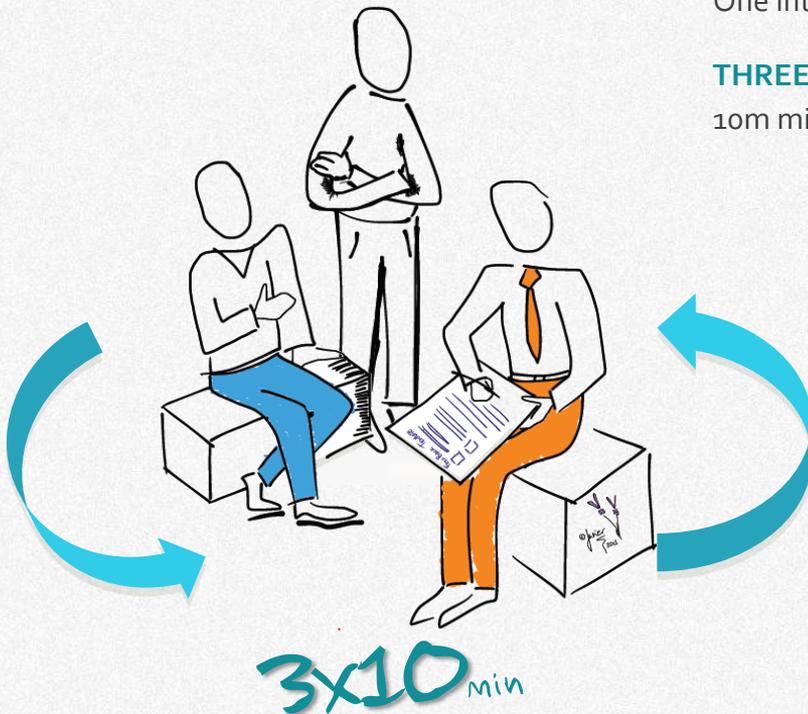
THREE PERSON
The group will be split in 3 people groups

THREE ROLES
One interviewer, one interviewee, one observer

THREE ROUNDS
10m minutes per round: **7 for the interview**, 3 for feedback

3x10min

The interviewer

The aim of these face-to-face interviews is to know the actual position of the interviewed regarding the (topic of) the group challenge, and the stakeholder network. *How does she understand the challenge? How does he engages with other stakeholders? What is her opinion about the current regime?...*

So, **with the group challenge in mind** ask questions aimed at knowing their opinion and approach and their role in that regional challenge. If you want , the following topics can help you address the whole range of topics.

(1) Their general opinion.
Their general ideas on sustainability challenges, their vision. Main barriers, current initiatives at niches and regime levels, needed breakthroughs, next steps, future trends....

(2) Their feelings
What are their fears, their worries, their hopes, their pains... What are they putting at risk? What do they expect to gain? Their feelings on barriers, opportunities, stakeholders, trends...

(3) Their actions.
How do they contribute in this multilevel challenge? Are they in a niche or are they a piece of the regime? Are they active or passive?

(4) Their relations
How/Where do they engage with other actors? Forums, radio, journals, meetings... Do they have alliances, enemies...? What role are playing?

(5) Their advice
Some new ideas? Maybe a hidden or key actor? Some out-of-the-box innovation? New regulations? Something financial related?

Questions

It´s important to plan the questions you are going to ask before the interview . Bear in mind that if you ask the wrong questions, you will probably get the wrong answer, or at least not the type of answer that you are hoping for.

During the interview make sure that you give the person you are questioning enough time to think about their answer and to respond. At the same time if your are asking deep questions which imply deep thought, it needs to be matched by empathic and active listening so that you understand what people really mean with their answers.

Open questions:

Open questions give rise to longer answers. They are intended for the respondent to share in a long way their knowledge, opinion or feelings . These questions usually begin with W questions: What, Why, Who,. hoW, When, Where, What if...

Funnel questions:

Funnel questions are aimed at diving in the details of one piece of information by homing in on a point in each answer, and asking for more and more details .

It is like a polite third degree.

Probing by using WHY

The use of Why questions is a good way to draw out all possible information and to get to the root of the problem or to the more fundamental convictions that are important to understand the actors' behaviour or interest.

The observer

The observer has to **actively listen** to the interview, paying attention to the other´s behavior as well as the conversation (content, fluency, etc.). Her role is mainly aimed at analyzing the role-play itself instead of the practical results of the interviews.

That is, the exercise has two parts, the three pioneer characterization in relation to the group challenge and the role-play as a way to practice for the real life situations. The role of the observer is addressed to the second one, giving feedback to the people directly involved in the interview.

BODY Language

FLUENCY of conversation

COHERENCE of Q&A

COMFORTABILITY of his role

*BALANCE between interviewer and interviewed*

2 The Empathy map

Empathy Map is a tool developed by XPLANE www.xplane.com . It helps sketching the profile of a stakeholder (or customer, audience...) and understand his/her environment, behavior, concerns and aspirations regarding the project (idea, program, solution, challenge, or product).

The empathy map can be made using the information you gather through the media or even better through a face-to-face interviews, which are highly recommendable.

Check out the empathy map and the kind of questions it entails, always from the stakeholder perspective.

Then pick out one of the actors from the previous assignment or one of the participants interviewed and try to fill up the empathy map

5
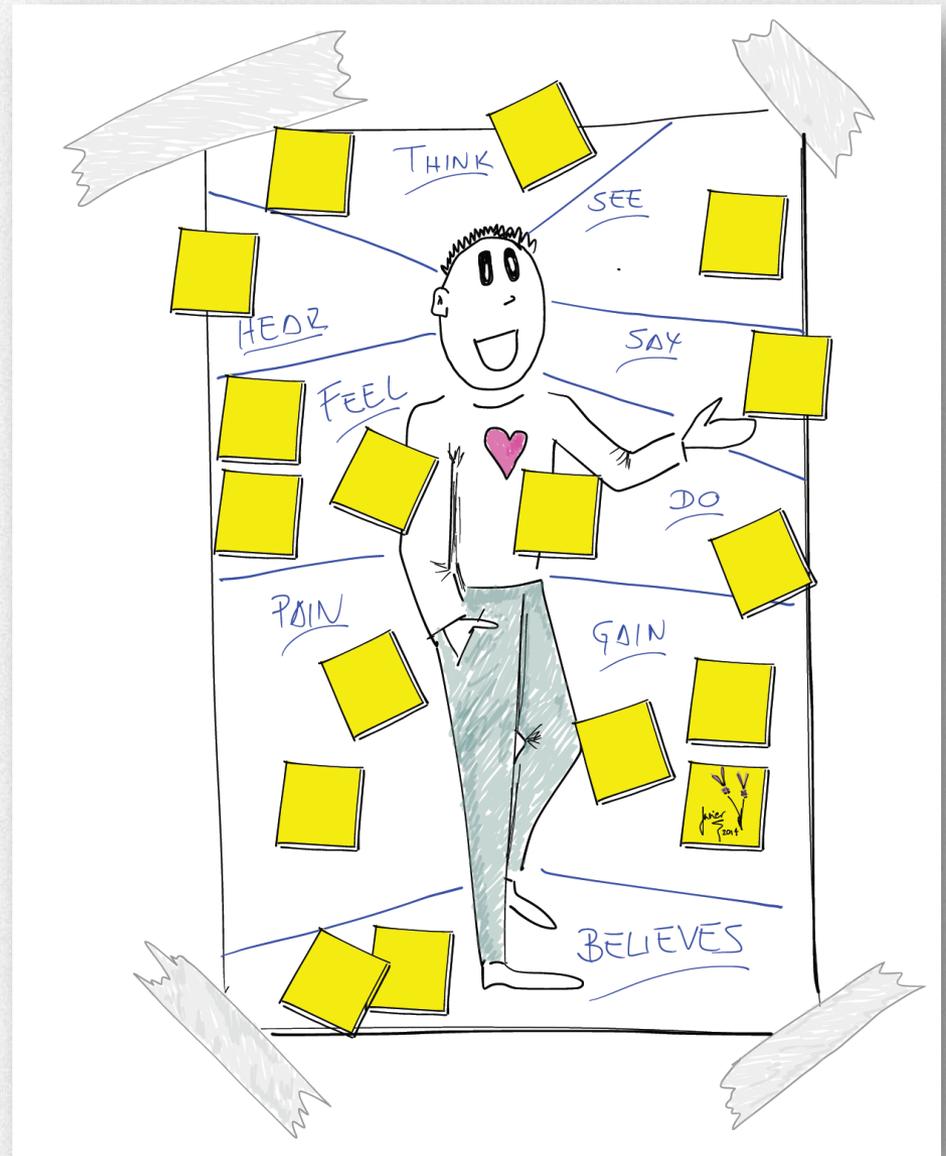
MULTILEVEL PERSPECTIVE

**Understanding the relevant context of your project**

Multilevel perspective

Most of us are quite busy with our innovation project (s), but without being aware (enough) of the relevant context that could influence its success and its real potential to a low carbon economy.

The Multilevel perspective (MLP) is an analytical tool that evolved from historical studies on system innovation. It breaks down the environment of an innovation project into three levels: Landscape, Regime and Niches of innovation. With each comes own challenges and/or opportunities.

THE CONTEXT OF YOUR PROJECT: A KIND OF MULTILEVEL CELL
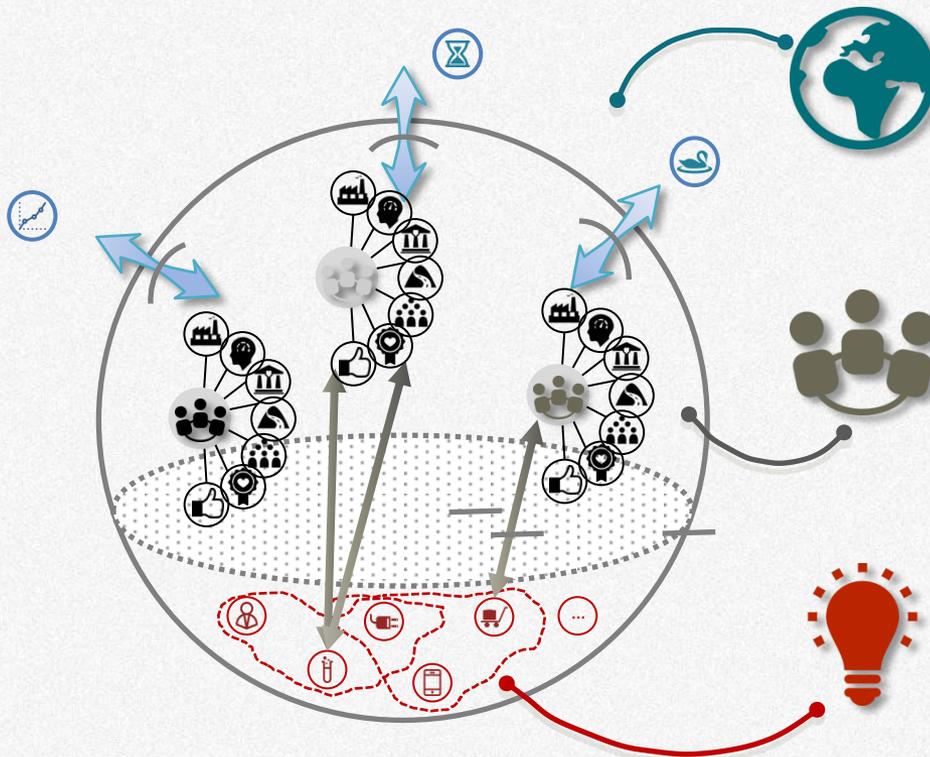
LANDSCAPE: Exogenous, Autonomous, Long term trends and crisis (demographic, environmental, macro-economy, political…)

REGIME: Established, Mainstream, Institutions (culture, economics, regulations, stakeholders…)

NICHES: Experimenting, Small-scale 'places' that are deviant from business as usual, in other words: different from the regime.

Landscape: drivers for change

Macro level, it depitcs the exogenous, long-term and autonomous trends in social, political and cultural changes and major crisis. They are the outcome of the acting of many people. Landscape developments are sources of preassure for change onto regimes and can be drivers for a major change:

1. **Factors** that **do not change** or do slowly, such as climate change.

2. **Long-term** developments: industrialization, urbanization, demography, macro-economy, climate change, geopoltical culture, world views, raw material stocks......

3. **Rapid** shocks, **black swans**: war, crisis, price fluctuations, etc.

Landscape developments cannot directly be influenced. The way to deal with them is to cleverly relate to them, for example:

- *Air pollution in cities and policies to reduce that. Electric transport initiatives could be related to that, and not only to reduction of Climate change.*

- *Zero energy houses (see Energiesprong): in the end owners/renters safe money. In times of crisis this is a supportive argument.*

Regime: barriers for radical change

Regime facilitates business as usual practices. An example of the traffic regime are the roads, traffic lights, traffic rules, driving courses and licences. They help steering the traffic in the right direction and discourage deviant behavior. Regime usually only allows for incremental innovation, but not for radical system innovation. As a consequence, system innovation normally includes regime innovation.

Different regimes coexist at the same time in the same context. Eg: mobility, energy, building, transport...

Regime can be changed but for that influence or power is needed, for example:

- *Energiesprong has worked on several out of the box (= beyond present regime solutions) e g. a long-term energy performance warranty to convince financers and make the programme work, an offer based on convenience for tenants/house owners to allow for upscaling, and new routines in the building sector to allow for more cost/efficient retrofitting.*
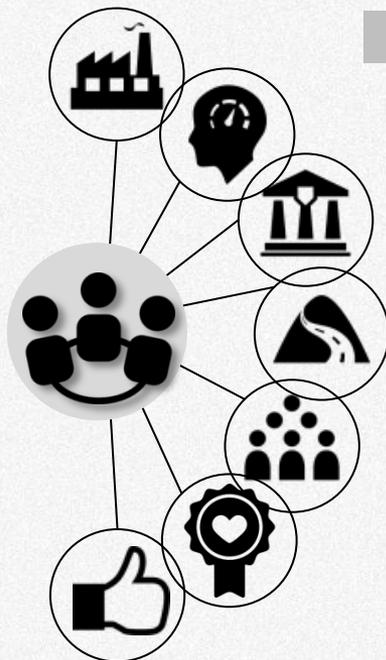
**MULTIPLE DIMENSIONS INSIDE THE REGIME OF YOUR PROJECT. Eg.**

1. INDUSTRIAL CAPACITY

2. KNOWLEDGE BASE

3. REGULATION, RULES AND POLICIES

4. PHYSICAL INFRASTRUCTURE

5. ACTOR CONFIGURATION

6. CULTURE

7. MARKET AND USER HABITS

Niches: Alternatives for the change

Micro level, protected spaces where innovation can take place out of the market rules, regulations and other pressures coming from regime dimensions. Low level of organization, weak and narrow networks.

Universities, R+D departments or the army are typical niches, but they can flourish anywhere. Low carbon system innovation projects usually are niche projects, since they do not comply with (parts) of the dominant regime.. An inventory of related innovation projects is useful since you can learn a lot from 'fellow' innovators, eg. about regime barriers, such as cultural barriers, routines, innovative approaches and so on . Fellow innovators also may become fellow-lobbyers for regime change.
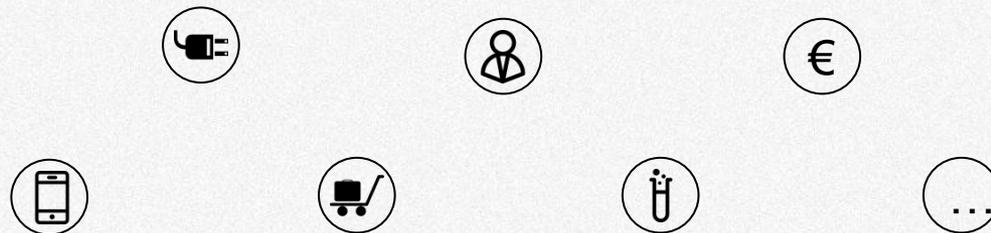
Examples of Niches of innovation:

- *Electric taxis Infrastructure s, PV systems in rural areas, Consumers as energy producers, Low-carbon lifestyles...*
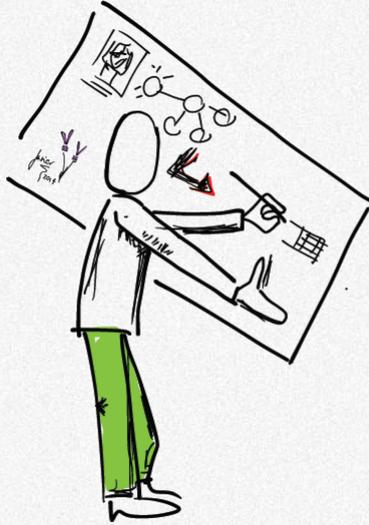
System innovations happen when:
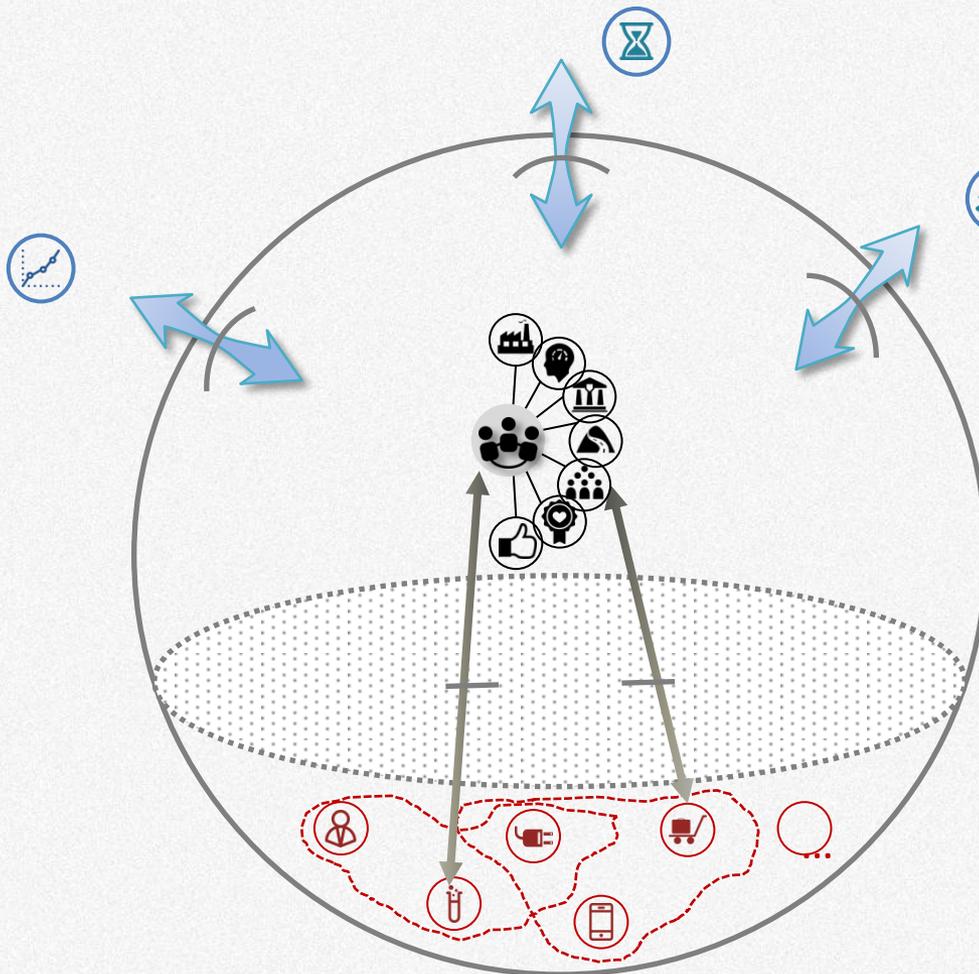
1. There is sufficient pressure from the landscape…

2. … regimes can no longer solve problems and become unstable and open for change…

3. …niche innovations are available and sufficiently developed to 'break through' and form a new regime.

Assignment

Starting out with your group challenge, the aim of this assignment is to describe in a visual way the different components that make up the multilevel scenario (Niches, Regime and Landscape) as well as their relationships among them.

What are you going to learn/get out of this:

- *You will know to position your (future) innovation projects in the broader context of different societal 'layers' that are important for your innovation*

- *·You know in general how one could deal with these layers in a strategic way, in order to enhance success chance (on the basis of examples/stories)*

- *·You will have explored what the different layers could mean for your case*

- *·You will have brainstormed about (niche) strategies that you could use, including learning strategies*

Step

1

Identify your project / Challenge.

Step

2

Identify NICHES or other innovation projects that could be important for your challenge.

Step

3

Identify present dominant REGIME, like culture, practices, rules, infrastructure. existing networks and power relations.
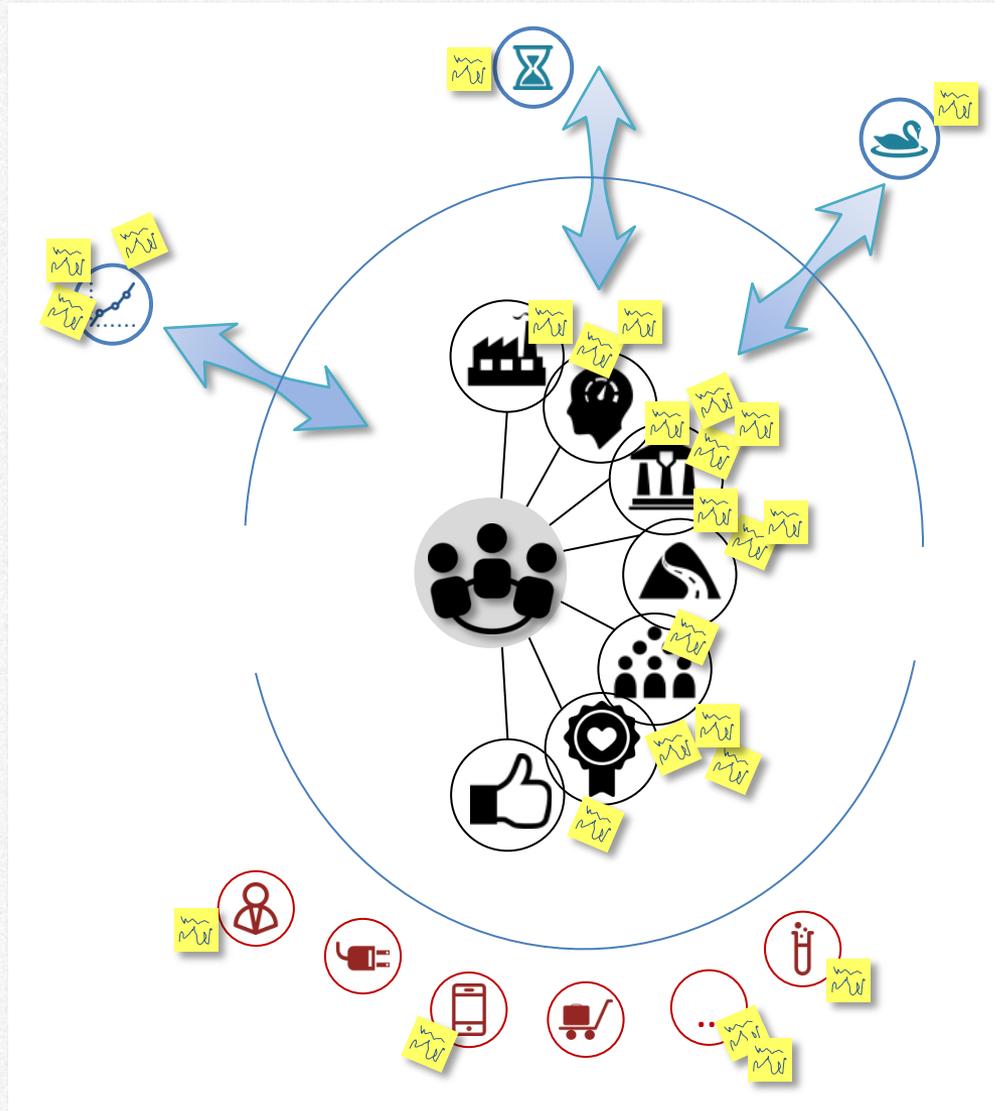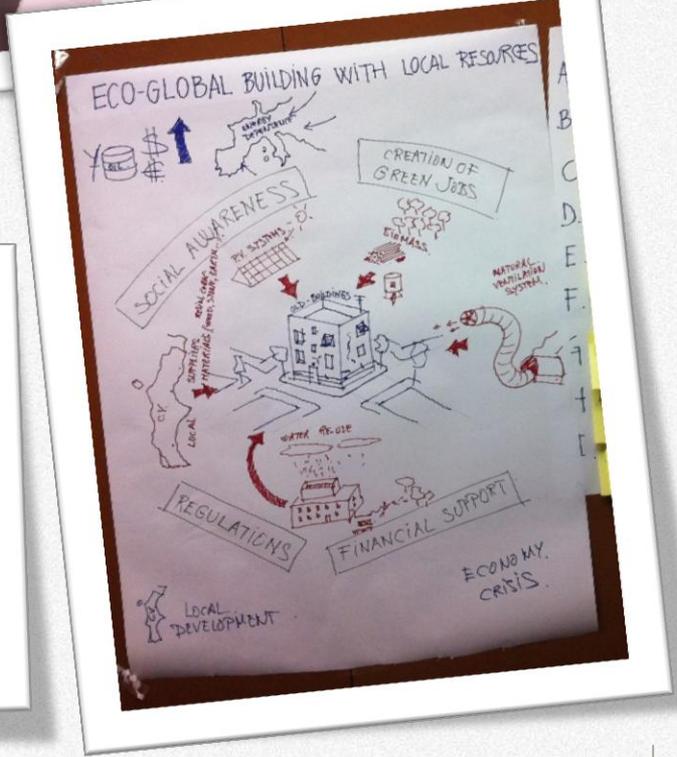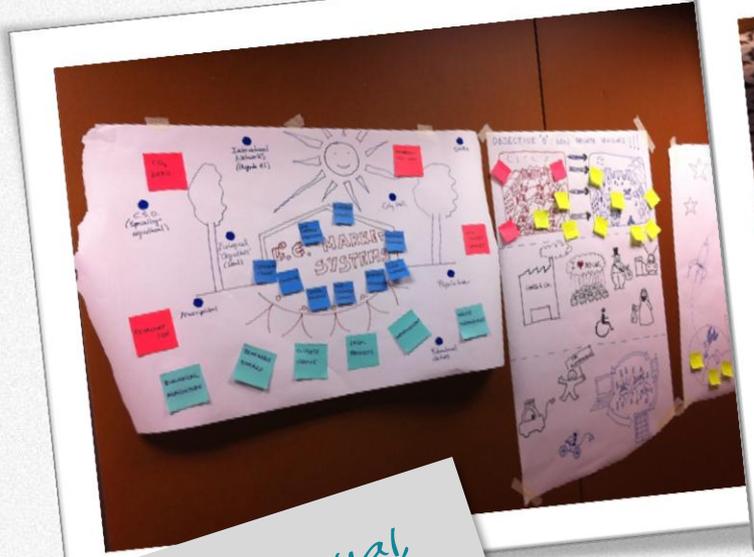
Step

4

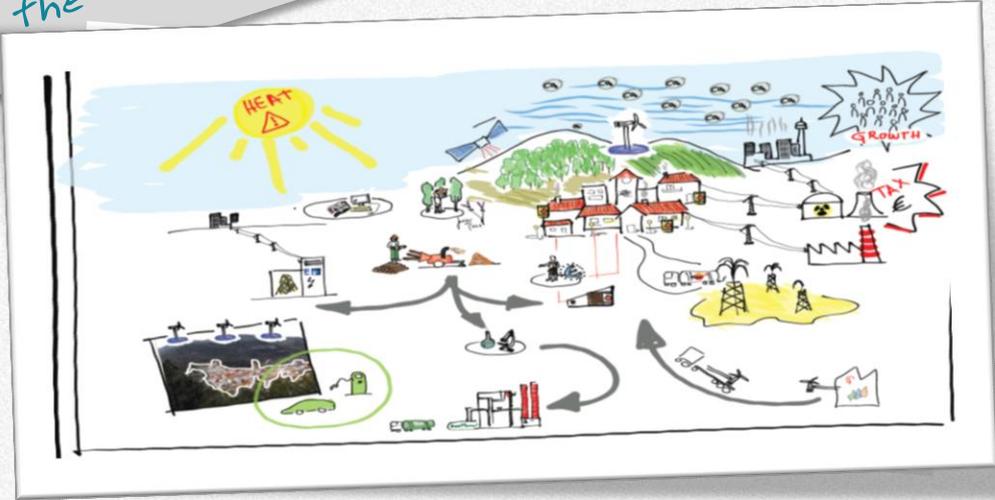*Identify the main components and trends that characterize the LANDSCAPE.*

5 Map out the context

Put all of the components you have identified together in a multilevel perspective sketch.:
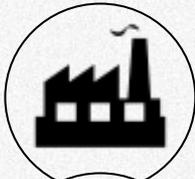
... The more visual, the better!!!

6

DEALING WITH BARRIERS

Exploring bottlenecks and stoppers

Setting the scene

As mentioned before, regime dimensions can account for barriers to system innovations coming from niches and keeping them to break through the current regime. It is vital to first identify the barriers, as your starting point for exploring tailored solutions   and overcoming stoppers and bottlenecks. Different barriers can be spotted:

_____

Industrial capacity such as physical infrastructure, technology, network of externalities, industrial capacity…

_____
_____

Knowledge base such as Science, research…

_____
_____

Regulation, rules, policies such as Rules, norms, organizational forms, institutions economic resources……

_____
_____

Physical Infrastructure such as current infrastructures, communication, land planning…

_____
_____

Actor configuration who matter and who do not…

_____
_____

Cultural such as tradition, values linked to the technologies…

_____
_____

Market and user habits such as habits, resources, ability of processing available information…

_____

Assignment: A,B,C… brainstorming

This assignment is to help you think out-of-the-box, both individually and collectively, in the search of innovative solutions to the current narrows your challenge can face in its path into the regime. With that aim, "*A,B,C*" brainstorming dynamic is going to be put in practice.

Step

1

Identify the main domains of barriers. And break them down in specific barriers.

Step

2

Identify a n "A, B, C…" collection of out of the box solutions.

Step
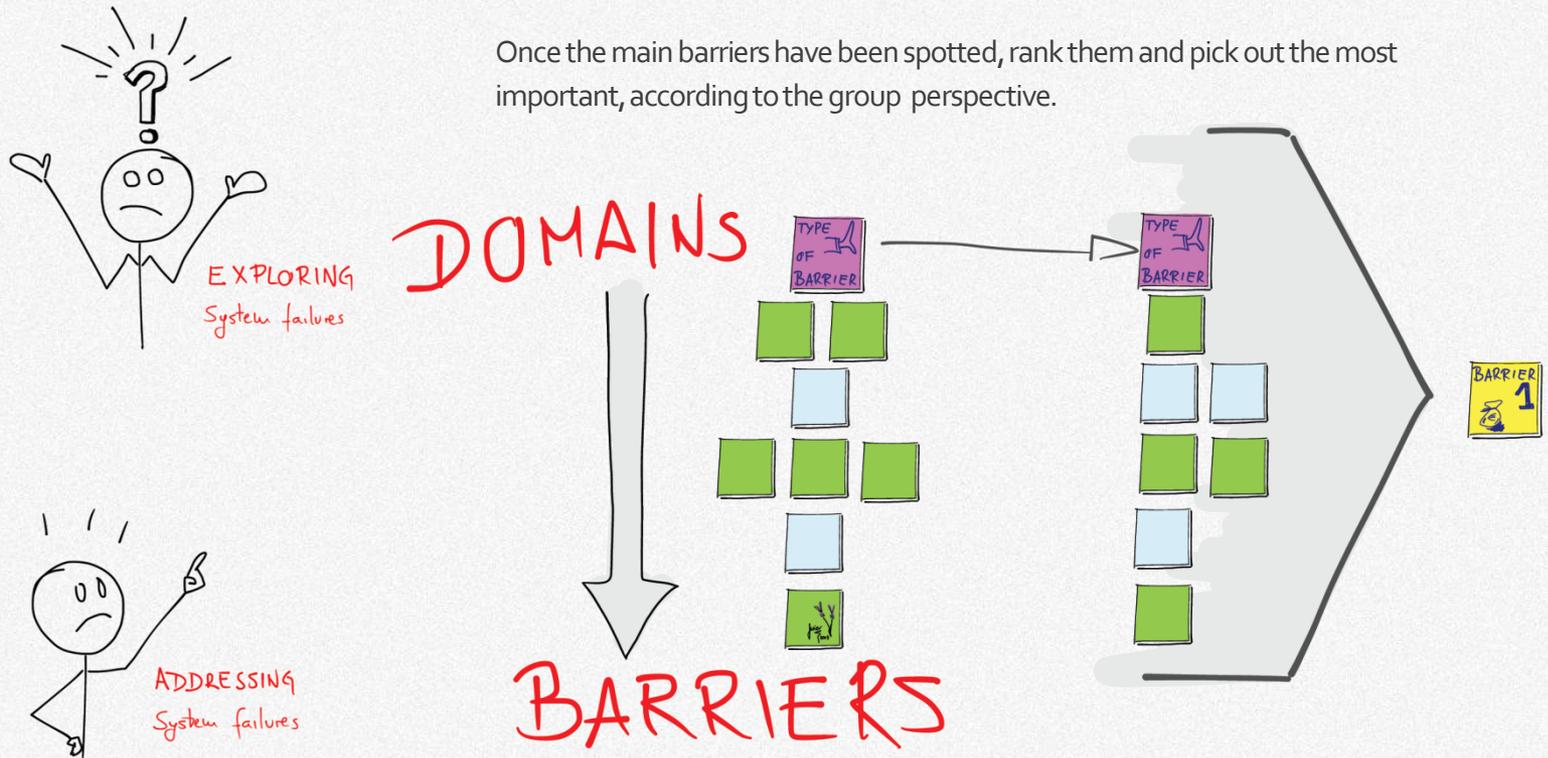
3

Pick out the main solution and bring it further.

1 Identifying barriers

Starting with he dimensions of your regime, identify the main domains of barriers and put a post-it to name them.

Break down those domains/categories/dimensions into specific barriers.. Identify which regime problem/barrier is holding back the performance of the project/innovation. Write down (draw it!) the barrier and its owner.

If necessary Dive into the underlying causes for each barrier. To do that ask yourselves the question WHY is something happening? Write down the answer and stick it on the fishbone next to the consequence.

Once the main barriers have been spotted, rank them and pick out the most important, according to the group perspective.

EXPLORING
System failures

ADDRESSING
System failures

DOMAINS

TYPE OF BARRIER
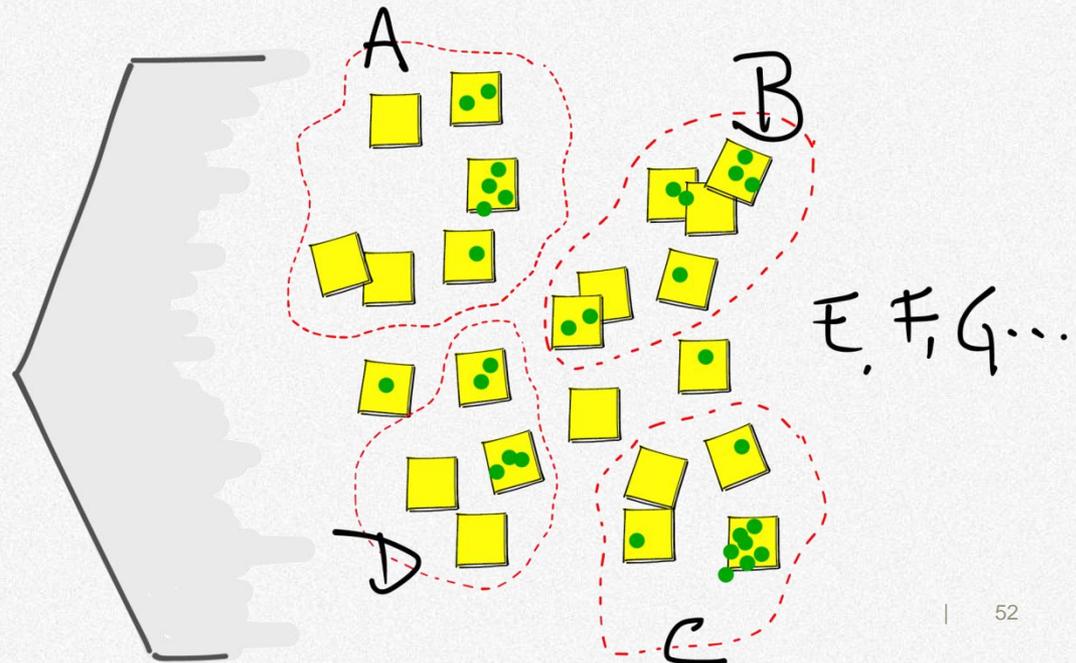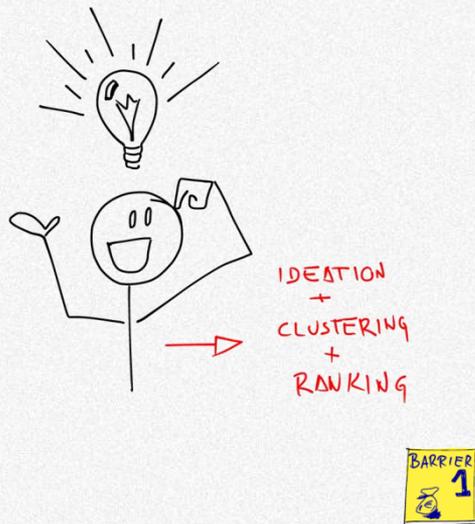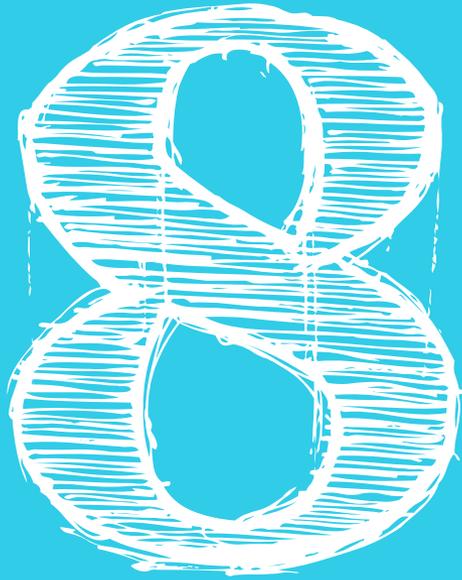
BARRIERS

TYPE OF BARRIER

BARRIER 1

2 Brainstorm solutions

Once the group has identified a specific barrier, members come up with out-of-the-box solutions to the barrier. We are going to use one specific brainstorming method called "A,B,C". Participants will have to think up solutions whose name start with each letter of the alphabet (solutions for A, for B and so for and so on). The goal should be to gather at least one solution for letter. For the first 5 minutes, everyone starts thinking individually about out-of–the-box solutions, with A, B, C etcetera. Try to use every letter of the alphabet

And then all together fill in a poster with all the letters .. The more letters filled... the better. If there are more than one solution for a letter, don´t discard any of tem, just put them together.

Finally vote for the most important solution. You can discuss the different variables to assess the importance of the ideas: impact, effort, feasibility

IDEATION
+
CLUSTERING
+
RANKING

BARRIER 1

3 Moving further "the solution"

With that most important solution, individually think about what could bring this idea further, eg. ideas on data, actors, methods, examples, benefits, strategy, communication, etc.. Explore how it would affect other components of the regime.

Write on post-its these new ideas underpinning the solution, put them all together on a wall and by group discussion try to identify the priorities in order to put in place the solution.

8

NICHE MANAGEMENT

Strategic Niche Management

Strategic Niche Management

Low carbon innovation projects (most often) do not fit the regime. As a consequence they are vulnerable to ensnarement in business as usual. To keep your project being dragged into business as usual, Strategic Niche Management (SNM) poses three different strategies can be set out: Temporary Shielding, Nurturing and Empowering.

.

SHIELDING: Aims at creation of a "protected space" to prevent projects from mainstream selection pressures and premature failure. Can be done: financially, geographically, institutionally, socio-cognitively, politically, culturally...

NURTURING: Actions aimed at improving your project/challenge by means of creating diverse and powerful actor networks, articulating and negotiating expectations and combining technical, social and reflexive learning.

EMPOWERING: Aimed at scaling up of your project. It can be done by means of two strategies: Stretch and Transform: Argue for institutional reforms which change the selection environment in favor of the niche innovation. Fit and Conform: Argue for support aimed at achieving competitiveness within unchanged selection environments

Spider graph assignment
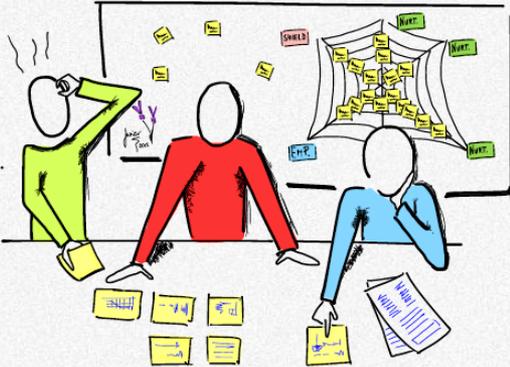
The goal of this assignment is to come up with the fittest strategy to your project in terms of SNM. To do that, you will have to go through the specific conditions in which your project is trying to flourish, understanding your level of protection, the capacity of your networks, the potential of your technology in terms of breaking into the regime, etc.

To help you get the big picture of your context and then decide on the appropriate strategy you are asked to use the spider graph as means of sketching and clustering the specific conditions of your project/challenge.

Step

1

Sketch out the spider canvas representing the three strategies broken down as explained in the previous slide. Each category will be a branch of the graph.

Step

2

Identify the specific actions, conditions or processes that characterize niches around your project. You may make use of questions in the following slide as help. Write down each response on a post-it and stick them along the corresponding branch. The more responses you gather and the more specific they are, the more fruitful the further discussion on strategies.

Step

3

Estimate the level of fulfillment of each process in the current situation and mark it on its branch. This measure will be based on the answer you gathered and your general knowledge on the system. the more importance the thing has for the innovation, the closer to ten it should be placed. Then, discuss the best strategy to adopt..

QUESTIONING ABOUT YOUR PROJECT (niche) CONTEXT

| STRATEGY	CATEGORY:	SPARKING QUESTIONS
SHIELDING	Type of Protection	*Sufficient subsidies available? - Locations in favour of the project? - Regulations supportive of the project? - Market segment large enough? - Actor network like-minded?*
NURTURING	Networks	*Network diverse enough? - Network can mobilize resources?*
	Expectations	*Network has a shared vision? - What is the quality of that vision?*
	Learning	*Are there technical or social challenges to learn? - Quality of learning process?*
EMPOWERING	Fit and Conform	*Windows of opportunity to scale-up? - Project adaptable to the system?*
	Stretch and conform	*Project competitor to the system? - Project can change the system? - Can you lobby to change the system?*

9
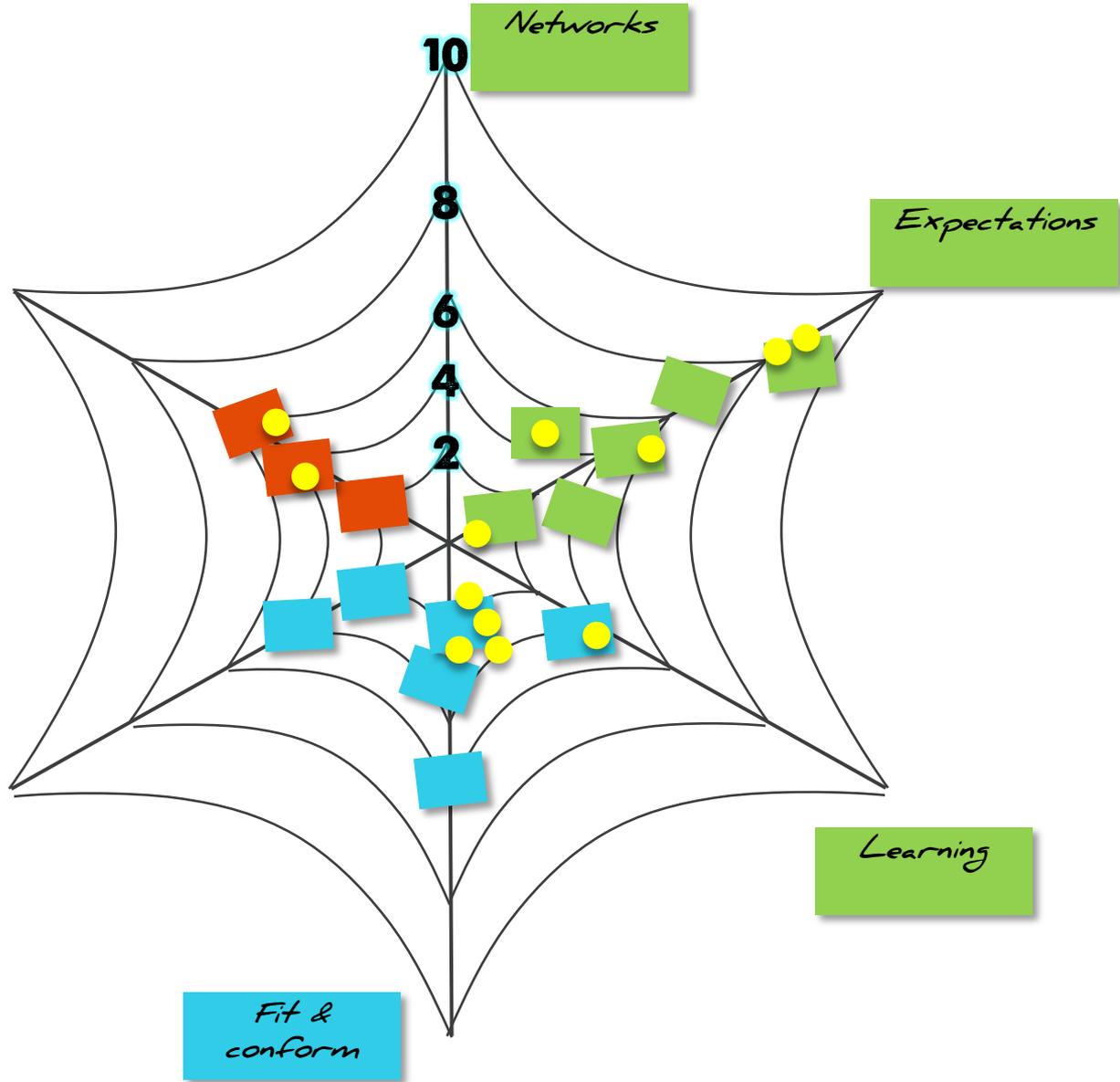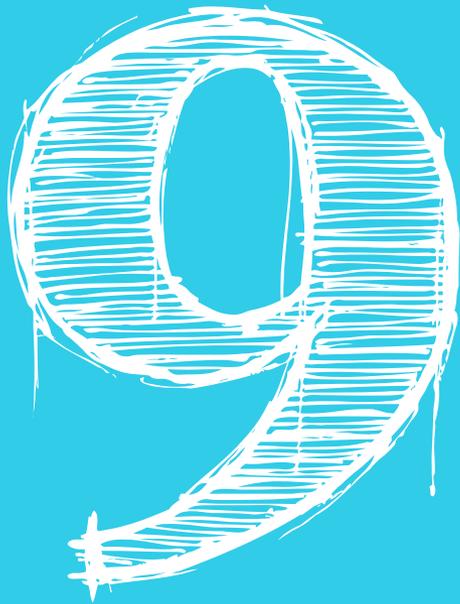
VISIONING & BACKCASTING

Exploring a different future

Visioning and Backcasting

We have a compulsive need of taking a look at the future for many reasons, namely:

- to think systematically about the future identifying strategies possible challenges to be faced in the near future, enabling proactive responses to change today

- to allow for blending long-term strategy with appropriate near-term implementation activities

- to prevent to become trapped into existing practices and institutional conditions.
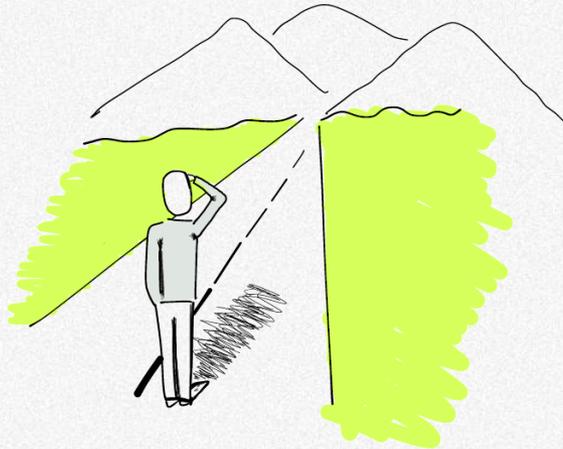
FORESIGHT: *The ability to take a forward view and use the insights gained in organisationally useful ways* (Richard Slaughter, Foresight International)

Different strategies and approaches of foresighting have been developed: FORECASTING, EXPLORATORY ANALYSIS, VISIONING AND BACKCASTING. Each of them has different goals yielding different outcomes.
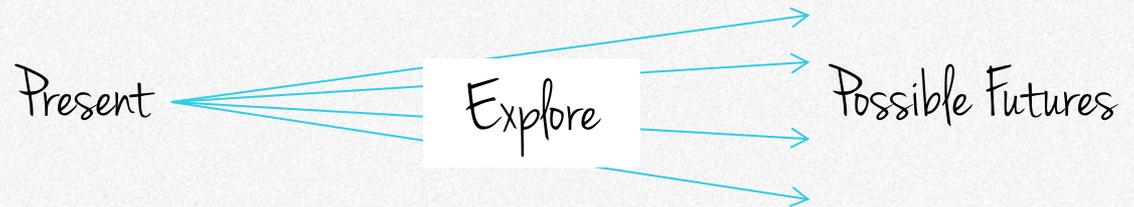
Predictive tools

FORECASTING: one of the most well known technique, massively used in strategic planning to predict the most likely future

Present → Predict → Likely Future
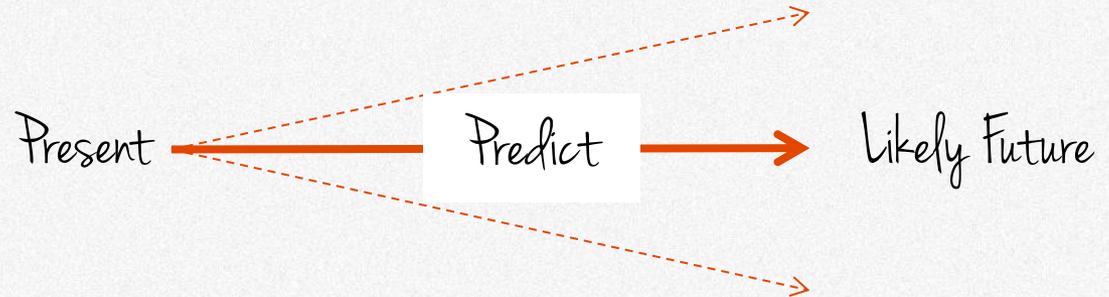
EXPLORING SCENARIOS: Since we cannot tell the future must plan for multiple contingencies, exploring alternative futures , starting out in the present.

Present → Explore → Possible Futures

VISIONING: It goes a step forward looking beyond possible and looking for desirable

Present → Visualize → Desirable Future

BACKCASTING: Assess feasibility and strategies to attend the desirable future

Present ← Asses ← Desired Future

Assignment

The goal of the assignment is to practice how to build an inspiring and specific vision of your desired future and how this vision can help you identify and work round barriers and pitfalls by means of the most fit actions.. By carrying out the assignment you will:

- be aware of the relevance of a future vision and how it could be used and not
- know what a good vision would imply
- have experienced vision making and backcasting as a starting point for an action plan *(....or something like that)*.

Step

1

Envision the future. Imagine that you are 20 years from now. What does your sustainable future looks like? Depending on the challenge: where do people live, what does it look like? How do they move, make transactions, spend their days, how does the environment look like etc. That´s visioning.

Step

2

Sketching the backcasting map. Imagine that you have to tell your grandchild about how this future differs from now, and what major changes had to be made..

VISIONING

**Imaging a desirable
common future**

"Don't underestimate the power of your vision to change the world. Whether that world is your office, your community, an industry or a global movement, you need to have a core belief that what you contribute can fundamentally change the paradigm or way of thinking about problems.."

Leroy Hood
President and co-founder of the Institute for Systems Biology

WHY Visioning?

Transition experiments are designed to help bring about a fundamental change in the way in which societal functions are performed. You should preferably have a clear vision of your goal before starting such an experiment, since that vision will give you a clear long-term perspective that will help you to avoid falling into obvious thought patterns and becoming ensnared by existing structures.

Bear in mind that, although forecasting and exploratory, scenarios are useful and meaningful when it comes to dealing with human systems and long term, uncertainty is at the very heart. At the same time predictable future doesn't mean desirable, hence we need new tools including desirability and feasibility.

VISIONING goes a step forward looking beyond possible and looking for desirable. It therefore is about picturing the desirable future and describe how it might look.

Present

Visualizing

Desired
Future
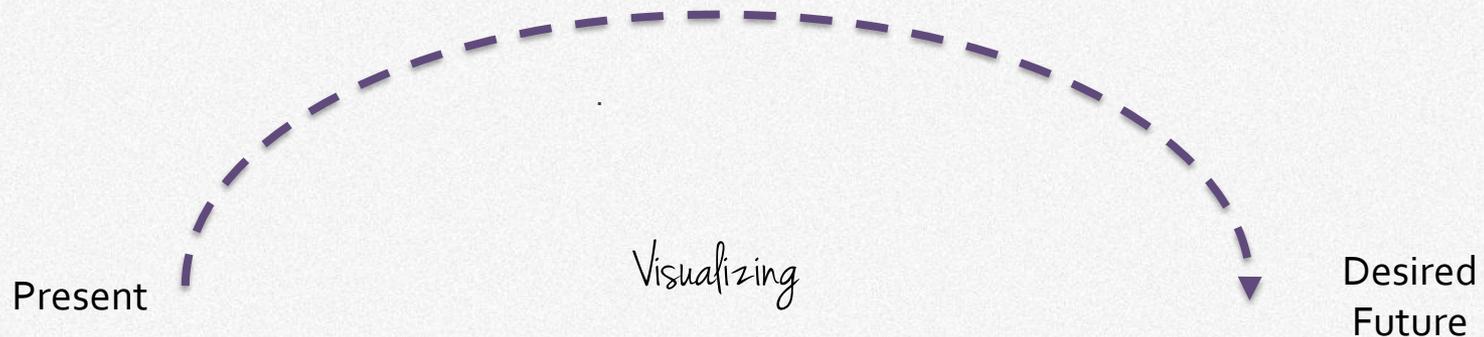
The ideal result of the visioning…
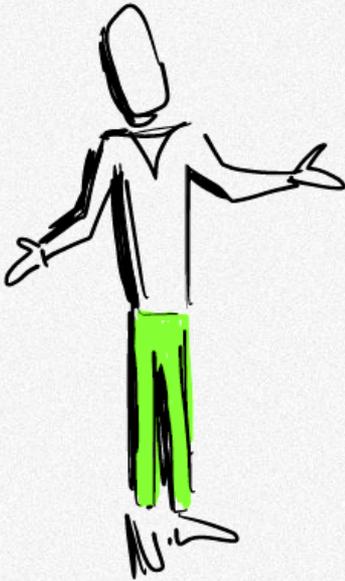
Long-term or medium-term horizon.	specific enough for agenda setting.	Relevant and coherent
Socio-technical.	Action oriented.	Radical, out-of-the-box ideas
Inspiring	A bunch of images	Easy to convey...

Assignment.
Visioning step

The goal of this assignment is to build a common vision about the desired future for the challenge we are facing right now (buildings, energy, food, mobility...) in an appealing and visual way. The object of the activity is to suspend all disbelief and envision a future state that is so stellar that it landed the project/group challenge on the cover of the media..

This activity is based on the "COVER STORY" developed by the Visual Meetings company "The Grove" (http://www.grove.com/).

You have to describe that future as it would be described by media in case of becoming successful. You have to put yourselves onto that future and describe it using present and past tenses.

COMPONENTS OF THE COVER STORY

"Cover" tells the BIG story of their success. It should be EASY TO CONVEY

"Radical Ideas" documents initial ideas for the cover story, that drove the RADICAL INNOVATION

"Quotes" can be anyone as long as they're related to the story. Quotes should be INSPIRING
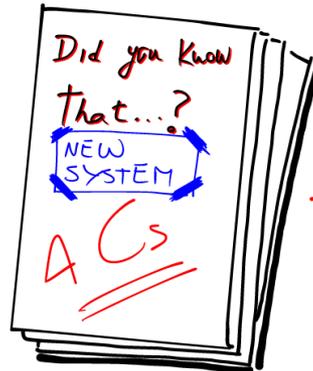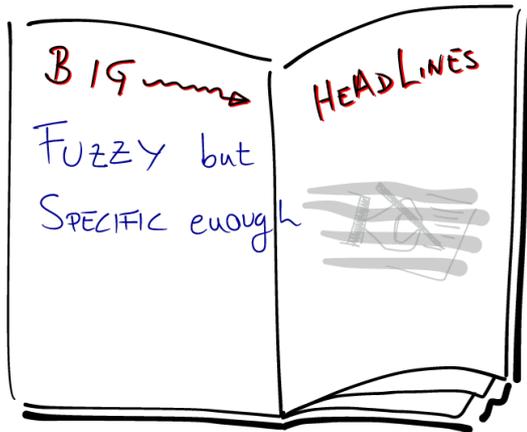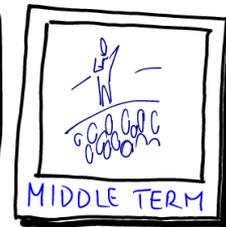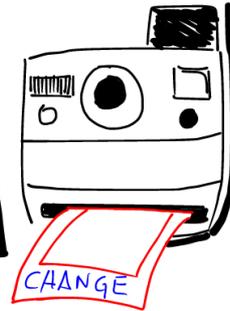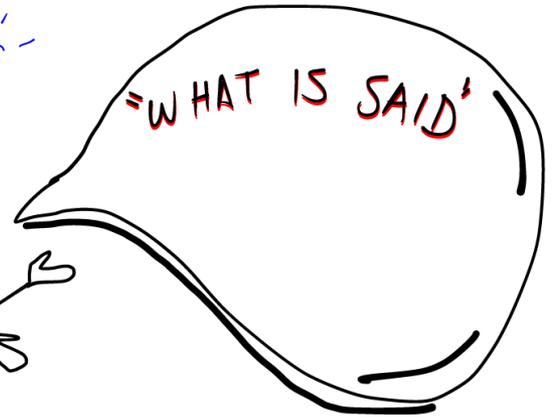
"Headlines" convey the substance of the cover story. It must be FUZZY but SPECIFIC enough to be turn into an agenda.

"Images" stand for the initial challenge and the changes achieved in the SHORT, MIDDLE and LONG TERM..

"Stack of papers" reveal 4 main elements of the system: COMPONENTS, CHARACTERISTICS, CHALLENGES, CHARACTERS.

COVER
EASY TO CONVEY

RADICAL IDEAS

INSPIRING

"WHAT IS SAID"

BIG HEADLINES
FUZZY but
SPECIFIC enough

INITIAL CHALLENGE

SHORT TERM

CHANGE

MIDDLE TERM

LONG TERM

Did you know
That...?
NEW SYSTEM
4 Cs

COMPONENTS
BELIEVES
BEHAVIOR
TECHNOLOGY

CHARACTERISTICS
MAIN DIMENSIONS
NEW SYSTEM

CHALLENGES
PITFALLS

CHARACTERS
DRIVERS
RISKY
LATENTS

Steps

Step

1

Start by identifying the challenge and the main stakeholders of the system. Each participant will pick out one of the stakeholders to play a role in the further discussion.

.

Step

2

Continue the discussion looking for some middle ground in describing the current situation: challenge, problem. What is the problem, how is this problem perceived by various groups? What are the unsustainability and what are the causes? What are potentially directions to seek solutions? Trends and possible changes that are relevant for this problem?

Step

3

Work on the vision of a desirable future: Terms of Reference? What socio/technical options are available? Which technology is needed? How does it affect culture and structure of society? What are important trends, and events? Could we make the future vision even more sustainable?

Step

4

Sketch out the canvas and fill it out in a visual way using the conclusions and insights gained in the previous discussion.

Some tips

- Given that visioning should be a participatory tool in order to ensure a shared vision, participants, due to their different stakes or backgrounds, will have different contribution, playing a different role as one specific stakeholder. The more different stakeholders the richer and broader the vision. (*A kind of six hat de Bono game*).

- In formulating the vision you could consider:

  o Other relevant experiments

  o How you will link your experiment to general trends (developments at landscape level, in transition jargon)

  o Structural bottlenecks that explain why the goal has not yet been accomplished; this is an aspect you also address when you flesh out your ideas in an action plan.

- Don´t use the vision as something immutable. You may need to revise your vision, under some conditions such as:

  o An assessment of the feasibility and acceptability of your experiment shows that the vision is unrealistic

  o You encounter unexpected situations in the course of the experiment

  o ·New developments occur that you need to respond to.

BACKCASTING

Identifying what needs to be done to reach the desirable future

WHY Backcasting?

Once you have a clear vision of your current state and your desirable future....: WHAT IS NEEDED TO ACHIEVE THE ENVISIONED FUTURE?

Answering this question can entail new technologies, new political or economic framework, significant changes in actor configuration, cultural and formal rules, etc. We need some tool to pin down those changes and to asses them in terms of feasibility, control, impact, effort, etc.

BACKCASTING: looks back from a normative scenario/vision to identify and asses what we need to make this future come true, aimed at exploring the feasibility and implications of achieving certain desired end points.

Particularly useful in case of complex 'wicked' problems that include dominant trends; when market-based solutions are insufficient; a need for a major change

Present ← Assess Desired Future

This step of the assignment of the assignment answer the question HOW... How can I achieve my desired future?

The backcasting map

Step

1
___

Start with your vision/scenario of the future (visioning). Place the cover story canvas on an extreme of your backcasting poster.

.

Step

2
___

Place your understanding of the current situation on the opposite extreme of the canvas. Use your Multilevel sketch to describe it.

Step

3
___

Move backwards from your desired vision to the current state to pinpoint what actions should be done to reach the desired future. Try to link them to the main dimensions of the regime and write down each change onto a sticky note. Then discuss the .feasibility of these changes to come about, the needed stakeholders to be involved, etc.

Step

4
___

Use forecasting to turn changes into actions and asses them: risk, impact, effort, cost, benefit….
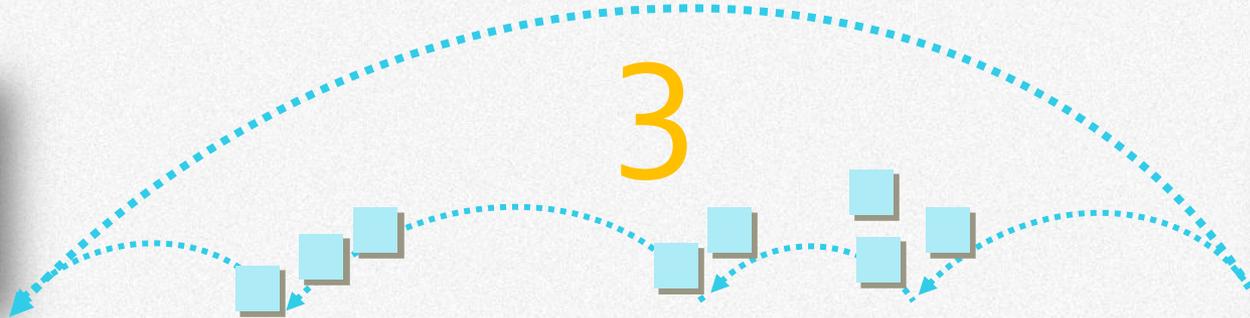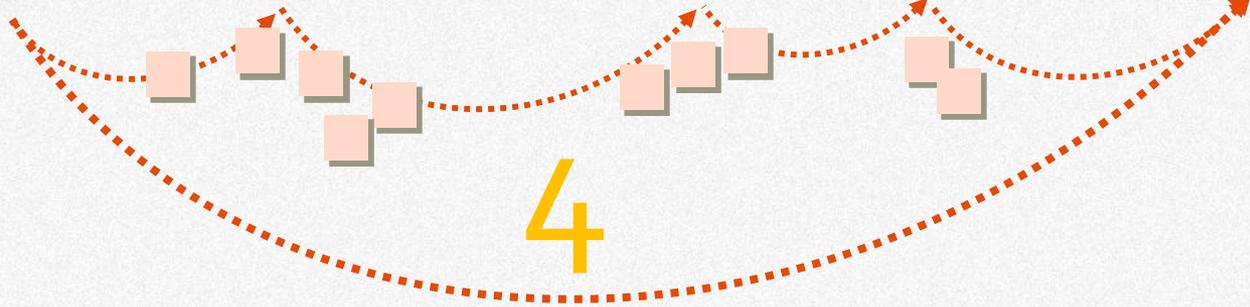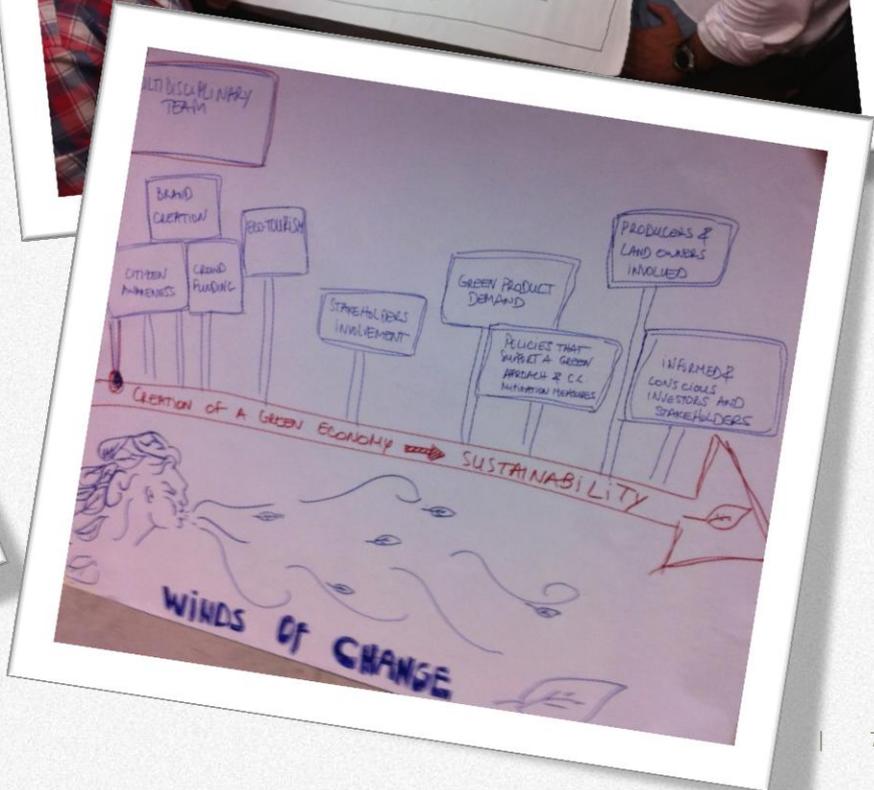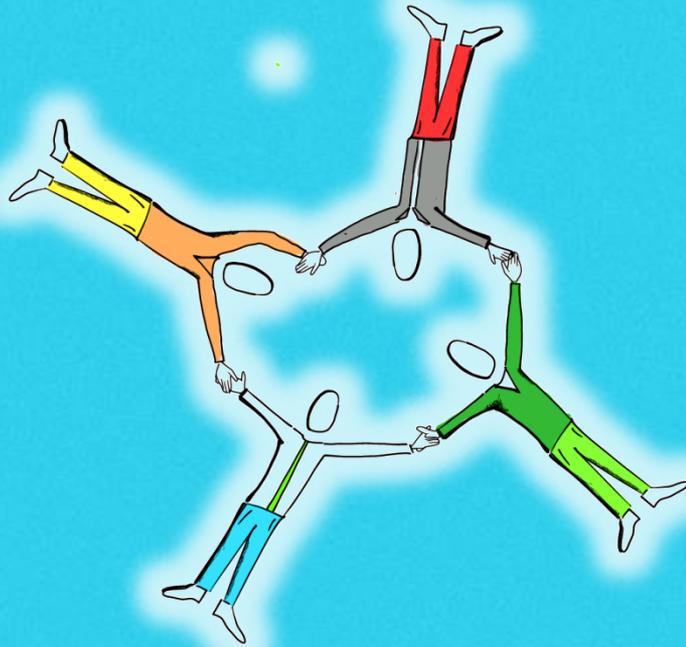
The backcasting map