Consumption strategies

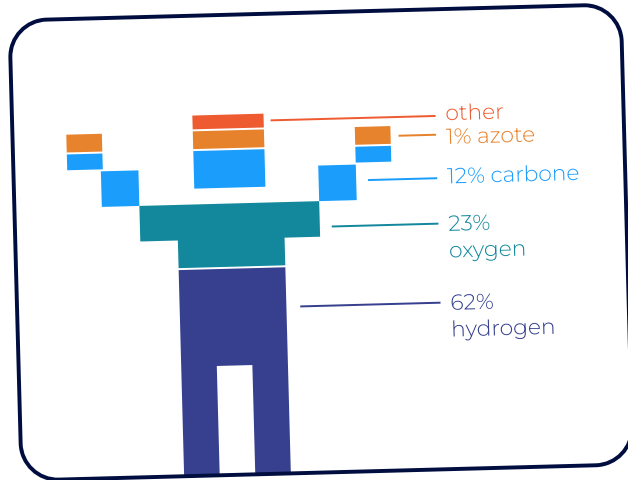# RESOURCES SUSTAINABLY

Living organisms use the most abundant resources (CO2, O2, etc.) and very marginally rare resources. The use of abundant materials avoids dependence on a limited resource.

other
1% azote
12% carbone
23% oxygen
62% hydrogen

🍃 on the living side

Let's look at the atomic composition of the human body: 62% hydrogen, 23% oxygen, 12% carbon, 1% nitrogen, traces of calcium, phosphorus, potassium, sodium and so on. But what are the most abundant elements in the universe?   Hydrogen, helium, oxygen and carbon top the list! So we're made up of the most abundant elements in the universe, just like all living things.
We've often heard about the food chain and its fragile balance. It's based on the sustainable use of resources, with each species consuming only as much as it needs to survive. There is, for example, a subtle balance between the quantities of prey and their predators. If this balance, and other natural regulatory mechanisms, did not exist, predatory animals could wipe out all their prey, and would then be doomed to disappear themselves for lack of food.

🏛 organizations

Did you know that from the 16th to the 20th century, farmers in England and the Netherlands were able to grow fruit and vegetables that were nonetheless Mediterranean, thanks solely to the use of renewable energies? The installation of a fruit wall - a simple, south-facing, heat-retaining wall - creates a micro-climate at its base, making it possible to grow Mediterranean fruit varieties in temperate-climate regions such as England and the Netherlands, or even Northern France. In the meantime, we have invented heated glass greenhouses, which consume 10 to 20 times more energy than open-ground cultivation...

unsplash
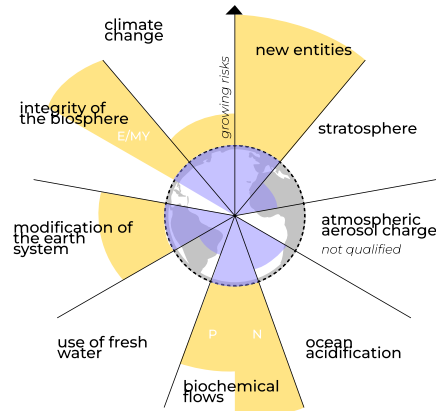
Levers for action

Culture

New Stories

How can we renew our storytelling and break out of habit?

Our organizations have developed on a growth model in which values such as consumption, power, efficiency, individual merit and the promise of infinite natural resources and technological solutions predominate. Changing the dominant paradigm of our society means proposing alternative narratives based on imaginaries that are both sustainable and desirable.
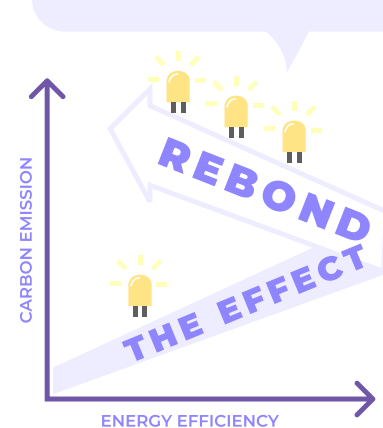
💡

Alternative narratives: Our organizations are built on a model of infinite growth, in an environment of finite resources. Do your solutions deplete resources? If so, do you make this reality visible to your stakeholders? Do you combine solutions? Do you know your ecological footprint?On another scale: a cell operates with the minimum necessary energy; it stores the equivalent of three seconds of power. It relies completely on the whole system to supply it with what it needs. Excessive consumption of food, water and energy is not a viable option.

climate change
new entities
integrity of the biosphere
stratosphere
modification of the earth system
atmospheric aerosol charge
not qualified
use of fresh water
ocean acidification
biochemical flows
growing risks

planetary limits being exceeded.

Now you can afford to light up three new billboards.

CARBON EMISSION

REBOND THE EFFECT

ENERGY EFFICIENCY

Away from solutionist narratives: The "solutionist" approach shares the conviction that engineering, essentially technological, will provide an answer to systemic problems. It is indirectly part of a service-oriented logic and is linked to a culture of performance. Can your project renew this narrative? One of its main biases is called the "rebound effect": by providing solutions that maintain a sustained production/consumption cycle, other problems and natural depletions are maintained, leading to the very obsolescence of the proposals!E.g.: electric vehicle programs and mass production will create a rebound effect if they are not accompanied by a drastic change in mobility practices.

Turn me and take notes according to your project

Culture

Common: care

How do you build a community around a project and find interfaces for sharing?

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redirection to combat "negative" commons (pollution...)
low-tech to promote frugality and existing stocks

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Renaturons ensemble la ville !

Website highlighting the various projects in the Larboratoire program.

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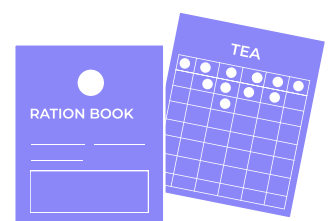

Organization systems

Rationing: National carbon

How can we take advantage of pooling/rationing/pricing certain common goods?

Contrary to popular belief, food rationing and price controls are not austerity practices. They help to preserve scarce resources and product quality, while promoting equity. Examples include the land-use coefficient or the price of books, which has been regulated since 1981 and exported to many countries.

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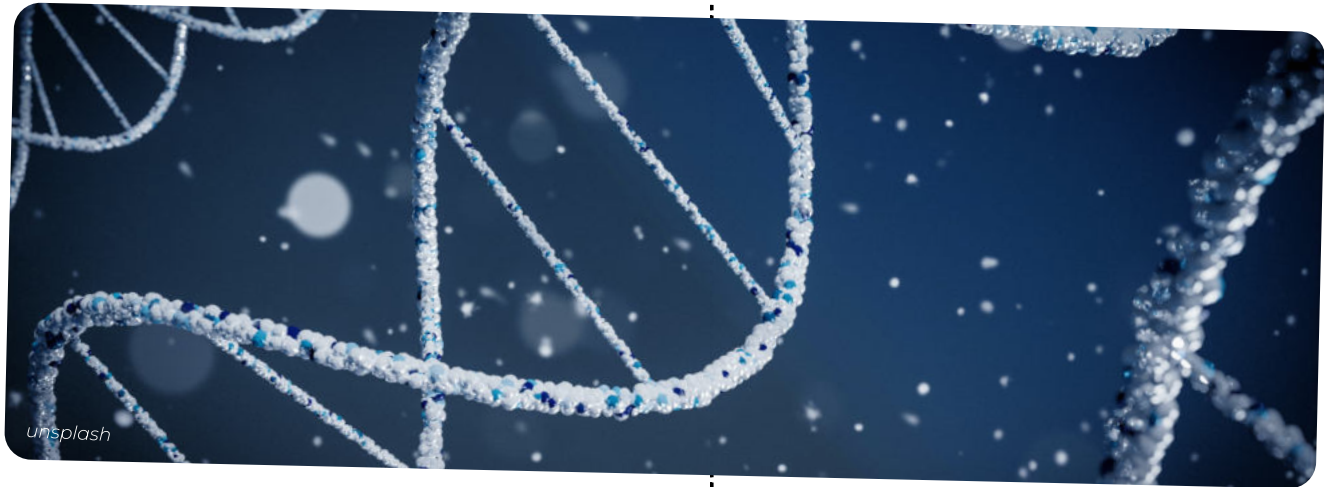
TEA
RATION BOOK

Turn me and take notes based on your project

BASIC CONSTRUCTION

It's by starting to build simple elements in limited numbers that life forms more complex elements.

Living organisms are built by successive additions of interlocking systems (cells→organes→individuals→populations→ecosystems→Earth).
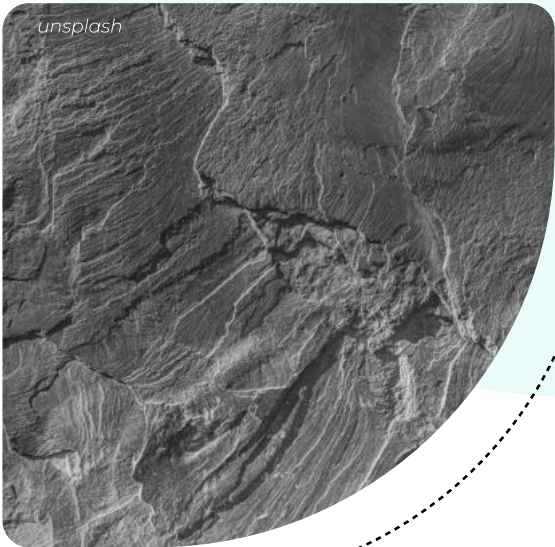populations→ecosystems→Earth)

🍃 on the living side

Every living organism is based on information encoded in what is known as DNA (deoxyribonucleic acid). Made up of 4 building blocks (adenine (A), cytosine (C), guanine (G) and thymine (T)), DNA "encodes" living organisms in all their inter- and intra-species diversity. So we could say that living beings need just 4 letters to write a novel with an incalculable number of characters, whose story spans 4 billion years!

unsplash

🏛 organizations

These days, we're witnessing a genuine revival of interest in the use of local materials in architecture. Traditional stone, certain types of rock not normally used, wood and bricks are now widely used in the design of new buildings. The advantages of this vernacular architecture are numerous: reduced ecological impact, relative abundance, lower transport costs.
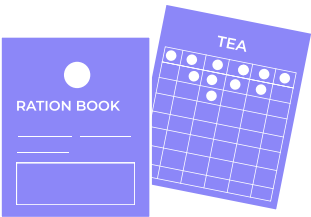

unsplash

Levers for action
↓

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↓ *Turn me and take notes according to your project*

Organization systems

Systemic approach

How do you approach a complex subject in its entirety and over the long term?

The systems approach studies a subject and its ecosystem in its globality and dynamics. The diagnosis of complex systems focuses on their state of health, through an understanding of the interactions and interdependencies between players. Change management aims to identify levers for modifying feedback loops and combating paradoxes, in order to achieve new equilibria based on emerging trends.

💡 Frescoes: A visual, fun and collaborative workshop to shed light on the systemic and complex workings of subjects such as climate and biodiversity. the erosion of biodiversity: what it is, what it enables and what degrades it. Frescoes help you understand the issues and pressures surrounding a subject (what it is, what it enables and what degrades it). There are several types of fresco: biodiversity fresco, climate fresco, construction fresco, housing fresco, etc.

Biodiversity fresco (Deloitte photo)

↓ *Turn me and take notes according to your project*

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Organization systems

Visualize and decide globally

How can you bring a fair, global perspective to your project?

Evaluating a project in the age of the Anthropocene requires a global and correlative vision that goes beyond the analysis of isolated metrics. New approaches to multiple indicators are being developed to rethink the way we count, decide, reflect and visualize our projects and their impacts.

💡 Multi-accounting: conventional accounting is a financial calculation used to assess the performance of an organization or project. Triple accounting adds social and environmental dimensions, enabling the costs and benefits of an approach to be evaluated in the same accounting system. Donut theory: Donut economics is a concept aimed at assessing a sustainable economic system in terms of both an environmental ceiling and a social floor... thus forming the donut. The aim is to remain between these two limits of human and planetary viability.

Kate Raworth's donut applied to urban planning and policies
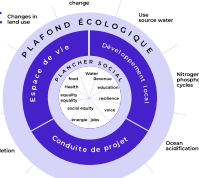
↓ *Turn me and take notes according to your project*

RECYCLE ALL RAW MATERIALS

#balance
#complementarity
#circularity

Waste from organisms becomes a resource for other organisms. Living organisms use the most abundant atoms, which facilitates the circularity of life. Note that in nature, the notion of waste does not exist: it is purely anthropic.

unsplash

🌱 on the living side

Once fallen, tree leaves become both a waste product and a resource, turning into tannin, a highly prized food for mushrooms.

Let's go back to the dawn of life: among the microorganisms representing the first forms of life, bacteria appeared, capable of using sunlight as a source of energy: this is photosynthesis. These bacteria, proliferating thanks to the energy advantage provided by light, then mass-produced oxygen (O2), the waste product of the photosynthesis process. At the time, this waste product was highly toxic to other micro-organisms; as it became more prevalent in the environment, it threatened to eradicate all forms of life... Living organisms were able to cope by adapting: certain micro-organisms were able to use the oxygen supplied by photosynthetic bacteria as a resource. The threat has been transformed into an advantage, through recycling.

🏛 organizations

The circular economy is a strong embodiment of this principle, and offers us many examples examples:

Cabinetmaker Franck GROSSEL reuses beer brewing waste, the spent grain, which becomes the main material used to make his stools!

Les Chaussettes Orphelines recycle your socks with holes in them... to make new ones! But even before recycling, let's think about reducing and reusing. It's the famous 3R rule:
- Reduce as a priority; - if impossible, Reuse what exists; - if not, Recycle.

Levers for action
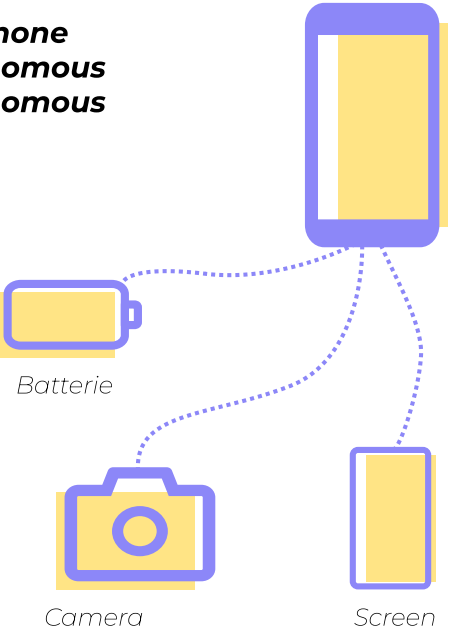↓

Bio-booster

Waste: the wax worm

How to adopt a repair / recycle / refuse approach?

Tomorrow, your project will be waste: make it easier to repair and, of course, recycle! This logic can also be applied to services: give users autonomy in the event of a malfunction, and think about what happens to the flow of people after they have passed through the service. Anticipate by removing unnecessary parts in advance.

💡 _____

The Fairphone from responsible commerce is one of the only phones on the market that allows self-repair: from its battery to its camera and even other modules! Do-it-yourself replacements that are quick and easy for a modern smartphone. But it's also a brand committed to guaranteeing the availability of parts for the next five years, and changing the way people relate to objects and their use.

FairPhone autonomous autonomous

Batterie

Camera   *Screen*

Organization systems

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💡 _____

Frescoes:

Biodiversity fresco (Deloitte photo)

Culture

Commons: taking care

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Renaturons ensemble la ville !

Website highlighting the various projects in the Larboratoire program.

X6 projects   *A host of players*

Collective strategies

CLOSED BUT
OPEN TO THE OUTSIDE

Every cell, organism and society needs to be enclosed to ensure internal functioning and preserve its integrity. But these same cells, organisms and companies must be open to receive energy, information and matter!

unsplash

on the living side

Every living being is both closed (an entity that can be dissociated from its external environment) and open (it receives external energy to maintain its metabolism). For the human body, the skin embodies this interface between inside and outside: at once closed because it protects (shocks, pollution, UV rays, microbes...) and open (allowing thermal exchanges to regulate body temperature, bacterial exchanges to stimulate immune defenses).
Plants such as ferns have small orifices called sto-mates, located under their leaves and allowing gaseous and chemical exchanges, particularly useful for photosynthesis. These plants alternate between times when the stomata are closed and when, in a more favorable environment, they form an opening to the outside.

organizations

The company is a good illustration of this concept. It is, of course, open to the outside world, where it finds its raw materials, energy, human resources, customers and so on. But it is also a concept defined by legal, geographical and social boundaries, and a service offering that must be clearly defined and communicated to ensure its integrity.

unsplash

**Levers for action**
↓

Bio-booster

Integrating contradiction

How can you base your project on opposing and complementary functions for greater robustness?

In nature, robustness is built on functional conflicts: the tension/compression conflict in plants and animals results in high mechanical resistance to fluctuations. Incorporate paradoxes into your project (two conflicting functions that coexist) using the cards below.

💡 _____

The systemic design toolkit lets you create paradox cards for your project, following the examples shown opposite. One concept per card: on each side of the card, write the opposites (tangible / intangible). The aim is for your project to be robust, offering both a stable in-between situation and the ability to tip 100% to one side or the other in a crisis situation. The TRIZ matrix lists 40 inventive principles for getting around complex paradoxes. For example, by separating the contradiction in time, space, structure, conditions or system scale.
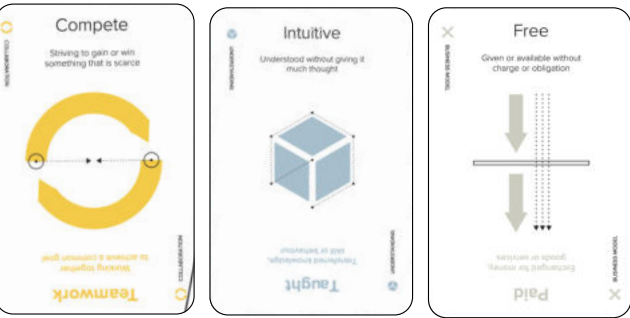
Organization systems

Collaborative innovation

How to innovate in the short term?

Collaborative innovation brings together a wide range of players in a temporary innovation laboratory. During a period of creation and production, they imagine and prototype new solutions. It's an approach that encourages exchange and helps build communities around cross-functional challenges.

💡

The workshop is a creative workshop format organized over several weeks, bringing together students, researchers and experts around a theme. At the end of the workshop, the aim is to create an exploratory and testable solution. The creative sprint is a condensed format of the workshop, lasting one to two days.

Workshop bio inspiré 2022

Culture

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Website highlighting the various projects in the Larboratoire program.

X6 *projects*   *A host of players*

Collective strategies

SHARE INFORMATION AND SYNCHRONIZE

All living systems have the remarkable ability to synchronize and transmit information in order to develop, repair or self-organize. This applies equally to an organism (e.g. a tree) and an ecosystem (e.g. a forest).

unsplash

🌿 on the living side

A scout bee informs foragers of food sources. It dances to indicate the direction, distance and nature of flowers. The flower's colors and scents also provide information to attract pollinators.

The wood wide web (the internet of the undergrowth) is a network that links the trees of a forest through thousands of kilometers of micro-connections woven between them. This network, developed by fungi, facilitates the exchange of information and nutrients required for development and adaptation, in a coordinated manner.

The synchronization of dancing flocks of birds also works on this principle. No leader directs this choreography, each bird reacting only to the actions of its nearest neighbors: the movements of one bird will influence its neighbors, who will influence theirs, and so on.

🏛 organizations

Decentralization is manifesting itself in new modes of governance and managerial models within organizations.

This is the case at Onepoint, where each employee chooses the projects he or she wants to work on personally. They then surround themselves with the competent people they need. This horizontal system encourages employees to get in touch with each other, to learn about and share their skills and projects...

unsplash

Levers for action

Organization systems

Challenge your team

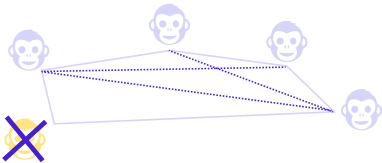### How can we make better use of local resources? How to cope with team changes?

What if someone temporarily disappears from your team? What if a new player, out of step with your ecosystem, arrives in your ecosystem? How can you train for or anticipate these changes?

💡 Olivier Hamant proposes this exercise when working with companies (QR code). Integrate a new player into your project

Chaos Monkey is a software program designed in 2011 by Netflix to test the resilience of its IT infrastructures. The aim of this tool is to induce failures in a real environment and verify that the system continues to function. The idea of putting certain people in a service off-line for a limited period of time creates chaos, forcing other services to create new links. ...

↓ *Turn me and take notes according to your project*
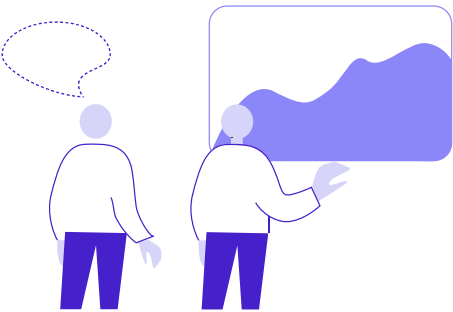

Organization systems

Agile rituals

How to initiate and sustain change through recurrence and micro-actions?

The metaphor of the hummingbird is well known: if everyone makes a modest contribution, then transformation begins and anything is possible. In the same way, all living activity is cyclical. For your project, what recurring, small-scale actions or traces/information should you sow to initiate collective change?

💡 In agile methodology, the use of standup-meetings is frequent: every week, for 15 minutes on their feet, team members discuss what they have done in the previous week, the difficulties they have encountered and the actions to be taken in the week ahead.

↓ *Turn me and take notes according to your project*

Organization systems

Matching form to substance

Promoting innovation by taking the sensory environment into account?

Appropriate workspace design has a synergistic effect on quality of work. The shape, context and environment influence our feelings, interactions and abilities: the massive greening of workspaces, the use of soft walls, the presence of animals, visual communication, the choice of key messages... all offer a counter-culture to the dominant postures that need to be transformed.

💡 **Espaces temps project "La salle des possibles"** (The room of possibilities): In response to the school's lack of attractiveness and the rigidity of its classrooms, Collège Alain has redesigned its classrooms. The idea is based on a modular classroom that breaks down the barriers between learning spaces and practices, and creates links. The classroom is divided into different functional areas. A "take your time" space: designed for discussion and collaboration. A "mark time" space for organizing the work area, to get down to work. Then there's an "all in good time" area, where students can find the resources they need to overcome any difficulties they encounter.

↓ *Turn me and take notes according to your project*

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Erasme 2022

↓ *Turn me and take notes according to your project*

Collective strategies

DECENTRALIZE

#holocracy
#horizontality
#interactions

In nature, there is no central subject or architect of a general operation; value comes from group synergy and the multiplication of decentralized exchanges. Each individual has a minimum of information, but communicates with his or her neighbors via dense networks.

🌿 on the living side

A termite mound is an earthen structure that can reach several meters in height, consisting of galleries and a heat regulation system that supports termite life and provides numerous ecosystem services. These edifices are built without an architect: only the action and inter-action of the insect engineers result in significant levels of complexity and functionality.

unsplash

🏛 organizations

Urban planner Carlos MORENO has developed the concept of the quarter-hour city: a city model based on proximity, where residents would have access to all essential services (shopping, work, entertainment, culture, sport, healthcare) within a 15-minute walk of their homes. A decentralization of services that would transform local life for city dwellers.

COURSES ALIMENTAIRES TRAVAIL CULTURE SPORT SANTÉ ÉDUCATION

15'

Levers for action

Organization systems

In-house laboratories

How do you create cross-functionality within an organization or a project?

The aim of an internal laboratory is to create an interface for exchange and knowledge between different players who do not have the means to collaborate. It's a place for inspiration and learning, for taking action and experimenting, but also for sharing.

💡 The Lyon metropolitan authority's public spaces department has just rolled out a Public Spaces Lab, designed to create a cross-functional and territorial culture around the implementation of the public spaces charter. The Lab's offer of support structures this implementation through innovation and capitalization:
Leading a community of players (training, networking and outreach, advice and expertise)
A toolbox (innovative monitoring, framing and decision-making tools, technical and methodological guides/tools)
Pilot project experimentation (support, capitalization and valorization)
Physical and online resources (platform)

Le Lab des espaces publics

↓ *Turn me and take notes according to your project*

Knowledge

Mutual training - Intrapreneurship

How can we develop links and empower people in their career paths?

Lifelong learning through contact with others. Develop and adapt individual skills throughout one's career. - Organizational applications - Developing intrapreneurial skills, encouraging cooperation, solidifying knowledge and rewarding - Developing "soft-skills" - New ways of mutually validating knowledge.

💡 **Incubator:** The incubator provides support and coaching for internal and external innovation project leaders, helping them to turn innovative ideas into frugal experiments. Project leaders can build their own project management using entrepreneurial, agile and collective interest design methods, and spread the culture of innovation within organizations.Open badges Open badges are digital tools for confirming the skills and knowledge acquired from a third party, or from formal or informal training. It's an innovative way of obtaining certified recognition that can be shared with your professional network and community.

Le petit FABLAB écriture ANIMATION

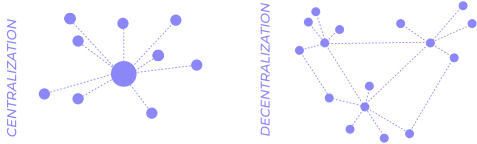↓ *Turn me and take notes based on your project*

Bio-booster

From the 2 pizza team to decentralization

How can you transform your organization to develop more impactful services and choices?

An organization produces solutions that resemble its organization (Conway's law): changing the way it communicates and its internal culture can have a powerful mirror effect. An organization based on small, autonomous, highly-connected structures has demonstrated great resilience in times of crisis.

💡 **The "two-pizza team"** principle consists of building a team no larger than those who can sit around 2 pizzas, i.e. around ten people... Decentralization In nature, there is no "architect", but productions are remarkably complex. Distribute the information and functions of your project among the various stakeholders, so as to move towards a horizontal organization (holocracy) and allow for greater redundancy and trust. Decentralization manifests itself in new modes of governance and managerial models.

CENTRALIZATION   *DECENTRALIZATION*

↓ *Turn me and take notes based on your project*
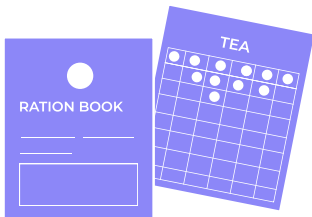

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TEA

RATION BOOK

↓ *Turn me and take notes based on your project*

CULTIVATING COOPERATION IN TIMES OF CRISIS

The principle is simple: the focus is on the group, not the individual. This cooperation can go as far as pooling, or even symbiosis, which is one of the best survival strategies in a crisis.

unsplash

🌿 on the living side

To combat the cold, the penguins gather together to keep warm, taking turns at the colder extremities.

Matsutake is a fungus that thrives in hostile environments (e.g. Hiroshima), relying on collaborative survival. Its roots intermingle with those of trees, providing carbon hydroxide, water and nutrients for the trees to grow. This fungus grows only in situations of inter-species collaboration.

Collaboration can even lead some predatory species and their prey to cohabit. Large sharks generally tolerate the presence of cleaner fish, which feed on the shark's parasites, soothing them and keeping them healthy.

🏛 organizations

Emmanuelle JOSEPH-DAILLY, bio-inspired corporate consultant, talks about coopetition, a neologism derived from the contraction of the terms cooperation and competition.
Coopetition refers to collaborative competition, as seen, for example, between Cape gannets and dolphins for sardines.
When integrated into organizations, this principle changes the way we look at competitors, enabling us to move from an offensive strategy to a more effective and efficient alliance strategy.

COOPERATION
COMPETITION
COOPERATION

Levers for action

Organization systems

Challenge your team

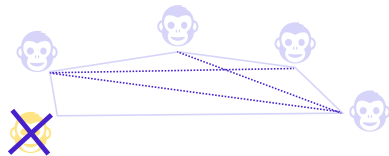How can we make better use of local resources? How to cope with team changes?

What if someone temporarily disappears from your team? What if a new player, out of step with your ecosystem, arrives in your ecosystem? How can you train for or anticipate these changes?

💡 Olivier Hamant proposes this exercise when working with companies (QR code). Integrate a new player into your project

Chaos Monkey is a software program designed in 2011 by Netflix to test the resilience of its IT infrastructures. The aim of this tool is to provoke failures in a real environment and check that the system continues to function. The idea of putting certain people in a service off-line for a limited period of time creates chaos, forcing other services to create new links. ...

↓ *Turn me and take notes according to your project*
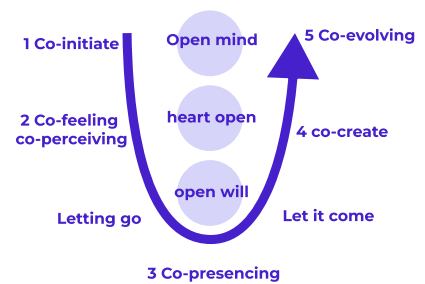

Knowledge

Power: from social "distinction" to "U" practice

How can we go beyond established rules and propose new mental or societal models?

According to Pierre Bourdieu, each individual covets dominant positions in his or her "fields" of practice by following the rules that are specific to them (employment, family, culture...). There is a "social space" structured by accumulated capital (economic, cultural, etc.). By reproducing "habitus", each individual would aim for ascendancy/"distinction" specific to his or her field (e.g.: publishing in the world of research).

💡 Deciphering and evaluating these mechanisms of distinction specific to each field makes it possible to rebuild practices centered on individual fulfillment and collective interest. Theory U, propelled by U-Lab, develops a renewed approach to the notion of capital, society and the self.
Documentary resource: https://m.uneseuleplanete.org/IMG/pdf/u.lab-sourcebookv2-french-a4.pdf

1 Co-initiate — Open mind — 5 Co-evolving
2 Co-feeling co-perceiving — heart open — 4 co-create
Letting go — open will — Let it come
3 Co-presencing

↓ *Turn me and take notes according to your project*

Bio-booster

Coping with crises

What strategy should you adopt in times of crisis?

Imagine a resource shortage or crisis situation for your project. Is there any destabilization that could justify a crisis scenario? What are the fundamental elements that must not be abandoned? What would your project's survival kit consist of? What unprecedented collaboration could be put in place?

💡 **The matsutake,** also known as "the mushroom of the end of the world", grows in the most hostile environments, based on collaborative survival (after Hiroshima in particular). Its roots intermingle with those of trees, which supply it with carbon hydroxide. In exchange, the fungus provides the water and nutrients the tree needs to thrive. The matsutake is never alone, growing only in inter-species collaboration. What will your matsutake be in times of crisis?

The Mushroom of the end of the world

The American Red Cross and ready.gov websites offer a methodology and a list of essential elements for assessing risks and anticipating crises. Get inspired by the sites below to assess your risks and devise your own crisis plan.

↓ *Turn me and take notes according to your project*


Organization systems

Rationing: National carbon

How can we take advantage of pooling/rationing/pricing certain common goods?

Contrary to popular belief, food rationing and price controls are not austerity practices. They help preserve scarce resources and product quality, while promoting equity. Examples include the land-use coefficient or the price of books, which has been regulated since 1981 and exported to many countries.

💡 Introduced in the post-war period in England, food rationing enabled scarce resources to be distributed fairly and "considerably improved the health of the working classes", according to historian JB Fressoz. Rationing is much more democratic than raising taxes, which only the rich can pay. Land-use coefficients and the price of books are already regulated. Proposals are emerging to regulate food prices: the "agricultural exception" is based on the need for quality and health.

TEA
RATION BOOK
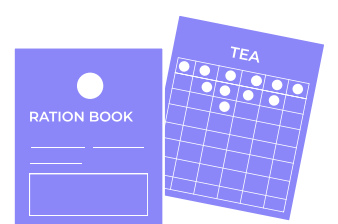
↓ *Turn me and take notes according to your project*

DIVISER LE TRAVAIL, SE SPÉCIALISER

Pour survivre, certaines espèces se sont spécialisées dans l'adaptation en réciprocité avec leur écosystème ou leur environnement. Cette spécialisation est le fruit d'une longue adaptation évolutive ; on parle même de coévolution.

🌿 on the living side

Birds' beaks are particularly well adapted to their consumption habits. For example, the hummingbird's beak enables it to draw nectar from flowers, inaccessible to other species. Some plants have co-evolved with birds: the shape of their flowers has changed to facilitate access, enabling pollination.

In nature, depending on environmental conditions and their evolution, specialization can be an advantage or a disadvantage. For example, alpine species, highly specialized to survive the cold, are now suffering from climate change.

🏛 organizations

This principle is also found in the division of labor from a technical point of view.Philosopher and economist Adam SMITH explains that specialization generates wealth through indirect profit.

Taylorism, a method of industrial work organization (OST), is notably based on the productivist principle of division of tasks. While this method democratized access to consumer goods through mass production, it also had a considerable impact on workers' working conditions and motivation.

Leviers d'action

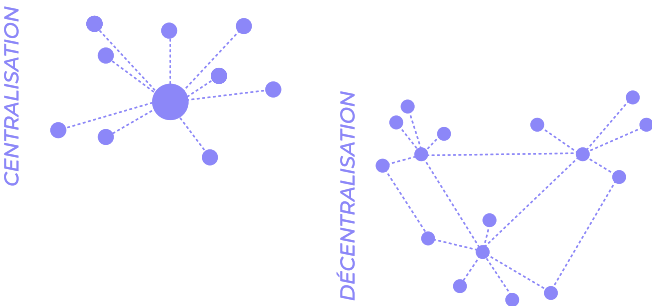# From the two pizza team to decentralization

How can you transform your organization to develop more impactful services and choices?

An organization produces solutions that resemble its organization (Conway's law): changing the way it communicates and its internal culture can have a powerful mirror effect. An organization made up of small, autonomous and highly-connected structures has demonstrated great resilience in times of crisis.

💡

The "two-pizza team" principle consists of building a team no larger than those who can sit around 2 pizzas, i.e. around ten people... Decentralization In nature, there is no "architect", but productions are remarkably complex.

Distribute the information and functions of your project among the various stakeholders, so as to move towards a horizontal organization (holocracy) and allow for greater redundancy and trust. Decentralization is manifesting itself in new modes of governance and managerial models. This is the case at Onepoint, where each employee chooses the projects he or she wishes to work on personally. They then surround themselves with the competent people they need. A horizontal system that encourages employees to get in touch with each other to learn about and share their projects and skills.

CENTRALISATION

DÉCENTRALISATION

Commons: taking care

How can we bring people together, build a community around a project? How can we achieve stability?

The commons (positive and negative) represent an invisible dimension of often linear project development. Identifying the available stocks linked to a project from a global perspective, as well as the debts and means of sharing them, enables us to consider priorities differently: collaborative innovation around a topic of shared, general interest (e.g. pandemic, climate crisis...)
redirection to combat "negative" commons (pollution...)
low-tech to promote frugality and existing stocks

In 2020, a number of public players in the Lyon metropolitan area launched a Larboratoire partnership greening program to multiply the means of action at the service of the territory's renaturation plans (planting 300,000 trees in 10 years). Based on a 150 p sprint and a one-year incubation methodology, it provides a framework, a method and the means to develop a community of players and a system of complementary projects (recycling center, training for professionals, support for condominiums, etc.).

Website highlighting the various projects in the Larboratoire program.

A host of players

Communicate differently!

How can we change the means and tone of communication to reach and mobilize as many people as possible?

Behavior change is rooted in shared mental models as much as in the singularity of each point of view. Getting new messages across effectively requires the deployment of creative communication approaches tailored to the mindset of our interlocutors: factual, paternalistic, regulatory, benevolent, polemical, poetic, motivational, community-based...

The radical: In the age of benevolent management and positive culture, the tyranny of empathy can force us to seek unanimity and avoid disagreement. No more compromise, it's all or nothing! Conflict at work can be positive if it's documented, non-emotional and offers solutions. Try to see what your proposals would look like if you were completely radical, using 0% or 100%. For example: 0% net soil artificialisation but 100% local organic food. Create zones of mediation to accompany decisions that are difficult to appropriate.

Metaphor: Metaphors are a powerful tool for thinking about reality. When we experience the world, when we explore a scientific idea, it's often an analogy, an image that guides us, rather than a procedure. So what can we learn from the idea that cities have bodies? The study of urban metabolism is an important research front today, as cities are the driving forces behind the global changes affecting the planet. Describing and quantifying social metabolism (the way societies use resources and produce waste) is a first way of putting the metaphor of the urban body to work.

Time strategies

DESIGN AS A CYCLICAL PROCESS

Just like the circulation and recycling of resources in living biotopes, most natural processes follow internal cycles, whether temporal (days, tides, seasons, glacial cycles...), metabolic or long-term, such as the reproduction of the species itself.

unsplash

🌿 on the living side

Life cycles are both the result of constrained external oscillations and complex evolutionary phenomena. In all cases, they are the result of interactions with the external or internal environment (e.g. bio-chemical equilibria), confirming the existence of systemic and adaptive feedback loops.

For example, sunflowers follow the path of the sun to capture as much energy as possible, while certain zooplankton migrate vertically every night to feed more safely. And if the sleep hormone melatonin decreases every evening, this is an acquired correlation with daytime light exposure rhythms.

unsplash

🏛 organizations

Our organizations have largely freed themselves from natural cycles: working 3x8 means that companies no longer stop at night, our days follow the same rhythm whatever the season, the weather no longer influences more than a tiny fraction of our activities...

However, this liberation comes with risks: chronic fatigue, depression, burn-out, loss of meaning... And what if re-connecting with natural rhythms - in the face of sub-optimization, from a productivist point of view - ultimately enabled us to live better, by optimizing our well-being?

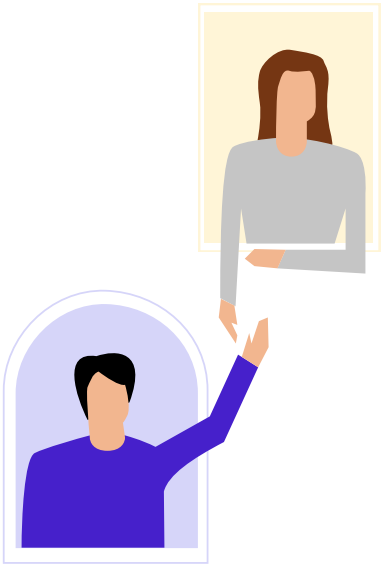**Levers for action**

Bio-booster

Regenerative incompletion

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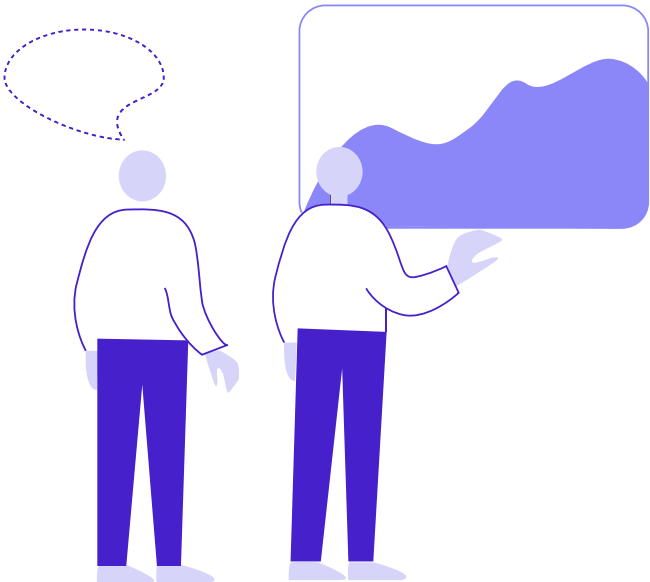
Organization systems

Agile rituals

How to initiate and sustain change through recurrence and micro-actions?

The metaphor of the hummingbird is well known: if everyone makes a modest contribution, then transformation begins and anything is possible. In the same way, all living activity is cyclical. For your project, what recurring, small-scale actions or traces/information should you sow to initiate collective change?

💡 _____

In agile methodology, the use of standup-meetings is frequent: every week, for 15 minutes on their feet, team members discuss what they have done in the previous week, the difficulties they have encountered and the actions to be taken in the week ahead.

Organization systems

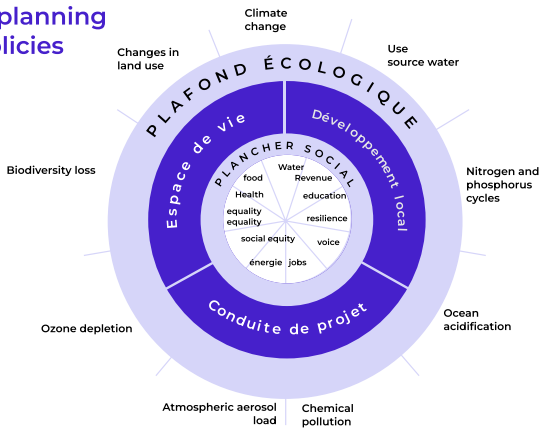## Visualize and decide globally

How can you bring a fair, global perspective to your project?

Evaluating a project in the age of the Anthropocene requires a global and correlative vision that goes beyond the analysis of isolated metrics. New approaches to multiple indicators are being developed to rethink the way we count, decide, reflect and visualize our projects and their impacts.

💡 _____

Multi-accounting: conventional accounting is a financial calculation used to assess the performance of an organization or project. Triple accounting adds social and environmental dimensions, enabling the costs and benefits of an approach to be evaluated in the same accounting system. Donut theory: Donut economics is a concept aimed at evaluating a sustainable economic system in terms of both an environmental ceiling and a social floor... thus forming the donut. The aim is to remain between these two limits of human and planetary viability.

Kate Raworth's donut applied to urban planning and policies

Climate change
Use source water
Nitrogen and phosphorus cycles
Ocean acidification
Chemical pollution
Atmospheric aerosol load
Ozone depletion
Biodiversity loss
Changes in land use

PLAFOND ÉCOLOGIQUE
PLANCHER SOCIAL
Espace de vie
Développement local
Conduite de projet
Water
Revenue
food
Health
education
equality
resilience
social equity
voice
équality
énergie
jobs

Turn me and take notes based on your project

Turn me and take notes based on your project

Turn me and take notes according to your project

ECOSYSTEM SERVICES

In an ecosystem, species interact with each other in many ways, directly or indirectly, through the services they produce or render in their environment. These services contribute to the overall balance of the ecological niche in which each species evolves, without being conditional on a service being rendered in exchange, unlike the human notion of "services". Reciprocal services such as commensalism and mutualism complete this notion.

unsplash

🌿 on the living side

The earthworm is essential to the soil. By digging galleries, the earthworm aerates and enriches the soil; it also plays an essential role in transforming inert organic matter into mineral elements that can be used by plants. Two great services rendered without the worm even realizing it!

Thanks to their root network, fungi stabilize and structure soils, preventing erosion. They also provide trees with mineral salts, and residual water in the event of drought. In exchange, the trees provide sugars. In addition, mycelia connect trees to one another and promote exchanges.

Pollination by bees, bumblebees, butterflies and other insects - and some birds - is another example of an ecosystem service. It ensures the fruiting and reproduction of many trees and plants, and is therefore essential to their survival.

🏛 organizations

SSE (Social and Solidarity Economy) companies apply this principle, corresponding to a paradigm shift for the entrepreneurial world: in addition to producing economic value (means), these entities aim for positive externalities (ends) for society as a whole (inclusion, local or global socio-economic impact...).

unsplash

Levers for action

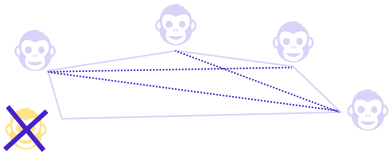### Organization systems

Challenge your team

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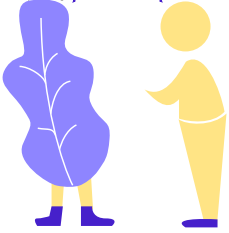↓ *Turn me and take notes according to your project*

Knowledge

Meaning: ecological niche

How can we individually "resonate" with our environment?

A fundamental crisis in today's world is perhaps psychological and spiritual: the loss of meaning/purpose. Psychological analyses suggest that the individual, like other living beings, can find an "ecological niche" in which to flourish (and inscribe his or her own role within a global functioning). Does your project emphasize personal fulfillment?

Psychologist Bill Plotkin speaks of a dynamic spiral: individual development passes through cyclical initiatory phases, like nature, to emerge from states of narcissism and adolescence and culminate in global collective interests.

Among the Jivaro Achuar tribe in the Ecuadorian Amazon, animals, plants and stones are spoken to and sung to. For them, non-humans are like humans, endowed with a soul, subjectivity and moral conscience. Is the reconsideration of nature, if not its personification, an opportunity for your project?

↓ *Turn me and take notes according to your project*

Organization systems

Systemic approach

How do you approach a complex subject in its entirety and over the long term?

The systems approach studies a subject and its ecosystem in its globality and dynamics. The diagnosis of complex systems focuses on their state of health, through an understanding of the interactions and interdependencies between players. The aim of change is to identify levers for modifying feedback loops and combating paradoxes, in order to aim for new equilibria based on emerging trends.

Frescoes: A visual, fun and collaborative workshop to shed light on the systemic and complex workings of subjects such as climate and biodiversity. of biodiversity erosion: what it is, what it enables and what degrades it. Frescoes help you understand the issues and pressures surrounding a subject (what it is, what it enables and what degrades it). There are several types of fresco: a biodiversity fresco, a climate fresco, a construction fresco, a housing fresco, etc.

Biodiversity fresco (Deloitte photo)

↓ *Turn me and take notes according to your project*

Culture

Versatility and shared use

How can we increase the use of our own resources by diversifying their functions and services?

Each element of your system offers potential services to other players. In the living world, this principle of cooperation/thrust (symbiosis, mutualism, commensalism...) always supports a balance. What hidden functions in your business can become potential resources for collaboration?

In urban planning, we tend to plant ornamental plants, whereas in permaculture, we plant edible plants as much as possible. In this way, we add a function to the vegetation, in addition to shade, freshness, welcoming biodiversity, de-watering the city, contemplation and much more!The accumulation of functions enables the system to be more efficient and balanced. In the same way, a school park can be open to the public in the evenings and at weekends. Ref : Bill Mollison and David Holmg
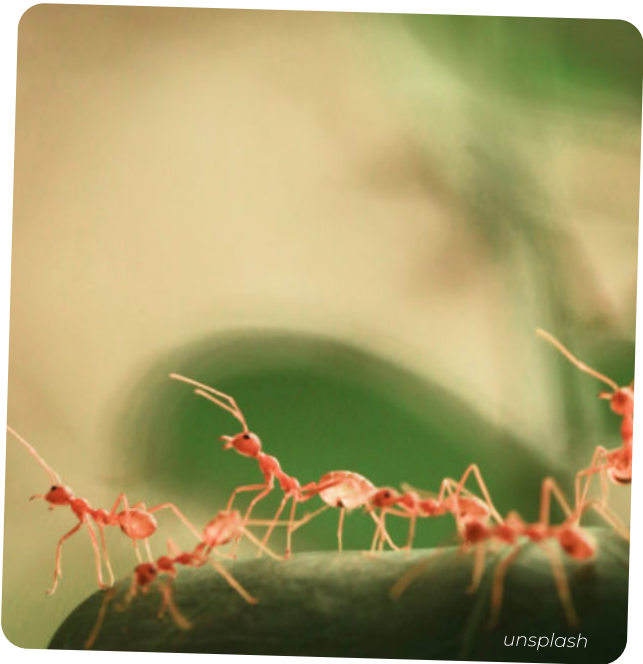
↓ *Turn me and take notes according to your project*

UNDER-OPTIMIZE

By naturally operating in an under-regulated or non-reactive mode, the organism leaves itself room to maneuver, adapting to constraints and mobilizing its full potential when necessary.

unsplash

🌿 on the living side

Under normal circumstances, the human body's proteins and enzymes are sub-optimized (at 37°C), anticipating a punctual optimum during certain crises (from 39 to 40°C).

In ant-hills, 20-30% of ants do... nothing at all: they constitute the anticipated reserve for potential crises.

Some fruit trees only produce a large crop every other year, a self-regulating process known as alternation. When the tree produces a lot of fruit, the ripening of these fruits mobilizes its energy resources, to the detriment of the formation of the fruit buds responsible for the future harvest; the following year, with fewer fruits, the buds can develop in greater quantity.In order to survive the winter, certain mammals such as marmots, dormice and hedgehogs go into a state of hibernation. They voluntarily slow down their metabolism and draw on their fat reserves.

🏛 organizations

The Buurtzog (neighborhood care) approach is a model of innovation for home care. The company has placed the patient at the heart of the care system, investing the necessary time with each patient. An approach that challenges the logic of productivity! This approach has resulted in greater autonomy for patients, fewer emergency room admissions, a greater sense of responsibility among staff, the prospect of long-term benefits and, last but not least, time savings for caregivers.

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Levers for action

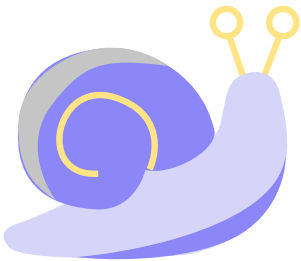## Slow down

How can we adopt a decelerated approach or minimize the single-minded pursuit of performance?

Excessive speed! A snail has crept into your project and slowed down one stage of your proposal. It's up to you to decide which one: slowing down is often beneficial in both the short and long term, as it allows you to observe the perspective of your projects.Often linked to the quest for efficiency, speed allows us to question the organization's underlying objectives.

💡 Buurtzog has chosen to put the patient back at the heart of the healthcare system, investing as much time as necessary in each patient. A decision that challenges the logic of productivity! The result is greater patient autonomy, less care and fewer emergency admissions. In the long run, this has led to long-term benefits, not least time savings for the nursing assistants!

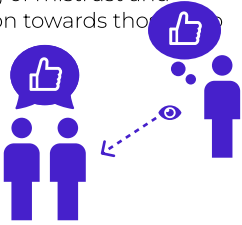↓ *Turn me and take notes based on your project*

Human factor

Or how to emphasize the behavioral approach in the design of your solution

Our individual decisions are based on a brain function similar to that of our ancestors, from whom we inherit an identical biology: reactivity to stimuli, approximations of reality, importance of the present, need for social recognition... Cognitive sciences have analyzed more than 200 "biases", helping us to better understand the mechanisms of individual choice and social behavior.

💡 **Diffusion of responsibility:** An individual is more likely to act or take responsibility alone than when he or she is in a group context, assuming that someone else will act on his or her behalf.

Social conformity bias: We conform to the image we feel is necessary for mutual understanding, sometimes preferring to remain silent so as not to displease. Individuals tend to conform to the identity of the majority group or the group to which they belong (norm), leading to a feeling of mistrust and social categorization towards those are different.

↓ *Turn me and take notes according to your project*

Regenerative incompletion

Why can't finishing a project help you get on with it?

What activity/action in your project could remain "open" and encourage interaction? What long-term effects could emerge from this unfinished project? Remove "turnkey" elements from your project.

The example of participatory housing (unfinished, co-managed development) shows that the unfinished nature of a project, combined with collaborative openness, generates unexpected, emergent, (re)generative effects that are greater than the sum of the investments, as residents invent new developments and open up to the neighborhood. For public policies "incompleteness" allows us to go beyond the turnkey approach, generate results additional to the initial efforts. Participatory budgeting, consultation, co-management... are just some of the options available.

↓ *Turn me and take notes according to your project*

Driving action

Taking action can be made easier by knowing your personal history and context...

Moving to action and engagement depends on the cognitive load when performing a task (the complexity of the task, the individual's resources and the way the task is presented). But these blockages can be overcome: breaking down a complex process into simple elements, reducing friction costs (obstacles), mediation, engagement with oneself or others, planning aids, active postures (ikea effect)...

Segmenting changes in habits and incentives makes it easier to take action:

Pre-filling in application forms has led to higher university attendance by social groups that are usually under-represented (EAST,2014).
Scheduling renditions at regular intervals increases student performance (Ariely and Wertenbroch study, 2002).

Unsplash

· By informing individuals about their electricity consumption compared to the neighborhood, a 4% decrease is observed. (Alicott 2011).

↓ *Turn me and take notes according to your project*

SELF-PREPARATION

Life's preventive strategies don't always protect us from problematic consequences. It may then be necessary to repair oneself without depending on an external agent, as is the case for a small cut on our skin, or for the torn bark of a tree.

🍃 on the living side

Latex from the bark of the rubber tree, native to the Amazon rainforest, contains capsules of hevein, a kind of plant cement. These capsules break on contact with air; in the event of injury, the hevein is released, repairing the bark thanks to its coagulant properties.

The principle of self-repair is a well-known phenomenon in lizards: threatened by a predator, this reptile can separate itself from its tail to escape. Subsequently, it is able to modify its metabolism, increasing cell division to replace the lost appendage.

This principle is found in most living systems, whether organic (bark, skin) or mineral (bone). However, it is generally a costly phenomenon, as it can create oxidative stress and compromise growth, reproduction or the efficiency of the immune system.

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🏛 organizations

Few everyday objects have this capacity for self-repair. Could you find one?
The reparability index recently became mandatory for electrical and electronic products. Its aim is to encourage producers to design more durable objects. It's a first step towards circularity for our production chains!

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Levers for action ↓

Bio-booster
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The Mushroom of the end of the world ➡

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Organization systems
Se projeter : design fiction

How can we better anticipate the future?

Design fiction enables us to look for robust solutions for adaptation, by projecting possible futures based on niche trends. It can take many forms (utopian/dystopian scenarios, games, artifacts of the future, etc.). The important thing is to ask "what might we be facing in X amount of time?"

💡 **Eau futurE**

Eau FuturE / bifurcation: "In an increasingly near future, how can we live well with less water?" The Lyon metropolitan area's "Eau FuturE" project offered more than seventy events to nearly 8,000 participants from 29 communes, in eight different formats, from design fiction to urban strolls, via a film-debate.
from design fiction to urban walks and writing workshops. Collective productions that imaginations and create a citizen dynamic around water. Millénaire3

QUELS FUTURS DÉSIRABLES POUR NOS USAGES DE L'EAU ? PERCEPTIONS DE 9 SCÈNES DE VIE

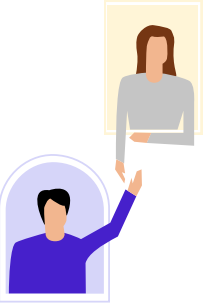↓ *Turn me and take notes according to your project*

Bio-booster
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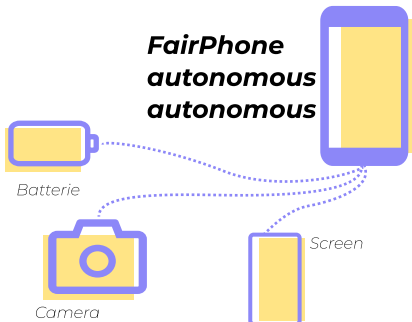

Bio-booster
Waste: the wax worm

How to adopt a repair / recycle / refuse approach?

Tomorrow, your project will be waste: make it easier to repair and, of course, recycle! This logic can also be applied to services: give users autonomy in the event of a malfunction, and think about what happens to the flow of people after they have passed through the service. Anticipate by removing unnecessary parts in advance.

💡 **The Fairphone** from responsible commerce is one of the only phones on the market that allows self-repair: from its battery to its camera and even other modules! Do-it-yourself replacements that are quick and easy for a modern smartphone. But it's also a brand committed to guaranteeing the availability of parts for the next five years, and changing the way people relate to objects and their use.

FairPhone autonomous autonomous

Batterie

Camera

Screen

↓ *Turn me and take notes according to your project*

MAINTAINING INTEGRITY IN RENEWAL

Faulty components need to be replaced on a regular basis. However, during this renewal process, functions must be preserved.

🍃 du côté du vivant

A large proportion of cells in the human body are rapidly renewed, ensuring that the corresponding functions are maintained.For example, the cells of the intestines and stomach are only used for a few days, before being evacuated by the body. It is said that the body regenerates completely in 7 years!

This is true in terms of the quantity of cells renewed... but qualitatively false: some cells are never renewed (teeth, oocytes, etc.). Some mammals, such as the lynx, the mountain hare and the Arctic fox, as well as one bird, the rock ptarmigan, replace their fur or plumage twice a year: at the onset of winter and in spring. While this moult protects them from the cold and damp, its renewal also enables them to retain their camouflage function by adapting to changes in the environment. These animals change from brown to white to blend in with the snow.

🏛 organizations

The problem of Theseus' boat, posed in Antiquity, will serve as an example here: if we have gradually replaced all the planks of the boat, will it still be the famous ship, or a completely different boat?

Observation of the living world leads us to say: it doesn't matter what changes we make, as long as the boat allows us to sail!

unsplash

unsplash

Leviers d'action

Organization systems

Challenge your team

How can we make better use of local resources? How to cope with team changes?
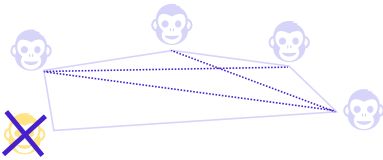
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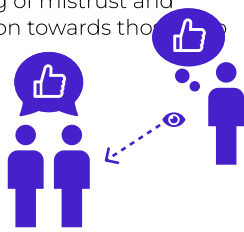

Knowledge & comportements individuels

Human factor humain

Or how to emphasize the behavioral approach in the design of your solution

Our individual decisions are based on a brain function similar to that of our ancestors, from whom we inherit an identical biology: reactivity to stimuli, approximations of reality, importance of the present, need for social recognition... Cognitive sciences have analyzed more than 200 "biases", helping us to better understand the mechanisms of individual choice and social behavior.

💡 **Diffusion of responsibility:** An individual is more likely to act or take responsibility alone than when he or she is in a group context, assuming that someone else will act on his or her behalf.

Social conformity bias: We conform to the image we feel is necessary for mutual understanding, sometimes preferring to remain silent so as not to displease. Individuals tend to conform to the identity of the majority group or the group to which they belong (norm), leading to a feeling of mistrust and social categorization towards those are different.

↓ *Turn me and take notes according to your project*

Bio-booster
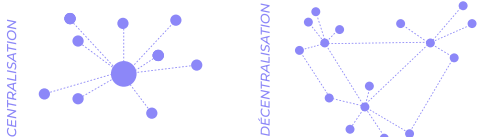
From the two pizza team to decentralization

How can you transform your organization to develop more impactful services and choices?

An organization produces solutions that resemble its organization (Conway's law): changing the way it communicates and its internal culture can have a powerful mirror effect. An organization made up of small, autonomous and highly-connected structures has demonstrated great resilience in times of crisis.

💡 **The "two-pizza team"** principle consists of building a team no larger than those who can sit around 2 pizzas, i.e. around ten people... Decentralization In nature, there is no "architect", but productions are remarkably complex.

Distribute the information and functions of your project among the various stakeholders, so as to move towards a horizontal organization (holocracy) and allow for greater redundancy and trust. Decentralization manifests itself in new modes of governance and managerial models.

CENTRALISATION　　*DÉCENTRALISATION*

↓ *Turn me and take notes according to your project*

Culture

Common: care

The commons (positive and negative) represent an often invisible dimension of linear project development. Identifying the available stocks linked to a project from a global perspective, as well as the debts and means of sharing them, enables priorities to be considered differently:
- collaborative innovation around a topic of shared, general interest (e.g. pandemic, climate crisis...)
- redirection to combat "negative" commons (pollution...)
- low-tech to promote frugality and existing stocks

💡 In 2020, a number of public players in the Lyon metropolitan area launched a Larboratoire partnership greening program to multiply the means of action at the service of the territory's renaturation plans (planting 300,000 trees in 10 years). Based on a 150 p sprint and a one-year incubation methodology, it provides a framework, a method and the means to develop a community of players and a system of complementary projects (recycling center, training for professionals, support for condominiums, etc.).

Website highlighting the various projects in the Larboratoire program.

↓ *Turn me and take notes according to your project*

ENCOURAGING DIVERSITY

In nature, the emergence of diversity is not hindered, as it promotes long-term robustness. It exists within individuals and organisms, as well as in relationships and ways of doing things.

unsplash

🌿 on the living side

The ecosystems that are most resilient to crises are those with the greatest number of species and genetic diversity.Diversity is naturally present in every species, whether animal or plant. In the event of a drastic change in the environment, the overall survival of the species is ensured by those individuals possessing one or more characteristics that give them an advantage in the new context.
However, our cultivation and breeding methods run completely counter to this principle: we have selected the hens with the highest egg-laying yield, or the tomato plants producing the largest fruit. These characteristics have been chosen because they are beneficial to humans, but not to the living beings themselves...

🏛 organizations

Crops that mix species are more resistant to disease attack, and seem to last longer.Associating certain plants with others is a principle used in permaculture. All the while avoiding the use of chemical fertilizers!

unsplash

Levers for action
↓

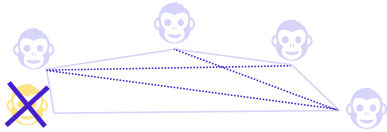---

Organization systems

Challenge your team!

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Knowledge

The human factor

Or how to emphasize the behavioral approach in the design of your solution

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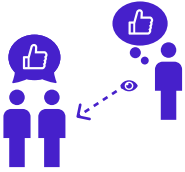
↓ *Turn me and take notes according to your project*

Organization systems

Invisible actors

How can we represent the invisible players in our organizations?

Identify the "invisible" stakeholders impacted by your activity (silent minority, future generation, river, biodiversity, natural resource, etc.). Now you can include them in your project: they'll defend their interests in discussions and decision-making!

💡 **Future generations:** A member of your team represents the future generation, defending its interests in discussions and decision-making. This future generation representative anticipates long-term consequences and new needs (he/she can base his/her projections on current trends and indices).

Taking nature into account: New Zealand has accorded the Whanganu River the status of a living entity becoming a subject of law. Its interests are now represented by two people, one from the Maori tribe and one from the government.

Personal Legal

↓ *Turn me and take notes based on your project*

Culture

Commons: taking care

The commons (positive and negative) represent an often invisible dimension in the development of territorial projects and actions, traditionally focused on the linear management of an approach and the maintenance of its resources, including economic accounting.

Identifying the available stocks linked to a project from a global perspective, as well as the debts and means of sharing them, enables us to consider priorities differently.

Several methods are being developed to this end:
collaborative innovation around a topic of shared, general interest (e.g. pandemic, climate crisis...)
redirection to combat "negative" commons (pollution, etc.)
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Resilience strategies

PROMOTE FUNCTIONAL REDUNDANCY

Living organisms multiply functions and information to secure the achievement of objectives or targets. A balance is thus maintained in terms of possibilities and eco-systems, enabling adaptation in the face of change.

unsplash

🌱 on the living side

Grazing fish and herbivorous sea urchins feed on algae, preventing their excessive proliferation and thus the destruction of the reefs. Should one of these species no longer be able to perform its function, the other will take over, maintaining the eco-system.

In tropical forests, fruit seeds are dispersed by a variety of mammals ranging from mice to chimpanzees. Smaller species are more likely to be affected by local disturbance events, but seed dispersal will still be ensured by the larger, more mobile species.

In most living beings, including humans, there is a phenomenon of genetic redundancy: blood cells are encoded by several different genes, ensuring their formation if one of these genes is damaged or erroneous.

🏛 organizations

In a nuclear power plant, everything is doubled: two production units, two pumping stations, two control rooms, and so on.
Each production unit has redundant circuits. In the event of a malfunction in one of the circuits, the second automatically takes over to ensure continuity. What's more, the switchover from one circuit to the other is carried out on a regular basis, ensuring that both are working at all times.

RADIATION

unsplash

Levers for action

↓

Organization systems

Challenge your team

How can we make better use of local resources? How to cope with team changes?
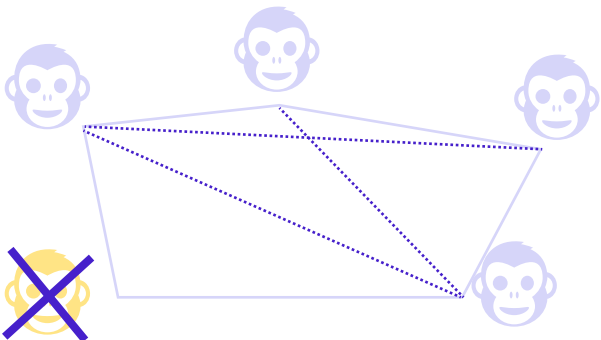
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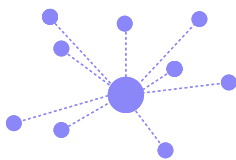
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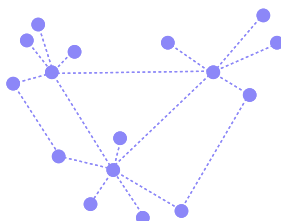
💡 _____

The "two-pizza team" principle consists of building a team no larger than those who can sit around 2 pizzas, i.e. around ten people... Decentralization In nature, there is no "architect", but productions are remarkably complex. Distribute the information and functions of your project among the various stakeholders, so as to move towards a horizontal organization (holocracy) and allow for greater redundancy and trust. Decentralization is manifesting itself in new modes of governance and managerial models. This is the case at Onepoint, where each employee chooses the projects he or she wishes to work on personally. They then surround themselves with the competent people they need. A horizontal system that encourages employees to get in touch with each other to learn about and share their projects and skills.

CENTRALIZATION

DECENTRALIZATION

Culture

New Stories

How can we renew our storytelling and break out of habit?

Our organizations have developed on a growth model in which values such as consumption, power, efficiency, individual merit and the promise of infinite natural resources and technological solutions predominate. Changing the dominant paradigm of our society means proposing alternative narratives based on imaginaries that are both sustainable and desirable.

💡 _____

Out of individualistic narratives :

Humans need narratives to "live" (Henri Bergson, Nancy Huston, Yuval Noah Harari): emerging animation techniques and formats offer new ways of inventing and recounting the future:
the Eau-Future initiative of the Lyon metropolis describes 6 possible postures in the face of the increasing scarcity of drinking water, accompanied by a quiz on desirable and probable actions.
ADEME has come up with 4 stories to guide the transition to 2050: https://www.ademe.fr/les-futurs-en-transition/
the city of Grenoble has launched ecological redirection workshops aimed at identifying attachments and renunciations to be carried out around several public facilities (swimming pools, ski resorts, etc.).
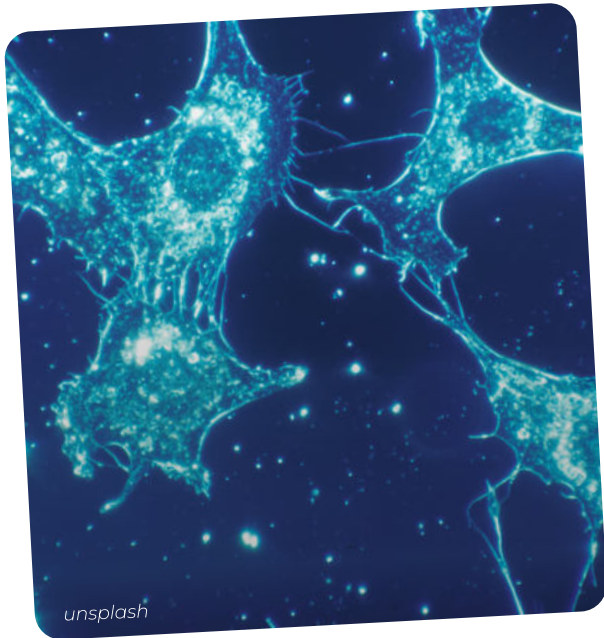
PISSING in the shower won't be enough

source : Affiche Time for the Planet

ENCOURAGE RANDOMNESS AND REPLICATE SUCCESSFUL STRATEGIES

The trial-and-error method is a fundamental approach to problem solving. It is characterized by a variety of tests, continued until the search is successful, or until the tester stops searching.

unsplash

🌿 on the living side

As larvae, lacewings are formidable predators of aphids: they can kill several dozen aphids a day. To find its prey, it hunts at random; this tactic optimizes the number of captures, playing a role in the survival of the species.

Trial and error is one of the pillars of natural selection. Proteins can move randomly, creating diversity within genetically identical cells; redundancy will ensure that the ultimate goal, survival of the species, is always achieved.
During the construction of a child's brain, starting during pregnancy, billions of neurons are created and begin to randomly form connections between them, called synapses. Later, some of these synapses are gradually strengthened, as they are used to ensure the functioning of the brain and the rest of the body; the remainder are eliminated.

🏛 organizations

Tactical urbanism is the transient, experimental use of public space. Anchored in frugality, its operational mechanisms guarantee rapid fabrication, installation and dismantling stages, enabling the presentation of development possibilities.
These in-situ experiments serve as tests with a view to potential long-term deployment.

FRUGALE
TEMPORARY
IN-SITU

EXPERIMENTING WITH NEW USES

Levers for action

Organization systems
Laboratories

How do you create cross-functionality within an organization or a project?

The aim of an internal laboratory is to create an interface for exchange and knowledge between different players who do not have the means to collaborate. It's a place for inspiration and learning, for taking action and experimenting, but also for sharing.

💡 The Lyon metropolitan authority's public spaces department has just rolled out a Public Spaces Lab, aimed at creating a cross-functional and territorial culture around the implementation of the public spaces charter. The Lab's offer of support structures this implementation through innovation and capitalization:
Leading a community of players (training, networking and outreach, advice and expertise)
A toolbox (innovative monitoring, framing and decision-making tools, technical and methodological guides/tools)
Pilot project experimentation (support, capitalization and valorization)
Physical and online resource

Le Lab des espaces publics

↓ *Turn me and take notes according to your project*

Knowledge
Mutual training - Intrapreneurship

How can we reinforce lifelong learning and empowerment in our career paths?

Lifelong learning requires the development of individual skills adapted to and in contact with others: - Implementing intrapreneurial projects, encouraging cooperation and agile experimentation
- Developing "soft-skills" - Mutual validation of knowledge and rewarding achievements

💡 **Incubator:** The incubator provides support and coaching for internal and external innovation project leaders, helping them to turn innovative ideas into frugal experiments. Project leaders can build their own project management using entrepreneurial, agile and collective interest design methods, and spread the culture of innovation within organizations.Open badges The open badge is a digital tool for confirming the skills and knowledge acquired from a third party, or from formal or informal training. It's an innovative way of obtaining certified recognition that can be shared with your professional network and community.

FABLAB

↓ *Turn me and take notes according to your project*

Organization systems
Project yourself: design fiction

How can we better anticipate the future?

Design fiction enables us to look for robust solutions for adaptation, by projecting possible futures based on niche trends. It can take many forms (utopian/dystopian scenarios, games, artifacts of the future, etc.). The important thing is to ask "what might we be facing in X amount of time?"

💡 **Eau futurE / bifurcation:** "In an increasingly near future, how can we live well with less water?" The Lyon metropolitan area's "Eau FuturE" project offered more than seventy events to nearly 8,000 participants from 29 municipalities, in eight different formats, from design fiction to urban strolls, via a film-debate.
from design fiction to urban walks and writing workshops. Collective productions that
imaginations and create a citizen dynamic around water. Millénaire3

QUELS FUTURS DÉSIRABLES POUR NOS USAGES DE L'EAU ? PERCEPTIONS DE 9 SCÈNES DE VIE

Usbek magazine

↓ *Turn me and take notes according to your project*

Organization systems
Choose differently

How can we make choices that go beyond a purely linear or economic vision?

Established choice models (majority, best rating, etc.) can conceal a lack of representativeness or counter-productive consequences. More comprehensive (triple accounting, for example) or alternative choice systems exist.

💡 Consent means taking the idea with the least rejection, not the most support, and thus putting reasonable objections at a distance. A staggered vote from "very unfavorable" to "very favorable" creates proposals for "median" rather than "average" choices.Chance According to Murphy's speculative law, "a random speculation always has a greater chance of success than an option chosen according to criteria of logic and experience." Integrate chance into your project, or into your own design process, construct alternatives and choose, at random, between them! Incorporating randomness into the democratic exercise is an excellent way not only to represent diversity, but also to confirm a system's robustness in operating under variable conditions.

↓ *Turn me and take notes according to your project*

Integrating The Unexpected And Demonstrating Plasticity

When external disturbances occur, the behavior and characteristics of living beings change. Thus, sacrificing an element can sometimes prove to be a profitable strategy, particularly in times of crisis.

unsplash

🌿 on the living side

An opportunistic species, such as the carrion crow or bull frog, is highly adaptable. It occupies newly available habitats, and survives in impenetrable, transitory environments. Unspecialized, it modifies its feeding habits to colonize these new spaces.
Autotomy is the ability of certain animals to lose part of their body voluntarily, without external mechanical constraint. The lizard mentioned above, anticipating a predator's attack, may voluntarily abandon its tail as a diversion, even before the predator has approached it.

The spread of pyrophytic plants is enhanced by fire. These species have the capacity to invade an environment subjected to fire, thanks to various systems: low flammability, thick bark, presence of underground regeneration organs or moist tissues... Fire ravages other species, leaving pyrophytic plants without competition.

🏛 organizations

During the health crisis caused by the coronavirus, some companies were able to adapt by modifying their production.

Applications Laser du Sud-Ouest, a Toulouse-based company specializing in laser cutting of various materials, has turned its attention to the manufacture of glass screens for use on counters in sales outlets such as pharmacies.

An example of adaptation, which saved the company and, more broadly, contributed to its resilience.

unsplash

Levers for action

Organization systems

Laboratories

How do you create cross-functionality within an organization or a project?

An in-house laboratory designed to create an interface for exchange, sharing and joint creation between different professions. A place for inspiration and learning, action and experimentation, and sharing.

💡 The metropolitan authority's public spaces department (DMOU) has just set up its own in-house laboratory, the Lab des espaces publics, which aims to bring its staff together to share best practices. Its offer is divided into several areas:
Animation of a community of players (training, networking and outreach, advice and expertise)
A toolbox (innovative monitoring, framing and decision-making tools, technical and methodological guides/tools)
Pilot projects (support, capitalization and valorization)
Physical and online resources (platform)

Le Lab des espaces publics

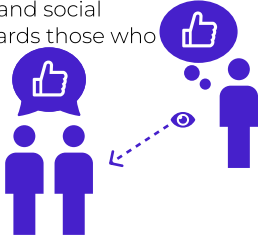↓ *Turn me and take notes according to your project*

Knowledge

Human factor

Or how to involve the behavioral approach in the design of your solution

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↓ *Turn me and take notes based on your project*

Organization systems

Project yourself: design fiction

How can we better anticipate the future?

Design fiction invites us to imagine possible but non-probable futures, based on weak signals. It can take many forms (utopian/dystopian scenarios, games, future artifacts, trend amplification, etc.).Projected into a more or less near future, it then suggests returning to the present with 'traces' of the future and imagining the changes we need to initiate to get there.

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Bio-booster

Integrating contradiction

How can you base your project on opposing and complementary functions for greater robustness?

In nature, robustness is built on functional conflicts: the tension/compression conflict in plants and animals results in high mechanical resistance to fluctuations. Incorporate paradoxes into your project (two conflicting functions that coexist) using these cards.

💡 **The systemic design toolkit** lets you create paradox cards for your project, following the examples shown opposite. It's up to you to write opposites on each side of the card (e.g. tangible / intangible). The aim is for your project to be robust, offering both an in-between in a stable situation, and able to tip 100% to one side or the other in a crisis.

Intuitive

Compete
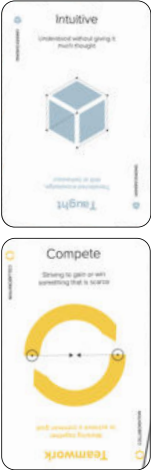
The TRIZ method matrix lists 40 inventive principles for getting around complex paradoxes. For example, by separating the contradiction in time, space, structure, conditions or system scale.

↓ *Turn me and take notes according to your project*

Resilience strategies

ADAPTING FORM TO FUNCTION

Form and function constantly co-evolve, on the basis of trial and error and natural selection, to best adapt to the environment.

🌿 on the living side

No, the giraffe didn't acquire a long neck to fetch high branches! Those with longer necks, by chance or by mistake, gained access to less coveted resources, and consequently reproduced better. Their long necks, enabling them to find their ecological niche at height, are therefore the result of natural selection over the course of evolution.

Another example of similar evolution is the Galapagos finch: during a drought, the seeds on which this bird feeds become harder, and finches with larger beaks are favored. Within a few years, large-billed finches become the majority. Later, with the drought a distant memory, the proportions of large-beaked and small-beaked finches in the population were virtually reversed!

🏛 organizations

The structure of ERASME's UrbanLab is appropriate to its function as a laboratory for collective innovation: a moving, recreational, modular and inspiring space to welcome and encourage contact and imagination. This makes it possible to adapt to the different formats on offer.

unsplash

Levers for action ↓

Organization systems

Physical postures

How can we diversify physical postures at work to promote well-being and adapt to the context and objectives?

Writable walls, 15-minute standing meetings, sit-stand desks and even naps at work... long-forgotten postures are reinvesting the world of work, based on empirical and scientific findings. Body posture is inseparable from state of mind and production. These are new fields that can be taken seriously: walking allows you to create, climbing allows you to remember, and physical activity alongside reading allows you to concentrate on a single task, for example...

💡

In 2014, Stanford University published an article extolling the effectiveness of walking meetings. Conclusion: we are more creative when we walk.

Unsplash

Organization systems

Matching form to sens

How can we encourage innovation and synchronization by taking into account context and environment?

Appropriate workspace design has a synergistic effect on quality of work. More globally, the shape, context and environment influence our feelings, interactions and abilities: the massive greening of workspaces, the use of soft walls, the presence of animals, visual communication in spaces, the choice of key messages and even fonts... all suggest "counter-cultures" to the dominant postures that need to be transformed.

💡

Espaces temps project: "The room of possibilities": In response to the lack of attractiveness of schools and the rigidity of classrooms, a number of secondary schools have rethought the way they operate and the form they take. This idea is based on a modular room that breaks down the barriers between learning spaces and practices, and creates links. The room is divided into different functional areas. A "take your time" area for discussion, explaining instructions and dividing up tasks to encourage collaboration. A "mark the time" area: to organize the work space and the materials available, to get down to work, promote autonomy and accountability. Then there's the "one thing at a time" section, designed to find the resources needed to carry out the activity and overcome any difficulties encountered by the student.

Culture

Communicate differently!

How can we change the means and tone of communication to reach and mobilize as many people as possible?

Behavior change is rooted in shared mental models as much as in the singularity of each point of view. Getting new messages across effectively requires the deployment of creative communication approaches tailored to the mindset of our interlocutors: factual, paternalistic, regulatory, benevolent, polemical, poetic, motivational, community-based...

💡

The radical: In the age of benevolent management and positive culture, the tyranny of empathy can force us to seek unanimity and avoid disagreement. No more compromise, it's all or nothing! Conflict at work can be positive if it's documented, non-emotional and offers solutions. Try to see what your proposals would look like if you were completely radical, using 0% or 100%. For example: 0% net soil artificialisation but 100% local organic food. Create zones of mediation to accompany decisions that are difficult to appropriate. Metaphor: Metaphors are a powerful tool for thinking about reality. When we experience the world, when we explore a scientific idea, it's often an analogy, an image that guides us, rather than a procedure. So what can we learn from the idea that cities have bodies? The study of urban metabolism is an important research front today, as cities are the driving forces behind the global changes affecting the planet. Describing and quantifying social metabolism (the way societies use resources and produce waste) is a first way of putting the metaphor of the urban body to work.

Unsplash

↓ *Turn me and take notes according to your project*

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Action title:
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Description :

Necessary for putting it into action:
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Principles of inspiring living ....

Action title:
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Description :

Necessary for putting it into action:
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Description :

Necessary for putting it into action:
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