

The relevance of foresight exercises for wine territories facing global polycrisis.

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ABSTRACT

Why is it relevant for actors in a territory in crisis to carry out a foresight exercise? The actors in a territory in crisis (economic crisis, climate crisis, etc.) are collectively facing a decrease in resources and performance. Among these actors, the gap between the realities and the perception of these realities becomes more pronounced, resulting in a loss of meaning and even identity. Opportunistic strategies multiply to the detriment of the common interest. Through a participatory process, the foresight exercise is likely to bring out different contributions within the territory in crisis: the reconstruction of common shared representations, the disarmament of short-term conflicts, the exit from the dictatorship of urgency, the creation of collective strategies to proactively bring about a common future that is most favorable for all.

Keywords: Strategic foresight, territory, future, crisis strategies

INTRODUCTION

Historically, there has been no shortage of "methods" for mobilizing people in times of crisis and spurring them to action. Calling on the past to remobilize the present is one such method. Like the Angers tapestry, commissioned around 1373, a masterpiece of medieval art located in the city of Angers in France, which depicts the prophetic narrative that concludes the Bible, known as the Apocalypse of John or the Book of Revelation. The tapestry depicts John's visions in the form of allegories that need to be deciphered. One of his visions is represented by a Son of Man bearing in his mouth the double-edged sword symbolizing the word of truth. It cuts through what is confusing, negative, deviant. This reminds us that the meaning of the Greek word *Apokalupsis* is unveiling, laying bare, not catastrophe. Another vision of John is represented by a horseman who is the wrath that brings war. This horseman teaches us not to fight the wrong battle. Hatred of others leads to destruction. The Apocalypse is a path of metamorphosis, showing the extinction of a world but leading to rebirth. Hope is at the heart of the story. In history's troubled times, its prophetic impact returns with force.

The future can also be used to encourage action in the present. This is the case when a foresight exercise is mobilized to serve territories in crisis. "Particularly in times of crisis, the risks of

change and disruption frighten us and encourage us to turn inward. Foresight invites us to anticipate these evolutions, to exploit these openings rather than cling to the past" (Battle, 1986). The foresight approach postulates that the future can be built in part on the basis of the will of the actors and organizations belonging to the territory in crisis concerned. It thus rejects fatality, enlightens the players and encourages them to act. Foresight therefore seeks, not to divine the future, but to ensure that it is desired rather than suffered.

We need to map out a trajectory between a more or less distant past, whose legacy is what it is, and a future far enough away that we can pin on it a hope that is both reasonable enough to be credible, and crazy enough to give us the energy we need to realize it. This is what we call a project, the act of projecting forward into the future an image of a desirable future which, like a magnet, attracts us, gives us the strength to move forward, and lends meaning and coherence to the decisions and actions we take on a daily basis and have to negotiate with our environment (de Jouvenel, 2008: 3).

In his book, Michel Godet (1977) argues that the failure to predict economic crises explains the crisis in forecasting and the rise of foresight, which he describes as "a creation of the future". According to him, "it is the plurality of the future that makes it uncertain, and the purpose of forecasting is twofold: on the one hand, to identify possible futures and, on the other, to estimate (where possible) their probability of occurrence, taking into account any actions that may be taken in a particular direction".

"For the futurist, the future is open, an object of project, intention and will. This is not to say that the present is unimportant, but rather that it does not irrevocably determine the future" (Sebillotte and Sebillotte, 2002).

Since the long-term future (at least 15 to 20 years) is not predetermined, it is not knowable and is open to many possibilities. The future doesn't emerge from nothing, but from the present, which contains both strong trends and weak signals. As such, a future scenario is not a forecast. We would like to make it clear that the future sketched out by the foresight exercise is not a dream either, although it shares with the dream its influence on the world, producing something that generally goes beyond even what the participants could have imagined.

Otero (2022) reminds us that, in the context of crisis, *"it's urgent to start dreaming again in order to be able to change, to be able to move forward, to be able to resist, to be able to have*

an influence on the world". "Afterwards, of course, it's not the dream they had that comes true, but whatever it is, something happens that's generally beyond even what they could have imagined. That's what's so beautiful: when something happens that we hadn't planned for, it's more beautiful than anything we could have imagined". So, de Jouvenel (2008) invites us to ask ourselves:

"What is a project if not a dream sifted through the sieve of reason? A dream insofar as it is rooted in our most fundamental values, not in the mood of the moment, not in the fleeting emotion aroused by events, not in the volatile opinion inspired by the current situation, but in what constitutes our deepest aspirations and convictions. We must be convinced, rightly or wrongly, that this dream is achievable, albeit at the cost of effort, tension and a will that will not waver at the slightest obstacle. What's true at the individual level is also true at the collective level, and what we're trying to do in foresight is directly inspired by this philosophy of existence. Applied to the city, it is only really relevant if it translates into the adoption of a policy or strategy. "

For all that, foresight is not the same as territorial planning, although it does share with it a participative, even democratic, form of mechanism at the service of the territory's stakeholders. The foresight exercise thus responds to a need for more participatory democracy in relation to the State's organization of territorial planning.

"Territorial planning is probably very important, because many of the challenges we face in terms of ecological transformation need to be discussed in the major production basins, which are virtually in the process of undergoing industrial reconversion in order to create a new economic project in their territories. For example, if we are to transform Brittany's agriculture [in France] into one that is positive for the climate and biodiversity, we need to be able to consult each other, "make foresight" together, find scenarios and draw up transition contracts. In fact, apart from the organization of the State, this presupposes a form of participation, of consultation with the players" (Treyer, 2022).

However, there's something paradoxical about working with actors in crisis, sometimes guided by urgency or even their emotions (fear, anger, anxiety), in a foresight exercise normally focused on the long term. Professionals using foresight methods would even forbid themselves

from being too sensitive to the effects of buzz or over-reacting to current events. Indeed, the major trends and weak signals that we seek to identify in order to build long-term scenarios run a high risk of being "polluted" by processes at work in times of crisis; and however serious and blinding these may appear, they must not be confused with the former, since their first characteristic is often that they are intimately linked to the period of crisis under consideration, and therefore potentially endowed with the same longevity. They do, however, recognize the singular effectiveness of these methods, which deserve to be considered as part of territorial crisis response mechanisms for at least three reasons: it's often in a state of crisis that players call on foresight; the managerial ability to create shared representations is conducive to collective action to resolve crises; the ability to shed light on the future enables us to take a fresh look at the present, and thus to open up useful levers for the present.

With this in mind, we believe it is important to examine why it is or isn't relevant for players in a territory in crisis to engage in a foresight exercise. After first defining the term "territory" associated with the term "crisis", we will present the foresight method in a second section, and explain how the foresight process offers specific contributions to actors in territories in crisis. In the third section, we'll use examples of foresight exercises to illustrate in detail and with nuance the specific contributions made by certain players faced with "polycrisis", crises of different kinds and on different territorial scales. The term "polycrisis" also means that the various crises are intertwined and mutually reinforcing, the interplay between global crises has an overall impact being greater than the sum of their individual impacts. For example, we will briefly relate the results (four scenarios) of a 2035 foresight exercise for the wine industry in France carried out by FranceAgriMer on behalf of the Confédération des Coopératives Viticoles de France (CCVF). CCVF includes players from all over the country, facing the consequences of the international economic and financial crisis (FranceAgriMer, 2017). We will then go into more detail about a second foresight exercise in which two of our authors participated, and which generated collective strategies for coping with changes linked to the climate crisis in the Val de Loire region in France (Touzard et al., 2020). Finally, we will discuss the virtues of a foresight approach in a polycrisis context, before concluding.

TERRITORIES AND CRISIS

According to a definition taken from the French Larousse dictionary, a territory is "a portion of terrestrial space dependent on a State, a city, a jurisdiction; space considered as a whole

forming a coherent physical, administrative and human unit". We associate the territory with all its "actors" in a broad sense (citizens, professionals, managers, intermediary bodies, etc.), i.e., the players potentially involved in overcoming the crisis in the territory concerned.

It is within the framework of a foresight exercise, and through the prism of these different actors of the territory in crisis (of different scales: from the local to the regional, or even to the association of territories that would form a confederation at the "national" level) that we will look at the links between territory and crises.

We would like to point out that in France, according to Lamarque and Maymo (2022), territories often "feel forgotten or ignored by central power, whether political or economic. Decision-making centers have left the regions. Local structures struggle to gain visibility for day-to-day actions". This observation seems to be shared by Moreno (2022):

"We can see this in France, a highly centralized country, where the State can only effectively assume its role as planner when it takes root in local life and forges links with local governments, citizens and economic players".

This shortcoming, noted throughout the decades of excessive Jacobinism, has given rise to the difficulties of a national policy that has failed to listen to the territories, feel their pulse, and misses the imperative need for a rebalancing in their management to give substance to an ambitious, local, territorial policy with substantial prerogatives and resources, equal to the challenges of the decade.

We quote Treyer (2022) who calls on us to create a more participative framework for collectively addressing territorial crises, and in particular the ecological crisis. *"We need a slightly broader reform of institutions to carry out this ecological transition and planning. Institutional reform would ensure that we that we have more democracy, that we have more participatory mechanisms with regard to the organization of this planning"*.

"[...] what the Commissariat Général au Plan or the Datar, the Délégation à l'Aménagement du Territoire et à l'Action Régionale, did in the 1950s-1960s during the heyday of planning in France, we also need intermediary bodies to act as transmission belts, between

what is negotiated in Paris and what can work in the regions and local areas. We need mechanisms for stakeholder participation, participation that complements elective democracy, and so we can't do planning without these negotiating forums where we build the general interest through participatory mechanisms. We could imagine a citizens' convention in the regions, but also restore the weight, power and place of what we call the intermediary bodies, which are extremely weakened today" (Treyer, 2022).

After these observations, a malaise seems to be perceptible within the territories. So we can ask ourselves the following question: are these territories "in crisis"?

We'll see that the foresight approach can partly meet this need for more participatory democracy at the territorial level, since it consists in particular, through a participatory mechanism, in collectively producing common, coherent and contrasting representations of possible futures, and putting them up for discussion, in order to contribute to the organization of a debate on the future of the territory in crisis. We will also take an interest in territories "in crisis", as they face crises of varying magnitude, and we will attempt to analyze certain forms of crisis response, again on a territorial scale. At this point, we feel it's a good idea to answer the central question: what is a crisis? The Petit Larousse (1989) as a French dictionary offers the following definition of the term crisis: "a crisis is a difficult period in the life of a person or society, a tense situation, at the end of which the return to a normal state depends". Thom (1976) explains that the origin of crisis is linked to "sensory deprivation". In other words, it is the failure to perceive changes in our environment that causes our reference system to be maladapted to our environment, thereby creating a discrepancy between our referents and reality.

Turner (1976: 381) studied the concept of crisis perception. According to Turner, crises share this fracture between reality and the collective construction of reality. Commonly shared meanings become obsolete in the face of the reality of a particular situation.

"Crisis is also a rare event with unique manifestations. The effects of experience are often insignificant, giving the organization the opportunity to draw on past experience".

(Source: Roux-Dufort, 2000: 46)

Concerning the Greek etymological origin of the word crisis, its root κρί comes from the Greek word Krisis meaning "decision". Krisis (κρίσις) is related to an action or faculty of "deciding",

"judging", "choosing", "electing", "distinguishing", "sorting", "separating", "excluding" (Gaffiot, 2000). Although these verbs are transitive, there is a form of acceptance of the crisis: we undergo the crisis, we are its victims. The quote "naturae conflictus quos Graeci crises appellant" (Caelius Aurelianus, 5th century, *Acutarum sive celerum passionum libri* 3. 2, 19, 120) reminds us that the Greeks called crises "the assaults of nature".

A priori, in a context of crisis, there would seem to be something beyond our control. Something that "decides" and "sorts" in the sense of sifting or discriminating and which, in the form of natural selection, would inevitably strike as if to purge. So, on the one hand, the Greek root *Krisis* (κρίσις) derives from the idea of "sin", which is linked to a form of temporary excess (the sin of greed, overproduction, the financial bubble, etc.), but also of "damnation", evoking fault and a relative responsibility for those who have taken part in some form of failure of themselves or others. On the other hand, *Krisis* (κρίσις) drifts towards the idea of "in-criminating", "judging", "condemning" even those who have lost their grip on reality. Thus, the crisis "indicts" those who no longer have the "ability to explain or interpret a dream" (Bailly, 2000: 1137), those who are in "confusion" and "doubt", those whose perception of things is out of step with reality, who therefore no longer have the ability to discern, and therefore to decide. These are the very people who, sooner or later, will be called into question, "excluded" or even "evacuated", for there is a lethal potential that accompanies both "cri-se" and "cri-me".

Thus, crisis carries with it a potential for the worst, due to multiple resonance phenomena. "[...] the idea of crisis cannot be reduced to the idea of internal conflict within a system, but that it carries with it the possibility, the multiplication, the deepening, the triggering of conflicts" (Morin, 1976). In fact, crises carry with them several alternatives for the system affected: total disintegration or death of the system, a return to the *status quo* through absorption of the rupture, but also and above all possibilities for change.

According to Morin (1976) crises sow the seeds of change and transformation, and thus have a revelatory function. Thus, a crisis often reveals dysfunctions, or even absurdities, in part of a system, and thus mobilizes imagination and effort towards necessary change. According to Morin (1994) crisis, which lies outside regularities and determinisms, creates new conditions for the deployment of action and opens up the field of potential for creation and innovation. Morin has highlighted the "effector" aspect of crisis, because it "sets in motion transformative forces capable of fostering evolution, and can constitute a privileged moment for change".

We would add that we need to take into account the autonomous aspect of a crisis, which has its own time dimension (Colin, 1997). This author states that "it has been statistically demonstrated that a relief operation is very often a race between two dimensions of time: the time proper to the event, whose consequences naturally worsen with time, and the time proper to the ramp-up of response resources until the level of response is adapted to the real gravity of the situation and enables situations to be dealt with". We will explain how foresight sheds light on the present and helps decision-making.

"Decision-making is often the art of being cruel in time"

(Source: quote attributed to Henry Becke;

subject of the French Ecole Nationale d'Administration entrance exam, 2007)

As geographer Magali Reghezza-Zitt points out, a crisis is not only dated, "it is also spatially situated". Beyond its material characteristics: its physical reality, its function and its structural organization, "every space is politically appropriated; it's a place of power", explains the geographer. We project an identity onto this space, which the narrative helps to anchor. It's a story that often needs to be retold, completed and revised, because the history of a territory is not linear, but constantly in turmoil and upheaval. And it is precisely in the way an area manages to preserve its identity and substance through crises that its sustainability is at stake (France Stratégie, 2021). We shall see how the foresight approach contributes to the sustainability of a territory over time.

THE METHOD AND VARIOUS CONTRIBUTIONS OF THE FORESIGHT EXERCISE

The aim of foresight is not to predict a region's future, but to enable its stakeholders to anticipate different situations they may encounter, without prejudging whether they are likely, desirable or, on the contrary, dreadful. As mentioned in the introduction, the future doesn't emerge from nothing, but from the present, which contains both strong trends and weak signals. Generally speaking, foresight is not a forecasting exercise, and consequently a prospective scenario is not a forecast.

In a context that is too turbulent, or over too long a timeframe, the notion of forecasting by means of trend extensions no longer makes much sense, since the models on which it is based are generally only of limited robustness; it loses its relevance the more we wish to shed light

on longer timeframes, for which there is no guarantee that the determinants will last (Aigrain and Hannin, 2005). In any case, such extensions are far less useful than mobilizing players around a shared understanding of possible futures and the resulting possibilities for action. In the long term, this foresight approach should encourage the emergence of collective strategies within the crisis area, strategies that will be implemented by the various players in the crisis area concerned.

As far as the foresight approach is concerned, we must question the scientific nature of the method adopted. In fact, the foresight method is based on scientific research and results, while at the same time inviting numerous consultations between specialists and with professionals.

However, the results it produces, particularly the scenarios, cannot claim to be scientific in the sense that they depend significantly on the composition of the operational committees assembled: other compositions would certainly have led to different scenarios.

However, since the aim is to delineate a sort of cone of possible futures, the exact nature of the scenarios is undoubtedly less important than the possible directions identified. In any case, this apparent weakness does not jeopardize the exercise, whose success depends much more on its appropriation by the players in the crisis area concerned.

The Importance of Appropriation by Stakeholders in The Crisis Area Concerned

If the objectives are to be achieved, one vital aspect must be taken into account: appropriation of the study by the players in the crisis area concerned. This is a major challenge that must be kept in mind throughout the exercise. In fact, this exercise must offer the initiators a demonstration framework in which the majority of partners participate and adhere. In this sense, it's only once the players (decision-makers) are familiar with the range of possible futures that it becomes possible to help them make more relevant decisions.

So, even if foresight is often commissioned and, to a certain extent, sets out the specifications for the work to be undertaken, it must be remembered that the decision is not an act that is short-lived, but rather a "process that matures at its own pace".

The idea is to keep the field of possibilities wide open throughout the study, as far as possible, in order to guard against a major risk: the decision being narrowed down too quickly.

"Tomorrow is less to be discovered than to be invented" [Gaston Berger].

There are several methods used in foresight exercises, but here we'll refer to the SYSPAHMM method (Système, Processus, Agrégat d'Hypothèses, Micro- et Macroscénarios) formalized by Michel and Clementina Sebillotte at INRA (Institut National de la Recherche Agronomique), since 2020 called INRAE (Institut National de Recherche pour l'Agriculture, l'alimentation et l'Environnement). More specifically, this method is based on a shared representation of the system under study and the issues that will be at stake in the future. These issues are the subject of expert presentations and, finally, the basis for the drafting of hypotheses, the expression of which on both sides of the page makes it possible to envisage different possible futures.

The elaboration of prospective scenarios is the responsibility of a group of experts who are identified and brought together, and whose diversified skills are crossed in a context of freedom of speech and constant efforts at mutual understanding. This group of experts, known as the foresight "animation cell", is made up of researchers, government experts and professionals, many of whom are players in the crisis area concerned.

Throughout the exercise, particular attention is paid to the construction of common representations, taking time for interdisciplinarity. Each expert is only there to share his or her knowledge and help everyone understand what's at stake for the future. Group members contribute to every stage of the construction process: from the drafting of hypotheses by each member on all subjects, to the establishment of dependent influence relationships between hypotheses, to the choice of driving hypotheses, right through to the selection of concatenations of micro-scenarios to elaborate global scenarios.

Several hundred hypotheses can be drafted in this way. Then, a few dozen of these, judged to be the most decisive for the region's future, are ultimately selected. These hypotheses are not only trend-based, but also include weak signals that are currently limited in scope, but which are judged to have the potential to bring about significant changes in the trajectory of the region's players in the future. The relationships of influence and dependency between these hypotheses, considered in pairs, have been established and used to group together the most closely related hypotheses into aggregates. These aggregates form the framework of the interdisciplinary scenarios, which take account of the links between the hypotheses and

enhance their front and back labels. At the end of several complexity-reduction stages, four to six contrasting scenarios of change over 15 or 20 years are written. For each scenario, it is possible to identify the stakes and consequences for one or other of the territory's stakeholders: if the scenario occurs, what do we gain (in what way is it an opportunity)? What do we lose (in what way is it a risk or a threat)? And what are the consequences?

As we've already said, scripted visions of the future are in no way akin to forecasting. They simply propose possible, credible futures, with no consideration of the probability of their occurrence. Once the scenarios have been drafted, the analysis of their consequences serves as the basis for strategic thinking. "Thus perceived, foresight is not an escape into the future, but a means for decision-makers and researchers to return to the present, better equipped to influence it according to our intentions and requirements" (Sebillotte and Sebillotte, 2002).

It will be up to the players in the crisis area to decide on the attitude to adopt towards the scenarios, by choosing from five possible attitudes:

- Positive proactivity: act now to encourage the scenario to happen.
- Negative proactivity: act now to prevent the scenario from occurring.
- Anticipatory reactivity: prepare today for the occurrence of the scenario.
- Watch: this scenario must be kept under surveillance, to see if its occurrence as time goes by.
- No attitude: this scenario is of no particular interest.

This is the starting point for a strategic approach to the area concerned.

Specific Contributions Expected From Players in Crisis Areas Involved in a Foresight Process

We have just seen how the foresight exercise is likely to bring to light a number of important contributions to a territory's ability to emerge from crisis: the reconstruction of common, shared and not necessarily consensual representations among these territorial players; the creation of collective strategies to proactively bring about a common future that is most favorable to all. Beforehand, we can anticipate other contributions, not the least of which is the disarming of short-term conflicts between players within the territory in crisis, and the emergence from the

dictatorship of urgency. Indeed, foresight is a tool for creativity. The foresight unit plays the role of mediator, reinjecting a long-term perspective into the relationships between players in the present, relationships often damaged by tensions that may already have degenerated into conflict within the crisis area concerned.

A priori, taking the long term into account would offer parties in a conflictual relationship "positive" scenarios belonging to the future. The various parties often have an interest in neutral cooperation to proactively bring about a positive scenario (positive proactivity). "Positive charges" should therefore be sought in the future (prospective positive scenario) and reinjected into the present (by gaining acceptance for the possible advent of this future scenario). The "positive charges" would neutralize the "negative charges" that are too prevalent in the present, and encourage a return to communication between the various parties. The various parties then understand that it is in their interest to favor consensus and individual self-sacrifice for the benefit of all. However, in this process of overcoming the crisis, things are not so simple. We also need to consider the "negative" scenarios that invite us to "think against ourselves".

These negative scenarios can also be very stimulating, and should be kept in mind for as long as possible, in order to generate the actions needed to prevent them from happening. Foresight is an anti-fatalistic approach: since the future is not already written, it invites us to become aware of the margins for manoeuvre and possible actions to steer the future in a favourable direction. Working on shared representations leads to the identification of interdependencies, particularly between players.

Carrying out exercises on and for groups (on the scale of territories in crisis, but also of sectors, etc.) involves looking into possible futures and their consequences for the different "parties".

We're reminded that, in the end, it's a question of giving ourselves the means to bring about a future that is desirable to all.

ILLUSTRATIONS OF THE CONTRIBUTIONS OF FORESIGHT EXERCISES IN THE HEART OF TERRITORIES IN CRISIS

By way of illustration, and in order to shed further light on the links between territories and crises, we propose to begin by recounting the results of a foresight exercise to 2035 for the wine sector, carried out by FranceAgriMer on behalf of the Vignerons Coopérateurs, formerly

the Confédération des Coopératives Viticoles de France (CCVF), players rooted in France and facing a global economic and financial crisis. This exercise included a 17-member expert group that met 15 times between January 2015 and early February 2017 and produced four scenarios (FranceAgriMer, 2017). The respective plans for these four scenarios are set out in Table 1. Details of these scenarios are available online on the FranceAgriMer website. In this first case, the titles and subtitles of these scenarios are evocative and in themselves underline the value of a foresight approach (here on a national scale) when a territory is facing a major crisis.

Table 1: The four scenarios of the Foresight "Coopération Viticole Française" (CCVF)

Scenario n°1: An unattractive cooperation	Scenario n°2: A cooperative model for times of crisis
<ul style="list-style-type: none"> - Liberal solutions to the crisis - A handicapping cooperative status - The few AOC production cooperatives 	<ul style="list-style-type: none"> - In the turmoil of the great crisis, only the terroir is resisting ... - and the Cooperation is driven by the social issues that have become inescapable ... - ... which, with a few adaptations, ensure the prevalence of its model.
Scenario n°3: The cooperative as an essential industrial tool	Scenario n°4: The radiant winegrowing cooperation
<ul style="list-style-type: none"> - Marked crisis - Liberalization ...and trivialization - Cooperative status on the verge of a nervous breakdown - Concentration of supply as a lifeline - A utilitarian link to cooperation 	<ul style="list-style-type: none"> - A stabilized global economic context and winegrowing regulations - Cooperation as the bearer of an economic and social model - Multi-territorial unions as an alternative to concentration - Strong territorial roots

(Source: adapted from FranceAgriMer, 2017)

These four possible and credible scenarios offer consequences with very different impacts on the wine industry. Bringing these four scenarios to light, and then choosing a scenario, means summoning the responsibility of players who act at the heart of the components of the national

territory, a territory shaken by an economic and financial crisis on a global scale. Meeting in congress on July 6, 2017, the leaders of the Cooperative Winegrowers were able to choose between possible strategic attitudes (see Table 1). They chose to favor the "radiant winegrowing cooperation" scenario by preventing the "unattractive cooperation" scenario and preparing for the other two.

In the second part, we describe in greater detail the process and results of a one-day foresight exercise involving two of the authors, known as the "foresight forum", which was set up for the Val de Loire wine territory. This foresight exercise will have generated collective strategies to cope with changes linked to the climate crisis in this Val de Loire territory (Touzard et al., 2020).

The Val de Loire is located on the territory of the former provinces of Orléans, Touraine and Anjou in France. "*Climate change has become a major issue for French vineyards, with effects on vine phenology, wine yields, grape and wine characteristics, economic risks and results, or even the location of vineyards* (Ollat et al., 2016)". These effects, already observed, will amplify and vary according to the territories, the climate scenarios and the adaptation choices of the players in these wine-growing territories. In order to analyze the conditions for these adaptations, INRA has been running the LACCAGE project (now LACCAGE 2.21) since 2013, with a major action being a foresight exercise on the industry to 2050 (Aigrain et al., 2016).

This LACCAGE project produced four major scenarios. The researchers and their partners at FranceAgriMer and INAO extended this foresight by putting these four scenarios up for discussion in France's main vineyards. Seven "foresight forums" were organized between 2017 and 2019 in France in the following wine territories: Aquitaine, Languedoc, Champagne, Burgundy, Rhône Valley, Alsace and Val de Loire. The day or "foresight forum" in Val de Loire was organized into five sequences: 1) a time for sharing knowledge on the impacts of climate change and possible adaptations, 2) a presentation of the four scenarios developed by the LACCAGE project, 3) group work to specify the issues and consequences of each scenario for the regional vineyard, 4) an individual vote expressing the strategic attitude of participants with regard to each scenario, 5) the collection of action proposals to favor or disfavor each scenario. With regard to the links between crises and territories, the Val de Loire shows a trend that has already been noted in several surveys carried out in other wine-growing regions: climate change is perceived in terms of more frequent extreme events (and an amplification of climatic

variability), and "adaptation" is defined primarily as a combination of agronomic and oenological responses.



(Source: Touzard et al., 2020)

Figure 1: The cloud of 158 words (in French language) expressed by 80 participants at the beginning of the LACCAVE Project's 2019 Foresight Forum. "Climate change" for you it is...?

The point of a sectoral foresight approach for a given territory is precisely to project ourselves into the future in order to envisage different combinations of levers and reflect on their stakes and consequences. Scenarios provide contrasting points of reference among possible futures, and can be used to support reflection and the strategic positioning of players in a company, sector or region. Four adaptation scenarios have thus been predefined, crossing the greater or lesser use of innovation with the choice of whether or not to relocate vineyards. Then, by mobilizing:

- the Intergovernmental Panel on Climate Change (IPCC) climate scenario for 2050 (2° C rise in average temperature compared with the pre-industrial period), with different consequences for northern and southern France (notably drought more marked in the south),
- the disciplinary knowledge of LACCAVE project researchers,
- hypotheses for changes in the global winegrowing context drawn from previous forecasts,

- and hypotheses developed from interviews with French winegrowing leaders. Narrative paths leading preferentially to particular ways of adapting the wine industry to climate change were constructed.

Table 2: The four scenarios discussed at the Val de Loire Foresight Forum

The conservative scenario	The innovative scenario
<p>The aim is to make as few changes as possible to vineyard layout and practices, both in the vineyard and in the cellar. Research has been little solicited, and players have suffered from climate change without being able to benefit from major innovations, while regulatory constraints have tended to tighten. Production became more uncertain in terms of quantity and quality, and the profile of wines evolved, but fortunately without rejection by consumers. Winegrowing has retracted, even if some PGIs and PDOs are still islands of resistance. The value of wine has remained linked to its cultural and landscape content.</p>	<p>It is based on the massive introduction of innovations to maintain vineyards in their current geographical areas, with wine profiles that are diversified but comparable to those of the early 21st century. Research has been called upon to produce useful knowledge for the development of innovations, in a context where environmental and health issues have become increasingly prevalent, and where agricultural space has been regulated to reserve the most fertile land for food production. Industry governance has expanded to include new categories of players.</p>
The nomad scenario	The liberal scenario
<p>It highlights the gradual migration of vineyards to more favorable zones within the current areas (access to water, altitude, less exposure) or, more radically, to more northerly regions. The challenge is to "escape" the new climatic conditions and retain the profile of early 21st-century wines that consumers still appreciate, even if societal constraints on alcohol and health have forced the industry to focus on reducing</p>	<p>It benefits from a reduction in regulatory and geographical constraints, and from innovations in practices and products. To achieve this, individual operators have been able to implement a wide range of innovations, particularly oenological (aromatization, for example), and set up vineyards wherever they wished, while complying with environmental and health regulations. This context has proved</p>

inputs. New vineyards have emerged, and the PDO model is being questioned or even abandoned in some regions.	favourable to new investors and the wine trade, which has succeeded in controlling the entire sector. More and more technological wines are being produced, and Research & Development (R&D) has been privatized, weakening traditional production companies.
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(Source: Touzard et al., 2020)

Participants then worked in groups to consider the issues and consequences of each scenario in the Val de Loire territory in France. Each group was asked to project itself into 2050 and imagine "what has happened since 2019". The moderators of the exercise formed groups (tables of 6 to 8 participants), taking care to represent the diversity of points of view: producer, trader, technical advisor or researcher, union representative, etc. The issues and consequences of each scenario are recorded on a tablet by one of the participants in each group, requiring listening and reformulation. Consensus is not necessarily sought, and different opinions can be taken into account. For each scenario, the sequence of work on the issues and consequences lasts between 20 and 30 minutes and is structured by a succession of themes: viticultural and oenological techniques, market segments, players and territories, and industry organizations. Thanks to a computer application, the elements entered are visible as they are entered by the moderators, who control the time and stimulate production by regularly announcing the number of items recorded. A summary of the contributions can be drawn up during the lunch break and presented later in the day, before the vote on strategic attitudes. This small-group work helps those for whom projecting into the future is difficult to get used to the game, those who can't help judging scenarios on their possible or impossible, probable or improbable, true or false nature.

DISCUSSION

To return to the links between territories and crises, in the context of the Val de Loire foresight study, overall the "votes" in the Val de Loire are very close to the national average in France. They favor the "innovate to stay in the terroir" option slightly more, and reject "the conservative scenario" less, wanting to anticipate its possible resilience, in a context where climate change

is seen as "a little less constraining than for other regions". They question the threats and opportunities of "the nomad scenario", and condemn "the liberal scenario" slightly more than at national level (see Table 3).

Table 3: Strategic attitude choices for each scenario (in % of participants, in bold, 82 voters from the Val de Loire, *in italics*, 419 voters from all over France or 7 regional forums)

	Positive proactivity	Negative proactivity	Anticipated proactivity	Intelligence	No interest
The conservative scenario	23%	21%	42%	14%	0%
	<i>21%</i>	<i>30%</i>	<i>30%</i>	<i>16%</i>	<i>3%</i>
The innovative scenario	77 %	5%	17%	0%	1%
	<i>73 %</i>	<i>3%</i>	<i>22%</i>	<i>1%</i>	<i>1%</i>
The nomad scenario	7%	39%	33%	21%	1%
	<i>3%</i>	<i>39%</i>	<i>29%</i>	<i>27%</i>	<i>2%</i>
The liberal scenario	6%	66%	12%	12%	3%
	<i>5%</i>	<i>59%</i>	<i>16%</i>	<i>18%</i>	<i>2%</i>

(Source: Touzard et al., 2020)

More broadly, the presentation of the four scenarios to the 82 participants from the Val de Loire elicited numerous reactions and proposals for action, with, beyond differences in professions or commitment to a particular type of wine or practice, a desire to act quickly and preserve a family viticulture linked to the terroirs and therefore the territory of the Val de Loire. This foresight exercise not only confirmed the interest that players and organizations in the Val de Loire vineyards have in the issue of climate change, but also encouraged them to take collective action. Cooperation between people from different professions who didn't always know each other is new, and now potentially long-term. In other words, players with diverse profiles who didn't necessarily know each other before the foresight exercise have formed a network in their area to take action in the face of the climate crisis. The question arises as to the durability of this network.

From Foresight to Action in the Face of Crisis

If we compare the foresight exercise with other forms of action in the face of crisis, such as the climate crisis, and including different modalities, we may find over time that this foresight exercise opens up perspectives with wider contributions not anticipated. This was the case in other forms of action set up by a permaculture teacher, Mr. Rob Hopkins, who settled in 2005 in Totnes in the south of the United Kingdom. Mr. Rob Hopkins seized on the term resilience to try and define how to adapt our societies to the increasing scarcity of resources, particularly oil, and to global warming. It was in a given area, the small town of Totnes, that he gave birth to *the Transition Towns* movement and developed his theory through full-scale experimentation. Since then, Totnes has become a veritable laboratory for Transition initiatives, with the aim of moving the town towards greater resilience. Mr. Rob Hopkins describes one of the actions set up by his movement in Totnes: *"If you want to help people around you save electricity, save water, use cars less, how do you do that? We suggest forming a group in your street, 6 to 10 of your neighbors, and you decide to meet 7 times in each other's homes"*.

Thus, one of the wider contributions among its observed and unexpected results is that *"everyone said, now I know the people on my street, I feel more connected to this place, I know that if I have a problem, I know the people I can ask for help. Many of these groups continued to meet after the first 7 meetings. There's something important here. By coming together, we can do things that leaders simply can't do. If we're going to do this in the time we have left, it has to come from all directions. Local communities have a fundamental role"* (Hopkins, 2019). Thus, the foresight exercise at the service of territories in crisis can offer unanticipated results that invite action. Other virtues have already been noted: the foresight exercise as a device for stakeholder participation that complements elective democracy, so the foresight exercise as a form of negotiating forum where the general interest is constructed, opposite or counterbalancing the organization of centralized planning from Paris, the capital city in France, alone.

"To remain desirable and keep its promises despite unavoidable crises, the energy and ecological transition will imperatively have to be accompanied by a process of continuous improvement in the resilience of territories" (Delcayrou and Riet, 2022).

The challenge of energy and ecological transition can also be a tremendous opportunity for territories. The scale of the task calls for a renewal of democratic practices, particularly at local level, by putting people at the heart of the redesign of a new territorial project (Delcayrou and Riet, 2022: 217).

CONCLUSION

We have presented the various benefits that a foresight exercise can offer to the players in a territory in crisis: the reconstruction of shared, common representations, the disarmament of short-term conflicts, and a way out of the dictatorship of urgency. Among the benefits expected and often observed, we must first consider that illuminating the future enables us to take a fresh look at the present, which is all the more relevant as it stems from a collective intelligence, all the less conflict-ridden as the horizon is distant; and yet by a "boomerang" effect, everyone can reread the present through the filter of the representation and processes currently at work, which are described. We will then have understood how scenarios - neither true nor false, neither probable nor improbable - can be analyzed collectively and, above all, how they can generate a willingness to act (reactivity or pro-activity) in order to prepare for them, favor or disfavor them, and thus open up useful levers for the present. This kind of collective strategy-building can sometimes proactively bring about the most favorable common future for all. In all cases, the final and by no means least benefit will lie in the "team building" that will have resulted from this quest to describe, understand and claim a capacity at least to influence the mechanisms at work, including the most decisive ones.

As far as the limits of a foresight exercise for territories in crisis are concerned, there are several. In a world where actors are increasingly interdependent and connected, major crises follow one another to the point where some authors invite us to seize intercrises as decisive periods to prepare for the next major crisis (Murgue and Delfraissy, 2012). Duquesnois (2021) even envisages a permanent state of crisis, in which major international crises of various kinds follow one another without respite. France's territories are connected to the international world and, by definition, highly exposed to new major crises, therefore to global polycrisis. In addition, the loss of a common, factual frame of reference and the emergence of "fake news" in an increasingly "divided" French society also make it necessary to use a foresight approach to rebuild shared, not necessarily consensual, common representations among these territorial players. However, foresight is not a self-evident exercise. The number of professionals capable of implementing this type of exercise is limited, and this in itself constitutes a first limitation.

"You can learn to say the Mass of methods by heart in a few weeks. But it takes years of practice and research into texts to become an experienced professional" (Godet and Durance, 2011).

Another limitation is inherent in the foresight exercise: wanting to build too many scenarios, forgetting to invite action, forgetting to have a project to bring about a future that is desirable to all. In this configuration, *"it is not so much the lack of information as its excess that obscures decision-making"* (Barthes, 1973).

Another limitation concerns the need to broaden the range of stakeholders taken into account when assessing the consequences of proposed scenarios. For example, in the context of the climate crisis, there is talk of integrating children and their rights to a greater extent (Taddéi, 2022) or even, according to Jacques Attali, the "next generations", who would then be represented by *"qualified personalities of all kinds who would have only one mission: to put themselves in the place of the next generations and speak on their behalf"* (Attali, 2014). In the same way, recognizing Nature as a subject of law means not placing man exclusively at the center when considering scenarios for the next 30 or 50 years. As Michel Serres so aptly put it: *"All my efforts in The Natural Contract consisted in saying that we must not put man at the center"* (Serres, 2008). This last quotation may seem paradoxical to us, given that the state of crisis is an anthropocentric state with a social signature, as the crisis affects human societies. With human demographics on the rise, the number of territories facing polycrisis is increasing. *"Climate disruption, the collapse of biodiversity and the growing scarcity of natural resources are upheavals whose effects are already being felt throughout France. Even with significant reductions in greenhouse gas (GHG) emissions, the effects of climate change are set to worsen by 2050. All areas of activity are affected by multiple risks, which may aggregate, reinforce or cascade. Risk depends on the frequency and intensity of a hazard, on the one hand, and on the degree of exposure and vulnerability of the populations, facilities and institutions of the territory concerned, on the other (...). In view of what we know about climate change, French territories are lagging worryingly behind when it comes to adapting to climate change"* (Delcayrou and Riet, 2022: 215).

We have tried to understand why actors in a territory in crisis turn to the foresight exercise. After presenting the potential contributions, we conclude that it is relevant for these actors to undertake a foresight approach in a crisis context. However, further research is needed to explore the usefulness of such an approach. A number of perspectives exist. For example,

beyond the kind of reflexivity provided by a foresight approach, we might wonder whether these actors in a territory in crisis might not be seeking a decentralized approach, not only to reinvent themselves, but also to seize the crisis as an opportunity for change, in the light of possible futures. In any case, we would like to conclude that it would be preferable for actors in territories to renew their foresight contributions by embarking on a foresight approach before crises. They would then be in a position to draw on new resources: the projections produced by a group of experts, which would shed light on the decision-making required when facing crises; and the members of a "participating community", better equipped to influence the future of their territory through their own actions and, above all, according to their own intentions.

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