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Far-sighted communities: Design meets future studies to boost visioning and participatory foresight

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Abstract

The increasing uncertainties of all contemporary communities require future literacy, and strengthening the participatory dimension of foresight practice is part of the solution. The “Montagna 4.0 FutureAlps” project involved high school students, teachers, businesses and stakeholders of Valtellina, Northern Italy, in local laboratories of participatory foresight through a codesign approach. This article briefly reports the project framework and the visioning exercises undertaken to build meaningful images of the future (2040). Such images should be able to question and broaden the current development visions of the Alpine Valley and inspire a collective design of its development trajectories by raising the community’s awareness of current and future changes. The activities took place over six workshops with three meetings each from September to December 2020, involving students (“@Scuola”), local stakeholders (“community lab”) and the general public and experts (“Open talk”). Each workshop focused on a specific topic, such as the mountain of tomorrow, sustainable innovation, social innovation and sustainable communities, protection, production and promotion, sustainable mobility and events for Alpine tourism. The outputs consisted of uncertainty scenarios, postcards from different futures and indications to make development strategies future-proof, which are all elaborated on in this article.

Keywords: Codesign, Design Thinking, Foresight Scenarios, Future Literacy, Envisioning, Commons, Social Innovation, Local Development

Introduction

All our decisions are based on some images of the future, from daily individual choices to an ambitious personal career project and from a local administration’s daily decisions to longer-term projects and programmes for the local area or the country. Design thinking naturally involves sharing images of an imagined future service or artefact to develop or materialise. When the object of visualisation and development is a larger system such as a territory or its subsystems, such as tourism, housing policies, mobility and accessibility, the level of complexity increases. Future studies’ paradigms and tools can help to untangle this complexity and integrate the design process to be more explicitly future-oriented. Being future(s)-oriented means considering some critical questions for the design process, leading to future(s)-proof solutions. These questions concern the possible changes in the specific design context and the extent of the uncertainties that could make solutions effective today but non-functional in the future.

In this article, we elaborate on an experimental codesign project that involved an entire community and different social groups. We present the premises and the educational vision first, followed by the case study and the wider context of the experimentation. In addition, we describe the stages and the approaches, thus representing a potential toolkit for participatory foresight.

Premises: The indifferent citizen and the far-sighted citizen

The school's mission as a social institution is to educate proactive citizens, responsible for their choices and their community's qualities, providing tools and facilitating the learning of skills. The expected result of every effort and investment in this direction is to create open futures of personal and collective fulfilment with the ideal outcome of bridging personal futures, collective or even global futures (think about climate change as connected to choices of individuals and entire countries), overcoming the dichotomy between optimism and pessimism through a proactive attitude based on long-term views and critical thinking (Bodinet, 2016; Miller, 2015).

These goals are made more difficult in times of great uncertainty where society and individuals are tempted or invited to lock themselves into a "bubble of the present". Living in such a "bubble of the present" means being less and less related to the past and to the future, with increasing concern or even fear about an uncertain future and real or imagined risks, at the same time without meaningful references from the past. The condition of living in a "bubble of the present" could be associated with "short-termism" an attitude in which individuals primarily prefer short-term values (Marginson and McAulay, 2008). It can also be related to an extreme philosophical interpretation called "presentism", according to which "only currently existing objects are real. Computers, but not dinosaurs or Mars outposts, exist" (Sider, 2001).

At the other extreme of living in a present bubble is "futures consciousness", which, according to the futurist Anita Rubin (2002, p. 906), is an "active and action-oriented perspective on the future, present and past and the relations between these. [It is] an internalised form of the development of thinking [and] a specific effort to form a conception about the meanings and consequences of issues and our daily actions". Rubin thus highlights the notions of agency, internalised future thinking and the links between the past, present and future.

Inspired by these ideas, we distinguished two opposite fictitious types of citizens: the "indifferent citizen" and the "far-sighted citizen". The first represents the citizen as a self-centred individual, essentially a consumer of services and products who is interested in satisfying their primary or induced needs soon, without a perspective from which to assess the consequences in the medium and long term. When not satisfied, their urgency easily creates frustration and apathy. In any case, the same limited horizon leads them to a reactive attitude towards events and in the face of undesirable changes ("surprises") to seek others' faults and responsibilities.

The "far-sighted citizen" is interested in their own history and the history of their community or of those who share their time. Their horizon of perception, observation and action is broad enough that it necessarily intersects and interacts with that of other citizens, so they easily see their fulfilment as connected to that of their own community. This attention trains them to better understand changes and distinguish between those that are uncontrollable and those that can be influenced by their own actions (compared to the former they prepare to adapt; compared to the latter they prepare strategies). Through all this, the far-sighted citizen somehow owns their time, recognising their responsibilities.

The "Montagna 4.0" project described below starts from these premises with the ambition not only to educate "far-sighted citizens" but also to facilitate "far-sighted communities". The design approach and the futures studies tools seem to ground effective synergies towards this objective. Nowadays, it is increasingly essential to think in a cohesive, community-based logic capable of reflecting on the changes underway as

well as co-constructing new opportunities. This also applies to mountain regions experiencing profound and increasingly rapid changes, impacting both the global and local levels.

Montagna 4.0 FutureAlps framework and background

(SEV) has operated since 1993 as a think tank to promote sustainable and quality-oriented local development in Valtellina, recovering fundamental values and pursuing strategic orientation for the future from a global perspective (Quadrio Curzio, 2008).

Since 2017, through its Scientific Committee, SEV has offered a series of workshops in Bormio to strengthen the local community through participation and co-responsibility. Investing in people with interactive workshops is deemed critical, as future choices are to be made as a community. "Montagna 4.0, building the future together", with ten meetings for each edition, has registered broad participation, open to the whole community, and with the integration of different skills. By calling it "Montagna (Mountain) 4.0, building the future together", a legitimate question that arises is "What about Mountain 1.0, 2.0 and 3.0"?

Montagna 1.0 may refer to the "subsistence" age. "2.0" concerns the Industrial Revolution's effects, with the first industrial activities and factories. "3.0" relates to the intensive exploitation of natural resources and a strong relationship with the city. "Mountain 4.0" thus opens up new scenarios for the potential of the green economy, digitalisation and innovation that can unlock regions. It is a question of being aware of what effects change brings about and recalling the need for conscious and coherent policy choices at a community level. It represents a process of laying the foundations for a new awareness in the face of change, aiming to curb depopulation risks by showing opportunities for growth and sustainable development can be built together. Year after year, it has envisaged an open competition of ideas, since there are no top-down recipes but only bottom-up solutions. The second edition of the competition extended its focus to high school students so that they could explore the relationship between mountain identity and innovation. It was named "The mountain I would like" in a growing focus of young people to envision the(ir) future(s), as the future is to be seen as plural, given multiple possibilities for the futures to happen.

Building on "Montagna 4.0", "Montagna 4.0 FUTUReALPS" represents an example of how community self-training and participation methods can be experimented, beyond the mere consultative dimension. This leads to new dimensions of taking care of the community that grows itself through forms of awareness-raising in order to contribute and actively operate in the co-definition of their development scenarios. Therefore, the adopted approach from the start aimed to focus on the local identity's fundamental values, a precious starting point to confront challenges and build opportunities, in order not to be overwhelmed by change.

"Montagna 4.0" involved university professors and representatives of the Alps as witnesses of specific practices on topical issues with a mix combining an academic-scientific approach with practical examples and ideas. The main topics discussed included circular economy and sustainability, business innovation, tourism models, destination management for the enhancement of local assets and effects on tourism, biodiversity and Alpine development, identity and values, social change and welfare, climate change, finance, resources, Alpine culture and communities and mobility. The workshops represented a valuable tool for community growth, highlighting that an innovation culture is critical for local development. For this reason, proceeding with the experimentation has been fundamental by making "Montagna 4.0" – labelled FUTUReALPS—move around in the various Valtellina districts and through a network with other alpine areas.

The process was structured into six workshops taking place throughout the area, with mornings explicitly dedicated to schools, afternoons to community labs and evenings for the whole community with discussions aimed at enlarging the vision of the whole Alpine area. The keywords of FUTUReALPS have become community, innovation, territory, sustainability and tourism.

The opening in Bormio focused on the future of mountains, choices to be made and strategies, with particular attention to the future of tourism looking at the demand side. Subsequently, the focus shifted to companies and the area in which they are based, considering the potential of digitalisation, corporate responsibility and the creation of shared value. Furthermore, FUTUReALPS focused on what strengthens and disrupts communities and helps them be more aware of their resources.

Another central theme has been environmental protection, production and promotion and scenarios for the appropriate enhancement of tangible and intangible heritage. The following workshop focused on mobility and how critical it is to network today for tomorrow's mobility and the close relationship between mobility and tourism. Here, too, the operators confronted the students' visions of the theme of sustainable, shared and smart mobility. In the "Montagna 4.0 FUTUReALPS" final workshop, students and then stakeholders concentrated on the future perspectives of tourism and events in the Alps and how communities could be proactively involved. There was also reference to the Winter Olympics of 2026, a unique opportunity for the valley and an extraordinary tool within a longer-term (2040) plan.

"Montagna 4.0 FUTUReALPS" developed according to both a horizontal and a vertical dimension: horizontal as moving both in space throughout the territory and in time since looking at 2040, a journey often described as taking place through space and time. The vertical aspect entailed each day's structure with three consequential moments feeding one another, morning postcards from the future labs with students, intergenerational afternoon community labs and evening open talks looking at the Alpine dimension.

A design toolkit for participatory foresight

The FUTUReALPS process embraces a codesign approach and tools to nurture participation and answer the specific need to include significant non-expert viewpoints, especially concerning the young generation. We can take the example of the most common and acknowledged design creative processes, the Double Diamond conceptualised by the Design Council (2014), arguing that all the steps of the divergent and convergent phases could be developed collaboratively. Considering this sequence of phases as a linear process, we can create a two-pole axis that summarises the subject matter behind the design. The topic-driven activities refer to the problem/situation that must be investigated (first diamond); the concept-driven activities refer to an orientation defined through the problem-solving brief (second diamond). The FUTUReALPS process mainly goes through the first topic-driven phase.

With its expertise in facilitating and activating communities, how could design support such participation in developing future imagined scenarios? In Massive Codesign, as Meroni et al. (2018) said, a crucial issue is how to conduct the practice of "joint inquiry and imagination" of codesign. It is described as a process «in which diverse people jointly explore and define a problem and collectively develop and evaluate solutions. It is a process in which participants can express and share their experiences, to discuss and negotiate their roles and interests, and to jointly bring about positive change» (Steen, 2013, pp. 27–28).

In each workshop, specific labs dedicated to students helped them think creatively about future scenarios by looking at the most uncertain factors and their impact. Each student (of about 150, from 6 schools) was

invited to make personal reflections, to discuss in small groups of peers from the same class and face to face, to interact with working groups from other schools (connected online) and finally to produce postcards from the future. Alongside this, the community labs triggered intergenerational dialogue between students and stakeholders through a backcasting approach, moving from possible futures twenty years from now to roadmaps to undertake today. Scientific studies and experiences from all over the Alps were presented in the evenings, with best practices shared.

This structure allowed us to foster participation and make co-creation accessible. There is not full consensus about the definitions and reciprocal boundaries of the terms *participation*, *collaboration*, *codesign*, *co-creation* and *co-production*. This is perhaps because some academics include “use” itself as one of the last phases of the design process, thus calling all the activities “co-design” (for example, pre-design, discover, design, make, distribute and use are the phases according to Sanders and Stappers, 2012). At the same time, other scholars distinguish design activities, which happen at project time, from consumption moments, which happen at use time (project/use time distinction can be found in Ehn, 2008). The term co-creation will be used as a hypernym of both codesign and co-production, as Freire and Sangiorgi (2010) do. What co-design does is simulate use before actual use happens by involving potential final users as sources of ideas and experiences.

Of course, during the FUTUReALPS format, we can just practise co-design, reflecting on co-production only thanks to other colleagues’ examples (the contents evening talks). We could see how other Alpine communities look at their possible futures by adopting similar or different tools. Besides, the shared aim is to strengthen local communities to extend and consolidate their networks of relationships through a continuous learning process, thus reshaping futures in times of pandemics. Designers and tutors played the facilitators’ role, encouraging interactions amongst participants and raising awareness of the process. They also facilitated participants’ interaction, critical thinking, self-criticism and their capacity to think out of the box and beyond their own comfort zone.

Specifically, looking at the guidance approach, we can argue that it ranges between two positions, “active listening” (Sclavi, 2003) and thought-provoking, reflecting a difference in purpose and situation. A scenario workshop facilitator does not tell people what to do or think, nor do they forecast anything, but they “draw out (e-ducare) the concerns of others” through leading questions and exploring the uncertainties relevant for the strategic issue. The facilitator then needs to know quite a lot about the subject under discussion to ask those questions that lead in the most productive direction (Ogilvy, 2002).

A thought-provoking style, on the other hand, leads the participants’ thoughts towards some critical aspects or opportunities of a given topic or concept. This guidance is likely to lead the participants on the thought process and speculative journeys aiming to generate reactions and, in general, responsiveness to a set of expected plausible scenarios. This is undertaken to anticipate and possibly manage the consequences. This position is, normally, congenial and familiar for a designer whose role in a debate or creative session is generally considered a contribution of ideas and input to be shared with the participants (Manzini, 2015; Meroni et al., 2018). In a thought-provoking approach, we can recognise the basis of what psychologists, as well as other practitioners, call “strategic conversations” (Nardone & Salvini, 2004; Ratcliffe, 2002).

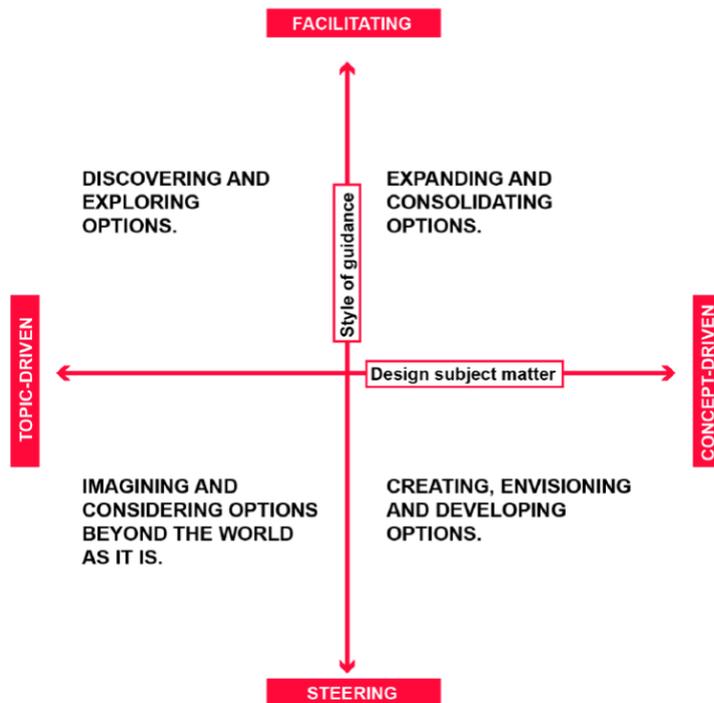


Image 1: The collaborative design framework (Meroni et al., 2018).

By polarising these two guidance styles, we can create an axis that visualises diverse ways to facilitate and run co-design activities. On one side, there is (designerly) facilitation, which mainly draws and builds on active listening techniques. On the other side there is (designerly) steering, which mainly adopts a thought-provoking posture of designers as experts in envisioning the future. The second axis focuses on the above-mentioned duality between topic- and concept-driven issues. The two created axes generate a framework of four alternative intentions of (designerly) facilitation, which can be used within a comprehensive design process, the collaborative design framework (see image 1). Within this theoretical framework, the FUTUReALPS process focused on the left side of the axis.

The student groups could start by using a first tool, the “strategic scenarios” matrix (Image 2), as a coherent representation of possible futures and plausible conditions relevant to strategies to build together. The workshop did not propose pre-established solutions. It was designed in an exploratory way with a set of variables and factors of change (STEEP: Social, Technological, Environmental, Economic, Political factors) to select. In practice, the students were asked to identify the most uncertain and most impactful factors relevant to the workshop theme. The steps have been as follows:

- analysing the factors of change,
- reflecting on those that could have the most significant impact on the dimension of possible uncertainty and
- ordering them and placing the two most uncertain and relevant on the axes of the scenarios matrix, in the combination of their plausible extreme 2040 conditions.

To make an impact and uncertainty more understandable, those pillars were described as the legs of a coffee table. If the leg of the table is removed and everything collapses, then the impact is high. The uncertainty is instead linked to the probability that one of the legs supporting the table could collapse. So, the least impacting factors are those that, even if failing, the business continues as if nothing had happened. These are not of particular interest to us. On the contrary, we are interested in the ones that

would put everything into play if failing. As for uncertainty, it is about understanding what might happen with a focus on the most unlikely events.

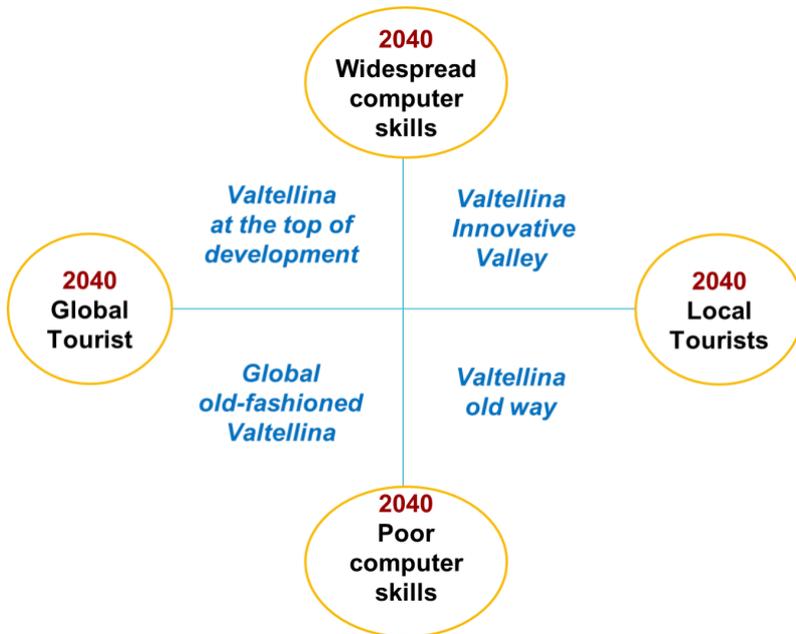


Image 2: An example of the strategic scenarios matrix, by students.

Each quadrant of the strategic scenarios matrix was briefly described as a future world. Then, students were invited to engage with exercises of envisioning one of these futures, assuming a specific viewpoint. We assigned a personas profile to each group to help students reflect on the liveability of these “worlds” and wrote about the potential lives of the inhabitants of Valtellina 2040. Community organiser, mountain guide 4.0, Alpine blogger/influencer, sabbatical climber were just a few selections of the 70+ personas we used in the FUTUReALPS process. As belonging to students’ different future worlds, these characters became 70+ senders of as many postcards from the future.

The results of the six workshops were various and articulated: here we report an extract of the results of the first one (25th September 2020) focusing on tourism. In that event, 93 students participated in the morning session, divided into 14 working groups. In their opinion, the most relevant and impactful uncertainties for local development are summarised in the following table.

Uncertainty factors	2040 plausible extremes	
Climate	Increasing damage from climate change	Limited damage in prepared communities
Connections and transport	The furthest areas are the most isolated	All the areas of Valtellina are well connected
Computer skills at the community level	Spread from the tobacconist to the mayor	Few can benefit from digital innovation for their own economic activity
Relations between innovation and tradition	Synergies	Conflicts and competition
Pandemic	The next is “managed” and not problematic	Other waves will surprise us unprepared

Table 1. Sample of uncertainty factors identified by the students.

The operators in the community lab, stimulated by the “postcards from the future” have identified some “intermediate goals” necessary to prepare the favourable conditions for the desirable 2040 scenarios, excerpted here:

- In 2030, tailor-made training for public administrators is periodically organised to work on long-term strategies;
- In 2030, positive outcomes of the 2026 Winter Olympics remain on the territory, enhancing local identity.

This codesign tool could be considered within the topic-driven/steering quadrant. This area of the collaborative design framework is about imagining and considering options beyond the world as it is. The collaboration aims at stimulating participants’ capacity to envision options beyond the usual way of doing things, thus challenging behaviours and conventions. The objective of the material used was to challenge and provoke the participants with unusual viewpoints, mind mapping or other creative practices, helping to steer imagination towards a “wow effect”. Functional or fictional role-playing activities help make all participants actively contribute to giving voice to weaker people, stepping into the others’ shoes, representing all viewpoints and leveraging expertise.

Each postcard, with its brief storytelling, has led to a challenge for 2040. Topic by topic, during the six workshops in the community labs, local representatives moved from these challenges to reflect on and develop a collective roadmap. Referring, once more, to the collaborative design framework, we underline that the community labs with citizens belong to the quadrant topic-driven/facilitating. This area is about discovering and exploring options. Collaboration is aimed at taking into account the needs and experiences of relevant stakeholders and users in order to capture their knowledge and/or engage them in the process (of visioning). Materials used in this context could be a series of tools to extract the experience, knowledge, desires and needs of users and stakeholders or to investigate the project and frame its fundamental assumptions. In the FUTUReALPS process, a specific radar scheme was the tool we chose for selection and decision making.

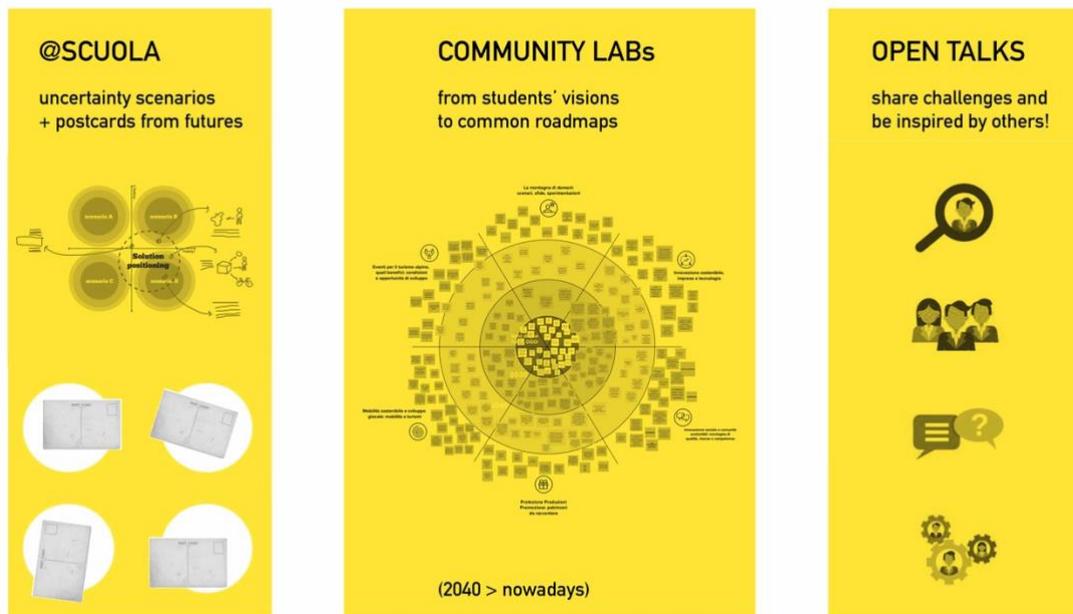


Image 3: Overview of the codesign toolkit for participatory foresight.

As the final step of each workshop, the evening open talk broadened both community vision and understanding to an Alpine framework with expert and academic contributions, thus acknowledging the ongoing process and bringing in social innovation practices from elsewhere. The added value of this final step consisted of both involving the general public as well as sharing participatory results with experts' views and perspectives.

Conclusions

The experiment is meant to continue with developments in different sectors (local communities and local schools) and geographies, also producing intangible results. These are about learning in terms of reframing the visions for local development and understanding the coming changes, not yet in terms of different decisions.

In terms of overall impact, it may be underlined that such a participatory process has been experimental in the area with such a considerable number of students and high schools involved. Teachers from the schools involved acknowledged that students really committed themselves, in such a particular and for many of them also complex moment due to the pandemic. It was meaningful to see that many groups of young people from the valley dared to think of a future that adults too often are afraid to envision and towards which they often look more disenchanted than hopeful.

Intergenerational dialogue represented a tool to be structured more thoroughly after this experimentation, with a call to ensure that what youngsters do not know depends on how adults communicate to effectively intercept them. Among the stakeholders, after the six workshops, it was mentioned that a community of intentions was created, with strong conviction that everyone shares the intent to proceed with planning in an open and glocal perspective; with a critical vision of how to design what awaits us by 2040, not linked to habits or "it has always been like that" but trustful and inclusive of everyone's interests.

Among the facilitating elements within the experimentation of "Montagna 4.0 FUTURe ALPS" lie the following:

1. The school has shown a formidable resilience in welcoming and actively participating in the process by strengthening the school's presence in the community, with enthusiasm on the part of the students involved, even in a time of great stress for schools.
2. The dimension of listening and focusing on young people as actors with a vision that interests the community about the future remains fundamental and has received interest to continue shortly to make it more structural in the area.
3. Looking at the stakeholders, the backcasting laboratories' effectiveness is closely related to the extent the actors involved are willing to play the game, thus being open to thinking about future scenarios ten or twenty years from now. This requires openness and willingness to question consolidated paradigms of local economic development and management.

We can take co-design as a paradigm of orientation, using its tools to "navigate" in a structured way: promoting ideas and visions on the one hand and enabling synthesis on the other. This endowment facilitates to "go beyond the present" as skills we focus on: the primary capability of forward-thinking communities. Their competence of future consciousness is substantiated in five key dimensions: temporal perspective, systemic perception in systems, attitudes behind each action, values and concern for others and openness to alternatives. Community-centred design, mixed with a futures studies mindset, therefore nurtured our experience to boost Alpine far-sighted communities.

Community-centred design requires that facilitators develop two areas of competence: the ability to learn about the community and its habitat and the power of creatively collaborating with non-designers. Civic engagement also helps to foster stronger relationships and trust across a local system, strengthening a society's ability to work together to achieve shared goals for the future. We refer to this collaborative design approach as community-centred design (Meroni & Manzini, 2014), which can prompt or feed the service design mindset (Meroni & Selloni, 2018) that is increasingly characteristic of today's creative communities (Meroni, 2007). Additionally, participatory practices allow Alpine territories to go beyond rhetorical or generic objectives of liveability and competitiveness and develop futures with a deeper awareness of local assets. The project revealed timely insights with the possible futures to draw specific actions to shape preferable outcomes. As the global pandemics challenged traditional paradigms, any change appeared to be possible, moving beyond centre-periphery in a polycentric approach calling for collective action to open up exciting futures to build.

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