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Beyond the COVID-19 crisis: A research note on post-pandemic scenarios for South Tyrol 2030+

Daria Habicher a, Felix Windegger a, Heiko A. von der Gracht b,*, Harald Pechlaner a

a EURAC Research, Center for Advanced Studies, Drussallece/Viale Druso 1, Bzen/Bolzano I-39100, Italy
b School of International Business and Entrepreneurship, Steinbeis University, Kalkofenstr 53, Herrenberg 71083, Germany

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ABSTRACT

The COVID-19 pandemic has hit societies all around the globe, with tremendous consequences. Beyond its impact on individual and public health, the ensuing crisis has also accentuated existing social and economic problems and, in many cases, exacerbated them. In this context, a central question arises: How can societies be better prepared for the future? This research note presents an example of strategic foresight as an instrument for better understanding systemic challenges, anticipating the emergent risks and opportunities and informing future-proof decision-making. More specifically, it reflects central insights of a regional foresight project that aimed at exploring development pathways of the Italian province South Tyrol for the next 10 years and beyond (2030+). Delineating four plausible, equivalent and consistent scenarios and their entailed challenges, risks and opportunities for South Tyrol, the project offers a future-oriented policy instrument for political, economic and civil actors and key stakeholders. Instead of a classic empirical outlet, the article is prepared as a research note that, beyond sketching the scenarios, shares the project experiences, lessons learned, challenges and success factors for other future regional foresight endeavors.

1. Introduction

The COVID-19 pandemic has hit societies all around the globe, with tremendous consequences. Beyond its impact on individual and public health, the ensuing crisis has also accentuated existing social and economic problems and, in many cases, exacerbated them (Berkhout et al., 2021; Riz et al., 2020). At the same time, the firm line of many states and sub-national political authorities in their response to the pandemic has pushed presumed limits of political agency. This has contributed to a renewed awareness of the fact that social and economic developments, instead of being inevitable products of nature-like forces, are better conceived of as processes that can (and possibly should) be politically steered. Thus, the unprecedented global situation in the wake of the pandemic poses not only an immense challenge but also a historic opportunity for deliberate societal change.

This is even more important if we consider that even beyond the COVID-19 pandemic, the global community is currently facing an interwoven bundle of ecological (IPCC, 2018; World Economic Forum, 2021), social (Berkhout et al., 2021; Bruine de Bruin et al., 2020) and economic (Alvaredo et al., 2018) crises. As Altan and Dowman (2021, p. 56) argue, this situation requires returning “back to basics”, implying a societal learning process that aims at more sustainable and resilient relations between humans and the more-than-human world. This process of reorientation can be facilitated by an active engagement with possible futures, allowing the anticipation of future challenges and the building of resilient strategies (Bourgeois et al., 2017; Gariboldi et al., 2021; Thore, 2022).

Therefore, in this research note we present central insights of a project that aimed at exploring plausible development pathways of the Italian province of South Tyrol – which is autonomously governed and enjoys extensive rights of self-administration – for the next 10 years and beyond (2030+) (Habicher et al., 2020). It reflects the key role the European Commission has attributed to strategic foresight – the “discipline of exploring, anticipating and shaping the future” (European Commission, 2020, p. 4) – for future-proof policymaking at various political levels. As Gariboldi et al. (2021) stress, foresight is particularly effective when linear thinking is inadequate, making it a well-suited tool for engaging with post-pandemic futures (see e.g., Echegaray 2021; Morea 2021; Wood et al. 2021). Yet, as thorough literature analyses reveal, comprehensive regional foresight in the context of political

* Corresponding author.
E-mail addresses: daria.habicher@eurac.edu (D. Habicher), felix.windegger@eurac.edu (F. Windegger), vondergracht@steinbeis-sibe.de (H.A. von der Gracht), harald.pechlaner@eurac.edu (H. Pechlaner).

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2. Four scenarios for South Tyrol 2030+

Our foresight project team was composed of 9 researchers of different disciplines and foresight experts, supported by a scientific board composed of 20 local and international experts. The composition of both the research team and the scientific board was purposefully compiled with a strong interdisciplinary orientation. Their members were selected along diverse disciplines, ranging from political science and sociology to economics, business, law and ecology.

We structured the research process itself along the three generic foresight phases: (1) Environmental scanning: In this phase, the status quo was captured, and current developments, influence factors and drivers were identified. (2) Foresight: In the second phase, the actual analysis and simulation of different futures took place. Based on and accompanied by participative workshops and an intensive study of the relevant databases and literature, four scenarios were developed. (3) Transfer: The third and final phase aimed at initiating the implementation process. In order to highlight options for action derived from the scenario analysis, a so-called future radar was developed.

For the scenario development we used the scenario axes approach, which is particularly well suited for exploring possible development trajectories (Ramirez and Wilkinson, 2014; van ’t Klooster and van Asselt, 2006). It is based on the careful selection of two central uncertainties (or variables) regarding the future development – in our case, South Tyrol. They were identified against the backdrop of larger international trends and developments that have already, in different forms and to different degrees, spilled over to the South Tyrolean context and are likely to continue shaping both local discourses and practices. They are, first, the ‘degree of transformation’ and, second, the ‘culture of cooperation’. The former refers to the uncertainty regarding the extent and depth of societal change expected in the wake of the COVID-19 pandemic (‘selective adjustments’ vs. ‘radical change’). The latter reflects diverging types and patterns of relations structuring the interaction between individuals, organizations and political authorities both at the local and international level (‘regional competition’ vs. ‘global solidarity’). Combining the two uncertainties as axes in a coordinate system yields four fields of possible futures or raw scenarios. Each of them is characterized by the interplay of a pair of poles (e.g., selective adjustments and regional competition), which constituted the backbone for the subsequent elaboration of the four scenarios. We constructed each narrative iteratively using the same story framework of seven dimensions: world, society, wellbeing, economy, environment, politics, technology.

2.1. Scenario 1: world of regional consciousness – ‘Our strength lies in tradition’

Scenario 1 emerges at the intersection of the two poles ‘radical change’ and ‘regional competition’. It describes a world in 2030, where the COVID-19 crisis has exposed the risks of a fully integrated, globalized world economy. At the same time, the pandemic has led to a growing climate of instability and uncertainty, while also increasing the perceived need for national security. In combination with existing inequalities, this has propelled social tensions and political polarization, contributing, on an international level, to a surge of populist politics, a prioritization of national self-interests and a deliberate downsizing of global cooperation and exchange. Multilateral international agreements and frameworks have largely been terminated, global organizations such as the United Nations have lost most of their importance. International relations are now primarily characterized by geopolitical tensions and rivalry among nation states and geopolitical blocks. Within most countries, governments have adopted a much more active role than previously in shaping social, cultural and economic processes. For example, tariff and non-tariff-based trade barriers have been introduced or raised to protect and strengthen regional chains of production, while more and more resources have been directed towards preserving and reviving local customs, traditions and languages. Also, social and environmental protection have gained considerable importance. Yet, in most cases, the implied efforts are limited to the majority population and the geographic territory of the country in question, deliberately excluding ‘others’ and ‘the outside’.

In South Tyrol, most people feel a strong sense of home and identify with the territory they live in. Conservative values, traditional customs and patriarchal family structures as well as the implied gender roles have increasingly replaced more progressive, globalized ideals and lifestyles. Social security and public health are central political objectives. However, most of the entailed measures explicitly exclude people with a migration background. The national political landscape in Italy is dominated by a strong political centralism, which regularly leads to tensions with autonomous regions – such as Trentino-South Tyrol – which are constantly trying to expand their self-governing competences. Whenever possible, the South Tyrolean government insists on pursuing its own political path, independently of national directives. In order to strengthen local business cycles and be more self-sufficient and less reliant on imports in a world of global economic turbulences and high tariffs, resources and production capacities have increasingly been directed away from export-oriented production (e.g., of apples, milk) and more towards the production of goods and services for the local population’s needs. Some industries have been particularly strongly subsidized and diversified in recent years, such as the handicraft sector or agricultural production. Environmental policies in South Tyrol focus on nature conservation within its own borders, while international climate protection targets have been abandoned entirely. The efforts regarding climate change are focused on adaption at the local level. Energy self-sufficiency is fostered by scaling up the use of the already existing hydroelectric power plants and by replacing heating oil and natural gas to an increasing extent with local biomass (even if the production costs are significantly higher than in other regions). Technological progress is of minor importance according to most South Tyroleans. This general attitude is reflected in very low public investments in digitalization efforts as well as in research and
development, resulting in a reduced international competitiveness. However, the low level of connectivity and digitalization has made South Tyrol an enclave of the ‘analog way of life’. This has attracted more and more visitors who are looking for peace and quiet, deceleration and ‘digital detox’.

2.2. Scenario 2: world of neo-cosmopolitanism – ‘Think global, act local’

Scenario 2 arises out of the combination of the two poles ‘radical change’ and ‘global solidarity’. It describes a world in 2030, where the COVID-19 pandemic has highlighted the vulnerability and unsustainability of a world economy geared to endless growth and contributed to a radical rethinking towards socially fair and ecologically sustainable patterns of production and lifestyles. In most parts of the world, the equalization of social and economic inequalities, a democratization of society, as well as climate and environmental justice are central political concerns. Since 2020, a profound structural change has taken place, which has led to a tendency towards a growth-neutral realignment in many areas of society. The focus is no longer on global economic growth but on the well-being of people. As a consequence, prosperity is no longer measured by GDP but by a combination of alternative prosperity indicators. In order to be able to better deal with global challenges, governmental decision-making and administrative competencies are steadily transferred to institutions at the subnational level. When it comes to value-creation processes, the increasing shift toward regional, socially fair and ecologically sustainable has led to a reduction in the global transport of goods and commodities. At the same time, the exchange of ideas and international cooperation, mainly via digital tools, has multiplied. Through strongly promoted redistribution policies, equality of opportunity has significantly increased. However, the focus on a more equal distribution of resources and wealth has, in some cases, caused private property rights to be restricted, mainly at the expense of large companies and the wealthiest in society. Also, technological progress and the speed of technological innovation are partially slowed down by the experienced social realignment, although this development is not welcomed by everyone.

With the help of a cross-linguistic, cross-generational and future-oriented “social contract”, South Tyrol has succeeded in initiating a socially and ecologically compatible reorientation in most dimensions of society. South Tyrol’s economic policy ensures democratic and fair economic processes through following the new international standards and, additionally, by introducing supplementary guidelines, prohibitions and control mechanisms. Socially speaking, the province has become more inclusive, with marginalized and disadvantaged people being helped by generous support structures and services, e.g., in healthcare, labor-market integration, community building and education. This is reflected in the high number of innovative care structures for children, young people and senior citizens, new working models and the strengthening of volunteering. Linguistic and cultural diversity is embraced and cherished. Also politically, South Tyrol serves as a governance model for participation, multilingualism and inclusion. This integrative thought is reflected in and supported by a vibrant, local and participatory political culture, a rise in civil-society engagement and a strong sense of responsibility towards society and other people. Many South Tyroleans feel connected to and in solidarity with the world community and have changed their consumption patterns and lifestyles accordingly. They have recognized their responsibility in the fight against climate change. In the field of agriculture, the province is striving to become more self-sufficient. In the electricity sector, the focus is on hydropower, wind power and photovoltaics, but, more importantly, on a general reduction of unsustainable resource-consumption levels. In the area of mobility, the focus is on zero-emission public transport powered by renewable energy. The reduction of cars, the conversion of agriculture and strict spatial planning have been successful in preserving and expanding green areas and undeveloped living space. Furthermore, thanks to open-source, non-proprietary software and platforms, South Tyrol has succeeded not only in reducing CO₂ emissions but also in making peripheral areas attractive and stopping the rural exodus. At a global level, the decarbonization of the economy is already well advanced. This is, amongst other factors, thanks to taxation and other regulatory measures to internalize social and environmental costs.

2.3. Scenario 3: world of individual freedom – ‘I am the architect of my own happiness’

Scenario 3 connects the poles ‘selective adjustments and ‘regional competition’. It describes a world in 2030, where the heavy regulatory interference of governments during the COVID-19 pandemic was perceived by many as an excessive and partly illegitimate encroachment of state authority on individual freedom. Consequently, in the wake of the pandemic, values such as individualism, liberty and personal responsibility have been consolidated as preeminent societal guiding principles in many parts of the world. Accordingly, the trust in market mechanisms and competition as the best principle of societal organization has been strengthened. Most countries have aimed at a faster recovery through a focus on stimulating economic growth. Policy measures and reforms linked to privatization, deregulation of markets and the proliferation of market logic to other, previously non-economic domains have seen a surge in recent years. The implied reforms have led to growing international competition in many sectors, fueling pioneering spirit, technological progress and economic growth. At the same time, a lack of social protection and redistributing mechanisms has contributed to rising social and economic inequalities, both within and between countries. Similarly, environmental regulations have been widely dismantled all over the globe, with CO₂ emissions being on the rise. Private investments in geo-engineering technologies and nuclear power 2.0 have (so far) failed to address the impending threat of rising global temperatures.

In South Tyrol, social and economic institutions and policies are oriented towards individualism, performance and growth. The entailed increased international competitiveness as a business location has attracted foreign investments and benefited local businesses and entrepreneurs. At the same time, parts of the population – mostly young people and marginalized groups – suffer under the psychological, social and economic pressures implied by an increasingly accelerated, competitive and individualized society. The labor market in South Tyrol has gradually been liberalized. Despite this, South Tyrol is struggling to create enough jobs for highly qualified workers across all industries. The entailed skill mismatch has led to a short-term increase in unemployment, which, in turn, has favored the emigration of highly qualified workers. The political landscape at provincial level is characterized by a rather managerial approach to politics, being influenced by various (mostly economic) interest groups, while cooperation with municipalities, civil-society groups and citizens has become less important. Regarding landscape and spatial planning, building concessions are easily granted, increasingly also in green areas. As a result, the number of new buildings, hotels and commercial zones has been rising, while green undeveloped areas continue to be reduced. More generally, issues related to climate and environmental protection play a minor role in public policy and in public awareness. Combined with the focus on economic competitiveness and growth, this has contributed to rising resource and energy consumption levels. Since the COVID-19 pandemic, private transport has increased significantly compared to the use of public transport, leading to more noise, road and air pollution. As most of the energy supply (especially in mobility and heating) still relies on fossil fuels, emissions have also steadily grown, despite some isolated efforts towards greater energy efficiency, mostly by private innovation-oriented companies. Technological progress in general is focused on digitalization and automatization. For instance, in the hospitality and tourism industry, more and more service areas are digitalized and/or automatized. However, in the international competition between
technology locations, South Tyrol has not been able to catch up and still lags behind considerably. 5G networks remain localized infrastructure projects, favoring urban over rural and mountain areas. The public-health sector in South Tyrol is being increasingly privatized. While many South Tyroleans profit from the entailed possibilities for individualized health services, for some the access to adequate health care has become increasingly difficult.

2.4. Scenario 4: world of green innovation – ‘There is a (technological) solution to everything’

Scenario 4 results from the conjunction of the poles ‘selective adjustments’ and ‘global solidarity’. It describes a world in 2030, where the international community has grown closer together through the coordinated efforts and close cooperation in overcoming the COVID-19 pandemic. Existing multilateral institutions and agreements have been strengthened, and new ones launched. The need for coordinated action by the international community has grown closer together through the development of CO2 trading and carbon credits. This leads to a vibrant start-up culture in which new, ‘green’ technologies are provided and/or funded by the provincial government. In combination with the systematic promotion of business creations, this has led to a vibrant start-up culture in which new, ‘green’ business models and ideas are experimented with. New approaches to financing, such as crowdfunding and ‘sustainable finance’, have become popular in South Tyrol as well. The flourishing entrepreneurial culture in turn creates more attractive jobs for high-skilled workers, which counteracts the brain drain previously experienced in South Tyrol. ‘Smart’ working and virtual business meetings have become commonplace. Even spiritual/religious practices and democratic decision-making processes are increasingly transferred to the digital space, supported by the growing use of algorithms and AI. Measures to improve gender inequality are promoted, mostly aimed at decreasing gender gaps related to income or leadership positions. Yet, due to rising expectations on women in the working life and unchanged gender-specific role models when it comes to reproductive labor and care work, the pressure on women has often become higher. To meet the internationally agreed climate-protection targets, the public sector invests in renewable energies and technology-driven solutions (e.g., e-mobility, energy-efficient renovations of buildings and the electrification of heating systems), while still primarily relying on market-based instruments (e.g., financial incentives, redesign of the subsidy policy). This leads to a slight reduction of CO2 emissions. However, the ‘rebound effect’ (i.e., increasing consumption levels due to efficiency improvements), together with the steady growth of the economy, has prevented efficiency improvements from leading to reductions in the total energy and resource consumption. In addition, extensive investments in low-emission technologies and digital infrastructures have further increased the dependence on raw materials and rare earths, perpetuating socially and environmentally damaging extractive practices, mostly in the Global South.

3. Reflections on the foresight project

During the research process, we were able to gain important insights that we would like to share. One of them refers to the key role of interdisciplinarity. Only by including the knowledge, approaches and perspectives of a broad range of scientific disciplines did it become possible to obtain a plausible, consistent and comprehensive picture on future development paths and their implications across societal dimensions. The main reason for this lies in the complex nature and the interdependency of social processes and dynamics, which cannot adequately be captured from the perspective of one isolated subject or discipline alone. However, bringing together researchers and experts with a strong disciplinary background also entails challenges, the most important of which is to leave ingrained ways of thinking in disciplinary boundaries and be able to establish transversal links to topics, approaches and insights of other disciplines. In the case of the scenario outlook for South Tyrol, this potential obstacle within the core research team was addressed through several meetings that were held at the beginning of the research process in which differing methodologies, research subjects and conceptions were discussed, stimulating the awareness and sensitivity for interdisciplinary issues. This process was further facilitated by the fact that various team members had an interdisciplinary academic background.

As a consequence of the interdisciplinary research approach, the elaboration of the four scenarios shed light on diverging development paths from different angles, highlighting potential lines of conflict within and between scenarios, which might have been neglected by a monodisciplinary approach. An example for such a tension is linked to the social and ecological implications of a sustainable development strategy relying primarily on economic growth and technology-based solutions to social and environmental challenges. While certain sustainability-related goals (e.g., SDG 8: Decent work and economic growth) might be perfectly covered by such a strategy, others might be hard to achieve or even prevented from being achieved (e.g., SDG 13: Climate action). In addition, these strategies might be particularly feasible for and beneficial to some countries (mostly in the Global North), while involving more detrimental consequences for others (mainly in the Global South). This hints at the importance for any sustainability-oriented foresight endeavor, be it on the regional, the national or the global scale, to make potential conflicts between objectives visible and engage with them openly.

Contrary to other foresight projects at the regional level (see Amini et al., 2021), the vast majority of regional-based actors and stakeholders were included after the scenario building process had been completed. This allowed the minimization of biases related to vested political interests and kept the scenario process as neutral as possible (Gariboldi et al., 2021). An exception to this were the regional experts, mostly academics with a scientific background, who were members of the expert board. They were included from the beginning in order to incorporate the local and context-specific knowledge decisive for a sound understanding of the history as well as the status quo of South Tyrol and the ways in which mechanisms of change tend to work in the province. Local stakeholders were more broadly invited to participate in the project transfer phase. Their involvement was crucial to increase the validity of the outcome of the foresight process and to prepare the ground for a successful implementation phase, in which the local stakeholders play a key role. We decided to conduct a survey among South Tyrolean associations from various sectors and fields (of the 80 associations contacted, a total of 37 sent back a fully filled-out questionnaire) as well as one stakeholder workshop to present the results of the survey and bring together key stakeholders, civil society and political representatives. Thereby, a platform could be provided to inform about the foresight project, link it to existing initiatives and initiate the transfer phase.

In order to further support the translation into action, we also elaborated a future radar containing a final set of 27 concrete options for...
action derived from the scenario analysis. They were grouped according to four dimensions (environment, social, economic, governance) in which the province of South Tyrol can work on to become more sustainable. An assessment of the compatibility of each measure with each scenario was included in the final report. Additionally, an in-depth analysis of the scenarios through the lens of the 2030 Agenda for Sustainable Development and the entailed 17 SDGs was provided, unveiling stark differences related to the expected degree of target achievement of the four scenarios. This was intended to provide some guidance as to the judgement of the development paths sketched in the scenarios and their consequences from a sustainability perspective.

Looking ahead, the next steps would need to involve a participatory process in which, against the backdrop of the four scenarios and the additional analytical elements provided, a common vision of a sustainable future for South Tyrol is defined and choices regarding the direction in which the province – as a whole, but also in terms of individual businesses, organizations and associations – wants to move are made. Subsequently, specific fields of action should be defined, followed by the implementation of concrete strategies and measures aiming to achieve the goals defined. A monitoring system accompanying the implementation process is fundamental for its success, assessing its progress and providing the possibility for feedback loops and amendments. In order to allow for synergies, the foresight project should also be connected to the multitude of already existing initiatives aiming at a sustainability transformation in South Tyrol. Various actors on different levels and in different societal dimensions play a role in this context, with the Provincial Government being a central one. While the implementation phase is still at the very beginning, some exemplary moves have already been made. For instance, the Provincial Government is including the insights of the foresight process in the elaboration of a new tourism guideline for South Tyrol (Germ. Landestourismusentwicklungskonzept).

4. Conclusion

This research note aims at sharing some of the experiences made in and lessons learned from a regional foresight project for the Italian province of South Tyrol conducted in the midst of the COVID-19 pandemic in 2020. In this time of multiple crises, increasing collective uncertainty and rapid societal change, anticipating future developments, opportunities and challenges has become more important than ever for the members of a society in order to be able to actively shape their own future in desired directions. This is particularly true for the regional level, for which this project provides an innovative example. Employing the scenario-axes technique, it yielded four substantively different, yet equally plausible and consistent pictures of possible futures for South Tyrol in the year 2030, with the final report being enriched by additional narrative and content-related elements. In its entirety, the project offers a multi-faceted, future-oriented tool for political, economic and civil actors who are working towards a sustainable reorientation of South Tyrol.

Beyond delineating the scenario analysis, this research note also includes a discussion on key lessons learned and success factors for future regional foresight processes. This involves, firstly, the requirement of interdisciplinary approaches to adequately grasp the complex nature of societal developments depicted in the four scenarios. Secondly, the deliberate consideration of and engagement with lines of conflict between and within scenarios enables a better understanding of inconsistencies and barriers to a steered sustainability transformation. Thirdly, in a political domain, a broad stakeholder involvement was found beneficial in the implementation phase rather than the scenario development in order to reduce biases related to political interests and keep the foresight process as neutral as possible (see also Garibaldi et al., 2021). Lastly, additional analytical tools, concrete examples and initiatives could be exploited in order to support and promote the transfer phase.

Every foresight process, especially on the regional level, is different. This is linked to the diversity and complexity of different regional contexts, their actors, dynamics and challenges, which implies that there is no single right way to address it. In addition, methodologies have so far rarely been standardized and are often poorly reported (Vollmar et al., 2015). For this reason, the documentation and sharing of key learnings of successful foresight processes is particularly valuable for informing similar future projects. After all, the COVID-19 pandemic, but also the impending climate crisis, are critical examples of how decisions made today define our opportunities tomorrow. Against this backdrop, fostering foresight approaches and implementing them in regional and strategic planning presents an important means of support for future-proof decision-making across sectors and scales, especially in times of uncertainty.

CRediT authorship contribution statement

Daria Habicher: Conceptualization, Methodology, Writing – original draft, Writing – review & editing, Project administration. Felix Windschneider: Conceptualization, Methodology, Writing – original draft, Writing – review & editing. Heiko A. von der Gracht: Conceptualization, Methodology, Writing – review & editing. Harald Pechlaner: Conceptualization, Methodology, Writing – original draft, Supervision.

Declaration of Competing Interest

The authors declare that there are no conflicts of interest regarding the project publication of this paper.

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