

II. Spaces of Possibility



‘We need places for experimentation where the new options provided by post-growth societies become tangible.’

Uwe Schneidewind



Growth independence through social innovations?

An analysis of potential growth effects of social innovations in a Swiss mountain region

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Social innovations are being increasingly discussed as solutions to the diverse challenges faced by rural, peripheral areas. However, the economic growth effects of social innovations are unclear. One of the open questions is whether social innovations trigger new growth in regions or contribute to growth independence. This paper seeks to fill this research gap. To this end, an inventory of social innovations in the Swiss mountain region of the Bernese Oberland has been compiled and the potential growth effects (economic growth stimulation and economic growth independence) of the social innovations were investigated using specially developed indicators. Ideal types of social innovations with particularly marked potential growth effects are presented as the results of the investigation.

The analysis of social innovations and their growth effects is undertaken in the context of the social, economic and ecological challenges facing Swiss mountain regions. Out-migration is quite high in Swiss Alpine regions, amounting to about 11% of the population between 1981 and 2010 (Bundesamt für Raumentwicklung, 2012). The consequence is an aging population. In the course of the Euro crisis that began in 2010 the Swiss franc increased in value so that revenue from European visitors sank noticeably (Müller-Jentsch, 2017). Furthermore, scarcity of building land for new infrastructure and buildings is increasing (Bundesamt für Raumentwicklung, 2017). In addition, the maintenance of basic services is threatened, especially in the health sector (Cerny/Rosemann/Tandjung et al., 2016). Last but not least, the mountain regions are particularly strongly affected by the numerous consequences of climate change (Schmucki/Marty/Fierz et al., 2017).

Swiss regional policy aims to promote entrepreneurship and innovation with the help of regionally initiated projects and thus to counter the economic challenges (Staatssekretariat für Wirtschaft, 2017). This policy takes an export-based approach, assuming that economic growth in a region is triggered by key sectors that serve external demand. However, this growth-oriented approach has its limitations. Not every region has a leading export sector or the potential to develop one, not least because Swiss mountain regions are socio-economically heterogeneous (Mayer/Rime/Meili et al., 2018). Furthermore, the probability of the revenue generated circulating in these regions sinks as the mobility of people and goods in the Alpine area increases (Segessemann/Crevoisier, 2016). The Swiss regional policy of the late 2010s accordingly lacked 'situationally adaptable (also non-economic) perspectives' (Peter/Rink/Forster et al., 2016: 6, translated from German).

This is the background against which social innovations are recommended as a solution to problems in peripheral and rural areas. Firstly, social innovations are proposed by representatives of EU organisations as a means of increasing economic growth in such areas (European Commission, 2017; Nicholls/Edmiston, 2018). Secondly, researchers like Dax and Fischer (2018: 297) and Dewald and Rother (2019) argue that future regional development approaches should extend beyond strategies that target growth to address local participation and social innovation. Social innovations could help regions to solve their problems (Bock, 2016; Neumeier, 2012), for instance by successfully implementing knowledge from outside the region (Noack/Federwisch, 2019). Post-growth authors emphasise the potential of social innovation initiatives to contribute to a (more) growth-independent society and economy and thus to (more) growth-independent regions (Elsen, 2014; Seidl/Zahrnt, 2022). Much discussed examples include local currencies, community housing projects or repair initiatives (Burkhart/Schmelzer/Treu, 2020; Habermann, 2009).

This brief insight into the academic discourses shows that social innovations are attributed with various impacts on regional growth. However, research on these impacts is not particularly advanced (Pelka/Terstriep, 2016: 13; Secco/Pisani/Da Re et al., 2019: 10) and the extent to which social innovations can stimulate regional growth or contribute towards growth independence remains unclear. This is the point which this chapter seeks to address. The research question on which it is based is: What are the potential economic growth effects of social innovations in the Bernese Oberland?

The Bernese Oberland is a mountainous area that lies north of the Swiss high Alpine region and has about 200,000 inhabitants in an area of circa 2,900 km². With around four million overnight stays a year, the tourism industry accounts for over 35% of gross domestic product (GDP) for many places (Rütter/Rütter-Fischbacher, 2016). International tourism has a long tradition here and has always followed a growth-oriented strategy (Ebnetter/Liechti, 2019; von Rütte, 2007). The economic structure, the culture and public and private stakeholders are correspondingly influenced by the dominant role of tourism (Haisch, 2017: 221 f.). Developments within the region are by no means homogeneous. Tourist centres like the Jungfrau region and the municipalities of Grindelwald and Lauterbrunnen and their surroundings are characterised by high and slightly growing volumes of overnight stays (with annual overnight stays amounting to almost one million) (Bundesamt für Statistik, 2018a). In Grindelwald the population is also growing slowly (2010 to 2016). This contrasts with the far east of the region where the number of overnight stays in the municipalities Meiringen and Hasliberg fell from 2013 to 2018 (Bundesamt für Statistik, 2018a). With the exception of the central municipality Meiringen, the population in the far east is declining (Bundesamt für Statistik, 2018b).

Social innovations and growth (in)dependence

Social innovations are the goal of many political programmes (Grimm/Fox/Baines et al., 2013) and the focus of newly founded research centres (e.g. Stanford Center for Social Innovation or Young Foundation). However, the definitions and understandings of social innovations in the literature are most diverse. This may be because the various disciplines – transformation research, sociology, regional sciences or economics – conduct research on social innovations using their own definitions (Edwards-Schachter/Wallace, 2017). Meta-analyses of social innovations confirm the different research streams (Ayob/Teasdale/Fagan, 2016; Edwards-Schachter/Wallace, 2017; van der Have/Rubalcaba, 2016). One important strand of research expects social innovations to have positive effects on society. In particular authors who focus on local development are well-known for this research, especially Moulaert and Mulgan. They view social innovations as solutions for social problems and as impulses for empowerment and for changes in social rela-

tions (Moulaert/MacCallum/Hiller, 2013; Mulgan/Tucker/Ali et al., 2007). Another strand of research revolves around the work of Franz, Hochgerner and Howaldt (2012) and adopts a sociological and more neutral perspective to the effects of social innovations, focusing primarily on changed social practices and relations. Mumford (2002) sees social innovations as providing new ideas about how social relations and social organisation could be structured to achieve a common goal. The creative process of generating and implementing innovation is the focus here, also within businesses. Overall, it can be noted that some definitions focus more on the innovation process while others concentrate on the results or effects of the innovation. This paper uses a definition that integrates the different orientations and draws on the bibliometric analysis by Ayob, Teasdale and Fagan (2016). The definition is as follows:

A social innovation consists of new forms of cooperation of individuals or organisations that lead to new ideas, of which the implementation is at least considered. In regional development, such innovations can have a positive impact on society, improve the quality of life and/or change social or power relations.

This definition allows for a rather broad understanding of social innovations and an open approach to the phenomenon under investigation. It is suitable for application to the Swiss mountain region with its multifaceted socio-economic structures, as social innovations do not only emerge in connection with the problems or challenges of this rural area but are also developed in response to economic growth opportunities.

The basic precondition for our definition of a social innovation – a new form of cooperation – is based on a sociological understanding that conceives of ‘new’ as extraordinary for the geographical area of investigation. For a social innovation, it is crucial that this new cooperation leads to a new idea, the implementation of which is at least considered (Ayob/Teasdale/Fagan, 2016). Furthermore, the definition includes two characteristics that describe the effect of a social innovation: first, a positive effect for society; second, the transformation of social relations and power relations.

In order to examine the link between social innovations and growth, relevant concepts of growth are clarified in the following. Enterprise growth refers to both growth in volumes of sales, production and orders and also growth in the financial profitability of an enterprise (turnover, profit, cash-flow, return on investment). We understand enterprises as organisations

that pursue business practices, i.e. they create and exploit ‘deliverables to cover third-party requirements with due regard to economic efficiency’ (Lück, 1990, translated from German). This includes ‘classical’ companies but also associations, foundations and cooperatives. Regional growth primarily refers to the growth of regional gross domestic product, i.e. the total of regional value added. Growth independence is not understood as the opposite of growth, namely shrinking. We rather adopt the meaning established in the post-growth literature (see Schmelzer/Vetter, 2019: 158 f.; 171): the ability of a society including its economy and its institutions to continue to fulfil its functions but no longer to be existentially dependent on economic growth (Seidl/Zahrnt, 2010; Seidl/Zahrnt, 2022). Basic social and economic functions include safeguarding livelihoods, participation in society for all, basic infrastructure and healthcare.

Methodology

There is currently no comprehensive overview of social innovations in mountain regions and existing inventories (for the Alpine region) are neither systematic nor do they extend beyond case studies (see SIMRA, 2018). Our comprehensive inventory of social innovations in the Bernese Oberland helps to close this gap. It utilises a database of innovative projects, organisations, offerings or initiatives that were planned or carried out in the Bernese Oberland between 1997 and 2018. To compile the inventory¹, various databases from regional development programmes² and innovation prizes³ were identified and merged. An online survey of the municipal secretaries (the senior administrative officers) of all 76 municipalities of the Bernese Oberland was also conducted in order to identify other local projects and initiatives.⁴ In addition, a systematic online search and newspaper review⁵ was conducted

1 The inventory is publicly accessible on the website www.sozinno.unibe.ch

2 New Regional Policy (*Neue Regionalpolitik*, NRP); Innovation, Cooperation and Knowledge Development in Tourism (*Innovation, Zusammenarbeit und Wissensaufbau im Tourismus*, Innotour); Regional Conference East Oberland (*Regionalkonferenz Oberland-Ost*, RKOO); Social Innovation in Marginalised Rural Areas (SIMRA); the association ‘vorwärtsbeo’.

3 Milestone, Prix Montagna, Swiss Mountain Award, Bernese Innovation Prize, PrixWINtutti

4 The survey was able to identify 26 potential social innovations.

5 Five regional newspapers were examined.

between January and June 2019. Overall, it was possible to identify 979 potential social innovations.

With the help of an analysis matrix consisting of 23 evaluation criteria⁶, we identified the social innovations that corresponded to the definition above. The goal of the social innovation was assessed in order to determine if it fulfilled the two additional characteristics. A total of 68 social innovations were identified, 32 of which aim to achieve positive effects for society and six of which aim to change social relations and/or power relations. To identify the social innovations, all projects and initiatives in the database were independently evaluated by two researchers. The intercoder reliability of the analysis is 90%.

In a subsequent step, the social innovations that had been identified were assessed in terms of their potential growth effects using theory-based indicators. The set of indicators that we developed for this analysis is based on the literature on drivers of enterprise growth (Gebauer/Lange/Posse, 2017; Mewes/Gebauer, 2015; Posse, 2015; Richters/Siemoneit, 2019) and on strategies of non-growing enterprises (Liesen/Dietsche/Gebauer, 2013; Posse, 2015). The aim was to derive indicators from these business strategies that could be applied to the region and to economic actors. This involved identifying the mechanisms of the growth or non-growth strategies of enterprises. From these mechanisms, it was possible to derive 39 indicators which point to growth stimulating or growth independence effects. Hence, the indicators capture two different growth effects: first, the effects that stimulate economic growth in regions or enterprises (henceforth called growth stimulation effects); second, effects that make these regions or enterprises more growth independent (henceforth called growth independence effects). In order to analyse the potential effects of the 68 social innovations in our inventory, we assessed which indicators could potentially apply to which social innovation. To this end we gathered additional information on the emergence, implementation or goal of the social innovations through online research. The evaluation was independently carried out by two researchers with an intercoder reliability of 88%.

6 The analysis was based on criteria for the following categories: Cooperation / Novelty / Idea / Bernese Oberland / Improvements in quality of life / Changes in social relations / Changes in power relations.

Growth effects

The following table displays the indicators and their growth effects as developed from the literature analysis.

Table 1: Indicators of growth independence and growth effects / Sources: primarily Gebauer/Lange/Posse, 2017; Paech, 2012a; Posse, 2015

No.	Indicator	Growth effects
U1	Regional sales structures	Less price competition; some degree of guaranteed market; adaptation to consumer needs; promotion of small businesses (U8)
U2	Regional procurement structures	Less price competition; guaranteed market for manufactured products; promotion of small businesses (U8)
U3	Economic actors in close contact	Reduced price competition; adaptation to consumer needs; some degree of guaranteed market; building of trust with at best favourable financing and reduced pressure to generate returns
U4	De-commercialisation of production	Absence of the growth dynamic of capitalist market relations; greater self-sufficiency
U5	Reduction in hours of paid work	Decline in consumption and reduction of capitalist market dynamics
U6	Low debt capital and interest	Less pressure to generate returns to pay interest/dividends; less outside control by external investors
U7	Low capital intensity in production	Less pressure to generate returns to pay interest/dividends; less outside control by external investors
U8	Small or medium-sized enterprise	Less striving for growth, no negative scale effects (administrative costs etc.), improved crisis resistance and less dependence on market dynamics
U9	Communication in favour of limiting consumption and production	Limiting growth in line with consumer demand
U10	Communication of social and ecological indicators	Focus on entrepreneurial success through various enterprise goals

No.	Indicator	Growth effects
U11	Niche markets	Less price competition; some degree of guaranteed market
U12	Long useful life	Limiting growth caused by consumer demand
U13	Craft skills for maintenance and repair	Limiting growth through consumer demand; de-commercialisation (U4)
U14	Prosumers	Adaptation to consumer needs; limiting growth through consumer demand; niche markets (U11); de-commercialisation (U4)
U15	Self-managed enterprise	Broader understanding of entrepreneurial success than just growth; small and medium-sized businesses (U8)
U16	Substitution of products by services	Less economies of scale in providing services than products, i.e. less growth dynamics
U17	Product sales (fair prices, purchase guarantees, no bulk discounts)	Less price competition; reduced cost pressure, reduced incentives for economies of scale
U18	Low advertising expenditure	Limit on growth caused by consumer demand
U19	Short value chain	Limit on the number of enterprises involved that are striving for growth; production volume aligned with demand
U20	Regional value chain	Less price competition; involvement of smaller enterprises; guaranteed demand; production volume aligned with demand; possibly favourable external financing.

Table 2: Indicators of growth stimulation and growth effects / Sources: primarily Gebauer/Lange/Posse, 2017; Paech, 2012a; Posse, 2015

No.	Indicator	Growth effects
S1	Bulk discounts when purchasing	Incentives for more consumption or production
S2	Remuneration of management according to growth figures and market value	Strategic and operative growth focus
S3	Higher proportion of fixed costs in production	Incentive to increase production to realise economies of scale
S4	Higher leverage	Great pressure to generate returns to pay interest/dividends; more outside control by external investors
S5	Planned obsolescence	Increase in consumer demand
S6	Increasing consumption (psychological obsolescence, symbolic, emotional brand communication)	Increase in consumer demand
S7	Innovation (process, product, technology)	Increased production due to increased productivity of innovations; new demands due to new products (features)
S8	Volatile capacity expansion	Increased need for outside investment; long-term pressure to grow
S9	High capital requirement (for research and development)	Great pressure to generate returns to pay interest/dividends; development of products with scaling potential; high levels of outside control by external investors
S10	High capital intensity of production	Great pressure to generate returns to pay interest/dividends; maximisation of economies of scale; high levels of outside control by external investors

No.	Indicator	Growth effects
S11	Focus on communication of financial operating figures	Focus on the growth goals of enterprises
S12	Continuous development of new/differentiated products and services	Promotion of product sales by enterprises increased demand and consumption
S13	Legal form public limited company	Great pressure to generate returns to pay dividends/improve the share price; heteronomy by external investors
S14	Economic actors with loose contacts	Limited adaptation of products to consumer needs and therefore more consumption; price competition; marketing strategies like planned obsolescence and measures to promote consumption
S15	Entrepreneurial goal of economic growth and profit maximisation	Focus on the growth goals of the enterprise
S16	High advertising expenditure	Promotion of growth dynamics through consumer demand (needs); maximisation of economies of scale
S17	Spatially dispersed value chain (high spatial distance / increase in spatial distance)	Enterprises focused uniformly on growth and profit; increased competition; exploitation of economies of scale and extension of markets; little adaptation of production volumes to demand (potential for overproduction)
S18	Long value chains	Numerous companies involved with a drive for growth; increased competition; exploitation of economies of scale and extension of markets; production volumes not adapted to demand (potential for overproduction); low levels of trust between actors and thus increased need for capital and interest due to more insecure loans
S19	Great competitive pressure	Growth strategies like price and quantity competition; maximisation of economies of scale; strategies to increase productivity; active marketing

The following section presents by way of example the mechanisms that lead to growth independence and from which – amongst others – the two ideal types of social innovation can be derived. A low level of debt capital (U6) means there is less pressure to make profits in order to pay interest (Binswanger, 2009). An absence of outside investors is thus associated with lower profit expectations, better options for control by the management and greater transparency (Posse, 2015). A short value chain with few actors (U19) means that there are fewer debt financed enterprises involved who need to make profits (Paech, 2012b). Regional value chains have a similar effect (U20) (Gebauer/Lange/Posse, 2017; Gebauer, 2018; Paech, 2012b; Posse, 2015). They make it more likely that a strong bond develops between producers, consumers and investors. Product prices then become less important because consumers have a closer relationship with the producers. The latter therefore experience less pricing pressure (Posse, 2015). The involvement of consumers in production (U14) helps to align the product with consumer needs. This allows production resources to be more efficiently adjusted to actual product needs (Leismann/Schmitt/Rohn et al., 2012). The relations between the actors involved are also strengthened (Bakker/Loske/Sherhorn, 1999; Schor, 2010). Furthermore, guaranteed sales (U17) reduce pricing pressure for producers all along the value chain as a fixed price is agreed in advance (Gebauer, 2018; Gebauer/Lange/Posse, 2017). In addition, low capital intensity of production (U7) reduces dependence on outside investment because less investment in capital (in machinery etc.) is necessary (Paech, 2012b).

The indicators numbered S1 to S19 listed in the Table 2 describe the growth stimulation effects. These effects are, for instance, generated through the creation of consumer needs and emotions in advertising (S16) (Gebauer, 2018; Gebauer/Lange/Posse, 2017). A physically and spatially dispersed value chain (S17) can reduce trust between actors and thus increase the pressure to generate returns (Paech, 2012b). For instance, less trust means that a higher collateral is required for lending transactions; this takes the form of higher interest payments which need to be generated with profits (Paech, 2012b). Furthermore, production innovations are viewed as growth-inducing if the production of ever more new products is linked to capital investments (S7) (Paech, 2012a). Products for status consumption (S6) are primarily developed for saturated markets in order to generate more demand (Paech, 2012b; Posse, 2015).

Social innovations and their potential growth effects

Many different actors participated in the 68 social innovations that were identified. Most frequently involved are enterprises and private individuals (both 20%) and, in addition, state organisations, tourism organisations, associations, research institutes and foundations. One-third of the social innovations are located in the primary and secondary economic sectors, two-thirds in the tertiary sector. Social innovations are present in diverse fields like tourism, mobility, agriculture, health and education. They emerged both in remote shrinking areas and in economically growing central municipalities in the Bernese Oberland.

One aim of this paper is to identify those of the 68 social innovations that are characterised by pronounced potential growth effects. By focusing on these 'extreme types' in terms of growth effects we can identify ideal-typical forms of social innovations. A social innovation was only selected as an 'extreme type' if the number of relevant growth stimulation indicators corresponded to a maximum of 25% of the number of relevant growth independence indicators of the same social innovation (and vice versa, i.e. opposing effects are small). This ensured that clear tendencies can be recognised. In total, eight social innovations were classified as these two 'extreme types'. These innovations fulfilled at most 7 of the 19 growth stimulation indicators and at most 12 of the 20 growth independence indicators. The remaining 60 social innovations in the inventory are not further considered in the following discussion: either they display few growth effects or they have many growth effects in both directions.

The four social innovations with the most indicators pointing to growth independence are a cooperatively organised Alpine dairy and cheese company, a community supported agriculture (CSA) project, a cooperatively organised multi-generational house, and a building group within the framework of a solar energy cooperative in which members construct their solar systems together.

These social innovations have in common that they utilise no, little or interest-free external capital. The planned multi-generational house is partially financed by the interest-free capital of members of the housing association (Zukunft Hasliberg, 2019: 12). Interest-free finance is provided for the CSA in advance by purchasers of the products. A donation enabled the dairy and cheese company to be developed with little external investment.

The solar energy building group is financed by the group members. Those who install a solar system are supported by other members who already have such a system. The working hours invested by others are then worked off by those who already have the new system when they help construct another member's system.

These four social innovations are also characterised by short and regional value chains and close links between the actors involved. The cooperative dairy and cheese company, for instance, only uses milk from the surrounding farms, which leads to a close relationship between the suppliers and the processors of the milk. The same is true for the CSA where consumers purchase the products directly from the farm without an intermediary. The relationship between the producers (farmers) and the consumers is exceptionally close, in part due to direct cooperation in production.

For three of the four social innovations prosumers play an important role. Prosumers are consumers who are also involved in the production of the product or service that they later consume. The CSA is one such model, and in the solar energy cooperative a significant proportion of the solar systems is also built by those who will later use them. These forms of production represent a de-commercialisation of production. The work that prosumers put into producing the service is not remunerated in monetary terms. This is similarly seen in the concept of the 'caring community' that is pursued by the generational house. It states that the 'need for care should not be fulfilled only by professional institutions' but rather by cooperation between non-professional actors like neighbours or volunteers with state and professional partners (Zukunft Hasliberg, 2019: 7).

Furthermore, three of the four social innovations have guaranteed purchasers. For example, the dairy and cheese company can rely on sales to a major Swiss distributor, while the farmers of the CSA have guaranteed purchasers in the form of the prosumers. Three social innovations also have a low level of capital intensity in their production. In the solar energy cooperative, the solar systems are mostly installed by hand using little machinery. In comparison to industrialised cheese production, a great deal is also done by hand in the cooperative cheese company and there is little mechanisation. The same is true in the agricultural project thanks to the involvement of the prosumers.

The four social innovations with pronounced growth stimulation effects are a bad-weather insurance for holidaymakers; a tour package that com-

bines Alpine bus tours with historical hikes; a specially equipped direct train to a skiing destination; and a partnership between five golfclubs with a dedicated membership card.

All four social innovations are commercial tourist ventures that are actively advertised and are characterised by economic growth goals. The weather insurance is intended to bring new visitors and thus increased revenue to the tourist businesses at the destination where the insurance is available. The same objective is pursued by the direct train connection and the hiking package. The golfclub membership card aims to make paying to become a member of a club more attractive and to increase the golfclubs' revenues.

Another characteristic of all four social innovations is that production and consumption of their offerings occur in a (physically) spatially dispersed value chain. In three of four cases this is linked to the more distanced relations between the stakeholders involved. An illustrative example is provided by the weather insurance. It was developed by an established insurance company in a Swiss city outside the mountain region, is sold by a tourism organisation in an Alpine holiday destination and is purchased by tourists from all over the world. The profits go to the insurance company and the tourism organisation. The relationships between the actors are somewhat distanced, both spatially and socially.

Two of these social innovations are active in highly competitive markets. First, the bus/hiking tour which offers historical hikes combined with post-bus trips to distinguish itself from other more unspecific hiking offers. Second, the weather insurance, which covers a very specific risk that is not yet catered for by the insurance market.

Two social innovations involve product innovations that are intended primarily for status consumption or are advertised using emotional brand communication. The genuine characteristics of products intended for status consumption serve the purpose of social display and not the direct satisfaction of needs (Reisch/Raab, 2014: 933). The golfclub membership card is an example of status consumption because the costs amount to several 10,000 Swiss francs, which can hardly be fully justified by the actual benefits – playing golf. It is possible to identify emotional brand communication in the case of the bus tours and historical hikes. Advertising draws on the well-loved Swiss tradition of postbuses and aims to trigger emotions and thus win customers.

Discussion and prospects

This paper reflects on the various effects of social innovations in growth terms. Based on an inventory of social innovations in a Swiss mountain region, we analysed the potential growth effects with a set of indicators specifically developed for this purpose. Eight of the 68 social innovations of our inventory can be assigned to two extreme types: social innovations with potential growth independence effects and social innovations with potential growth stimulation effects. Based on the characteristics of these extreme types we devised two ideal types of social innovations, as seen in Table 2.

Table 3: *Ideal types / Source: authors*

	Social innovation: Growth independence	Social innovation: Growth stimulation
Description of ideal types	A social innovation that promotes growth independence comprises a new form of cooperation, which frequently involves private individuals. The new idea is often an alternative form of production and consumption that focuses on social and ecological goals. Conventional economic goals take a backseat.	A social innovation that stimulates growth comprises a new form of cooperation between actors who primarily pursue economic goals. The new idea that is developed is often a commercial product or service that can be assigned to a specific sector. Non-economic goals take a backseat.
Main characteristics	<ul style="list-style-type: none"> - No, little or interest-free outside capital - Minimal advertising expenditure - Close ties between producers, consumers, suppliers - Short and regional value chains 	<ul style="list-style-type: none"> - Economic growth goals - Advertising expenditure for commercial products - Spatially dispersed value chains
Other characteristics	<ul style="list-style-type: none"> - Prosumers - Guaranteed market / fair prices - De-commercialisation of products/services - Low level of capital intensity - Short value chains - Regional value chains - Regional sales structures 	<ul style="list-style-type: none"> - Weak relations to consumers - Active communication of financial indicators - Symbolic consumption / emotional brand communication - High level of competition - Differentiated product innovation

The growth effects of social innovations presented here are potential effects and have not been measured empirically. To gain more robust results, the indicators and their interactions need to be empirically investigated and, to further improve understanding, research should focus on preconditions for

the emergence of social innovations in regional contexts. The motivation of the various actors plays an important role, especially with regard to the growth effects. Innovation biographies would be an appropriate tool (Kleverbeck/Terstriep, 2018). In addition, the set of indicators shows that further investigation must include both quantitative and qualitative dimensions.

In light of the diverse challenges facing mountain regions, this paper demonstrates that it can indeed be appropriate for regional policy to focus on social innovations. If regional policy aims to promote growth independence then it should not promote social innovations per se, but must rather target the characteristics of the social innovation projects and initiatives described above. It may therefore be helpful to promote a combination of characteristics in order to initiate sustainable and growth-independent regional development.

It seems necessary to ask whether such developments can advance the transformation to a post-growth society. Undoubtedly the examples identified here are niche projects of very limited economic significance. Nonetheless, they demonstrate what distinguishes social innovations and enterprises that contribute towards growth independence, and what aspects and factors should, for example, be promoted by regional and economic policy in order to expand growth independence. At the same time, the examples serve as role models and strengthen the economic independence and resilience of a region. They also show that the well-being of the population can benefit from economic activities in a post-growth society, compared to a growth-oriented economy. Impulses from peripheral areas are certainly not sufficient to lead to higher-level structural changes in, for instance, welfare and employment systems, as would be necessary for a post-growth society. However, regional-economic restructuring in such regions can reduce local socio-economic problems and improve quality of life.

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