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How do social innovations contribute to growth-independent territorial development? Case studies from a Swiss mountain region

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Abstract

In this article we investigate the role of social innovations in territorial development. More specifically we examine the ways in which social innovations can contribute to growth-independent local and regional development. By growth-independent territorial development we understand the ways in which a society, including its economy and its institutions, can continue to fulfill its functions such as providing public services, while not being existentially dependent on economic growth. Growth independence is a precondition for a post-growth society. Based on case studies of social innovations in the Bernese Oberland (Switzerland), this article shows that the examined social innovations can contribute to economic growth independence through entrepreneurial decisions that foster (re-)localization, de-commercialization, low capital intensity, and self-governance. These decisions help make the social innovation initiatives growth-independent and hence they contribute to a post-growth society. Our research adds to the literature on the role of social innovation for a post-growth society and clarifies the role of socially innovative initiatives in territorial development.

Zusammenfassung

In diesem Artikel untersuchen wir die Rolle sozialer Innovationen in der territorialen Entwicklung. Konkret analysieren wir, wie soziale Innovationen zu wachstumsunabhängiger regionaler und lokaler Entwicklung beitragen können. Als wachstumsunabhängige territoriale Entwicklung verstehen wir die Art und Weise, wie eine Gesellschaft, einschließlich ihrer Wirtschaft und ihrer Institutionen, weiterhin ihre Funktionen, wie beispielsweise die Bereitstellung öffentlicher Dienstleistungen, aufrechterhalten kann, ohne dabei existenziell auf Wirtschaftswachstum angewiesen zu sein. Wachstumsunabhängigkeit ist eine Voraussetzung für eine Postwachstumsgesellschaft. Auf Grundlage von Fallstudien sozialer Innovationen im Berner Oberland (Schweiz) zeigt dieser Artikel auf, dass die untersuchten sozialen Innovationen zu wirtschaftlicher Wachstumsunabhängigkeit beitragen können, indem die beteiligten Akteure Entscheidungen treffen, die (Re-)Lokalisierung, Dekommerialisierung, tiefe Kapitalintensität und Selbstverwaltung fördern. Diese Entscheidungen tragen zur Wachstumsunabhängigkeit der sozialen Innovationen, und dadurch zu einer Postwachstumsgesellschaft bei. Unsere Forschung ist ein Beitrag zu der Literatur zu sozialen Innovationen für eine Postwachstumsgesellschaft und verdeutlicht die Rolle sozial innovativer Initiativen in der territorialen Entwicklung.

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1. Introduction

The concept of social innovation is discussed in debates about alternative economies (e.g. *Jaeger-Erben et al. 2017; Nicholls and Ziegler 2019*). Social innovations (SIs) – understood as new forms of cooperation or new ideas that have a positive impact on society or solve social problems and challenges – may be potential means to achieve independence from unbridled economic growth (*Tschumi et al. 2021*). While there is emerging research on the impact social innovations may have on territorial development (*Ravazzoli et al. 2021*) and potential economic growth independence (*Tschumi et al. 2021*), not much is known about the ways in which the entrepreneurial actors who develop, run and implement social innovations conceptualize and act upon the economic growth independence paradigm. Accordingly, our research questions are:

- In what ways do social innovation actors take and implement strategic orientations that foster economic growth independence?
- In what ways do these entrepreneurial actors perceive the impact of their initiatives in terms of economic growth independence?
- In what ways do social innovations contribute to growth-independent territorial development?

In this article, we examine the ways in which social innovation actors act upon economic growth independence in terms of their entrepreneurial practices. Growth independence can be defined as the ability of a society, including its economy and its institutions, to continue to fulfil its functions, but not to be existentially dependent on economic growth (*Schmelzer and Vetter 2019; Seidl and Zahrnt 2010, 2021*). *Seidl and Zahrnt (2010, 2021)* define a post-growth society as an economy and society that pursues no policy to foster economic growth, reorientates its relevant institutions (e.g. social security, labor market) towards growth independence and limits its energy and resource consumption to a level compatible with the planetary boundaries. Note that post-growth makes no statement regarding a shrinking of Gross Domestic Product (GDP) whereas the concept of degrowth sees a need for such a reduction (e.g. *Kallis et al. 2012*). *Bakker et al. (1999: 9)* define growth-neutral enterprises as follows: these “do not produce to make a profit (which of course remains a secondary condition), but

to deliver useful products and services. They do not produce to grow; rather, they welcome moderate business growth, but do their best to ensure that it does not frustrate their real objectives. In this sense they are growth neutral”. In our understanding, growth independent enterprises are able to persist without having to grow.

To understand the various impacts social innovations may have on growth-independent territorial development, we provide empirical material from seven different case studies of social innovations in a Swiss mountain region. We deliberately chose the seven social innovations because as such they have the potential to influence territorial development trajectories in the direction of growth independence as we will argue based on the existing literature. What they have in common is an entrepreneurial motivation to orient the initiative not towards maximizing profits, but rather towards alternative economic, social and ecological goals. They also pursue alternative forms of production and consumption. The cases represent organizations that range from cooperatives to privately held businesses in fields as diverse as agriculture, renewable energy and housing. The seven social innovations were chosen from an inventory of social innovations in the Bernese Oberland that we developed in 2019 (*Tschumi et al. 2021*).

The presented cases and resulting data help us to better understand the ways in which social innovation actors perceive the effects their initiative has on the local and regional economy. Given that regional economies and in particular more peripheral rural and mountain regions face a number of challenges (e.g. demographic change, climate change, de-industrialization), the focus on traditional forms of innovation (technical, marketing, etc.) leaves out a range of possible solutions to complex problems. Thus, several scholars have called into question the narrow focus in innovation studies (*Coenen and Morgan 2020; Tödtling and Trippl 2018*). This paper contributes a critical analysis of the role of social innovations and offers insights as to their multi-dimensional effects, which is especially important for policymakers. In the case of Switzerland, for example, social innovations are not addressed in regional policy and can hardly get funded as they do not fit the underlying theoretical model (export-base theory, which is an economic growth oriented model) (*Mayer et al. 2018*).

The article is structured as follows: first, we provide an overview of the theoretical background of social innovations and their link to growth-independent development. Following this section, we present the methods. In the results section we discuss the ways in which social innovation actors conceptualize and act upon a set of indicators we identified that contribute to economic growth independence. We conclude with a discussion about our contribution and policy implications.

2. Theoretical background

2.1 Defining social innovations

Definitions and understandings of social innovation differ widely in the literature. This may be due to the fact that various disciplines such as transformation studies, sociology, regional science or business administration make use of their own definitions (Edwards-Schachter and Wallace 2017). At the same time, meta-analyses on the SI literature suggest that there are different research streams (Ayob et al. 2016; Edwards-Schachter and Wallace 2017; van der Have and Rubalcaba 2016). One important stream is the literature on local development, in which SIs are defined as having a positive impact on society, empowering people and altering social relations (Moulaert et al. 2013; Mulgan et al. 2007). A more sociological perspective (Franz et al. 2012) focuses on changes in social relations and practices. For example, Mumford (2002) takes an organisational perspective and regards SIs as new ideas about how social relations and social organisation can be shaped to achieve a common goal.

For our study, we use a definition that integrates these different perspectives, based on the bibliometric analysis of Ayob et al. (2016). We define social innovation as follows:

A social innovation consists of new forms of cooperation of individuals or organizations 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 us to approach the empirical field with a broad understanding of social innovations. The context of rural regions/mountain regions provides for a rather diverse socio-economic environ-

ment with numerous challenges (e.g., demographic changes, economic dependence on resource-based sectors or industries such as tourism, environmental changes resulting from climate change, etc.). Next to such challenges, there are also various opportunities that actors take notice of and that they utilize when it comes to social innovations. In such a context, social innovations address societal challenges but also opportunities. Thus, we utilize a definition that incorporates two aspects: positive impact on society in terms of improvements of quality of life and changes of social and power relations.

2.2 Social innovation and growth-independent development

SIs are rarely a topic in the literature on economic growth and development (Sousa and De Fátima Ferreira 2020). But studies on how SIs can promote socio-economic development of regions and countries have emerged in recent years (Moulaert and MacCallum 2019). The literature on the role of SIs in territorial development dates back to the 2000s with Frank Moulaert and his colleagues among the first authors (Moulaert et al. 2005; Moulaert and Nussbaumer 2005). In this literature, the notion of territorial development does not equal regional/local economic growth. Rather, it is understood in a broader sense, proposing an alternative to the vision on "economic growth, productivity and market-rational behaviour" (Moulaert and MacCallum 2019: 26). Territorial development encompasses people's empowerment, needs satisfaction, neglected or exacerbated by the state/market apparatus as well as new forms of ecological/institutional relations and polities (Moulaert and MacCallum 2019: 26). As such, SIs "may not necessarily have an economic impetus" (Neumeier 2012: 58) and "may contradict economic growth strategies as is reflected in the many cases of social innovations that refuse growth" (Terstriep and Rehfeld 2020: 4).

In this paper, we connect the aforementioned literature on the influence of SI on territorial development with writings on the question what constitutes territorial development. While traditionally local or regional development was equated with growth in employment, income or productivity, more recent definitions include broader social, political, and even non-economic and alternative value-oriented concerns (Martin 2021; Moulaert 2009; Pike et al. 2007). Thus, we follow the definition of local development

that describes a place-specific process that addresses the internal social needs rather than external markets and that aims to improve the qualitative dimensions "for example the sustainability (economic, social, environmental) and forms of growth, the type and 'quality' of jobs, the embeddedness and sustainability of investments, and the growth potential, sectoral mix and social diversity of new firms" (Pike et al. 2007: 1260). Pike et al. (2007: 1260) further argue that "depending upon the context, the sustainability of growth may be evaluated in terms of its ecological impact; the 'quality' of jobs might be assessed by their employment terms and conditions, [...] and the extent to which each form of 'development' contributes to the enhancement of citizens' capabilities". In this sense local development does not merely depend on quantitative growth measures such as number of jobs, but also on development of more sustainable and even growth-independent forms of socio-economic activities (e.g. (re-)localization of economic activities or self-governance).

In the following we highlight the characteristics we were able to identify in the SI literature that most closely align with the literature on economic growth independence and post-growth. Some of these characteristics are neither new nor special, particularly when we take the literature on territorial innovation models (e.g. regional innovation systems, clusters, etc.) into account. The following characteristics have been central for a long time, for example, in the concept of regional innovation systems (RIS) (Asheim et al. 2019). Yet, recent writings on RIS acknowledge the dominant focus of technological and business innovations and call for an alternative understanding of innovation processes and one that pays attention to grand challenges and the role SIs can play in addressing these challenges (Tödtling et al. 2021). Thus, also the RIS literature calls into question the traditional focus on economic growth through, e.g. the promotion of traditional forms of innovation, and highlights the potential of alternative forms of innovation such as SIs. In the following, we discuss the characteristics and their implications for economic growth independence:

- *Close relationships between economic actors*: collaboration is one of the hallmarks of SIs. In the local/regional development literature, SIs are characterized as collaborations between actors with aligned interests (Neumeier 2012), often with close ties and direct interaction between actors (Terstriep et al.

2020) as well as with actors from different sectors such as civic society, public administration or private sector (Bock 2016; Kleverbeck et al. 2019; Neumeier 2012). Close relationships between economic and non-economic actors may lead to building of trust and thus limited price competition, a certain guaranty for sales, consumer fit, and lower pressure for returns – all characteristics that are highlighted by post-growth authors (Gebauer et al. 2017; Paech 2012; Posse 2015).

- *Regional/local markets with short and regional value chains*: another frequent feature of SIs is that they are quite often locally or regionally specific and embedded, for instance through the integration of local and regional actors (Moulaert 2009; Rehfeld and Terstriep 2017): "[S]ocial innovators are not generally interested in spreading their idea beyond the actual context" (Rehfeld and Terstriep 2017: 13). Local and regional embeddedness is a crucial characteristic of growth-independent enterprises (Banerjee et al. 2020) in such a way that they aim for local and regional markets and they rely on regional value chains in the production of their goods and services (Gebauer 2018; Gebauer et al. 2017; Paech 2012; Posse 2015). As value creation is bound to a certain territory, value chains are short and small or medium-sized businesses/initiatives are involved (Gebauer 2018). Short value chains are defined by few actors involved in the production process. Hence, there is less pressure to generate returns (Paech 2012). In regional value chains, it is more likely that producers, consumers and capital providers create close relationships, which may lead to cheaper (low-interest) conditions for debt-capital (Gebauer et al. 2017; Paech 2012; Posse 2015). This, in turn, makes organisations and enterprises less dependent on generating returns (Binswanger 2009).
- *De-commercialization of production/service delivery*: users are often involved in the SI innovation process, acting as knowledge and solution providers or as co-producers (Terstriep et al. 2020). Integrating consumers in the product/service production process makes them prosumers and is considered one dimension of de-commercialization. De-commercialization may take place if prosumers (consumers who at the same time are engaged in the production of the product or service that they later consume) consume less due to an increased consumer-fit and due to their meaningful activities, which may decrease compensation consumption. Also, as the product is aligned with the needs of the consumers, production resources are used more efficiently, leading to

less waste of resources (Leismann et al. 2012). Additionally, relationships of the involved actors are strengthened (Bakker et al. 1999; Schor 2010).

- *Low levels of capital intensity in production/service delivery:* sometimes SIs are described as mainly non-material, their material outcomes only being a supplementary result (Neumeier 2012). Such low capital intensity of the economic activity reduces dependency on external capital because less needs to be invested in capital (machinery, etc.) (Paech 2012) which strengthens growth-independency (Tschumi et al. 2021 and above).
- *Democratic ownership, equity and self-governance:* integrating beneficiaries – users and others – in the SI development process is also mirrored in the fact that SIs incorporate governance structures such as co-operatives, self-management and self-reliance (Bock 2016). Self-governance, democratic ownership and equity characterise growth-independent organizations (Banerjee et al. 2020) and reflect an understanding of (entrepreneurial) success that goes beyond economic growth. Such organizations attempt to create value that is unrelated to growth and emphasize the redistribution of wealth (Banerjee et al. 2020).
- *Small or no efforts to advertise products or services:* this is a feature of SI activities and growth-independent enterprises (Tschumi et al. 2021). In this way, consumption and thus production of new products and services can be reduced (Gebauer et al. 2017) and this results in efforts towards de-commercialization.
- *Financing via interest-free or low debt-capital:* this feature, which is characteristic for SIs as well as growth-independent enterprises (Tschumi et al. 2021) makes enterprises less dependent on generating returns (Binswanger 2009) and on the capital providers' expected returns (Posse 2015).

This discussion indicates that SIs may comprise various features of growth-independent organizational and entrepreneurial behaviour. Besides these features that may contribute to growth independence, each of these can also lead to growth-inducing effects as, for example, has been shown in the literature on industrial clusters or regional innovation systems. For example, close relationships with economic actors and short value chains have significantly contributed to the competitiveness of regions like Silicon Valley, Baden-Württemberg or Northern Italy (Piore and Sabel 1986). Yet, the literature on social innovations has so far not taken a close look at the mechanisms

by which social innovations and their involved actors can contribute directly to their economic growth independence and as a result more indirectly towards a post-growth society. If Terstriep and Rehfeld (2020: 4) are correct that “the many practices at the micro-level of individual initiatives can add up to patterns and regularities at the macro-level”, SIs can contribute to growth-independent regions.

3. Research Methods

The seven social innovations (for a short description, see *Table 1*) were chosen from an inventory of SIs in the Bernese Oberland that we developed in 2019 (*University of Bern 2021*). The inventory includes 68 SIs, which emerged in the period between 1997 and 2018. We identified the SIs out of a database consisting of innovative projects, organizations, offers and initiatives, which we merged from separate databases of innovation prices and regional development funding programs. Additionally, we conducted an online survey of the municipal secretaries (the senior administrative officers) of all 76 municipalities of the Bernese Oberland. In this way, we collected data on 979 potential SIs. Applying a set of criteria that we derived from our SI definition, we found 68 SIs that fit the criteria. All identified SIs were analyzed in terms of their potential economic growth effects, applying a set of indicators, which we derived from the literature on enterprise growth drivers (Gebauer et al. 2017; Mewes and Gebauer 2015; Posse 2015; Richters and Siemoneit 2019) and strategies of non-growing enterprises striving for growth independency (Liesen et al. 2013; Posse 2015). In a previous publication (Tschumi et al. 2021), we illustrate the indicators and the various growth-related effects that can range from stimulating economic growth to creating economic growth independence which may, for instance, be the result of de-commercialization. All 68 SIs were qualitatively evaluated based on 20 growth independence indicators and 19 growth stimulation indicators (for a detailed description of all 39 indicators see Tschumi et al. (2021)). For this article, we focus on the cases of social innovations that contribute to economic growth independence. From the 68, we chose the SIs that fulfilled the largest number of the 20 growth independence indicators. Out of those SIs, we then chose the ones that at the same time fulfilled the least number of growth stimulation indicators. As a result, we came up with eight SIs comprising potential growth independence effects. Seven out of these eight were

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further analyzed for the present study because they represent entrepreneurial initiatives that are incorporated as economic entities (cooperatives and small businesses) and not as a voluntary association.

To gain actor-centered insights about the ways the SI actors implement strategies toward growth-independent behavior and how they perceive their impact on growth independence, we further collected empirical

Table 1 Background information on the seven social innovations. Source: Social Innovation Inventory (University of Bern 2021: n.p.)

Selbstbaugruppe Energiewendegenossenschaft

2019 (ongoing) | Renewable energy | Cooperative | Individuals

The cooperative Energiebaugenossenschaft is characterized by its self-help model. Customers who purchase a solar system help with the installation. In addition, they contribute hours of work to the construction of further solar systems. This means that the systems can be built more cheaply.

Solidarische Landwirtschaft Erlengut

2017 (ongoing) | Agriculture | Private business | Individuals, companies

This solidarity-based agriculture project was founded by a small company (Biogemüse Erlengut). It equates to a community supported agriculture (CSA). The aim is to build food production in which producers and consumers organize themselves. In this way it can be planned how much and which vegetables are needed. The vegetables do not have to meet market standards and long transport routes are eliminated.

IG Kiley-Alpen

2005 (ongoing) | Agriculture | Cooperative | Companies

Seven farmers in the Diemtigtal recognized that more and more cheese dairies were disappearing and that it was becoming increasingly difficult for them to have their milk processed. They joined to form the Kiley-Alpen cooperative and took over the Kiley alpine cheese dairy. With the purchase of the dairy they were able to stop the disappearance of farms and secure their existence. The cooperative operates today's largest organic alpine cheese dairy in Switzerland and the organic status contributes greatly to its success.

Kuhleasing.ch

1976 (ongoing) | Agriculture | Private business | Individuals

A farmer couple founded kuhleasing.ch (leasing of cows). Today, their daughter has taken over the business and leases cows to customers for a summer. The latter receive between 70-120 kg of cheese per cow and work one day on the alpine farm. The aim of engaging the customers is to give them an understanding of life on the alp and thus strengthen the understanding between the urban and the mountain population. Also, it shows the ecological importance of mountain farming and thus ensures its preservation for future generations.

Wollreich Haslital

1996 (ongoing) | Agriculture | Private business | Companies

In 1996 a farmer family received three black-nosed sheep as a gift. More and more animals followed and today the family owns about 200 sheep. The product range expanded considerably. Innovations such as sheep's wool balls for pillows and nursing rings as well as duvets and bed pads filled with their own wool led to success throughout Switzerland.

Generationenwohnen Hasliberg

2016 (ongoing) | Housing | Cooperative | Individuals, educational and research institutions

For two years, the Lucerne University of Applied Sciences and Arts worked together on the "Future Hasliberg" project. This gave rise to the idea of this multi-generational housing project. The aim of the project is to create needs-based forms of housing and living for older people in Hasliberg. This requires a suitable form of living in a central location. During this time, a working group consisting mainly of the elderly population from Hasliberg has laid the foundations for a future generation house through voluntary work.

Genossenschaft Lebensraum Belmont

2013 (ongoing) | Housing | Cooperative | Individuals

Eight people founded the cooperative Lebensraum Belmont. With the perspective that people want to live in harmony with each other, the multi-generation project was created, in which different generations live together in a former hotel. The project aims to treat each other with respect and tries to build a benevolent community.

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data. During summer and fall 2020, we conducted 13 semi-structured qualitative interviews with the actors that were most involved in the respective SIs. We identified the interviewees via desktop research and snowball sampling. We found that only one or two person(s) per SI had enough profound knowledge and experience in the SI to answer the questions adequately. Except for one interview, the interviews were conducted via telephone or video conference due to the Covid-19 pandemic. The interview guides were based on 10 of the 20 growth independence indica-

tors. We chose to take only 10 indicators, which were most fulfilled by the seven selected SI cases. *Table 2* presents the 10 indicators, which we summarized into four categories, all of which comprise highly relevant features for SIs, as we showed in the previous section. It is important to note that the indicators describe potential effects, which can empirically go in either direction of inducing growth or reducing growth. All interviews were transcribed and analyzed with qualitative content analysis by three researchers independently, applying the categories in *Table 2*. All sev-

Table 2 Indicators and their potential effects on growth independence. Source: adapted from Tschumi et al. (2021)

| Overall orientation of social innovation | Economic growth independence indicator | Description indicator | Enhancing economic growth independence |
|--|--|---|--|
| (Re-)localization | Regional/local markets | Social innovations aim for local/regional markets and relocalization of economic activities | Little competition based on price, certain guaranty for sales, consumer fit, support of small and medium-sized businesses/initiatives |
| | Short value chains | Social innovations aim or incorporate short value chains, which means that they include a limited number of economic actors in the production/delivery of their products/services | Limitation of number of involved (potentially debt-financed) economic actors and hence of actors with economic growth ambition; production volumes are adjusted to demand |
| | Regional value chains | Social innovations aim for local/regional value chains and/or relocalization of their value chains | Limited price competition, participation of smaller businesses/initiatives, secured demand, production volumes adjusted to demand, possibly favorable financing conditions |
| | Close relationships between economic actors | Social innovations aim for close, stable relationships with economic actors/partners such as investors, consumers, suppliers, other firms/initiatives | Limited competition based on prices, certain guaranty for sales, consumer fit, building of trust, lower pressure for returns |
| De-commercialization | De-commercialization of production-/service delivery | Social innovations aim to de-commercialize production/service delivery | Limitation of economic growth dynamics on consumption side, higher degree of self-sufficiency |
| | Small/no efforts to advertise/marketing | Social innovations aim for small/no efforts to advertise or market their products/services | Limitation of economic growth dynamics on consumption side |
| Low capital | Low levels of debt capital | Social innovations aim to reduce or eliminate debt capital or obtain low-interest capital | Lower pressures for returns in order to pay interests/dividends, low/no heteronomy by external capital providers |
| | Low levels of capital intensity in production/service delivery | Social innovations aim for or incorporate a low level of capital intensity and/or higher degree of labor intensity | Lower pressures for returns in order to pay interests/dividends, low/no heteronomy by external capital providers |
| Self-governance | Small or medium-sized business/initiative | Social innovations are organized as small or medium-sized businesses/initiatives or their organization leads/supports small size and little organization complexity | Low economic growth ambition, low economies of scale, higher resilience to crises, low dependence on market dynamics |
| | Democratic ownership, equity and self-governance | Social innovations choose a participatory organizational form, make use of prosumers and thereby incorporate demand side | Understanding of entrepreneurial success that goes beyond economic growth, fostering small and medium-sized business |

en SIs are situated in the Bernese Oberland, which is a mountainous region in Switzerland. They emerged between 1976 and 2019. At the time of publication of this article, all of them still operated. Four of the seven take on the form of a cooperative, an organizational structure that is common in Switzerland. The remaining three are private businesses. The sectors range from renewable energy (1), agriculture (4) to housing (2). Stakeholders who are engaged range from individuals to companies and educational institutions. *Table 2* provides a short overview.

4. Results

4.1 (Re-)localization

Efforts to (re-)localize economic activities (production and distribution) are a central part of the social innovations we examined. Beyond a short supply chain, which implies that there are few economic actors involved, there is often also the goal to regionalize the value chain which means the value added remains within the region. (Re-)localization also benefits from close contacts among the economic actors. For all seven social innovations, we can observe conscious efforts to (re-)localize economic activities, albeit to varying degrees and in different forms.

Through the interviews, we learned that in all cases the social innovation actors consciously work towards (re-)localization. When we consider their efforts and strategies at building local/regional markets, we notice a few important differences. Local and regional markets are important for the energy cooperative, the community-supported agriculture initiative and the dairy cooperative. The energy cooperative made a conscious decision to limit its market to the region because the primary goal was to remain locally embedded. Cooperative members mentioned that through this local embeddedness they could see a higher level of acceptance of their activities, an important aspect considering that the cooperative would like to convince as many homeowners as possible to construct a solar roof. The community-supported agriculture (CSA) also consciously limited its market reach by opting out of delivering to an organic store and instead setting up four local pick-up locations. Even though the dairy cooperative counts a national supermarket chain as one of its main customers and thus its spatial market reach goes beyond the region, it also engages proactively with the regional nature park in order to

market its products. This provides a niche to the dairy cooperative and averts price competition.

In contrast, the two housing initiatives do not limit their offerings to only those interested from the local/regional market. They instead are open to potential inhabitants from other regions in Switzerland. Yet, they pay attention to local sourcing when it comes to the renovation and building of their houses. The two agricultural initiatives do not limit their markets and they find customers for their products nationally and in one case even internationally. Yet, these they put emphasis on creating short and regional value chains. Overall, we observe a continuum of local embeddedness in terms of local/regional markets. While the energy cooperative places a very strong emphasis on local markets and represents a local/regional market-oriented social innovation on the one end of the spectrum, the housing cooperatives and the two private agricultural initiatives (while promoting local agricultural products) utilize a larger market reach in order to find inhabitants or sale opportunities and increase value creation. In sum, all initiatives actively search for ways to embed themselves with the local/regional market and to therefore foster economic growth independence through supporting of other local businesses, averting price competition, and ensuring consumer fit. While these efforts illustrate a conscious focus on the local, which is often mentioned in the literature on growth-independent enterprises (*Banerjee et al. 2020; Gebauer et al. 2017; Posse 2015*), we can also detect differences in the ways the SIs position themselves in the market due to the nature of the respective markets. This is something that the literature on SI has so far not taken up in a differentiated manner and which needs to be included in the analysis of social innovations.

Short but also regional value chains are elements that are common in the strategies of the SI actors. The interview partners mentioned that whenever possible, they either consciously limit themselves to a few partners and/or they place great emphasis on fulfilling the tasks themselves rather than engaging additional contractors or specialist firms and thereby extending the value chain. When they need to cooperate with other economic actors, they are interested in finding and working with those partners who are in the region (customers, suppliers, inhabitants, etc.) thereby strengthening regional value chains but also trust and social relationships. The CSA, for example, creates all the seedlings itself and does not involve any external

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service providers such as accountants. In all cases that we examined, we found that value chains are kept short and regional whenever possible. Yet, they can also extend across many actors when external conditions force them (e.g., solar panels from China). In the case of the solar cooperative, there is a conscious effort to limit the number of actors that are involved once the raw materials and inputs are in the country or in the region. The interview partners mentioned that they deliberately work with only one wholesale dealer in Switzerland and that they engage only with local electricians and scaffolding companies. Through the interviews it became clear, that the social innovation actors see a long or non-local/non-regional value chain not only to lose control, but also as a danger to create impersonal and distanced relationships with other economic actors. Thus, as also argued in the literature, shortening and regionalizing the value chain allows the entrepreneurial actors to create economic growth independence through closer contacts with partners (*Gebauer 2018*), through increased control over their own activities and through fewer actors with potentially low growth pressures (*Gebauer et al. 2017*).

In all SIs we examined, close contact with other economic actors played a central role – something that is also relevant in traditional economic geography concepts such as industrial clusters, RIS, etc. (*Porter 2000; Asheim et al. 2019*). These concepts, however, usually discuss the interaction of economic actors such as research institutions, firms and state-led institutions (the so-called triple helix) with the goal of enhancing competitiveness and regional growth, whereas the actors in SIs are much more diverse (in the sense of the quadruple helix) and their goals may be less concerned with growth. The contacts differed depending on the activities. Yet, the effects and outcomes in terms of growth independence are similar. In four cases (energy cooperative, CSA, the two housing cooperatives), consumers are involved as co-producers and they thereby act as prosumers. The solar cooperative engages the consumers in the construction of the solar roofs. The CSA also engages their subscribers through voluntary work that amounts to four half days/year. In both cases, a reduction of costs results from the engagement of consumers in the production process and the products/services become more affordable in comparison to traditional commercial offerings. The housing cooperatives engage their inhabitants in the planning of the houses to fit them to their needs. In the case of the agricultural of-

ferings, there are close contacts to consumers either through occasional visits (Kuhleasing), through direct marketing of the produce in public fridges (dairy cooperative) or through contact with specialty stores (Wollreich). From the perspective of the interviewees the implications of close contacts with customers are manifold: there is an increased appreciation of the products and services on behalf of the customers if they are engaged in the production/delivery of the products or services. In some cases, the price for the products could be lowered and the offerings become more affordable thereby promoting its distribution. This is something that plays in the hands of initiatives like the solar cooperative, which aim for an increased use of renewable energy. And lastly, through the actors' close relationships, the social innovation actors receive important feedback from customers and other economic actors that they engage with. This allows them to tailor their products and services more closely to their demands and needs. Thus, close relationships are consciously created, and as also argued by other post-growth authors they implicate smaller competition based on price (*Posse 2015*), affordable prices, and lower pressures for returns (*Gebauer et al. 2017*). Therefore, these entrepreneurial strategies contribute to greater economic growth independence. Additionally, being closer to consumer needs, the initiatives may not create additional consumer demand.

4.2 De-commercialization

The de-commercialization of production and service provision is an important element in five social innovations. We find different mechanisms by which a de-commercialization is achieved. One is the involvement of consumers as producers (so-called prosumers) and the other is voluntary work. As mentioned earlier, de-commercialization strategies in the case of our social innovations directly lead to cheaper solutions for the products and services. This is the case for the CSA and for the solar cooperative as the involvement of the consumer as producer edges out commercial solutions. This is but one effect. A secondary effect of engaging consumers as producers and in terms of incorporating voluntary work is related to conviviality, a non-commercial value that was mentioned by the interview partners: in four cases (solar cooperative, CSA and the two housing cooperatives) we find that the entrepreneurs engaged in the formation and running of the social innovations highly value the social benefits such as well-being, sense of belonging (*Mayer 2020*), etc. that

result from co-production and co-creation. The entrepreneurs noted these non-commercial benefits and they highlighted them as important additional goals.

The renunciation of advertising and marketing also contributes to de-commercialization as it does not create additional demand. In all cases we find that the social innovation actors are not engaged in extensive marketing or advertising efforts. Sometimes they mentioned that they had a concept or even a budget for advertisement, but that they did not use it much. Most tend to rely on word-of-mouth recommendations. In some cases, they were quite successful and were able to add additional users or customers through word-of-mouth recommendation. This however, led to a very cognizant understanding on behalf of the entrepreneurs of the negative effects a quantitative increase in demand would have on their initiatives. Hence, de-commercialization contributes to enhanced economic growth independence.

4.3 Low capital

All seven SIs are characterized by a low degree of capital intensity. We examined whether and to what extent the SIs rely on debt financing and we asked questions about the capital intensity of the operation. Regarding debt financing, only one of the SIs – namely the Belmont housing cooperative – relies to a large extent on debt financing. Yet, their model is quite interesting and aimed at reducing dependence on large-scale external investors. The need for around CHF 3 million was covered by a first round fund raising from friends and relatives of those engaged in the initial set-up of the cooperative. With this financing, the founding members were able to convince a local bank to give them a loan. A second round of investments by friends and family yielded another CHF 1 million (from around 50 different investors). This then convinced another bank that is specialized in cooperatives to give an additional loan and to even act as a fiduciary so that solvent private investors could invest further in the project. This yielded an additional CHF 700,000. The cooperative sees this type of financing as fitting to its needs. All other interviewees emphasized – often with both a sense of pride and noticeable relief – that they were not reliant on outside investors. This helps them reduce their dependency on external capital and relieves them from additional growth pressures through for example an increase in capacities or sales. This effect is also described in the

literature on growth-independent enterprises (*Gebauer 2018; Posse 2015*).

In terms of capital intensity, the initiatives can be described as having a low degree of capital intensity and a conscious effort to keep machinery and other immobile production factors rather low. It seems that often the actors involved were afraid of possible diseconomies of scale that would be at work if they would have increased their capital intensity. When there is a need to invest, the initiatives did so with little to no debt financing as discussed earlier. This also decreased their pressure to grow, and it increases their economic growth independence.

4.4 Self-governance

Self-governance, democratic ownership and equity are important elements of growth-independent organizations and these characteristics can also be found among the seven SIs. The cooperatives offer very formalized opportunities for voice and accountability, for example at the general assembly meetings. In the case of the solar cooperative and the CSA, the interviewees placed an important emphasis on the value of participation of the consumers. They saw in the consumers' engagement not only purely economic benefits in terms of lowering the costs, but also social benefits in terms of 'having a good time together' by sharing the work and a good meal. Thus, these SIs also help to improve social wellbeing and quality of life for those involved. This may also contribute to economic growth independence as goals other than purely economic ones are valued.

In terms of size and organizational complexity, all seven SI initiatives were organized on a small scale and the actors involved mentioned that there is little to no desire to grow. When growth of capacities was desired, the goal was not based on making additional revenues, but fulfilling ecological or social goals. The CSA for example will expand its cultivated land to integrate additional buffer and compensation areas. The Belmont housing cooperative sees growth in the number of inhabitants to become more socially diverse. No initiative was decidedly economic growth nor revenue oriented. Often the interviewees made explicit statements about not wanting to create revenues. These arguments are understandable within the context of the literature on social innovation as there is a broad consensus that SIs emerge out of a recog-

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nition of problems and needs (Neumaier 2012) and altruistic concerns to solve these problems (Terstriep and Rehfeld 2020).

5. Conclusion

With this study, we seek to contribute to a better understanding of the role of social innovations in contributing to increased economic growth independence and thus we explain how social innovations may contribute to post-growth development at the local and regional level. While there is a wealth of studies that focus on the impacts social innovations have on territorial development and specifically on rural or peripheral regions (Ravazzoli et al. 2021), these studies often claim positive socioeconomic effects without regard for the specific quality of the economic effects. More specifically the studies lack a differentiation between economic growth dependence versus independence. And there is rarely a detailed focus on entrepreneurial decisions to be made towards increased economic growth independence and their effects. Thus, one aim of the article was to examine a set of economic growth independence indicators and illustrate whether and how they are met by those involved in social innovations. For this purpose, we utilized seven case studies of social innovation that emerged in a Swiss mountain region.

We show that the examined social innovations can contribute to a post-growth society at the local and regional level. The involved entrepreneurial actors develop innovative initiatives in response to socio-economic challenges, but also when they see opportunities to change a situation, which allows to fulfill socially desired values. These social innovations target not only economic goals, but – and in many cases more importantly – social and ecological goals. In response to the challenges, but also in response to their own value systems, the entrepreneurs chose organizational forms and strategies such as (re-)localization, de-commercialization, low capital intensity, and self-governance that directly contribute to economic growth independence. These characteristics help make the social innovation initiatives growth-independent and thus they contribute to local/regional post-growth development (see Fig. 1). Figure 1 illustrates this process and places social innovation in the context of local/regional post-growth development. As territorial development has to respond to socio-economic challenges and opportunities (such

as demographic change, energy transition, health care provision, etc.), actors take up the opportunity to find alternative solutions and develop social innovations that not only target economic outcomes, but also ecological and social objectives. Through specific entrepreneurial practices such as (re-)localization, de-commercialization, low capital intensity and self-governance these SIs contribute to a region's economic growth independence.



Fig. 1 *Social innovations and post-growth development at the local/regional level. Source: own elaboration*

With this study we also show that there is a type of innovation – namely social innovations – that can contribute in post-growth-oriented ways to local and regional development. Innovations are often viewed as one-dimensional: technological innovations are favored because only those are seen to contribute to economic progress. Along the same lines some argue that (technical) innovation is indispensable for economic development because without innovation there will be no economic growth and our society would come to a standstill. Yet, the examined social innovations illustrate how local and regional challenges and opportunities inspire actors to become entrepreneurial and to take risks by developing socially innovative business initiatives that address social and economic well-being. In doing so, they choose organizational and entrepreneurial strategies that solve needs and problems of the local and regional population and economy and at the same time foster economic growth independence.

However, we need to consider certain limitations of our research. First, we were not able to measure the mechanisms by which the social innovations can induce growth independence, as we only conducted data on the social innovation actors' perceptions of how they contribute to growth independence and did not apply (econometric) evaluation methods. Second, our study is not representative for all SIs because we have limited our cases to one region and to a specific time period. Third, because we want to illustrate in which ways growth independence indicators were applied in SIs, we have only focused on those SIs which fulfilled the largest number of growth independence indicators from our previous analysis (Tschumi et al. 2021). We excluded all other SIs we identified in the study region, also those that might be growth-inducing.

Despite these limitations, regional policymakers need to consider ways in which they can support these types of entrepreneurial actors and social innovation initiatives. Peripheral rural and mountain regions or small towns that do not possess a strong export sector or that are plagued by demographic decline can benefit from this type of development as social innovations may allow these regions to develop based on a different, namely growth-independent model of development (Franklin 2020; Sept 2021). Yet, in the context of Switzerland, social innovations are currently not supported by the traditional regional policy efforts (Mayer et al. 2018). We argue in line with Moulaert and Nussbaumer (2005) that both theory and policy need to revise the reductionist view of territorial innovation and support community-based and post-growth oriented notions of territorial development.

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References

- Asheim, B.T., A. Isaksen and M. Trippel 2019: Advanced Introduction to Regional Innovation Systems. – Cheltenham
- Ayob, N., S. Teasdale and K. Fagan 2016: How social innovation 'Came to Be': Tracing the evolution of a contested concept. – *Journal of Social Policy* **45**: 635-653, doi:10.1017/S004727941600009X
- Bakker, E., Loske, R. and G. Scherhorn 1999: Wirtschaft ohne Wachstumsstreben - Chaos oder Chance? – Berlin
- Banerjee, S.B., J.M. Jermier, A.M. Peredo, R. Perey and A. Reichel 2020: Theoretical perspectives on organizations and organizing in a post-growth era. – *Organization*: 1-21, doi:10.1177/1350508420973629
- Binswanger, H.C. 2009: Nachhaltigkeitsorientierte Unternehmungsverfassungen. – In: *Binswanger, H.C.: Vorwärts zur Mässigung: Perspektiven einer Nachhaltigen Wirtschaft*. – Hamburg: 150-160
- Bock, B.B. 2016: Rural Marginalisation and the Role of Social Innovation: A Turn Towards Nexogenous Development and Rural Reconnection. – *Sociologia Ruralis* **56**: 552-573, doi:10.1111/soru.12119
- Coenen, L. and K. Morgan 2020: Evolving geographies of innovation: existing paradigms, critiques and possible alternatives. – *Norsk Geografisk Tidsskrift* **74**: 13-24, doi:10.1080/00291951.2019.1692065
- Edwards-Schachter and M.L. Wallace 2017: 'Shaken, but not stirred': Sixty years of defining social innovation. – *Technological Forecasting and Social Change* **119**: 64-79, doi:10.1016/j.techfore.2017.03.012
- Franklin, R.S. 2020: I come to bury (population) growth, not to praise it. – *Spatial Economic Analysis* **15**: 359-373, doi:10.1080/17421772.2020.1802056
- Franz, H.-W., J. Hochgerner and J. Howaldt (eds.) 2012: Challenge Social Innovation. – Berlin, Heidelberg, doi:10.1007/978-3-642-32879-4
- Gebauer, J. 2018: Towards Growth-Independent and Post-Growth-Oriented Entrepreneurship in the SME Sector. – *Management Revue* **29**: 230-256, doi:10.5771/0935-9915-2018-3-230
- Gebauer, J., S. Lange and D. Posse 2017: Wirtschaftspolitik für Postwachstum auf Unternehmensebene: Drei Ansätze zur Gestaltung. – In: Adler, F. and U. Schachtschneider (eds.): Postwachstumspolitiken: Wege zur wachstumsunabhängigen Gesellschaft. – München: 239-251
- Jaeger-Erben, M., J. Rückert-John and M. Schäfer (eds.) 2017: Soziale Innovationen für nachhaltigen Konsum, Innovation und Gesellschaft. – Wiesbaden, doi:10.1007/978-3-658-16545-1
- Kallis, G., C. Kerschner and J. Martinez-Alier 2012: The economics of degrowth. – *Ecological Economics* **84** (12):

How do social innovations contribute to growth-independent territorial development?

- 172-180, doi:10.1016/j.ecolecon.2012.08.017
- Kleverbeck, M., G. Mildenberger, A. Schröer and J. Terstriep* 2019: Regional social innovation networks. – In: *Weber, S.M., I. Truschkat, C. Schröder, L. Peters and A. Herz* (eds.): Organisation und Netzwerke. – Wiesbaden: 355-374, doi:10.1007/978-3-658-20372-6_33
- Leismann, K., M. Schmitt, H. Rohn and C. Baedeker* 2012: Nutzen statt Besitzen - Auf dem Weg zu einer ressourcenschonenden Konsumkultur. – Berlin
- Liesen, A., C. Dietsche and J. Gebauer* 2013: Wachstumsneutrale Unternehmen. – Berlin
- Martin, R.* 2021: Rebuilding the economy from the Covid crisis: time to rethink regional studies? – *Regional Studies, Regional Science* **8**, 143-161, doi:10.1080/21681376.2021.1919191
- Mayer, H.* 2020: Slow Innovation in Europe's Peripheral Regions: Innovation beyond Acceleration. – In: *Döringer, S. and J. Eder* (eds.): Schlüsselakteure der Regionalentwicklung: Welche Perspektiven bietet Entrepreneurship für ländliche Räume? – Wien: 9-22
- Mayer, H., D. Rime, R. Meili and R. Bürgin* 2018: Experten-Input für das Postulat Brand - Vorschläge für einen territorial differenzierten Ansatz der NRP zur gezielten Förderung der Schweizer Berggebiete. – Bern
- Mewes, H. and J. Gebauer* 2015: Transformative Potenziale von Unternehmen, die nicht wachsen wollen. – *Ökologisches Wirtschaften* **30**: 27-29, doi:10.14512/OEW300327
- Moulaert, F.* 2009: Social innovation: Institutionally embedded, territorially (re) produced. – In: *MacCallum, D., F. Moulaert, J. Hillier and S. Haddock Vicari* (eds.): Social Innovation and Territorial Development. – Farnham: 11-24
- Moulaert, F. and D. MacCallum* 2019: Advanced introduction to social innovation. – Northhampton
- Moulaert, F., D. MacCallum and J. Hillier* 2013: Social innovation: intuition, precept, concept, theory and practice. – In: *Moulaert, F., D. MacCallum, A. Mahmood and A. Hamdouch* (eds.): The International Handbook on Social Innovation, Collective Action, Social Learning and Transdisciplinary Research. – Cheltenham: 13-24
- Moulaert, F., F. Martinelli, E. Swyngedouw and S. Gonza* 2005: Towards Alternative Model(s) of Local Innovation. – *Urban Studies* **42**: 1969-1990, doi:10.1080/00420980500279893
- Moulaert, F. and J. Nussbaumer* 2005: The social region: Beyond the territorial dynamics of the learning economy. – *European Urban and Regional Studies* **12**: 45-64, doi:10.1177/0969776405048500
- Mulgan, G., S. Tucker, R. Ali and B. Sanders* 2007: Social Innovation: What it is, why it matters and how it can be accelerated. – London.
- Mumford, M.D.* 2002: Social Innovation: Ten Cases From Ben-jamin Franklin. – *Creativity Research Journal* **14**: 253-266, doi:10.1207/S15326934CRJ1402_11
- Neumeier, S.* 2012: Why do Social Innovations in Rural Development Matter and Should They be Considered More Seriously in Rural Development Research? Proposal for a Stronger Focus on Social Innovations in Rural Development Research. – *Sociologia Ruralis* **52**: 48-69, doi:10.1111/j.1467-9523.2011.00553.x
- Nicholls, A and R. Ziegler* (eds.) 2019: Creating Economic Space for Social Innovation. – Oxford
- Paech, N.* 2012: Liberation from excess. – München
- Pike, A., A. Rodríguez-Pose and J. Tomaney* 2007: What Kind of Local and Regional Development and for Whom? – *Regional Studies* **41**: 1253-1269, doi:10.1080/00343400701543355
- Piore, M.J. and C.F. Sabel* 1986: The Second Industrial Divide: Possibilities for Prosperity. – New York
- Porter, M.E.* (2000): Location, Competition, and Economic Development: Local Clusters in a Global Economy. – *Economic Development Quarterly* **14** (1): 15-34, doi:10.1177/089124240001400105
- Posse, D.* 2015: Zukunftsfähige Unternehmen in einer Post-wachstumsgesellschaft. – Heidelberg
- Ravazzoli, E., C.D. Torre, R. Da Re, V.M. Govigli, L. Secco, E. Górriz-Mifsud, E. Pisani, C. Barlagne, A. Baselice, M. Bengoumi, M. Dijkshoorn-Dekker, A. Labidi, A. Lopolito, M. Melnykovich, M. Perlik, N. Polman, S. Sarkki, A. Vassilopoulos, P. Koundouri, D. Miller, T. Streifeneder and M. Nijnik* 2021: Can Social Innovation Make a Change in European and Mediterranean Marginalized Areas? Social Innovation Impact Assessment in Agriculture, Fisheries, Foresteries, and Rural Development. – *Sustainability* **13**: 1823, doi:10.3390/su13041823
- Rehfeld, D. and J. Terstriep* 2017: A Theoretical Framework for the Economic Underpinnings of Social Innovation. – Gelsenkirchen
- Richters, O. and A. Siemoneit* 2019: Marktwirtschaft reparieren. – München
- Schmelzer, M. and A. Vetter* 2019: Degrowth/Postwachstum zur Einführung. – Hamburg
- Schor, J.B.* 2010: Plenitude. The New Economics of True Wealth. – New York
- Seidl, I. and A. Zahrnt* 2021: Post-Growth Work: Employment and Meaningful Activities within Planetary Boundaries. – London
- Seidl, I. and A. Zahrnt* 2010: Postwachstumsgesellschaft. Konzepte für die Zukunft. – Marburg
- Sept, A.* 2021: 'Slowing down' in small and medium-sized towns: Cittaslow in Germany and Italy from a social innovation perspective. – *Regional Studies, Regional Science* **8**: 259-268, doi:10.1080/21681376.2021.1919190
- Sousa, C. and M. De Fátima Ferreira* 2020: Innovation and de-

How do social innovations contribute to growth-independent territorial development?

- development: The role of social innovation. – Proceedings of the European Conference on Innovation and Entrepreneurship: 623-631, doi:10.34190/EIE.20.177
- Terstriep, J and D. Rehfeld* 2020: Bridging local embeddedness and global dynamics – the economics of social innovation. – European Planning Studies **28**: 853-863, doi:10.1080/09654313.2020.1766106
- Terstriep, J., D. Rehfeld and M. Kleverbeck* 2020: Favourable social innovation ecosystem(s)? – An explorative approach. – European Planning Studies **0**: 1-25, doi:10.1080/09654313.2019.1708868
- Tödtling, F. and M. Trippel* 2018: Regional innovation policies for new path development – beyond neo-liberal and traditional systemic views. – European Planning Studies **26**: 1779-1795, doi:10.1080/09654313.2018.1457140
- Tödtling, F., M. Trippel and V. Desch:* New Directions for RIS Studies and Policies in the Face of Grand Societal Challenges. – European Planning Studies, **1** (0): 1-19, doi:10.1080/09654313.2021.1951177
- Tschumi, P., A. Winiger, S. Wirth, H. Mayer and I. Seidl* 2021: Growth Independence through Social Innovations? An Analysis of Potential Growth Effects of Social Innovations in a Swiss Mountain Region. – In: *Lange, B., M. Hülz, B. Schmid and C. Schulz* (eds.): Post-Growth Geographies: Spatial Relations of Diverse and Alternative Economies. – Bielefeld: 115-135
- University of Bern* 2021: Social Innovation Inventory. – Online available at: https://www.sozinno.unibe.ch/social_innovations/inventory/index_eng.html, accessed 19/03/2021
- van der Have, R.P. and L. Rubalcaba* 2016: Social innovation research: An emerging area of innovation studies? – Research Policy **45**: 1923-1935, doi:10.1016/j.respol.2016.06.010