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The example of Switzerland

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Knowledge as a resource in regional development

The example of Switzerland

Roland Scherer and Klaus-Dieter Schnell

Background

- 1 For several years now, the new concept for a federal government regional policy has been under intensive discussion in the areas of science and practice in Switzerland. A survey report on territorial development in Switzerland drawn up in 2002 by the OECD concludes that “Switzerland has succeeded in maintaining a balanced territorial development over the last decades. This balance and the policies to maintain it have increasingly come under pressure. Traditional regional policies have become less effective in responding to new territorial challenges” (cf. OECD, 2002). According to the OECD, reforms undertaken by Switzerland in the areas of financial, sectoral and regional policies should be aligned even more towards enhancing regional competitiveness, for example by realigning regional policies or by means of a comprehensive regional technology strategy to strengthen rural areas. The latest Territorial Development Review for Switzerland shows comparable findings (cf. OECD, 2007).
- 2 At around the same time, a commission of experts from Switzerland, set up to examine regional policies, in addition to examining changes in the global economy, also focused on the changed general framework on a federal political level. This included the distribution of finances between the federal government and the cantons as well as the policy on public services (service public). Given the fact that competition for locations is global, instruments for regional promotion were generally considered to be no longer suitable (cf. commission of experts, 2003).
- 3 In the following years discussion on a new concept for regional promotion in Switzerland continued, with the effectiveness of current regional policy instruments more than anything else giving rise to concern. However, analyses of these measures

showed that they were in fact quite successful in respect of what was actually being aimed at. For example, the key instrument of regional policy, investment assistance for mountain regions, has played a major role in maintaining decentralised settlements in Switzerland (IDT/CEAT, 2004).

- 4 Discussions about reforming the Swiss regional policy were accompanied by furious political disputes between “givers” and “takers”, with individual urbanised cantons demanding that the entire regional policy be abolished. The “mountain cantons” on the other hand sooner wished to see an increase in the high compensatory benefits for structurally weak mountainous regions. At the end of this emotional debate, a federal law on regional policy was passed in 2006 as a comprehensive basis for federal regional promotion until 2015. Under this law, 70 million Swiss francs are to be made available to the regions every year, commencing in 2008, for the purpose of reinforcing innovative strength and competitiveness.

The basic principles of the new regional policy in Switzerland

- 5 The new regional policy (NRP) in Switzerland focuses on promoting mountain regions, rural areas and border regions as business locations. The focus here is on the one hand the availability of highly qualified human labour and first-class infrastructures. However, soft factors, such as business-friendly institutions, an entrepreneurial spirit, regional networks and access to knowledge are also being given priority. The federal law on regional policy aims at strengthening the innovation, value added and competitiveness of the regions named in order to make a “contribution towards creating and maintaining jobs in the areas receiving support” (growth approach). This is to contribute directly towards achieving decentralised settlement in the country and towards reducing regional disparities. As well as being specified in federal law, these requirements are also laid out more specifically in a programme covering several years, from 2008 to 2015. On an overall basis, the new Swiss regional policy is distinguished by three significant factors: (1) focus on economic growth, (2) initiation of growth initiatives based on exports and (3) a strong focus on “strengthening our strengths”.
- 6 These aims are to be achieved by means of three strategic principles in accordance with the “message on the new regional policy” (Swiss Federal Council, 2005):

Principle 1

- 7 Promotion of initiatives, projects and programmes, as well as infrastructure projects to strengthen innovation, value added and competitiveness in the target areas. The key actors are the cantons and the regions. Management, innovative strength and value-adding systems are considered to be the three key factors in enhancing regional competitiveness and in improving the capacity of regions to adapt to structural change. Suitable measures implemented in the regions are to contribute towards solving problems relating to this structural change. These problems frequently result because of insufficient critical mass. The targeted promotion of regional projects with federal funding enables priorities to be set in terms of the country’s own federal economic policy.

Principle 2

- 8 Strengthening cooperation and using synergies between the regional policy and federal sectoral policies affecting spatial development, namely innovation, education, agriculture, environment, tourism and SME policies. There is also to be more coordination with other federal responsibilities affecting spatial development.

Principle 3

- 9 Establishment and operation of an integral regional development knowledge system. This includes systematic professional training and further education for regional managers, the establishment of a system for controlling, reporting and monitoring, and analyses of the two other principles. The knowledge system is of a supporting nature and serves to facilitate implementation of the other two principles.
- 10 A glance at the aims and instruments of the NRP shows a strategic shift in paradigms: the credo of the new regional policy is the promotion of economic growth. It is based on the assumption that competitive, innovative companies constitute the basis for the creation of sustained jobs, also in rural areas, and that supporting these companies will hence also contribute indirectly towards maintaining these areas as attractive living environments. On the other hand, the former core issues of regional policy, “cohesion” and “spatial balance”, become less significant. Reducing regional disparities and maintaining equivalent living conditions are hence no longer direct aims of Swiss regional policy.
- 11 This shift in paradigms is a major issue throughout the new regional policy. It is, for example, primarily urban centres that are considered to be the generators of economic development. They also generate development in rural areas. Peripheral regions must hence take up impulses for development from urban areas and at the same time mobilise their own potential for development in order to achieve earnings from exports and therefore also enhance regional value added. Rural areas are thus making an additional contribution themselves towards achieving competitiveness and growth throughout Switzerland. A significant role is attributed to the resource of “knowledge” in terms of the development of the regions. Utilising this resource is considered to be one of the main challenges facing all those involved in the regional policy.
- 12 The assumptions of the new regional policy in Switzerland are based – as shown below – on clear theoretical aspects of regional economic theories, as well as on findings relating to business management, communications science and educational science.

The role of knowledge in regional development

- 13 In regional development studies it is considered to be an undisputed fact that the economic success of a region depends on how it mobilises its resource of “knowledge”. Just over ten years ago, Richard Florida already wrote about a new age of global, knowledge-intensive capitalism in which regions play a major role in creating knowledge. In his writings he coined the term “learning region” (Florida, 1995), a term which is just as ubiquitous as it is complex in society and politics today. Discussions around “learning regions” deal with the capacity of locations to continuously adapt to changes in regional and global environments by permanently re-configuring their

economic structure in order to sustain competitiveness (cf. Florida, 1995). However, how can regions effectively exploit knowledge as a resource in achieving this?

- 14 The problem on hand appears to be a fundamental one: locations and regions are frequently not even aware themselves about how much knowledge they have at their disposal, which knowledge they still require and where they can get this knowledge. At the same time, the fact that knowledge, once gained, is not an asset of consistent value is frequently disregarded. Schüppel (1996) estimates the “half-life period” (i.e. the time which passes until only half of knowledge on hand is still up-to-date) of technological and statistical knowledge at 1-2 years and that of university-level knowledge at 5 years. Regions and locations are hence required to operate an ongoing system of knowledge management – as are companies. This is the only way that they can remain adaptive in the long term and respond to permanently changing circumstances.
- 15 Business management has also been conducting intensive discussion on corporate knowledge systems and knowledge management since the mid-90s. Nonaka & Takeuchi (1995) distinguish between two types of knowledge in this case (see Figure 1): on the one hand explicit knowledge in the form of articles, data, checklists, instructions, etc. which can be stored and passed on. Thanks to new information technologies, this type of knowledge is present all over the world nowadays. On the other hand tacit knowledge, as the knowledge of individual persons, can only be gained when specific tasks and issues are dealt with. This knowledge can only be transferred by experience and when individual persons get together.

Figure 1. Basic forms of knowledge.

Attribute	Tacit knowledge	Explicit knowledge
Context-bound	Linked to sensorial experience	Linked to intellectual experience
Transfer	Joint application of knowledge	Communication of knowledge
Exemplification	Complicated process of externalisation	Documentation in figures, texts, images
Acquisition	Through joint practical experience	Through mutual learning

Based on Willke, 1999.

- 16 Georg von Krogh (1995) distinguishes between various stages of knowledge processing (see Figure 2). The first stage deals with identifying explicit knowledge and tacit knowledge. In the second stage this knowledge must be developed, shared with others and made transferrable in a suitable form. The next stage involves dealing with concrete issues and applications to create skills. Skills in this sense cannot simply be bought. They are only developed when people interconnect who have specific knowledge, routines and also the facilities, installations and information systems, enabling specific tasks to be dealt with efficiently. Implementation of this knowledge and the skills acquired is the actual innovation which leads to concrete changes and activities. Knowledge management may hence not only deal with making available the fundamentals of information or with creating new knowledge; instead it must also be understood to be a comprehensive system of knowledge which may possibly also cover concrete innovation.

Figure 2. Basic forms of knowledge processing.

Source: based on von Krogh, 1995.

- 17 In terms of regional development, the question now arises of which actors relevant to economic development and what comprises a regional knowledge system. The term “system” basically assumes that the various parts of a whole are strongly linked and that they are codependent. This system of correlations may be closed or open. Whereas, in light of a knowledge-based economy, we speak of a knowledge system, Bourdieu contributes towards clarification in that “economic capital” is not only supplemented by “intellectual capital”; it is also supplemented by “social capital” and the corresponding suitable type of network organisation. A knowledge system can be understood to be an open, social system, whose members are functionally connected in a network and are dependent on one another and which is defined by the knowledge-exchange relationships between its members (Schnell, Held & Scherer, 2005). A knowledge system comprises various persons and institutions who are the carriers of knowledge relating to a specific system (e.g. agriculture, regional development, the financial centre). Actors from the areas of business, politics and the government as well as from civil society, culture, education and science are such knowledge carriers. They constitute – either consciously or unconsciously – an informal knowledge system which is held together by mutual or overlapping fields of interest and areas of responsibility, as shown in the example of regional development.
- 18 Actors who have a more passive approach towards the formal regional structure can be identified in this regional knowledge system. As entrepreneurs, tourism specialists, municipalities, NGOs or private individuals they are the users or the beneficiaries of the officeholders involved in actively shaping the strategic and operative activities of the regional association. The example of Switzerland in the following illustration shows that the “regional development knowledge system” is not only made up of officeholders from professional economic promotion or regional development; it is made up of all the endogenous forces and supporters of the regional knowledge basis of a specific region.

Figure 3. Regional development knowledge system actors.

Source: Schnell, Held & Scherer, 2005.

- 19 Passing on and sharing knowledge and creating skills means learning. Learning can, in principle, pursue two aims in the area of regional development: on the one hand learning contents are communicated to help individual actors conduct successful business activities themselves and hence contribute directly towards adding value and towards economic development. On the other hand learning contents can be communicated in order to enable persons and institutions to initiate and supervise the projects and activities of other regional actors. Since both learning processes pursue different targets, it may be effective to take a look at each of them individually and to allow them to develop separately. In this case learning is not carried out in educational facilities and on courses (formal learning); instead it is for all intents and purposes carried out in everyday life or in specific applications (informal learning).
- 20 If a region manages to effectively carry out such learning processes, it will be able to successfully utilise its resource of knowledge specific to the region for the purpose of regional development.

The regional development knowledge system in Switzerland

- 21 Establishing a regional development knowledge system in Switzerland in accordance with Principle 3 of the federal law on regional policy is intended to be a supporting strategy of the new regional policy in Switzerland. It is not companies themselves that constitute the target group, but primarily regional managers, business promoters and project managers who initiate and supervise regional development processes. This aims

at putting the explicit and implicit knowledge available to those involved in Switzerland to specific use and exchanging such knowledge.

- 22 The regional development knowledge system in Switzerland has the following aims and contents in terms of learning (see Figure 4). It can be seen that in this case the main issue on hand is the exchange of implicit knowledge. Since this is primarily carried out in personal contacts and informal learning processes, network management plays a key role.

Figure 4. Learning aims and contents of the Swiss regional development knowledge system.

Source: Schnell, Scherer & Held, 2005.

- 23 Commencing in 2008, this regional development knowledge system is to be set up in Switzerland. The State Secretariat for Economic Affairs (SECO) functions as the principal and promoter, which means that these functions are carried out at federal level. The project is being supported by a consortium of private companies in the form of a mandate. A maximum amount of CHF 2.5 million a year is available for operating the system. The knowledge system comprises three knowledge strategies in compliance with the scientific feasibility study (cf. Schnell, Held & Scherer, 2005). Two strategies focus primarily on human behaviour and the third one focuses on technology.

Mobilisation and networking

- 24 The main problem nowadays lies on the one hand in the fact that knowledge, particularly person-related, implicit knowledge, is not sufficiently shared and exchanged. This is due to inadequate platforms and methods and to cultures which hamper an exchange. On the other hand, given the fact that there have been considerable social and economic upheavals a need for new knowledge which is newly processed for regional development is becoming increasingly significant. In order to meet this need, the focus is on instruments which essentially facilitate the sharing and the exchange of knowledge between people or the creation of knowledge.

Qualifications

- 25 Knowledge must create skills and hence lead to innovative activities in the regions. For this reason current further education activities to provide qualifications are to be maintained and developed in accordance with new needs or requirements (e.g. creativity training, selfreflection methods and further education).

Knowledge infrastructure

- 26 In addition to focussing on people, knowledge which can be expressed in words, i.e. explicit knowledge, is to be made exchangeable by means of technical infrastructures: knowledge is to be processed, translated, categorised so that those active for the cause of regional development are able to access knowledge, irrespective of where they may be, and also provide knowledge. The focus is on modern technical solutions from the area of information and communication technologies (ICT). A regional development knowledge portal with a wide range of functions has been proposed.
- 27 These strategies can be allocated to the individual modules of the Swiss regional development knowledge system (see Figure 5). It once again becomes quite apparent that the system is not primarily a technical one; it is a system which focuses on people and exchanges among people. The elements of communities of practice and communities of interest offer arenas for informal learning. In these communities, implicit knowledge at the disposal of regional actors is passed on to other actors by means of exchange processes subject to various levels of control. The elements of qualification and the knowledge portal, on the other hand, primarily serve to pass on explicit knowledge. The creation of new knowledge, the need for which may be identified in other elements, is to be promoted with the research network element. Network management is the core element of the system and comprises knowledge networkers who are in direct contact and organise the exchange of knowledge within the system. They establish contact between the various actors and hence only enable informal learning processes. Wide-ranging experience with knowledge management systems in the world of business shows that this function cannot simply be replaced with electronic knowledge systems (Enkel & Back, 2002).

Outlook

- 28 So what opportunities are presented to Switzerland by a regional development knowledge management system as described here? It is obvious that there is enormous potential for making regional development professional to the benefit of the two main focuses of the new regional policy (innovation, value added, competitiveness and the coordination of various federal political aspects). Both institutions and persons become better at learning and adjusting. They improve their ability to increase knowledge by sharing it and to make it available to value-adding processes. Community-building is also promoted. This means that the amount of approximately CHF 2.5 million a year to be invested in knowledge management is better invested than if spent on direct project support.

Figure 5. Elements of the Swiss regional development knowledge system.

Source: Schnell, Held & Scherer, 2005: 40.

- 29 On the other hand a few risks and restrictions are becoming apparent. The federal state level (the cantons) plays a decisive role in implementation of the new regional policy in Switzerland. The cantons determine which specific activities and regions are to receive regional policy funding. Knowledge management, by contrast, is for now only initiated and financed by the federal government. In the long term this will need to become the responsibility of the communities. The functioning of the network management centre will also be decisive for realisation of the desired effects. The requirements are considerable: in addition to a good business sense, an excellent knowledge of processes and methods, a high level of social competence and evidenced skills in networking and communications are required. Besides, regional development knowledge management is not a “terra incognita”. The feasibility study lists numerous current projects and networks in which information is already being exchanged and further education measures conducted, and where expert systems and Internet platforms are operated. These are all relatively unconnected to date. In addition, they frequently only address individual issues such as mountain regions, agriculture, environmental protection, protection against natural hazards, the promotion of innovation and location management. The success of regional development knowledge management in Switzerland will also depend on how successfully suitable links can be established between these existing elements and scheduled knowledge management instruments.
- 30 In summary it can be said that the central theme of informal learning as the focus of the Swiss regional development knowledge system has been newly emphasised. In a hitherto unique manner – at least in Europe – Swiss government is systematically setting up a support system here for the purpose of optimising exploitation of the “resource of knowledge” for regional development and is backing up this project over a long period (2008-2015) with a substantial amount of funds. It remains to be seen whether this knowledge and learning system does actually trigger improvement in the

development of rural regions. Since conditions are comparable, possible learning effects in Switzerland could well be a role model for other Alpine regions.

BIBLIOGRAPHY

- ENKEL E., BACK A., 2002. – „Wissensnetzwerke: das neue Instrument für die Förderung von Wissensaustausch und Wissensentwicklung im Unternehmen“. In: Bleicher, K & Berthel, J. (Hrsg.): Auf dem Weg in die Wissensgesellschaft – Veränderte Strategien, Strukturen und Kulturen. Frankfurt: FAZ-Verlag.
- EUROPÄISCHE KOMMISSION, 2005. – Strategische Leitlinien der Gemeinschaft für den Zeitraum 2007-2013. KOM 2005 (299).
- EXPERTENKOMMISSION, 2003. – Expertenkommission zur Überprüfung und Neukonzeption der Regionalpolitik (NRP). Beauftragt vom Staatssekretariat für Wirtschaft, Bern.
- FLORIDA R., 1995. – “Towards the learning region”. *Futures*, Vol. 27, N° 5. pp. 527-536.
- IDT/CEAT, 2004. – Evaluation der Investitionshilfe für Berggebiete (IHG). Arbeitsgemeinschaft IDT-HSG / C.E.A.T. im Auftrag des Staatssekretariats für Wirtschaft, Bern.
- NONAKA IKUJIR TAKEUCHI HIROTAKA, 1995. – *The Knowledge-Creating Company*. New York, Oxford Univ. Press.
- OECD, 2002. – Prüfbericht Raumentwicklung Schweiz. Paris.
- OECD, 2007. – Territorial Reviews Switzerland. Paris.
- SCHNELL K-D., HELD T., SCHERER R., 2005. – Wissensmanagement Regionalentwicklung Schweiz. Machbarkeitstudie für eine Supportstrategie innerhalb der neuen Regionalpolitik des Bundes. St. Gallen: IDT-HSG.
- SCHÜPPEL J., 1997. – Wissensmanagement. Organisatorisches Lernen im Spannungsfeld von Wissens- und Lernbarrieren. Wiesbaden: Dt. Univ.-Verl. (Gabler-Edition Wissenschaft).
- SWISS FEDERAL COUNCIL (Schweizerischer Bundesrat), 2005. – Botschaft über die neue Regionalpolitik (NRP) vom 16.11.2005. Bern.
- VON KROGH G., VENZIN M., 1995. – „Anhaltende Wettbewerbsvorteile durch Wissensmanagement“. *Die Unternehmung*, Jhg. 49, H. 6, pp. 417-436.
- WILLKE H., KRÜCK C., MINGERS S., 2001. – *Systemisches Wissensmanagement*, 2. Auflage. Stuttgart: Lucius & Lucius UTB.

ABSTRACTS

The economic and social development of regions is facing new challenges nowadays. European integration and extension, as well as the globalised climate/structure with regard to economics and decision-making, and globalised economic and decisionrelated coherencies are bringing about major changes. Regions as business locations are competing more and more for mobile and

immobile resources. Regions need to understand and utilise their “knowledge” as a development resource in order to be able to develop themselves. The resource of “knowledge” is also becoming increasingly significant in regional politics. The “new regional policy” in Switzerland is treading new ground with the establishment of a “regional development knowledge management system” and considerable amounts of public funding are being invested in this scheme.

Le développement économique et social des régions doit désormais faire face à de nouveaux défis. L'intégration et l'élargissement de l'Union européenne, ainsi que la mondialisation du climat/de la structure économique et décisionnelle et des cohésions correspondantes sont à l'origine de grands bouleversements. Les régions rivalisent de plus en plus afin de réunir des ressources mobiles et immobiles susceptibles d'attirer les entreprises. Les régions doivent appréhender et exploiter leurs « connaissances » comme des ressources pour pouvoir se développer. Les « connaissances » sont également de plus en plus importantes en politique régionale. La « nouvelle politique régionale » de la Suisse se veut innovante en instaurant un « système de gestion des connaissances pour le développement régional », dans lequel des sommes d'argent public considérables sont investies.

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