INDICATOR BASED CONTROLLING OF CANTONAL GUIDING PLANNING IN SWITZERLAND

A model for more efficient sustainable planning instruments at the regional level

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In the actual Swiss cantonal planning practice every 10 years in general, there is a review of the guiding plan. The plan’s evaluation typically takes place shortly before the revision process. In the interstitial time, the guiding plan’s effectiveness can only be anticipated. In the review, a survey of both, the desired and unwanted spatial effects are often absent. As a result, a thorough analysis of the effects and the direction of the spatial development cannot be accomplished.

A spatial plan that is geared to the principle of sustainability needs the outputs of such an analysis. Development assessments are required to verify the plans’ effects, well-defined goals to assist in rectifying deviations, key indicators to identify efficiency potentials, and precautionary measures to allow for an adaptable and responsive planning methodology.

The instruments, which might assist in the cantonal guiding plan objectives implementation, do exist. Such instruments are monitoring, controlling and benchmarking (with the support of indicators). These tools can assist in ensuring the plan’s overall value and the effectiveness and appropriateness of the ensuing development. By using these tools and a sound planning methodology, unsustainable spatial development can be tracked early and rectified with appropriated measures.

The control as this system’s central instrument is presented here and its application opportunities in the cantonal guiding planning are discussed. In order to achieve a sustainable spatial development and a more dynamic guiding planning, the application of control and benchmarking is crucial.

Keywords: Spatial planning in Switzerland, guiding planning, controlling, monitoring, benchmarking, sustainable development, indicators

A SHORT OVERVIEW OF THE ADMINISTRATIVE FRAMEWORK AND THE SWISS PLANNING SYSTEM

With a territory of only 41,285 km² (less than half the size of Serbia) Switzerland is one of the smaller countries in Europe. Switzerland is a federal state consisting of 20 cantons, 6 half-cantons and 3021 communes. The cantons are mainly small territories with an average size of only 1586 km². In the political hierarchy, the Swiss cantons represent the second tier, sandwiched between the Confederation and the communes. Each canton or half-canton has its own constitution, parliament, government and subsidiary legislation (for example, spatial planning). In this sense, a canton corresponds approximately to a State in the USA in terms of its administrative status.

Despite their small size, nearly all cantons are again subdivided into planning regions. There are 138 such planning regions throughout Switzerland. The responsibility for the regional development concepts and regional plans’ compiling may be undertaken by the cantonal administration, nonetheless the planning is usually delegated to the communes (local administration).

COLLABORATION AND CO-OPERATION IN SWISS PLANNING

The Federal Law on Spatial Planning, adopted in 1979, aims to develop vertical and horizontal co-operation between the different administrative levels, so as to easier respond in case of spatial conflicts. This upholds the Swiss tradition that power should be concentrated at the lowest possible level, while accepting that many spatial conflicts in reality, especially those that extend beyond cantonal or communal boundaries, can only be solved by co-ordination on all levels.

According to this principle, the Confederation, the cantons and communes are jointly responsible for the efficient land use. They achieve this task by co-ordinating activities, which have spatial planning impacts, and by implementing planning, which is orientated towards the country’s desired development (Muggel, R. 2001).

*They (federal, cantonal and communal governments) are to co-ordinate any activities that have an influence upon the physical environment and are to realise a settlement pattern which ensures the desired development of the country. They are to take account of the
natural environment and the needs of the population and the economy" (Federal Law on Spatial Planning, article 1.1).

The Federal Law on Spatial Planning is a "framework-law" which leaves the main responsibility for spatial planning in the hands of the cantons. The federal law defines the basic principles and instruments for spatial planning, but leaves the responsibility for the detailed plan elaboration to the cantons themselves.

The cantons are obliged to enact and organise the land use planning for the cantonal area. In the planning process, the cantons use localised studies on potential problems and issues as well as specific regional information, so as to determine responses for such issues:

- Selective sector planning for sector fields like agriculture, tourism, transport, energy, etc. and also for major projects within those fields;
- Descriptive and prospective evaluation of the current spatial condition (problems, conflicts, potentials);
- Guidelines for the desired form of spatial development.

There is a remarkable variety in the cantonal spatial planning laws. As the federal law does not specifically define rules, the interpretation of the principles varies widely and is subject to a subsidiary legalisation fragmentation. Consequently, neighbouring cantons may have completely different understandings of common plans and development concepts. However, the cantons have repeatedly rejected calls for a better harmonisation, fearing their autonomy might thus be jeopardized (Muggli 2001).

CANTONAL GUIDING PLANS AS CONCEPTUAL PLANS

A principal outcome of the 1979 Federal Law on Spatial Planning was the distinction of two new plan types: the "guiding plans" (Richtplan, plan directeur cantonal) and the "land use plans" (Nutzungsplan).

Guiding plans (sometimes also called "structure plans", "Kantonaler Richtplan" in German or "plan directeur cantonal" in French) are conceptual plans, which pre-define the land use plans giving them the general framework. Guiding plans are worked out for several levels: the cantonal, regional, and communal. It is on the cantonal level that guiding plans become a powerful instrument to steer the spatial development. The cantonal guiding plan is not an outline of the cantonal territory's envisaged final state, but a process plan for the spatial development co-ordination by steering the subsequent development pace.

Each canton issues a guiding plan. A cantonal guiding plan deals with areas of cantonal interest, for example, nature conservation areas, regional greenbelts, public transport networks, waste disposal sites and so on. Swiss federal planning law requires that all territory be categorised either as building land, or land, which is reserved for other activities (i.e. agriculture). It is the responsibility of the cantonal guiding plans to define these basic areas.

A guiding plan covers the entire cantonal area and conveys the envisaged spatial development guidelines. The plan also pinpoints how the different spatially relevant activities of the Confederation, the cantons, and the communes are to be mutually reconciled. During this harmonisation process, inconsistencies and conflicts are revealed and subjected to the problem solving procedure within planning (Monney 1997). Also, the guiding plan usually offers a survey of responsibilities and a time-schedule (who does what and when) for the implementation of the defined measures and the co-ordination tasks.

The guiding plan document consists of the text and the map, which mainly serve to clarify and give a spatial overview of the guiding plan's contents. Cantonal guiding plans are constantly updated according to the spatially relevant development and are to be revised at least every 10 years. To become effective, they must receive approval from the Federal Council. This approval is a legislative control to ensure that the plan fulfills its legal requirements; however, it is not a review of the cantonal strategy's appropriateness. If a canton does not co-ordinate activities with the spatial impact in the guiding plan, the Federal Council can refuse to approve the plan.

CURRENT DEFICIENCIES OF THE CANTONAL GUIDING PLANNING

Bearing in mind the ability of the guiding plan to head for sustainable development (e.g. Conference of the cantonal spatial planning departments of Roman Switzerland; CORAT 1993), several guiding planning deficiencies are known:

- Guiding planning is rarely perceived as a process of "continuous planning", but rather understood as a singular event or "obligatory exercise" with revisions undertaken every ten years (Egli / Rügili / Schmidt 1995). The verification whether the guiding planning is meeting the target, and if the undertaken steps are effective, does seldom take place during a plan's lifespan. Consequently, the effectiveness of the guiding plan can only be presumed until the next formal evaluation, which is normally executed only shortly before the total revision. An outline of unwelcome developments or overdue effects of measures proposed in the guiding plan is also frequently absent. As a result, the guiding plan is often a "static" instead of a "dynamic" instrument. With a "static" plan there is no feedback, which allows for suitable control and intervention throughout the implementation. Spatial planning which abide by the principle of sustainability would require such control facilities (Keiner / Schultz / Schmid 2001).

- At present, only few cantons have established permanent spatial monitoring. That's why the cantonal offices for spatial planning rarely have all necessary space-referred basic data available needed to support decisions with spatial impacts. The monitoring could supply the basis for the planning requirements identification as a continuous process, which may well result in new calls for action.

- Comparisons of the spatial development and the guiding plan's effectiveness with those of other cantons cannot be made, at least not in terms of a learning-oriented benchmarking.

- Specified, obligatory, target values and procedural instructions for the realisation of the sustainable spatial development are non-existent in the guiding plans (C.E.A.T. 2000). The cantonal guiding plans often describe rather arbitrarily interpretable specifications (e.g. "...is to be improved"). Moreover, political stakeholders rarely want a definition of normative target values ("standards"), whose achievement (or non-achievement) could be evaluated.

- In many cases, the guiding plan is lagging behind the actual spatial developments, often assuming the role of minimising negative impacts rather than the intended proactive role of supporting proper development.

          From today's perspective, the criticism that can be made to guiding planning focuses on the inability to prevent some unsustainable developments like the settlement sprawl, increased land demand or settlement structures based on private transport. Moreover, the guiding planning still suffers from the lack of effectiveness. However, from the "sustainability" viewpoint, a
retrospective evaluation of the guiding planning effects can be done only with reservations, since this term obtained its current meaning only a decade after the first legal definition of the Swiss spatial planning targets in 1979. Albeit, the mentioned examples of unsustainable spatial development, and the disregard of planning as the problem-solving instrument in the spatial decision-making processes, should not be misinterpreted as a declaration of the planning’s shortcoming. The disregard of planning is a policy issue that must be addressed in a greater social context. Since planning is a construct of both policy and politics, the intentions may become quite diffused by the end of this process. Spatial planning, whether in practice or theory, must constantly refer to the risk of imparting action recommendations. On the other hand, planning cannot fulfill its objectives if it cannot enact necessary actions.

The inadequacies of the current system are principally due to the inconsistent use of proper spatial planning. Thus, a modification of the legal basis, and the introduction of new planning instruments or a change of the planning paradigms are not urgently required. What are required, are a general implementation improvement and an authentic planning appliance.

Planning has both the mandate and the potential to resolve spatial problems. Yet, the full range of possibilities, offered to the canton by the federal law on spatial planning, is still insufficiently used.

However, sustainable spatial development cannot be achieved through guiding planning alone. Good planning and development are strongly dependent on factors, which are not directly influenced by the spatial analysis, e.g. the degree of society’s prosperity, changing values or macro-economic developments. It would also be too ambitious to try to use the guiding plan as an instrument of a “super-co-ordination” (Held 1997) or a panacea. The application scope and the guiding plan’s effect are therefore limited.

Implementation approaches of the sustainable development principle on the federal level

With the integration of the sustainable development principle into the new Federal Constitution in 1999, the sustainability gained a strong foothold on the federal level. In 1996, the Inter-departmental committee Rio (IDCRio) had already published an inventory “sustainable development of Switzerland” (BLWAL 1996) assessing the implementation of sustainable development in different policy branches of the Confederation. Spatial planning was identified as an action field for the realisation of sustainable development. The “Council for sustainable development” worked out an action plan for Switzerland (BLWAL 1997) with mid- to long-term objectives and recommendations for sector policies implementation. From this derived the Federal Council’s sustainability strategy (Federal Council 1997). At present, with regard to the RIO+10 summit at Johannesburg in 2002, this strategy is about to be updated into an action plan as “strategy for sustainable development 2002” (Bundesarl 2001).

In December 1999, the new Swiss Federal Department (Ministry) for Environment, Transport, Energy and Communication (UVEK) presented a departmental strategy for sustainable development (UVEK 1999). This strategy is designed to ensure the early consideration of the three principals of sustainability - environmental, social, and economic factors - in cross-office co-operation. For “transportation”, “energy”, “communication” and “environment” specific objectives were compiled. These objectives include (but were not limited to) the environmental impacts reduction, a countrywide supply of basic public services, and efficient performance of the governmental services, social compatibility, and nature preservation. Spatial planning can contribute to the accomplishment of these objectives.

In a related resolution of the Federal Council from January 2000, the key dossiers of “sustainable development” and “alpine convention” were redistributed to the new Federal Office for Spatial Development, which consists of the former Federal Office for Spatial Planning and the former Federal Bureau of Transport Studies. The mandate of the Federal Office for Spatial Development is the overall co-ordination of sustainable development at the federal level. It also functions as the secretariat of IDCRio. With this administrative reorganisation, the spatial planning policy was strengthened at the institutional level and a close connection between spatial planning and sustainable development was created on the federal level. But, spatial planning has not been explicitly aligned with the principle of sustainable development so far.

THE CANTONAL GUIDING PLAN AS SUSTAINABLE DEVELOPMENT IMPLEMENTATION TOOL

A first approach to a more intensive consideration of sustainable development in spatial planning emerges on the cantonal level. Today, the cantonal guiding plan is perceived (although not always used as such), as the key instrument for the cross-section oriented planning, guidance, precaution, co-ordination, communication and co-operation. Thus, the guiding plan can weigh spatially effective interests against each other and resolve conflicts of functions and land use demands. Additionally, the guiding plan determines the actions and precautions frame for subsequent land use planning at the local level. With this spectrum of tasks the guiding plan is well suited to implement the principle of sustainability in spatial development.

Guiding planning may resolve several weaknesses in the concept implementation of sustainable development by recognizing some of the key principles:

• The cantons use the guiding plan as a strategic management instrument but also as a spatial concept. It reflects the entirety of the cantonal administration action claims regarding spatial development.

• Early co-operation and the guiding plans revision processes take place between the municipalities, regions, neighbouring cantons and the Confederation. This is the prerequisite for a broad consent, which favours a smoother implementation of joint measures.

It is clear that cantonal guiding plans are a suitable instrument for initiating and controlling the sustainable spatial development. Cantonal spatial planning cannot become sustainable simply by adhering to the relevant sustainability targets and resultant guidelines. A regulation mechanism is needed that includes measurable target values and allows steering interventions. It is necessary to detect the actual spatial development deviations from the objectives, and be able to apply corrective measures.

MONITORING AND CONTROLLING IN CANTONAL GUIDING PLANNING

The implication of including sustainable development into the cantonal guiding planning requires new methodological and operational specifications. Currently, in the context of "New Public Management", the instruments of
"monitoring" and "controlling" are already in use in nearly all cantonal administrations. These instruments, which originate from the entrepreneurial marketing and management process, are being employed to increase the public services efficiency, but are also suitable to be applied in spatial planning (Keiner / Schultz / Schmid 2001).

Monitoring (or "continuous spatial observation") raises continuous information (e.g. statistical and cartographic time series analyses) for spatial development. With this information, problematic developments can promptly be detected (monitoring as an "early warning instrument"). Monitoring allows for a dynamic view of the actual spatial development state at a given point in time.

The definition of "controlling" varies considerably dependent on the institutions, the outcome of which are typically ill-defined interpretations. In Western Europe, controlling was only adopted during the 1970's whereas in the USA, the controlling concept has existed ever since the 1930's. In the Anglophone literature on management procedures, the controlling function is presented as one management component process, to go along with "planning", "co-ordination", "organisation" or "direction". Presently, the controlling concept is perceived as a global and prospective instrument for the management of an enterprise. It focuses on the planning and implementation devices, and using them as a proactive strategy can make businesses more responsive to their markets.

Controlling assesses the goals defined by the management and the processes aimed at attaining them. The constant comparison between the goal and the current actual state allows the enterprise administration to determine whether the entrepreneurial objectives are being met.

Controlling can also be understood as a management review tool for the existing plans and projects. By using the controlling process, the management can determine their progress, accomplishments, and deficiencies. Through continuous controlling, the plan's working methodology may be changed, work methods simplified, and manpower adjusted midstream. Controlling is, in other words, "the part of planning after you've decided what you wanted to do" (McNamara 1999). It is a systematic approach to determine if the planners are achieving their intentions.

Together, monitoring and controlling can be combined to assess and evaluate spatial development. Using these tools, unsustainable spatial developments can be promptly detected and corrected with suitable measures. Sustainable spatial development (and also an "ongoing" or "rolling" guiding planning) is not attainable without the use of monitoring and controlling (Keiner / Metten / Schultz 2002).

However, a practical controlling implementation of cantonal guiding planning exists only at the inception stage so far (e.g. controlling concepts of the cantons of Lucerne, Grisons and Berne).

By pointing out the calls for action and necessary adjustments of the guiding plan, an indicator based controlling contributes to a dynamic management of the guiding planning. With the introduction of this automatic control loop, a faster reaction to unwanted (i.e. unsustainable) spatial developments is possible, and thus a higher effectiveness of the guiding planning can be achieved. Ideally, controlling is integrated in the cantonal guiding plan from the beginning. If implemented and enacted judiciously, the guiding plan becomes a real strategic control instrument for sustainable spatial development.

CONTROLLING LEVELS IN CANTONAL GUIDING PLANNING

The controlling process within the guiding plan distinguishes between the strategic level and the operational level. At the strategic level, the guiding principles are used to define the objectives control. At the operational level, the co-ordination measures of the guiding plan guide the plan's implementation and the overall effects.

The objectives control (strategic level) includes two aspects:

- Objectives achievement control:
  By comparing the intentions (guiding principles) and the results (effective spatial development), relevant key indicators will reveal whether the objectives of planning are being achieved. This analysis can be made only if the guiding principles are concretely defined and the planning priorities adequately determined.

- Objectives validity control:
  The basic guiding principles must also be regularly reviewed for efficiency and appropriateness. Do the guiding principles reflect entirely the principal assumptions of spatial planning? New trends and methods of sustainable development should be considered and the guiding plan reviewed and revised to maximise its effectiveness.

The co-ordination measures control (operational level)

- Implementation control:
  Assessing the implementation of the guiding plan ensures that the stated intentions are being carried out properly, and evaluates which resources are being employed for that purpose. The verification is typically done by using simple checklists or through the use of a database.

- Effects control:
  By monitoring a set of specific key indicators in the implementation of the guiding plan, it becomes possible to assess the plan's effects and verify that they tend towards the desired direction. If the controlling reveals that the co-ordination measures cannot bring about the desired effects, then adjustments to the implementation can be made.

INDICATORS AND STANDARDS FOR THE MEASUREMENT OF SUSTAINABILITY

The indicators control (Blanchet / November 1998) is worked out to serve as the evaluation basis of the spatially relevant sustainability targets (guidelines) in the cantonal guiding plan. Thus, the controlling contributes to the objective of decision-making processes as well as to the plan's success. The indicators for sustainable development when used for controlling purposes become an indispensable component in the monitoring, controlling and benchmarking of the guiding planning (Keiner / Schultz / Schmid 2001).

An indicator is defined as a measure of a certain circumstance's status, which cannot be recorded empirically. The interest lies however not in the indicator (e.g. the ratio of all floor spaces sum to a plot area), but on the inferred conclusions (e.g. settlement compression). It is necessary that the relationship of the effects and dependency between the indicator and the derived conclusions stay clear (e.g. the higher the ratio of floor spaces to a plot area, the more compressed the settlement is). The indicators usefulness depends thus on their suitability, appropriateness, and the precision with reference to the conclusions (Blanchet / November 1998, Birkmann et al. 1999). The selection of indicators follows comprehensible criteria, but due to the varying interpretations of their qualitative results, indicator based analysis remains subjective to a certain degree.
Target values

In order to evaluate spatial development it is necessary to define specific, quantifiable, target values or “standards” for the objectives. Whether a project is meeting the standards will be revealed by the changes in the measured indicators. Due to the different topographic, demographic, and initial economic position of the Swiss cantons, as well as their different development objectives, the creation of a comprehensive Swiss standards catalogue is problematic. The final organisation and definition of objectives and the ensuing controlling must be specifically worked out for each canton.

Indicators limitations

Obviously indicators cannot measure all of the guiding planning objectives. They can only cover a part of the actual spatial development. Many indicators only indirectly reflect the existing causal relation in respect to the guiding planning, because the guiding plan is only one element among few that determines the spatial development. It is sometimes difficult to state with certainty that changes in spatial conditions are really the effect of the guiding plan. One should remember that it is only the indicators interpretation, which gives them their significance; hence any quantitative information must always be supplemented by qualitative ratings. It would thus be appropriate to evaluate to what extent a given development is influenced by the guiding plan appliance and to what extent does it depend on other influencing factors.

REALISATION OF THE GUIDING PLAN CONTROLLING

The guiding plan controlling can be performed in short intervals, with known and affordable costs. The controlling enables the projects to proceed unhindered, while still allowing for an understanding of the progress. As a result, controlling can be coupled with other tasks and become part of the overall project process.

Every four years the cantons must prepare a planning report to the Federal Council. This occasion also provides an appropriate timeframe to communicate the results of the controlling to the strategic level (objectives control, guiding principles adaptation). On the operational level, the controlling intervals may be shorter (e.g. each 2 years), because the measures aiming at ensuring co-ordination require continual updating, so as to maintain the dynamic character of the guiding planning.

BENCHMARKING IN GUIDING PLANNING

A system facilitating comparisons between all Swiss cantons would be a sensible complement to the controlling (Keiner / Schultz / Schmid 2001). Any proposed benchmarking would need to evaluate the differences between planning, should, however, not be perceived as a contest of “better” guiding planning.

The concept of benchmarking was introduced into entrepreneurial management at the beginning of the 1980s. The procedure calls for the comparison and continuous evaluation of the products, services and practices of the strongest competitors with those of the ‘home’ enterprise. Benchmarking is intended to reveal not only the inherent component differences, but also variations in the operating methodology. In assessing the differences in performance, one uses both quantitative indicators and an overall qualitative assessment. Benchmarking implies an evaluation whose goal is the search for “better practices” leading to the product or services improvement.

By using benchmarking to compare controlling plans, the cantons would have the opportunity to position themselves within the broader framework of the confederacy. They would have the ability to see how comparable cantons regulate their spatial development via the guiding plan, and with what results. There are four basic goals in using benchmarking in the guiding planning:

- resolve several weaknesses in the sustainable development principles implementation by understanding several key principles,
- improve the efficiency of the product (the “guiding plan”),
- structure the process and the organisation satisfactorily,
- show the actual level of sustainable spatial development being implemented in each canton.

The comparison between cantons would make it possible to learn from each other, help disseminate the “best practices”. The cantons would generally become aware of possible planning deficits, and remedy them in time (Mäler / Weber / Zuber 2000).

SUSTAINABLE CANTONAL GUIDING PLANNING AS A MODEL

In the development of the guiding planning it is mandatory, to use of tools, which constantly adjust and optimise the process towards sustainability. Sustainable cantonal guiding planning is not a re-orientation of the guiding planning, but rather a confirmation of the concepts of precaution, flexibility, and accessibility, thereby strengthening the guiding planning implementation. Politically driven (space-relevant) decisions which deviate from the recommendations given by spatial planning, will need to be justified more transparently in the future, and will obviously need to be directed within the public interests. (Keiner 2001b).

The availability and promotion of some relatively new methods and tools enables the cantons to increase the guiding planning dynamics, its transparency and ability to steer the spatial development towards sustainability. These tools include the visualisation of diverging or conflicting spatial interests considerations, mediation as a means for a better public participation, as well as the establishment of “planning with the public” workshops at the cantonal level.

Swiss cantonal planning has many similarities with regional planning in other countries, which may find it interesting to evaluate and compare the effectiveness of their own regional planning with that performed in Swiss cantons. Based on this, the planning bodies could assess whether it is valuable to consider tools such as controlling for the sustainable spatial development implementation.

CONCLUSION

Spatial planning is more effective if a monitoring of the spatial development is applied. The results of monitoring are a main basis for the review of spatial development plans on all levels. Once a plan with objectives and measures is established, it is the framework for the desired spatial development in the next 10-20 years. In order to enhance the impact of spatial plans on the actual spatial development, these plans have to be reviewed and re-adjusted from time to time, ideally every 2 to 4 years. This can be done by using an indicator based controlling tool. If developments that derive from the desired direction can be detected early, corrective measures can be taken before problems become unmanageable. Until today, few countries, such as Switzerland and Australia.
apply the controlling approach. Doing this, planning gets more transparent to decision makers and public, and becomes more dynamic, pro-active and efficient in order to achieve sustainable spatial development.

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Legal texts


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