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Beyond Local Agenda 21: local implementation of sustainability

An Inventory of Organizational Practices of Sustainability Approaches of Western Swiss Municipalities

Gerhard Schneider^{1*}, Clotilde Jenny² and René Longet³

^{1,2} Department of Business Administration HEIG-VD, University of Applied Sciences of Western Switzerland, Av. des Sports 20, 1400 Yverdon-les-Bains, Switzerland

³ Chemin des Verjus 90B, 1212 Grand-Lancy

*Corresponding email: gerhard.schneider@heig-vd.ch

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Abstract

In Switzerland, more than 200 municipalities representing about 33% of the population have established a Local Agenda 21 or another sustainability approach.

Governance and organizational processes can play a decisive part in the success or failure of Local Agenda 21. The objective of the present analysis was to establish an inventory of organizational practices of the sustainability approaches, their achievements and the obstacles encountered with a sample of nine municipalities of Western Switzerland in order to determine necessary conditions for a successful sustainability approach in local government.

The result of the analysis raised the following concerns:

- A majority of the municipalities consider Local Agenda 21 to be an inflexible listing of arbitrary and heterogeneous actions, which is added as an extra layer onto day-to-day municipal management, thus showing difficulties to be introduced in day-to-day work or into operational management.
- Several municipalities started a transversal or horizontal sustainability approach across different departments by evaluating the sustainability of new projects.
- Independently of the chosen approach, all municipalities regret the lack of a standardized framework with criteria and indicators that allow controlling and evaluation.
- All of the municipalities of the sample want to continue on their way to a sustainable township; several are even convinced that sustainability will be one of the imperatives of municipal governance in the years to come.

In our opinion, either approach (Local Agenda 21 or a transversal approach) can be successful – what seems to matter most is a sustainability strategy and a standardized framework.

Introduction

One of the major outcomes of the Rio Conference in 1992 was Agenda 21 (United Nations 1992), a listing of "pressing problems covering social and economic dimensions as well as conservation and management of resources". Implementation of action plans is first and foremost the responsibility of governments backed by the commitment and genuine involvement of major groups. In Agenda 21's chapter 28, local municipalities are requested to develop local action programs to implement sustainable development. The World Summit on Sustainable Development in Johannesburg, in 2002, reaffirmed full implementation of Agenda 21 and the commitments to the Rio principles (United Nations 2002).

The World Summit Rio+20 in 2012 was the opportunity to take stock of the implementation of sustainable development at all levels since 1992, be they international, national or local. Questions about governance and organisation were in particular put forward (United Nations 2012). The decisive role of local governments in global environmental governance was emphasised in the runup to and during the World Summit Rio+20 by ICLEI-Local Governments for Sustainability (2011).

ICLEI is the world's biggest association of cities and local governments dedicated to sustainable development. ICLEI was founded by more than 200 local governments from 43 countries at the World Congress of Local Governments for a Sustainable Future in New York in 1990.

The fields of action and the commitments in terms of sustainability are listed in different international programmes, charters or initiatives, such as ICLEI (2011a) and the Aalborg Charter of European Cities and Towns towards Sustainability (1994). These are reinforced by the Aalborg Commitments in 2004, which provide a framework for the delivery of sustainable development, and the Covenant of Mayors (2008), which was launched by the European Commission to endorse and support the efforts deployed by local authorities in the implementation of sustainable energy policies, to name only a couple of the most important ones.

At the national level, publications also cite the different fields of action in terms of sustainability that are relevant for municipalities. For example, the German Environmental Protection Agency published scenarios for an integrated sustainability policy, putting forward fourteen subjects/topics for sustainable cities (Umweltbundesamt UBA, 2013). Swiss authorities, in particular the Federal Office for Spatial Development ARE in charge of these questions, have published several inventories and guidelines to support municipalities realizing a Local Agenda 21. These include, for example, an inventory of sustainability processes in municipalities (ARE 2003), a report on sustainable development in Switzerland (Swiss Federal Statistical Office 2012a) and goals in terms of sustainability (ARE 2013b).

To introduce sustainability in municipalities, Switzerland has chosen a voluntary local approach that does not issue directives but encourages municipalities to introduce a Local Agenda 21 and leaves the determination of the fields of action and the organisation to the municipality. General proceeding principles for a sustainability approach, as well as principles for the sustainability evaluation of projects, were published by Swiss authorities (ARE 2005, 2007). Furthermore the Federal Office for Spatial Development ARE encourages municipalities to evaluate general achievements in terms of sustainability (ARE 2005, 2013c).

There are good reasons for such a local or municipal approach to sustainability, for example in terms of public governance, matters should be handled at the lowest possible level respecting the principle of subsidiarity. In Switzerland, as in other countries, several municipalities or Cantons have developed their proper instruments to evaluate the sustainability of future projects, and examples include the Cantons of Basel (2005) and Berne (2008) and the municipality of Vevey (2002). An overview of local evaluation instruments was published by ARE (2012).

It seems, however, that Local Agenda 21 did not really succeed in catching on in local governments. Penning (2012) found it came to a standstill, while Marshall (2002) shows it was never adopted by a vast majority of local governments. Recent findings confirmed that Local Agenda 21 must be revived or has yet to find its way into the everyday political practice (Landesanstalt für Umwelt, Messungen und Naturschutz Baden-Württemberg 2007, Communauté urbaine de Lyon 2009). More recently, political initiatives appeared aiming to abolish Local Agenda 21; examples include the City of Geneva (Le Courrier, 2013) and the United States, where conservatives have introduced anti-Agenda 21 bills or nonbinding resolutions in a total of 26 states (Voorhees, 2014), and which underlines the weakness of this kind of implementation of sustainable development.

Governance and organisational processes can play a decisive part in the success or failure of Local Agenda 21, in particular during a period of financial restrictions and lack of resources, and even more where Local Agenda 21 seems to be questioned politically, which might induce municipalities to put aside activities that might be considered to be too high in cost or at the limit of municipal responsibility.

Not much literature has been published on sustainability in terms of organisational structures or public management. Only recently Leung (2009) published a survey of best practices in sustainability decision-making in the municipal sector in Canada. One year later, Bertels et al. (2010) published a systematic review presenting a portfolio of practices on sustainability and organisational structure, which was then updated to the municipal context by Miller et al. (2013).

The European Sustainable Development Network published in its quarterly report a contribution by G. Berger and R. Steurer (2009), who concluded that horizontal policy integration of sustainable development not only requires sustainable development strategies and inter-ministerial institutions, but also a more holistic approach for strategic public management.

In 2013, Meg Holden published her analysis of the usability of sustainability indicator systems by municipal governments in Sweden, and Smedby and Neij (2013) published their analysis about a Swedish approach to collaborative and integrated urban governance, called the "Constructive Dialogue".

The crucial role of municipalities in sustainable development, as underlined by ICLEI (2011b), is contrasted to the scant literature published in terms of municipal organisational processes and structures. However, those processes and structures might be decisive for the success or failure of municipal sustainable development. This underlines the need for research and publication in that area in order to take a good look at today's municipal governance and organisation in terms of sustainability. Overall, sustainability is a complex and transversal matter touching almost every municipal policy and activity; consequently, it will be a particular organisational challenge to integrate sustainability into municipal government.

Thus, the point of departure for our study is threefold:

- the decisive role of local governments in sustainable development,
- the little literature available on the organisation and governance of sustainability approaches by local governments,
- the fact that a certain number of studies show that Local Agenda 21 did not catch on in local governments or it came to a standstill (Penning 2012, Marshall 2002, Landesanstalt für Umwelt, Messungen und Naturschutz Baden-Württemberg 2007, Communauté urbaine de Lyon 2009).

The major objective of the present analysis was to establish an inventory of organisational practices of the sustainability approaches in municipalities. Due to the lack of literature on organisational structures and processes of local sustainability approaches, an explorative research method was chosen (Labaree, 2014, Jupp 2006), in order:

- to gain insights into organisational structures and governance of sustainability approaches
 of local governments for eventual later investigation;
- to determine achievements and obstacles;
- to determine needs and requirements of local governments to improve their sustainability approach; and
- to establish hypotheses about organisational processes, that would further a successful sustainability approach in local governments, which will have to be confirmed in later research.

We decided to choose a sample of local communities that would be representative of a linguistic region of Switzerland, i.e. the French-speaking part of Switzerland. To do so, the present work analysed organisational structures of the sustainability process or Local Agenda 21 in nine Western Swiss municipalities corresponding to 11% of the municipalities in Western Switzerland with a Local Agenda 21 or other sustainability approach (Federal Office for Spatial Development ARE 2013a).

In more detail, the method chosen was to establish an inventory of organisational practices of Local Agendas 21 (or other sustainability approaches), of their achievements and of the obstacles encountered, as well as the needs and requirements of the municipalities for their sustainability approach. An inventory of the needs and requirements should not only turn out to be somewhat a mirror of the obstacles (both should fit together), but will also be a sound basis for hypotheses on how to improve local sustainability approaches.

Our analysis contributes to filling the gap of knowledge on organisational structure and processes of Local Agenda 21 or other local sustainability approaches.

Our analysis with open questions was a way to discern not only specific differences between municipalities, but also the individual strengths and weaknesses of different organisational processes. Overall, the innovative approach of our analysis let us outline the requirements for adequate organisational structures in municipal governments that are required to successfully handle the complex matter of sustainability.

Data Collection

All data in terms of municipal population size and Local Agendas 21 was obtained from the Federal Office for Spatial Development ARE (2013a), in terms of income from the Swiss Federal Tax Administration FTA (2012), in terms of language spoken from the Swiss Federal Statistical Office (2005), and in terms of cantonal and municipal population size at 31.12.2011 from the Swiss Federal Statistical Office (2012b).

The present analysis is based on a sample of nine French-speaking municipalities of Western Switzerland, all of them having a Local Agenda 21 or another sustainability approach. The sample size is 11% of 81 total municipalities of Western Switzerland with a Local Agenda 21 or another sustainability approach. When we take into consideration only the French-speaking municipalities in Western Switzerland, the sample covers 14% of the municipalities with a sustainability approach, a size that can be considered large for exploratory research and underlines the representativeness of the sample.

The term Western Switzerland usually denominates these Cantons with an entirely or partly French-speaking population: Fribourg, Geneva, Jura, Neuchâtel, Vaud, Valais, plus Bern. The Canton of Bern has only a small French-speaking minority (3 of 26 districts with 51,000 inhabitants representing 5.4% of the total population of the Canton of Berne), which is spattered in small municipalities with only two of them having a Local Agenda 21, both with less than 5,000 inhabitants. Therefore the Canton of Berne was not included in the present analysis. The German speaking minorities of Fribourg and Valais, equally spattered in small municipalities with less than 10,000 inhabitants each, were not taken into consideration either.

1. Choice of municipalities

First it was decided to exclude the two largest cities of Western Switzerland, Lausanne (129,000 inhabitants) and Geneva (188,000 inhabitants within the City of Geneva) from the analysis, because cities are organized in a more complex way than smaller municipalities with up to 40,000 inhabitants. Thus our analysis concentrated on municipalities with 10,000 to 35,000 inhabitants.

We included only two small municipalities with less than 10,000 inhabitants in the analysis, because small municipalities have a rather limited public administration and government and are therefore less suitable for an analysis of organisational structure.

The municipalities were chosen in order to assure a representative sample of Western Switzerland: they represented all six cantons with a French-speaking majority, the two predominant geographical situations (plateau and mountains), different functions (urban centre, suburb and countryside), a wide spread in revenue per inhabitant, and different population sizes. The term Plateau denominates the part of Switzerland where the vast majority of the population lives; geographically, it is limited by the Jura Mountains in the north and the Alps in the south.

The composition of the sample was as follows:

Three municipalities from the Canton of Vaud (726,000 inhabitants, 21 municipalities with a Local Agenda 21), two from the Canton of Geneva (461,000 inhabitants, 15 municipalities with a Local Agenda 21), one municipality from each of the Cantons of Fribourg (285,000 inhabitants, 6 municipalities with a Local Agenda 21), Jura (71,000 inhabitants, 3 municipalities with a Local Agenda 21), Neuchatel (173,000 inhabitants, 2 municipalities with a Local Agenda 21) and Valais (317,000 inhabitants, 34 municipalities with a Local Agenda 21). The Cantons of Valais seems to be underrepresented, but actually only 16 municipalities with a Local Agenda 21 and about 230,000 inhabitants speak French. Furthermore, all its municipalities with a Local Agenda 21 have less than 5,000 inhabitants, which is less suitable

for the analysis. The Canton of Fribourg shows a similar picture, where the French-speaking population totals about 160,000 inhabitants (all six municipalities with a Local Agenda 21 are French-speaking).

- Two small (5,000 10,000 inhabitants), three medium size (10,000 20,000 inhabitants) and four large municipalities (25,000 - 35,000 inhabitants).
- Seven municipalities from the plateau and two mountain municipalities.
- Five regional centre municipalities, one countryside, one suburban municipality and two municipalities with two functions (regional centre and suburban).
- A range of revenue per capita varying between 28,000 and 42,000 Swiss Francs.

2. Questionnaire

The questionnaire consisted of 52 open questions covering the fields of action and the organisational structure in terms of sustainability. Open questions are a way to take into account the individual characteristics of the different municipalities. The questionnaire covered all sorts of aspects of organisational procedures and was sufficiently flexible to permit municipalities to comment on their specific situation, especially in terms of their different political and legal environments that are changing from one canton to the other.

The survey explored, how the municipalities had organized their sustainability approach, whether they called it Local Agenda 21 or not, what processes existed, what resources they had made available for sustainable development (financial and human) and how the responsible person or body for sustainable development had been attached to the organisational chart of the municipal authority. The questionnaire explored what kind of collaborations or stakeholder management the municipality had introduced, specifically with neighbouring municipalities, the canton, inhabitants, associations and societies, businesses on their territory and semi-public institutions such as utility companies or public transport. The questionnaire concluded with assessment of the needs and requirements of the municipalities in order to successfully continue their sustainability approach.

3. Procedure for the survey

The interviews were carried out personally, either with the person in charge for sustainable development in the municipal authority or in the municipal council. The complete interviews were transcribed. Personal interviews permit more detailed answers than a written form, can easily be illustrated with examples, and the exchange with the interviewed person permits clarification if necessary.

Results

Definition of sustainable development, choice of fields of activities and actions

Generally, the municipalities of the survey (hereafter the term municipalities refers to the municipalities of the sample) define sustainable development as an integration of the three pillars of environment, society and economy. However they cannot define precisely what the three pillars would mean in terms of municipal action. Half of the municipalities added to the definition above, that sustainable development should be more than a certain number of actions, and rather a culture, a way of proceeding in day-to-day management, or even a way of life.

In contrast the sustainability actions or projects realized are quite specific and heterogeneous, covering a large number of topics differing from one municipality to another, with environmental actions prevailing. The choice of actions seems to be random, depending on opportunities, personal interests and capacities. The different fields of activities from one municipality to another and the heterogeneity of actions within the municipalities confirm a lack of systematic procedures or organisation, as was already shown by the findings of ARE (2003), which revealed a lack of objectives in terms of sustainable development.

Two different concepts (and an overlaving third)

In principle, two different sustainability approaches in municipal governments were identified: Local Agenda 21 on the one hand and a transversal or horizontal sustainability approach on the other.

Local Agenda 21

It could be observed that Local Agenda 21 follows the example set by Agenda 21 adopted at the Rio summit in 1992, with a listing of global problems and plans of action. To start their Local Agenda 21, the municipalities also established a plan of action, generally by a consultative process including inhabitants and associations. Those plans of action reflect the concerns and ideas of that time, already a couple of years ago, because they had not been linked to municipal strategy and in most cases they have not been updated.

The result is that municipalities frequently consider Local Agenda 21 as a listing of selective and heterogeneous actions or projects that have to be realized, preventing an integration or even coordination with the organisation and management of the municipality. Local Agenda 21 is often viewed as an extra layer added onto municipal management. Actions or projects are short-lived. Several municipalities expect that and once all actions or projects on the list will be achieved, Local Agenda 21 will inevitably come to an end. Although in some municipalities new sustainability actions are defined each year, they are still separated from day-to-day management.

Nevertheless all municipalities emphasised that they would certainly continue on their way to further sustainability.

Horizontal or transversal sustainability approach

A vast majority of the municipalities with a Local Agenda 21 want to establish a horizontal or transversal sustainability approach. Several municipalities, some without passing by a Local Agenda 21, have already started such an approach by evaluating the sustainability of new projects before passing them to the municipal council. There were no lists of sustainability actions (as in Agenda 21 municipalities), but sustainability evaluation automatically introduced sustainability into new projects. In most cases only projects demanding certain expenditure are evaluated, and only a small minority of municipalities try to evaluate every new project.

In order to evaluate the sustainability of new projects, several of the municipalities have developed their proper method of screening.

That method gives rise to a certain number of questions. First, in none of the municipalities did sustainability evaluation of projects cover day-to-day activities, such as maintenance of infrastructure, parks and gardens, procurement, and so on, which might have a more important impact on sustainability than new projects.

Second, the method to evaluate sustainability was not developed according to a formal framework, but empirically by each municipality. In the extreme case, a certain project could be considered to be sustainable in one municipality but not in another one.

Third, screening is performed by the project manager or head of the implicated department, none of them being an expert or having sufficient education or training on sustainable development. As a consequence, evaluation will inevitably be personal and subjective, depending largely on the meaning that sustainable development has for that person. Such an approach carries the risk that sustainability will become so vague that the process will inevitably come to an end due to a lack of credibility.

There is a fair amount of evidence that lack of sustainability is a real problem. First, the criteria to evaluate sustainability differ across municipalities. Second, in several municipalities, sustainability evaluation essentially consists of a limited number of rather general questions, such as: "Are the environmental impacts of the proposed project known?" Such questions are difficult to answer, especially if one is not an expert in ecology or environmental science. A scientific comparison of the environmental impacts of two scenarios would require screening on the basis of a Life Cycle Assessment or the Ecological Footprint method, which would be difficult in a reasonable time frame and without a certain amount of resources. The same is true for social impacts, which are even more difficult to evaluate than environmental impacts, as there are no quantitative analysis methods available that are comparable to Life Cycle Assessment.

Thus, the evaluation of the sustainability of a project will always be an ambitious task. Yet we did observe that the sustainability evaluation of projects was more uniform when a sustainability expert was present in public administration.

Another question to answer is "How much sustainability is sustainable?" None of the municipalities undertaking a sustainability evaluation of their projects had defined in a tangible manner "what is a sustainable project?" Nor had they established formal guidelines on the limits of eventual additional costs due to sustainability. And what would happen with projects that had a negative sustainability evaluation? Would they be adapted, abandoned or carried out anyway? Without such guidelines there is a certain risk, especially in times of financial pressure, that even with a sustainability evaluation (with its above shown limitations), the "level" of sustainability of a new project might essentially be determined by its cost.

However, all of the municipalities that have recently started a horizontal approach seem to be quite satisfied, as the approach was well accepted by municipal administration. Although each one of them – as with the municipalities with a Local Agenda 21 – regrets the lack of a standardized framework with criteria, methods and indicators permitting a more consistent sustainability evaluation of projects, as well as some form of controlling accompanied by an evaluation of what has been achieved.

Energy City

The label "Energy City", a Swiss peculiarity, backed by the Swiss Federal Office of Energy, adds complexity to the pursuit of sustainability. The label Swiss Energy City requires achieving a certain number of well-defined points on a checklist, covering a wide range of possible factors that can diminish energy consumption and carbon emissions. That checklist overlaps with a number of sustainability issues and it overlaps with Local Agenda 21. That leads to confusion: several interviewed municipalities think that Energy City could replace or absorb Local Agenda 21, i.e. there would be no necessity for a Local Agenda 21 in "the old style". Other municipalities have a more differentiated opinion; they consider Energy City to be complementary to Local Agenda 21, i.e. a Local Agenda 21 is a way to obtain points on the Energy City checklist. But there is no doubt that two parallel and overlapping proceedings may lead to confusion and are difficult to deal with concurrently. An integration or well-defined delineation of the two concepts (Local Agenda 21 and Energy City) could certainly facilitate the progress of sustainability in local governments.

The role of the manager for sustainable development

- 1. In municipalities with a Local Agenda 21, sustainability was mainly furthered within the department to which sustainable development had been attributed, which in general is a department that was considered to have a close link to sustainable development, a frequent example being the department of urban planning. Without the creation of a new position "manager of sustainable development", the responsibility for sustainable development had in general been attributed to the head of department ("chef de service"). In this case, sustainability projects were essentially limited to that same department. The creation of a new position "manager of sustainable development" permitted sustainability projects across different departments, although any project exceeding the limits of the department responsible for sustainable development would depend on the goodwill and consent of the head(s) of the other department(s) involved. And, very important in terms of organisation, in all municipalities with a Local Agenda 21, the manager for Local Agenda 21 (the sustainability manager) was considered to be the project manager of all sustainability projects: his principal task was to develop and to realize sustainability projects.
- 2. In municipalities with a horizontal or transversal sustainability approach, the role of the manager of sustainable development was completely different: his principal task was to assist with sustainability evaluation of all kind of projects.

Thus the way of acting changed. In the case of Agenda 21, the manager of sustainable development was considered as a petitioner or an applicant by the other departments, and in the case of a horizontal approach, he was welcomed to assist the compulsory sustainability evaluation of projects. The horizontal approach almost certainly leads to more satisfaction of the sustainability manager and generates fewer tensions between the sustainability manager and other departments, which might explain at least partially the overall satisfaction of municipalities with a transversal or horizontal approach.

Only a little more than half of the municipalities of the sample had created a new position "manager of sustainable development or Local Agenda 21", which in all cases were part-time positions. The limited resources made available mirror the peripheral place of sustainability in local governments, which in turn will make it difficult to pursue a horizontal sustainability approach with the objective of integrating or embedding sustainability in local governments.

Sustainability documentation, strategy, objectives and controlling

In all municipalities, the plan adopted by the town council for the legislative period was the principal document legitimizing sustainable development. In some cases it included a simple clause like "sustainable development is a task for all municipal policies and activities" in other cases it listed all actions and projects to be realized during the legislative period.

However, none of the municipalities issued a document defining a sustainability strategy, that is, a document defining in a tangible manner the intended situation in terms of sustainability in a certain time frame, and including a roadmap with milestones and measurable objectives. Without such objectives, any kind of controlling will simply not be possible, though it would be vital to evaluate the contribution of each individual sustainability action to overall sustainability in the municipality.

For the time being, it is only possible to evaluate the results of individual projects, which seems to have limited value, as projects especially in terms of sustainability are interrelated and interdependent. Moreover, even the results of individual projects are not evaluated, and municipalities regret the lack of resources, instruments and time. The difficulty of measuring what has been achieved will weaken in the long run the credibility and the commitment of the municipality in terms of sustainability.

Certain instruments to evaluate sustainability in municipal governments have been developed by the Federal Office of Spatial Development and by different cantons. Most of these instruments are sectorial, such as the sustainable procurement guide from the Cantons of Vaud and Geneva and the Sustainable Neighbourhood Tool, an instrument for the development of sustainable town districts. The only comprehensive evaluation instrument is Boussole 21 developed by the Canton of Vaud. However, all municipalities consider those instruments to be laborious, time consuming, and often ill-adapted to their requirements, and eventually the output does not indicate what to do and how to proceed. Consequently, they are used irregularly or only for projects of some significance. Some municipalities have developed simplified versions that seem to be better adapted to their requirements.

Nevertheless, simplification was done in an empirical way without any formal framework. Thus we encounter a similar problem as mentioned above with the sustainability evaluation: simplifying existing evaluation methods bears the risk that sustainability becomes vague and subjective.

Subjectivity is pushed to the limits by the smallest municipalities interviewed, which share the opinion that sustainability is embedded into local governments by the consciousness of the members of their town council and municipal administration.

The above-mentioned imperfections and difficulties in municipal approaches to sustainability are contrasted with the importance municipalities attach to sustainable development. Every single one of our interview partner is convinced that sustainability would be one of the new imperatives of municipal policies in the years to come, but they all regret the lack of a standardized framework for sustainability that can be adapted to the different municipal policies, as well as easy to use instruments to evaluate sustainability and to perform controlling.

Communication

A general communication strategy is lacking in all of the municipalities interviewed, and not only regarding sustainability. Usually communication is activated on the occasion of events or campaigns. However, a communication strategy as well as a credible and transparent communication about sustainability are vital to convince and mobilize inhabitants and enterprises in the municipality for sustainability.

However, credible and transparent communication about sustainability needs a prior evaluation of the achievements in terms of sustainability, thus underlining the importance of objectives, controlling and evaluation.

Stakeholder management

When embedding sustainability into the organisational culture of a municipal government, stakeholder management must be included. There are two good reasons: first, sustainability management includes social responsibility, which is inherently linked to stakeholder management; and second, Agenda 21 should be implemented by a consultative process (United Nations, 1992). However, a real stakeholder management could not be detected in any of the municipalities.

Although new actors have appeared since the Rio Conference in 1992 (such as the Sustainable Development Section of the Federal Office for Spatial Development and several Sustainable Development Offices at the cantonal level), the way municipalities act has not changed. All municipalities approach the appropriate actors – including the new ones (Confederation, canton, neighbouring municipalities, public or semi-public utility companies, public transport) – when there are specific needs or projects that exceed the limits of municipal territory and require the consent of the above named actors.

Concerning business and industry, the municipalities are aware of the importance of economic actors on their territory. They perceive the opportunities that would represent a stimulation of the economic actors in terms of sustainability. However, there is a divergence between vision and reality. Cooperation with businesses proves to be irregular and specific to particular requirements, such as transport or waste management. The possibilities of cooperation with regional agencies for economic development seem to be barely known, at least to the persons in charge of sustainable development.

Only one municipality of the survey has developed a systematic approach towards business and industry. It has established sustainability requirements that new business and industry that want to settle on municipal territory have to meet. In addition, the municipality invites all companies twice a year, thus providing an opportunity for dialogue between municipality and companies. A systematic approach by companies would not only provide an important lever to diminish environmental impacts (for example, by introducing industrial ecology on municipal territory), but would also provide a significant resource for the municipality in terms of sustainability knowledge.

Although Agenda 21 Chapter 28 (United Nations 1992) explicitly names consultative processes that include inhabitants and associations, none of the municipalities have established a systematic policy to include inhabitants in their policies. The only exceptions are the district associations of inhabitants ("associations de quartier"), which are addressed on a regular basis. But that was already the case before the Rio Conference on Sustainable Development. As is the case with other stakeholders, the way municipalities act does not seem to have changed. In general, inhabitants are consulted according to the requirements of the different departments of municipal governments or in case of important urban development projects. The advantage of a systematic approach seems clear: it would guarantee that municipal actions and projects correspond to the requirements of the inhabitants, which in fact is the "raison d'être" of municipal governments.

Appraisal of the different sustainability approaches by the municipalities

1. Local Agenda 21

The majority of the municipalities emphasize that Local Agenda 21 was the major reason that sustainable development is considered today as an important part of municipal policy both by inhabitants and by municipal government itself. However, there is less evidence for tangible effects and results, in terms of sustainability, that have been achieved.

The major weakness underlined by all municipalities interviewed is the absence of a standardized framework determining the fields of actions, including objectives, criteria, methods and indicators, accompanied by instruments for evaluation and control. The demand for a structured framework seems to be emphasized by the highly standardized approach of Energy City, to which Local Agenda 21 is continuously compared by all municipalities and which seems to have become the point of reference. One statement we heard was the following: "Energy City is time consuming, but we know what we have to do".

Another difficulty of Local Agenda 21 was the fact that most municipalities considered Local Agenda 21 to be a catalogue of selective and heterogeneous actions, which were not integrated

into the municipal organisation and management. Furthermore, a majority expected that it would come automatically to an end once all its actions had been realized. That was one of the starting points for the choice of a new transversal sustainability approach in the future.

2. Transversal or horizontal sustainability approach

All the municipalities that started a transversal approach did not mention specific difficulties; they seemed to be quite satisfied, as the approach seemed to have been accepted by municipal administration. However the experience is still too short to draw a definite conclusion.

Independent of their approach, all municipalities named the lack of resources as a major obstacle. But is it really a lack of resources, thus a government's choice where to spend the municipal budget, or could it be a lack of systematic approach that diminishes efficiency? Even the best staffed and equipped municipalities regret a lack of resources. At the same time, a framework with tangible objectives, criteria and indicators was demanded by the overwhelming majority of the municipalities, which demonstrates the need to know what has been achieved and which fields of action should be tackled in the future.

Discussion and conclusion

Local Agenda 21 was the standard in the beginning of local sustainable development but today a vast majority of the municipalities interviewed want to establish a horizontal or transversal sustainability approach. It seems that municipalities with a Local Agenda 21 did not succeed in integrating that approach into municipal government. Instead, a majority of municipalities consider Local Agenda 21 to be an extra layer to municipal management, which consists essentially of a rigid listing of selective and heterogeneous actions or projects. Nevertheless, the idea of Agenda 21 was different: Agenda 21 was thought to be a list of symbolic actions that should stimulate local sustainable development and provoke more objectives and actions.

The parallel approach "Energy City" does not facilitate pursuing Local Agenda 21. Many municipalities realize that Energy City already includes a good amount of Local Agenda 21 or sustainability preoccupations in general, and at the same time the approach of Energy City is considered to be easy to follow because it includes criteria and indicators. Understandably, two parallel processes are difficult to pursue. A well-defined delineation of the two concepts (Local Agenda 21 and Energy City) or an integration of the two approaches would certainly facilitate the progress of sustainability in local governments.

It seems that municipalities with an Agenda 21 are trapped in a vicious circle in several ways:

- The lack of a sustainability strategy including a roadmap with milestones and measurable
 objectives will inevitably render it difficult or even impossible to measure achievements in
 comparison to objectives, which in turn will not only weaken the credibility of the municipal
 sustainability approach but will also diminish the commitment of the municipality's
 commitment to sustainability.
- Second, a patchwork of specific and heterogeneous actions will show only limited results or
 achievements. Those limited achievements are not evaluated due to a lack of resources or
 instruments, and therefore remain unknown to governments and to inhabitants. Thus the
 impression will arise that little has been achieved and a lot must still be done. That will
 inevitably lead to some fatigue for the person(s) in charge of sustainability and will give the
 overall impression that resources are lacking. That is indirectly confirmed when even the
 best staffed and equipped municipalities regret a lack of resources.
- Third, credible and transparent communication about sustainability is impossible without a prior evaluation of the achievements. However, credible communication in terms of sustainability is vital to convince and mobilize inhabitants, enterprises and politicians, and they in turn are the base for each municipal sustainability approach.

The vicious circle encountered in many municipalities must be broken. We should not forget that municipalities remain highly motivated; all of them attach great importance to sustainable development and almost every one of our interview partners was convinced that sustainability would be one of the future imperatives for municipal governments.

Thus we conclude – not surprisingly – that the sustainability approach should be integrated into the strategy and vision of the municipal government and thereafter introduced into operative management, which would render sustainability less dependent from the people in charge, increase the efficiency of the approach, and possibly reduce expenditure and cost.

That hypothesis can be deduced from several facts: those municipalities that have introduced a horizontal approach seem to be more satisfied than those with Local Agenda 21, though the experience is still too short to draw a definite conclusion. Even so, the achievements in terms of sustainability are not really known, as an evaluation is lacking.

However we can draw the parallel with environmental management systems in enterprises, like ISO 14000:

- ISO 14000 requires a strong commitment by general management, which "shall define the organisation's environmental policy and ensure that, its environmental management system provides the framework for setting and reviewing environmental objectives and targets" (ISO 2012a).
- ISO 14000 is integrated in the overall management system (ISO 2012a, 2012b). As shown by Dyllick and Hamschmidt (2000), the return on investment of a certification ISO 14000 is a little more than 2 years.

If we compare ISO requirements and the success of its implementation within organisations, it is evident that the requirements of the ISO norm are very effective in order to introduce environmental aspects into general management.

Drawing that parallel does by no means signify that ISO 14000 would be adapted to municipal governments. However, certain basic requirements of the norm, like definition of a sustainability strategy and definition of objectives, seem to be useful. Nor does it signify that an ISO 14000 certification necessarily improves the environmental performance of companies, as many doubts exist (Maier, S. and Vanstone, K. 2005, Morrow and Rondinelli 2002).

The vast majority of municipalities are conscious of the lack of a normative framework that allows an integration of their sustainability approach into their municipal management system. The vast majority of the municipalities want to continue with a horizontal or transversal sustainability approach, and certain municipalities have already started to develop their proper method to integrate sustainability into new projects on an individual and empirical basis.

The most important advantage of a horizontal approach seems to be that sustainability will quit the periphery of municipal management, and will move closer to the centre of municipal concerns.

However, for the time being, there are gaps and risks associated with that approach:

- The first point to resolve is the question "what is sustainable?" None of the municipalities realizing a sustainability evaluation of their projects had either defined in a tangible manner "what is a sustainable project?" or established formal guidelines for how much an eventual additional cost due to sustainability would be acceptable. Even more, no guidelines existed on what should happen with projects that had a negative sustainability evaluation. Would they be adapted, abandoned or realized anyway?
- This leads to the second point to be resolved: how will the evaluation of sustainability be realized? For the time being, sustainability of an activity or project is left to the "free" appraisal of the heads of department. All municipalities regret the lack of criteria (what makes project sustainable?), methods and indicators. Existing instruments to evaluate the sustainability of projects or activities seem to be too complex and time consuming. However, by creating their own simplified and easier to use evaluation methods, the municipalities run a high risk that sustainability will become so vague that the process will come to an end due to a lack of credibility.
- Third, a real integration of sustainability into all policies of local government would mean that not only new projects are evaluated in terms of sustainability, but all major municipal policies and day-to-day activities would have to be evaluated.

In our opinion, a horizontal approach is not the only possible way to successfully integrate sustainability in local governments. Another possibility would be updating objectives and functions of Local Agenda 21 on a regular basis in accordance with municipal long term strategy. The

definition of a list of actions did in no way mean that such a list should not be updated, a somewhat unfortunate misunderstanding. Adding tangible and up to date objectives to Local Agenda 21, in line with municipal strategy, would permit an integration of the list of actions into municipal organisation and government, as well as their evaluation and controlling. In the end, the results of both approaches (Local Agenda 21 and horizontal) could turn out to be similar.

What is clear and what was clearly expressed by an overwhelming majority of municipalities is the necessity for a standardized framework. Such a framework should in any case include the definition of tangible objectives, criteria and indicators in terms of sustainability, which would permit evaluation and controlling. The framework would have to be sufficiently flexible or adaptable not only to the individual requirements of each municipality in its specific political context but also to each municipal policy, department and activity.

Considering that it is the proper task of each municipality to define its sustainability strategy and priorities, it seems somewhat surprising that municipalities do not seem to have managed to define tangible sustainability objectives. In light of our results, which show that already the signification of sustainability for policies, projects, and activities is not always clear, tangible objectives are difficult to define. Once again this stresses the need for a standardized framework.

Furthermore, the challenge of sustainability consists in its transversal character having impacts on every municipal policy and activity, thus contrasting sharply to today's rather sectorial municipal organisation that has been encountered in all municipalities (in the smallest ones to a lesser extent), and which mirrors this political organisation: each member of the city council is responsible for one or more departments. On top everything else, sustainability is a highly complex matter – a mix of tangible and non-tangible requirements, with a vast field of possible activities.

Summing up, our findings suggest the following:

- For local sustainable development to become a success, it is vital to integrate sustainability at all levels in local governments, from municipal strategy and municipal policies to all activities and projects in order to render sustainability a perennial process, and one which is independent of people in place.
- 2. To face that challenge, it will be necessary to develop a standardized framework with criteria, methods and indicators reflecting all sustainability requirements. Such a framework must be suitable to different municipal sectors of activity and be adaptable to different forms of municipal organisation. It seems less important whether the point of departure is an existing Local Agenda 21, or if a new horizontal sustainability approach is chosen.

The next steps should be as follows:

- First we will test our results with a nationwide sample.
- Second, in a pilot scheme in co-operation with a limited number of municipalities, we will
 develop a normative framework, including the necessary instruments that will allow
 municipalities to define their proper sustainability strategy, fields of action, objectives,
 projects and evaluation of their sustainability performance. With such a pilot scheme, the
 usefulness of such a framework can be tested.

References

Aalborg Charter (1994) Charter of European Cities & Towns towards Sustainability (as approved by the participants at the European Conference on Sustainable Cities & Towns in Aalborg, Denmark on 27 May 1994)

Aalborg Commitments (2004)

ARE Federal Office for Spatial Development (2003) Bestandesaufnahme von Nachhaltiger Entwicklung auf der Ebene von Gemeinden

ARE Federal Office for Spatial Development (2005) Kernindikatoren für die Nachhaltige Entwicklung in Städten und Kantonen

ARE Federal Office for Spatial Development (2005) Qualitätskriterien für Nachhaltigkeitsprozesse

ARE Federal Office for Spatial Development (2007) Nachhaltigkeitsbeurteilung von Projekten auf der Ebene der Kantone und Gemeinden

ARE Federal Office for Spatial Development (2012) Nachhaltigkeitsbeurteilung von Projekten auf der Ebene der Kantone und Gemeinden

ARE Federal Office for Spatial Development (2013a), Themen, Nachhaltige Entwicklung, Umsetzung in Kantonen und Gemeinden.

http://www.are.admin.ch/themen/nachhaltig/agenda21/index.html?lang=de (accessed 15th November 2013)

ARE Federal Office for Spatial Development (2013b) Die Zukunft, die wir wollen

ARE Federal Office for Spatial Development (2013c) Cercle Indicateurs. Indikatorenblätter Städte (Stand 13.11.2013)

Berger, G. and Steurer, R. (2009), Horizontal Policy Integration and Sustainable Development: Conceptual remarks and governance examples, European Sustainable Development Network ESDN Quarterly Report June 2009

Bertels, S., Papania, L., and Papania, D. (2010) Embedding Sustainability in Organizational Culture: A Systematic Review of the Body of Knowledge, Network for Business Sustainability, London, Ontario, Canada

Covenant of Mayors (2008)

Communauté urbaine de Lyon (2009) Les agendas 21 locaux. Bilan et perspectives en Europe et en France.

Dyllick, T. and Hamschmidt, J. (2000). Wirksamkeit und Leistung von UMS in der Praxis. Umwelt Focus(5), 15-17.

Holden, M. (2013) Sustainability indicator systems within urban governance: Usability analysis of sustainability indicator systems as boundary objects, Ecological Indicators, Vol. 32, September 2013, Pages 89–96

ICLEI – Local Governments for Sustainability (2011a) Charter. http://www.iclei.org/iclei-global/who-is-iclei.html

(accessed 15th November 2013)

ICLEI – Local Governments for Sustainability (2011b) Embarking on global environmental governance. Thoughts on the inclusion of local governments and other stakeholders in safeguarding the global environment. ICLEI Paper 2011-1 vs2b

ISO (2012a) ISO 14001:2004. Environmental management systems – Requirements with guidance for use. Annex B Correspondence between ISO 14001:2004 and ISO 9001:200 https://www.iso.org/obp/ui/#iso:std:iso:14001:ed-2:v1:en (accessed 15th November 2013)

ISO (2012b) Quality management principles, ISO Central Secretariat, Geneva, Switzerland

Jupp, V. (2006) The SAGE Dictionary of Social Research Methods. SAGE Publications Thousand Oaks. CA 91320, USA

Kanton Basel-Landschaft, Bau- und Umweltschutzdirektion (2005), Der Nachhaltigkeitskompass

Kanton Bern, Amt für Umweltkoordination und Energie AUE (2008), Berner Nachhaltigkeitskompass

Labaree, R. V. Organizing Your Social Sciences Research Paper, KleinSmid Center Library for International and Public Affairs at University of Southern California http://libguides.usc.edu/content.php?pid=83009&sid=818072 (accessed 19th June 2014)

Landesanstalt für Umwelt, Messungen und Naturschutz Baden-Württemberg (2007) Neubelebung und Weiterführung der Lokalen Agenda 21: Beispiele

Le Courrier (2013). L'agenda 21 sur la sellette. 12th December 2013.

Leung, P (2009) Best Practices Scan of Sustainability Decision-Making and Planning for the Municipal Sector. The Natural Step, Canada

Maier, S. and Vanstone, K. (2005): Do good environmental management systems lead to good environmental performance. Ethical Investment Research Services (EIRIS) London

Marshal, G. (2002) LA21: success or failure in the Western Australian context. The Regional Institute, PO Box 787, Gosford NSW 2250, Australia. http://www.regional.org.au/au/soc/2002/5/marshall.htm

(accessed 19th june 2014)

Miller, K., Bertels, S., Graves, S. and Purkis, J. (2013), Embedding Sustainability in the Culture of Municipal Government, Network for Business Sustainability, London, Ontario, Canada

Municipalité de Vevey (2002) Grille de lecture pour l'analyse de projets et préavis

Morrow, D. and Rondinelli, D. (2002): Adopting Corporate Environmental Management Systems: Motivations and Results of ISO 14001 and EMAS Certification. European Management Journal Vol. 20, No. 2, pp. 159–171, April 2002

Penning, L. (2012) Infoblatt Agenda 21, Geographie Infothek, Klett Verlag, Leipzig 2012. http://www2.klett.de/sixcms/list.php?page=miniinfothek&miniinfothek=Geographie+Infothek&article=Infoblatt+Agenda+21

(accessed 19th June 2014)

Smedby, N. and Neij, L. (2013) Experiences in urban governance for sustainability: the Constructive Dialogue in Swedish municipalities, Journal of Cleaner Production, Vol. 50, 2013, 148-158

Swiss Federal Statistical Office (2005) Sprachenlandschaft in der Schweiz

Swiss Federal Statistical Office (2012a) Statistik der Schweiz, Bericht über die Nachhaltige Entwicklung 2012

Swiss Federal Statistical Office (2012b) Themen, 01 – Bevölkerung, Bevölkerungsstand und - struktur, Indikatoren, Räumliche Verteilung, Kantone, Gemeinden

http://www.bfs.admin.ch/bfs/portal/de/index/themen/01/02/blank/key/raeumliche verteilung/kanton e gemeinden.html

(accessed 9th May 2012)

Swiss Federal Tax Administration FTA (2012), Dokumentation, Zahlen und Fakten, Steuerstatistiken, Direkte Bundessteuer, Direkte Bundessteuer - Natürliche Personen - Gemeinden

- Steuerjahr 2008. http://www.estv.admin.ch/dokumentation/00075/00076/00701/01223/index.html?lang=de (accessed 9th May 2012)

Umweltbundesamt UBA (2013), Szenarien für eine integrierte Nachhaltigkeitspolitik - am Beispiel Die nachhaltige Stadt 2030, Band 4

United Nations (1992), Agenda 21. United Nations Sustainable Development Knowledge Platform http://sustainabledevelopment.un.org/index.php?page=view&nr=23&type=400&menu=35 (downloaded 15th November 2013)

United Nations (2002), Report of the World Summit on Sustainable Development http://www.un.org/jsummit/html/documents/summit_docs/131302_wssd_report_reissued.pdf

United Nations (2012), The Future We Want. United Nations Sustainable Development Knowledge Platform http://sustainabledevelopment.un.org/index.php?menu=1635 (downloaded 15th November 2013)

Voorhees, J. (2014) Conspiracy, In Theory. Slate, 5th May 2014. http://www.slate.com/articles/news_and_politics/politics/2014/05/agenda_21_how_right_wing_conservatives have used an nwo conspiracy theory.single.html?print (accessed 19th June 2014)