

Barrutia, Jose M; Echebarria, Carmen; Aguado, Itziar

Conference Paper

Determinants of Local Governments attitude towards Local Agenda 21: an empirical analysis

50th Congress of the European Regional Science Association: "Sustainable Regional Growth and Development in the Creative Knowledge Economy", 19-23 August 2010, Jönköping, Sweden

Provided in Cooperation with:

European Regional Science Association (ERSA)

Suggested Citation: Barrutia, Jose M; Echebarria, Carmen; Aguado, Itziar (2010) : Determinants of Local Governments attitude towards Local Agenda 21: an empirical analysis, 50th Congress of the European Regional Science Association: "Sustainable Regional Growth and Development in the Creative Knowledge Economy", 19-23 August 2010, Jönköping, Sweden, European Regional Science Association (ERSA), Louvain-la-Neuve

This Version is available at:

<https://hdl.handle.net/10419/119193>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.

Determinants of Local Governments attitude towards

Local Agenda 21: an empirical analysis

Jose M. Barrutia (josemaria.barrutia@ehu.es)*

Carmen Echebarria (carmen.etxebarria@ehu.es)*

Itziar Aguado (itziar.aguado@ehu.es)**

*Associate Professor

Faculty of Economics and Business Administration
University of the Basque Country (Spain)
Av. Lehendakari Agirre, nº 83 (48015-Bilbao), Bizkaia
Spain

and

European Studies Centre (St Antony's College)
University of Oxford
62 Woodstock Road, Oxford, OX2, 6JF
UK

*Lecturer

Faculty of Economics and Business Administration

April 2010

Corresponding author: Jose M Barrutia, Faculty of Economics and Business Administration, University of the Basque Country (Spain), Av. Lehendakari Agirre, nº 83 (48015-Bilbao), Bizkaia, Spain. E-mail: josemaria.barrutia@ehu.es / jose.barrutia@sant.ox.ac.uk

Acknowledgements: We gratefully acknowledge support from the Basque Government, the University of the Basque Country and the UNESCO Cathedra (GIC 07/50, GIU 9/21 and UNESCO08/04, respectively).

Determinants of Local Governments attitude towards Local Agenda 21: an empirical analysis

ABSTRACT

Previous research has identified factors affecting Local governments' (LGs) attitude to Local Agenda 21 (LA21) (Echebarria, et al. 2009). This research is addressed to propose a measurement model and contrast it in the case of a specific region, the Basque Country. Research results support that LGs attitude to LA21 (in terms of value, satisfaction and loyalty) is explained by internal characteristics of the LGs (such as the existence of key individuals and the LG' propensity towards citizen participation) and factors related to the environment of the LGs which is fostered, fundamentally, by the higher levels of government (HLGs) which can create connected or networking processes. Measurement model could be used in other contexts in order to accept or refuse the results of this research and offer politicians a guide to achieve a more generalised diffusion of LA21 processes.

Keywords: Local Agenda 21, attitude, networking, attitude determinants.

Determinants of Local Governments attitude towards

Local Agenda 21: an empirical analysis

1. Introduction

The main aim of this research is to study the factors that affect the diffusion of good practice among Local Governments¹ (henceforth, LGs), that is, implementation of Local Agenda 21 (henceforth, LA21) in order to meet goals of Sustainable Development (henceforth, SD). LA21 has been defined as a local action plan for tackling environmental, social and economic issues (Lafferty 2001) through new forms of involvement and cooperation (O'Riordan and Voisey 1998) that lead to quality-of-life improvement (Meister and Japp 1998). Involvement from civil society and an integrated (Russel and Jordan, 2009) three-dimensional SD perspective (including social, economic, and environmental targets) are essential elements of LA21.

There is a broad consensus around the central role played by local governments and civil society in achieving SD, given their proximity to the causes of many of the associated problems as well as to the possible solutions for them (Evans, et al, 2005; Krueger and Agyeman, 2005). Consequently, the United Nations proposal to promote the devising and implantation of local SD strategies, known as LA21s, which would be harmonically integrated with the strategies of the upper echelons of government, such as National Agenda 21 or National SD Strategies, was, at least nominally, subscribed to by all the European countries participating in the Rio de Janeiro World Summit (Brazil,

¹ For the purposes of this paper we will consider Local Governments to be the lowest levels of government contemplated in the European Union's Nomenclature of Territorial Units for Statistics (NUTS), which are termed Local Administrative Units (LAU). See http://ec.europa.eu/comm/eurostat/ramon/nuts/home_regions_en.html. In the case of the Basque Country they are called municipalities.

June 1992). 18 years later, however, the response from local authorities is far from generalised. This investigation aims to indicate possible alternative paths towards a more generalised diffusion of locally-based SD strategies. To achieve this objective we build on the model devised by Echebarria et al (2009), which is addressed at explaining LG attitude with regard to the LA21 tool and test it for the case of the Basque Country. As far as we are aware, the model developed by Echebarria et al (2009) is the only contribution that, on the basis of previous work (Eckerberg and Lafferty 1998; Eckerberg, Coenen, and Lafferty 1999; Evans et al, 2005; Garcia-Sanchez and Prado-Lorenzo, 2008; Lafferty 2001; Lafferty and Coenen 2001), has attempted to draw together and model factors that affect the dissemination of LA21 processes in Europe. We propose a measurement model in order to make this contribution by Echebarria et al (2009) operative and test it out in the case of the Basque Country. This measurement model could be used in other contexts to confirm or refute the results of this research and to advance towards a consensus-backed theory regarding the antecedents of LA21 diffusion, which could offer politicians a guide for achieving a more generalised diffusion of LA21 processes. Until now no consensus-backed theory has existed for identifying explanatory and outcome factors and their connection, with the corresponding scales of measurement. As a consequence, questionnaires have been built ad hoc, in line with the previous experience of the researchers concerned, and scientific progress has therefore been limited.

In essence, qualitative evidence of European LA21 experience shows that (Barrutia and Echebarria, 2009): 1) it is not at all easy for LGs to properly implement LA21. The process demands the design and launch of long-term plans that include the three dimensions of SD, which are drawn up involving citizen participation. The degree of compliance is easy for political opposition and civil society to monitor, which is not

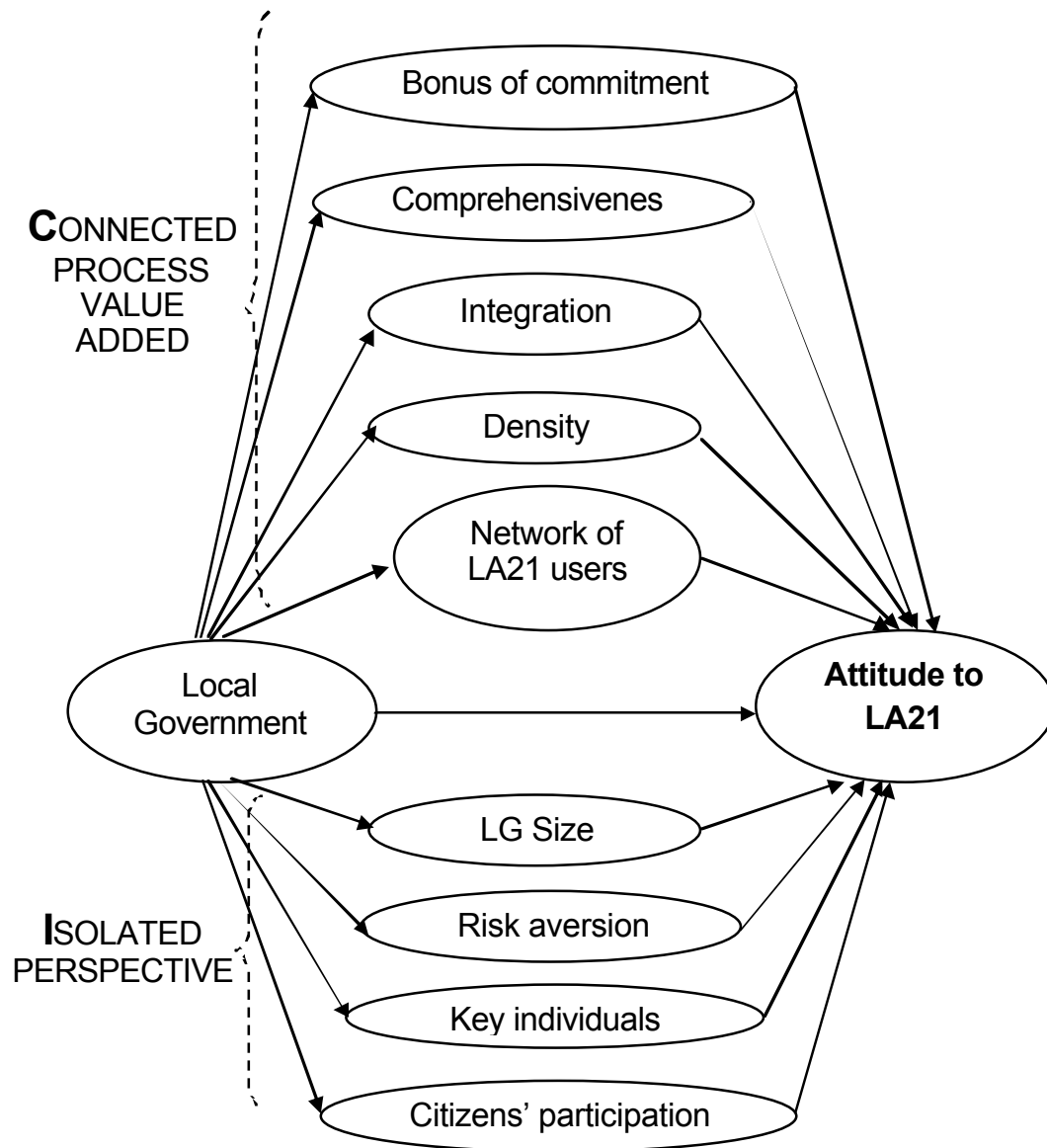
always desired by local governments, as this means they can be accused of having implemented only a small percentage of the actions envisaged in the plan; 2) a broad continued spread of LA21 processes is only possible in situations where there is a critical mass of individual factors associated with LGs and of factors linked to the LG environment; essentially, support from the higher levels of government and the creation of networks. We call such environments ‘LA21 ecosystems’; and 3) the development of ‘LA21 ecosystems’ that function in a sustained manner is complex. The high degree of effort required to establish LA21 means that many LGs that begin to work with this tool eventually abandon the attempt, as soon as one of the supporting elements of the ecosystem disappears, even in the leading countries (see, for example, the case of Sweden, in Eckeberg and Dalgren, 2007). The European experience includes examples where LA21 diffusion grows for some years and then falls off.

This research examines in detail the factors that make LGs decide to join LA21 processes of their own accord and continue with them over time, proposes appropriate metrics to measure them and examine their relevance for explaining LG attitude to LA21. To present our contribution, we first refer to the proposed model and justify the factors and metrics used. Secondly, we provide a brief sketch of the research context. Thirdly, we deal with the methodological approach of this research. Then we refer to the results of the empirical test. We finish with a section devoted to discussion and conclusions.

2. Model, factors and metrics

Figure 1 describes the proposed model, which is built on the work by Echebarria et al (2009). This starts out from the perspective of the LG as the agent taking the decisions to be implemented, as well as whether or not to continue with LA21.

Figure 1: Model to be tested



Source: Authors' own preparation based on 'The ISC framework' (Echebarria et al, 2009)

LG decisions will depend on: (1) their internal characteristics (isolated perspective), and (2) factors linked to their environment, which is fostered, fundamentally, by HLGs that are able to create connected or networking processes. Both types of factor will affect the attitude of LGs towards LA21. In accordance with Echebarria et al (2009), a broad diffusion of LA21 processes cannot be expected without powerful involvement from HLGs creating environments within which LGs work in a connected fashion or are networked.

Specific characteristics of LG

LG size

The availability of resources and also of certain capacities is generally linked to LG size. So, a factor repeatedly highlighted by LA21 literature is LG size (see e.g. Kern et al, 2007; Sancassiani, 2005). Evidence has been contributed, for instance, that it is an important step to provide small LGs with SD experts, to achieve a broader diffusion of LA21 (e.g. Kern et al, 2007, concerning Germany). Overall size is positively associated with LA21 implementation. Nevertheless, an element that might not have received sufficient attention in previous literature is that LA21 might also be more difficult to implement in larger LGs. Appropriate involvement from civil society might be more difficult to achieve in large LGs, and strategies and actions more complex to design and implement. For the purposes of this research size is proxied by using the number of inhabitants.

Risk aversion

A strong awareness of costs and risks, such as the risk of promising citizens actions that might not be possible to deliver or the existence of a winner-loser scenario at local level, has been detected in countries where LGs have very different profiles (see e.g Barrutia

et al, 2007, concerning the Spanish context, and Eckeberg and Dahlgren, 2007, concerning Sweden). These difficulties have meant that the reaction of European local authorities to the LA21 proposal has neither been swift nor generalised. For the purposes of this research, risk aversion is measured with 2 items that reflect the propensity of a LG to ‘wait and see’ before implementing new tools such as the LA21 (see table 1 to see specific items used). The risk aversion measures are inspired by previous literature (Conchar et al, 2004).

Key individuals

Several authors have emphasised the presence of key agents who can act as LA21 process leaders in LGs. The European research project DISCUS (Evans et al, 2005), in particular, shows that numerous cases can be found where mayors or other agents endowed with sufficient charisma and commitment have acted as drivers for the promotion of LA21s, and have even adopted unpopular decisions, on frequent occasions, in order to prioritise long-term SD targets. That is to say, particular key individuals in LGs will go for the tool even without in-depth knowledge of it, either because of its aims (driving Local SD), the means employed (strategic planning and citizen participation) or the institutions that promote it (United Nations, regional governments, etc.). The scale was built on the basis of the concept used by Evans et al (2005). Key individuals are proxied by using 2 items designed to measure the presence of individuals in the LGs with sufficient charisma and commitment who have advocated the idea that establishing LA21 is worth the trouble and have become involved in efforts to implement it (see table 1).

Civil society participation

A singular component of LA21 is participation from civil society and more specifically citizen participation (Coenen, 2009). Local governments are closest to the citizen but have not always incorporated citizen participation as an element for integrating political management. For some LGs, its introduction may constitute an element of rupture with practices that have become customary. Consequently, a lack of effective citizen participation has repeatedly appeared in the literature as one of the weak points in experiences of implementing LA21 and is one of the areas in which researchers have recently devoted their efforts (Bell and Evans, 1997; Burgess et al, 1998; Coenen, 2009; Kazana and Kazaklis, 2009). As Coenen (2009), among others, states, citizen participation may be the most differentiating component of LA21 and one of the main factors driving or putting a brake on its adoption. We define LG propensity to civil society participation as the extent to which LGs attach value to that participation. So, for the purposes of this research, propensity towards participation from civil society is measured using 2 items which reflect the idea that citizen participation attracts more benefits than costs to a LG and is worth the trouble. The scale building was inspired by previous work (Coenen, 2009; Echebarria et al, 2009).

SD tradition and autonomy

An SD tradition has usually been considered to be a precursor for LA21 processes (Eckerberg, 2000; Gram-Hanssen, 2000). The ‘absorptive capacity’ theory (Cohen and Levinthal, 1990) provides additional support for this idea. It argues that in order to grasp/understand innovative approaches some previous knowledge base is necessary. Learning effort has been viewed as an element that is consubstantial with LA21 (Fidélis and Pires, 2009). On the other hand, LG autonomy has been also considered to be a factor that positively affects LG attitude to LA21 (e.g. Adolfsson, 2000; 2002; Eckerberg 2000; Joas et al 2007). As we test the model in a specific and relatively homogeneous

context no significant differences in SD tradition and autonomy are expected. We do not, therefore, consider these factors for the purposes of this research. But they should be tested in possible future research of a similar kind referring to broader contexts.

Networking factors

There is significant consensus in LA21 literature regarding the importance of the existence of connected processes to explain the dissemination of LA21 and their quality. Echebarria et al (2009), after studying the European experience, proposed that to achieve generalised dissemination of the LA21 tool, a suitable form of policy-making involves the creation of specific integrated multilevel regional/national policy networks that comprehensively incorporate the relevant actors right from the start, establishing strong (dense) links between them and weaker links in relation to third parties, in which all their members take on clear long-term commitments with an orientation towards mutual benefit. They used the case of the Basque Country to show that the Basque policy network had contributed value to LGs through comprehensiveness, density, integration, a bonus of commitment and the effect produced by growing numbers of users.

Comprehensiveness (Relevant actors are involved)

Building on the research by Echebarria et al (2009), comprehensiveness is defined as the extent to which relevant actors with resources and capacities for achieving SD are working in coordination to prompt LA21 (included, ideally, in a formal policy network). As an optimum, each partner should provide, in accordance with its abilities, one of the ingredients vital to the successful functioning of the network. These actors offer value complements (e.g. financial support or training) to the tool considered in isolation (Kotler and Lee 2008). The strength and characteristics of the complements impact on the attitude towards LA21 of local authorities (Frels, et al, 2003). Regarding the

European experience of LA21, the importance of backing from central governments (Coenen 2001, 2009; Gram-Hanssen, 2000; Lindström and Johnsson, 2003; Lorenzo et al, 2004) and sub-State governments (Gomila 2000; Echebarria, et al, 2004; Kern et al. 2007; Hanf and Morata 2008) has been strongly emphasised in different geographical spaces. In other contexts, it has been pointed out that lack of support from central and regional government has to be substituted for by input from other promoters. In Finland, the AFLRA (Finnish Association of Regions and Local Authorities) and NGOs take on the leading role (Niemi-Iilahti, 2001). Meanwhile, lack of support is an important factor that acts as a brake on these processes in countries such as Switzerland (ARE, 2005), France (Larrue et al, 2001) or Portugal (Carter et al, 2000; Fidélis and Pires 2009). After reviewing previous literature, Echebarria et al (2009) assumed that the greater the quantity and quality of promoters and complements in convergence, the greater will be the value added perceived by local authorities and that the involvement and coordination of different levels of government will positively affect LG attitude to LA21. In accordance with the above concept of comprehensiveness (Echebarria et al, 2009), a measurement scale with 6 items is proposed to measure the construct. It takes in aspects that show when all relevant actors are supporting LA21, when absent actors are considered as irrelevant, when actors work collaboratively, and so on (see table 1). The scale building was inspired by Echebarria et al's concept (2009).

Integration (adequacy lines of support-goals)

Some complements can sometimes go against the objective of LA21 dissemination processes, even though their producers maintain this is not their aim. This happens because the producers do not take LG opinion sufficiently into account when they define the value complements, or try to fulfil several objectives. Fudge and Rowe (2001) and Eckerberg and Dahlgren (2007) contribute an interesting Swedish

experience. The Government decided to support infrastructure projects (a new park, for instance) rather than processes or plans (such as LA21) and, as a consequence, LGs concentrated on designing projects instead of plans. Building on Echebarria et al (2009) we define integration as the extent to which the means (lines of support) are properly designed to cover LA21 ends. Integration usually implies that network structure and initiatives are agreed by consensus with all the actors and integrated with a view to extending LA21 processes. In the context of European experience some cases have been reported in which support from central and sub-State (regional and provincial) governments coexists, but this cohabitation, rather than taking place within the framework of a cohesive strategy, occurs within an atmosphere of competition in which central and sub-State governments fight to attract LGs towards them (Echebarria et al, 2009). We assume that the integration of means (lines of support) and ends will directly and positively affect LG attitude to LA21. Integration is measured by using 5 items that refer to well defined lines of support, no mismatch, and joint consideration of means and ends, amongst others. The scale building was inspired by the concept devised by Echebarria et al (2009).

Density

Based on the research by Frels et al (2003), the density of relationships between LGs refers to the quantity and quality of contacts between LGs for dealing with LA21-related aspects. From European LA21 experience, the development of LG networks seems to constitute a launch pad for the explosion of LA21 initiatives, as shown by cases such as that of Italy (Sancassiani, 2005), Sweden (Eckerberg and Dahlgren, 2007), Spain (Echebarria et al, 2004) and the Baltic Sea (Kern and Löffelsend, 2004). In the case of the Basque Country LGs design their action plans with their neighbours in a collaborative way (Barrutia et al, 2007).

With regard to the density of relationships in LG, it should be emphasised that LGs that are geographically close to one another have usually accumulated long experience of joint work (at least in the case of the Basque Country). As a consequence, action by HLG only serves, in these cases, to foster and refocus relations that were already in place. HLGs can act on these pre-existing networks, stimulating joint work for making action plans, the launch of joint actions and the creation of platforms to facilitate the diffusion of knowledge concerning good municipal practices. For the purposes of this research density is measured by using 5 items that refers to frequency of contacts, the maintenance of long conversations, having fluid and trust relationships and similar (see table 1). The density metrics were adapted from Frels et al (2003).

Bonus of commitment

Based on previous work (Morgan and Hunt, 1994, Echebarria et al, 2009) we conceive commitment as the extent to which HLGs express duty and loyalty to LA21. Commitment from HLG reduces local authorities' perceptions of uncertainty and fears (ARE, 2005; Barrutia et al, 2007). LGs associate a policy network with a bonus of HLG commitment level (Echebarria et al, 2009). Creating a policy network is a much more complex and committed enterprise than simply designing a parcel of funding for LGs, and bears with it a bonus of commitment which is perceived by LGs. It is a clear signal of long term orientation. In the case of the Basque Country, Barrutia et al (2007) found some indicators of commitment with SD and LA21, such as the signing, by the President of the Basque Government, in January 2001, of the "Basque Country's Commitment to Sustainability" and the "Basque Environmental Strategy for SD 2002-2020". Although not legally binding, this document included more than 200 commitments and the high-priority objectives of Basque environmental policy, including LA21. But the regional government's most relevant LA21-related

commitment was the creation of the Basque Network of Municipalities for Sustainability, officially presented on 20 December 2002. The network was given the mission of stimulating the effective development of LA21 processes and integrating sustainability criteria within municipal management under a common strategy, promoting the role of LGs in a SD strategy within the BC, as well as involving Basque society. Commitment was proxied by using 6 items that refer to long term policy-making orientation, the involvement and advocacy of political leaders, unequivocal duty, and the creation of no easy return structures and so on. The commitment metrics were inspired by Morgan and Hunt (1994).

Network size

The relevance of ‘network size’ is supported by social network theory, which argues that the number and prestige of present users should be a key factor for new adopter value perception (Scott, 1991). Taking this argument as a point of departure, institutional theory has demonstrated that the wide adoption of tools such as LA21 confers legitimacy within the institutional sphere, which contributes to speeding up their diffusion (Di Maggio and Powell, 1991; Meyer and Rowan, 1991). Ultimately, these innovations acquire such a degree of recognition that not to adopt them is perceived to be irrational and negligent. The network externalities theory reinforces these ideas, in suggesting that network size is the most important factor among those to be weighed up by new adopters when taking their decision (Katz and Shapiro 1985). Lastly, network size has been widely considered in marketing literature as an explanatory factor for the adoption of products/tools (e.g. Sawhney and Parikh, 2001). A broad network functions as a ‘value network’ that offers important additional value to those adopting it, through the generation of network externalities (Frels et al, 2003). The assertions made above are also borne out by the European experience of LA21, which shows us some

countries, on the one hand, such as Switzerland and Portugal, where the presence of LA21 processes is only anecdotal, due to not having achieved a minimum critical mass, and other countries where, although time was required for it to happen, the spread of processes began to be progressive as higher levels of implantation were reached (as occurred in Spain and Italy). Building on the work by Frels et al (2009), we defined LA21 network size as the extent to which LGs consider that the present and the expected dimension of the LA21 network is high. So, network size is proxied by using 2 items that measure perceptions of present and expected network size respectively. The networks size metrics were adapted from Frels et al, (2003).

LG attitude to LA21

Attitude refers to rational and emotional feelings toward LA21. We use a broad concept of attitude that includes elements of value, satisfaction and loyalty. Value can be conceptualised as a weighted comparison between what is ‘obtained’ and what is ‘given’ (Heskett et al, 1994). Satisfaction is conceived as a positive affective state resulting from the evaluation of all the aspects associated with a particular activity or relation (Lam et al, 2004). Loyalty refers to a user’s attachment or commitment to something (Oliver, 1993) and exhibits itself in various behaviours, when recommending an activity, for instance, or in the repetition of this activity (Dwyer et al, 1987). As we explained above, we hypothesise that internal and external factors will affect LG attitude to LA21. Attitude is measured by using 9 items, 2 of which refer to value, 3 to satisfaction and 4 to loyalty toward the LA21 tool. Perceptions that LA21 is worth the trouble, LA21 meets expectations, positive word of mouth regarding LA21 and an intention to continue with the tool are included in the attitude metric. It was adapted from previous research in the area of marketing (see e.g. Lam et al, 2004, Dwyer et al, 1987).

3. Research context

Located in the north of Spain, on the south-western border of France, the Basque Country comprises the provinces of Alava, Guipuzcoa and Vizcaya. Population density in the BC is high, the region's industry is solid, and its gross domestic product (GDP) is higher than the Spanish average. After the 1980 Statute of Autonomy, the Basque Country assumed a significant degree of self-government in different fields such as health, education, culture, public order, trade, environment and social exclusion. Besides establishing the powers to be transferred from central government, the Statute also endowed the Basque Country with a special tax regime, whereby the regional tax authorities levy all taxes except for import-export duties through the three Provincial Councils. However, the Basque government then transfers a previously agreed quota to the central state Treasury in compensation for common Spanish expenditure and in payment for powers not assumed by the Basque Country. This may be the most singular financial characteristic of the Basque Country within the European Regional context. As a result of the decentralisation process initiated with the 1980 Statute of Autonomy, decision-making powers in the Basque Country are divided between four categories of public bodies: the Spanish Government; the Basque regional Parliament (Basque Government); the Provincial Councils (provincial government) and Town and Local Councils (municipal government).

The Basque Country presents an especially negative profile for LA21 diffusion. In particular, its LGs are, on average, small (averaging 8515 inhabitants, while more than 75% of the 250 LGs have less than 3000 inhabitants) and their SD experience and tradition is pretty slim. Nevertheless, what has been achieved is the almost generalised dissemination of LA21 processes, after the Basque Network of Municipalities for Sustainability was set up on 20 December 2002. The Basque Country case has been

reported as a successful practice. Barrutia et al (2007) explain in detail strategies and tools implanted in the Basque Country. The network was given the mission of stimulating the effective development of LA21 processes and integrating sustainability criteria in municipal management under a common strategy, promoting the role of the LGs in a SD strategy within the Basque Country, as well as involving Basque society. The main characteristics of the Basque policy network are:

(1) The Basque Government was aware that its role was only a prompting, driving and facilitating one. It had to involve stakeholders in LA21, while intending to make them feel, at the same time, that they were the “owners” of the process. To this end, before the network was developed and implemented, it tried to create the right environment through a shared vision, early participation by stakeholders and the formation of a network of believers among network members. The stakeholders’ involvement was designed to create the right combination of human, economic and knowledge resources for the process to be successful. But, obviously, in practice the situation today is not idyllic. Involvement from the three provincial councils, for instance, is not similar. Alava is a member of Udalsarea (the network), which signifies a relative degree of involvement, but the comparatively low implementation levels of LA21 processes in the province show that there is no effective commitment (Barrutia et al, 2007).

(2) LGs design their action plans in groups (so-called Udatales). These groups are integrated by neighbouring LGs and aided by external experts. They are usually organised using pre-existent structures, named ‘*mancomunidades*’, i.e. groups/communities of municipalities that cooperate to provide public services. The rationale for the presence of the ‘*mancomunidades*’ derives from the limitations LGs experience in achieving their goals, due to isolation; most of which increase proportionally as the size of the LG decreases. Such limitations are often faced using a

networking approach. Indeed, many LGs join together for the common provision of fundamental services (such as water supply, waste management, environmental activities, tourist promotion, etc.). LGs located close to one another usually have similar environmental characteristics, making synergies evident.

4. Methodological approach

The empirical test is based on 152 surveys conducted with municipal managers of LA21 in the Basque Country. The LGs analysed include 60% of those existing in the Basque Country and more than 90% of the total population of the Autonomous Community. The field work was preceded by meetings with those regionally responsible for organising the dissemination of LA21 processes and with councils, which acted to refocus, define and properly draft the items used and to guarantee the validity of content of the scales. To test the content validity of the items proposed, 11 (municipal and regional) experts were asked to discuss the concepts and assess the different items as 'clearly representative', 'somewhat representative' or 'unrepresentative'. Only the items around which consensus existed were retained (Lichtenstein et al, 1990). 11-point Likert scales were employed (between 0 and 10), 0 being equal to 'not at all in agreement' and 10 equal to 'very much in agreement'. 0 to 10 scales are common for education ratings in Spain and people have no problems in using them. The more common 1 to 7 scales are, on the contrary, sometimes perceived as unnatural.

When the survey had been designed, the study was presented to LA21 organisers in the LGs at a joint meeting attended by 64 LG representatives. The meeting was used to encourage the involvement of those present and to guarantee the confidentiality of the replies. In addition, notification of the project was published on the web page of the institution responsible for the promotion of the processes in the Basque Country (IHOBE), along with a document explaining the project and seeking collaboration from

the LGs. The Basque Country has two official languages, Euskera (the Basque language) and Spanish. So surveys were edited in both languages and respondents were offered an opportunity to answer in the language of their preference. The surveys were carried out by telephone, between March and April 2009, by a specialised firm. The researchers were able to monitor the interviews by phone. Finally, they were treated using the Stata programme (version 10). Four in depth interviews were carried out to improve interpretation of results.

5. Empirical model to be tested and Results

The empirical model includes the factors that may affect LGs attitude to LA21:

$$\begin{aligned} \text{Attitude}_i = & \alpha + \beta_1 (\text{LG size}) + \beta_2 (\text{network size}) + \beta_3 (\text{commitment}) + \beta_4 (\text{density}) + \beta_5 \\ & (\text{risk aversion}) + \beta_6 (\text{key individuals}) + \beta_7 (\text{civil society participation}) + \beta_8 \\ & (\text{comprehensiveness}) + \beta_9 (\text{integration}) + \varepsilon_i \end{aligned}$$

Several items were used to measure each factor in order to reduce measurement error. Overall, 40 items were considered, 3 of which had to be excluded after calculation of the Cronbach alpha internal consistency coefficient. The alpha coefficient was used to assess the reliability of the scales (see table 1). After deleting these 3 items, all factors comfortably exceeded the minimum value of 0.7 suggested by Nunally (1978). As an exception, the risk aversion factor offered a value of 0.56. This value has been considered as admissible in exploratory studies (Hair et al, 2010) and we decided to maintain this factor in the final test. Item-total correlations were also in all cases largely higher than the 0.3 cut-off point proposed by Nurosis (1993).

Table 1: Summary statistics and reliability analysis

Factor/item	Obs	Mean	Std. Dev.	Item-rest	Alpha
Habitants	152	12498	37716		
Network size	151	6.54	1.86		.83
High present size		6.47	2.02	.71	
High expected size		6.76	1.90	.71	
Density	152	5.83	2.42		.96
Frequent contacts		6.25	2.59	.87	.95
Phone conversations, emails, etc		5.82	2.55	.91	.94
Meetings		5.92	2.75	.88	.95
Long conversations		5.2	2.61	.90	.94
Fluid relationships		6.08	2.48	.85	.95
Commitment	151	5.94	1.96		.96
Clear commitment		5.92	2.17	.90	.94
Long term commitment		6.32	2.07	.90	.94
Political leaders support		5.68	1.98	.90	.94
Unequivocal support		5.81	2.07	.90	.94
Creating 'no return' physical structures		6.27	1.88	Excluded	
Political leaders as advocates		5.35	2.30	Excluded	
Risk aversion	152	4.96	1.90		.56
We prefer 'wait and see'		4.32	2.59	.39	
Precaution regarding new tools		5.61	1.90	.39	
Key individuals	153	5.80	1.95		.85
Influential individuals		5.81	2.19	.74	
Reference models		5.74	1.94	.74	
Civil society participation	153	7.64	1.66		.74
Advantages > Disadvantages		6.98	1.81	.59	
Worth the trouble		8.22	1.85	.59	
Comprehensiveness (actors)	151	5.43	1.52		.87
Promoters work' is coordinated		5.75	1.80	.61	.86
No-one missing		5.06	2.04	.64	.85
All relevant HLGs are supporting		4.91	2.12	.71	.84
Absences, if any, are irrelevant		5.98	1.78	.63	.86
Promoters support LA21		5.43	1.92	.70	.84
Promoters collaborate		5.41	1.78	.75	.84
Integration (means-ends)	147	5.95	1.47		.91
Well-targeted means		6.10	1.51	.78	.89
No mismatch		5.51	1.89	Excluded	
General means-ends adequacy		5.87	1.63	.84	.87
Joint means-ends consideration		5.86	1.70	.76	.89
Adequate support lines		5.96	1.81	.78	.88
Attitude towards LA21	150	6.69	1.50		.92
Benefits > costs		6.11	1.98	.78	.90
Worth the trouble		6.56	1.86	.83	.90
Very satisfied		6.35	1.81	.82	.90
Meet expectations		6.05	1.74	.79	.90
Ideal tool		7.11	1.83	.70	.91
Positive word of mouth		7.10	1.66	.75	.91
Recommendation		6.78	1.92	.77	.90
We intend to continue		8.10	1.75	.78	.90
We will intensify over coming years		7.60	1.92	.79	.90

After validity and reliability were checked, we built a summated scale for each of the 10 factors considered (9 explanatory factors and 1 outcome factor). Correlations between factors are included in table 2. Note that the correlations between predictor factors and the outcome factor are highly significant except for the factors of risk aversion and LG size. All correlations have the appropriate sign. Only the correlations between the risk factor and the other factors have a negative sign, as was expected.

Table 2: Factor correlations

	F1	F2	F3	F4	F5	F6	F7	F8	F9
F1: Attitude to LA21	1								
F2: LG size	.076	1							
F3: Network size	.547 ***	.065	1						
F4: Commitment	.462 ***	.039	.547 ***	1					
F5: Density	.532 ***	.153 **	.447 ***	.322 ***	1				
F6: Risk aversion	-.164	-.044	-.156	-.065	-.043	1			
F7: Key individuals	.578 ***	.060	.499 ***	.577 ***	.335 ***	-.126	1		
F8: Civil society participation	.371 ***	.092	.117	.073	.249 ***	.086	.291 **	1	
F9: Comprehens.	.450 ***	.073	.554 ***	.685 ***	.309 ***	.068	.388 ***	-.081	1
F10: Integration	.567 ***	.133	.531 ***	.607 ***	.487 ***	.004	.379 ***	.164 *	.574 ***

***significant at the 1% level; ** at 5%; * at 10%.

Regression results are included in table 3. Four different regression specifications are shown in the table. In specification 4, the variables for LG size (inhabitants), network of LA21 users and HLG commitment are not included. LG size seems not to be an explanatory factor for LG attitude to LA21. Network size and HLG commitment had to be removed, due in the main to high correlation with other explanatory factors. Specifically, these factors are highly correlated with the other factors that also reflect the networking activity of HLGs: comprehensiveness, lines of support-adequacy of goals and density of LG relations. Finally, homocedasticity was checked by using the

Breusch-Pagan / Cook-Weisberg test, which made it possible to accept the hypothesis that the variance of residuals was relatively homogenous ($\chi^2(1) = 1.21$, $\text{Prob} > \chi^2 = 0.2723$). So no corrections for heteroscedasticity were needed. Normality had been initially checked with positive results.

Table 3 : Determinants of attitude towards LA21¹

	Specification 1	Specification 2	Specification 3	Specification 4
LG size	-.001 (.397)			
Network size	-.077 (.208)	-.079 (.195)		
Commitment	-.099 (.141)	-.095 (.155)	-.090 (.175)	
Density	.112 (.004)***	.109 (.005)***	.120 (.002)***	.123 (.001)***
Risk aversion	-.112 (.011)**	-.109 (.012)**	-.119 (.005)***	-.113 (.007)***
Key individuals	.209 (.000)***	.209 (.000)***	.225 (.000)***	.195 (.000)***
Civil society participat.	.196 (.000)***	.193 (.000)***	.193 (.000)***	.196 (.000)***
Comprehensiveness	.190 (.015)**	.186 (.017)**	.212 (.005)***	.165 (.013)**
Integration	.226 (.003)***	.221 (.004)***	.236 (.002)***	.207 (.004)***
Constant	1.68 (.002)***	1.71 (.001)***	1.86 (.000)***	1.85 (.000)***
N	141	141	142	143
F statistic	21.84***	24.53***	27.97***	32.50***
R ² / Adj. R ²	.6001/.5726	.5979/.5735	.5936/.5724	.5891/.5710

*** significant at the 1% level; ** at 5%; * at 10%

p values are reported in parentheses

¹ Attitude is measured in terms of value, satisfaction and loyalty.

5. Conclusions, limitations and future research lines

The ultimate aim of the research is to indicate, to those in charge of policy-making, possible paths to pursue in order to achieve a more generalised spread of SD strategies within the local sphere. The analyses carried out make it possible to draw some conclusions of interest, which it would be advisable to test out within broader geographical contexts. Research results support the idea that LG attitude to LA21 is explained by the internal characteristics of LGs and by the external environment, largely fuelled by HLGs. Internal LG characteristics and appropriate policy-making can create 'LA21 ecosystems' in which a broad diffusion of LA21 processes is achieved.

In accordance with previous research the existence of key individuals within LGs is a main explanatory factor of LG attitude towards LA21. The individuals who make a commitment to LA21 and all that goes with it (in terms of planning work, citizen participation, three-dimensional objectives, team work with other institutions, etc.) constitute a crucial factor for explaining attitude towards processes. It is the key individuals in the councils who defend the idea that establishing LA21 is worth the trouble (value) and get involved in efforts to implement it. Likewise, propensity towards citizen participation has a positive impact on attitude towards LA21. This is not a surprising result if we consider that citizen participation is a core and distinctive element of LA21 and might also be viewed by traditional political managers as a riskier way of governance. Interestingly, citizen participation comes relatively high in the evaluation made by LA21 managers of LGs (7.64, see table 1). It might be considered an unexpected result considering that there is a lack of experience/tradition of citizen participation in the Basque Country and that it incorporates clear advantages but also cost and risks. On the contrary, as has been also suggested by previous literature, risk aversion has a negative impact on attitude towards LA21. Research has shown that some LGs are unwilling to pioneer LA21 implementation. The main reasons for this reluctance are that local political leaders (1) lack experience of tools as innovative and complex as LA21; (2) are afraid the LG diagnosis will reveal how bad the local situation is; and (3) are worried about promising citizens actions they might not be able to deliver and the existence of a winner-loser scenario at local level.

Another unexpected result is that LG size seems not to affect LG attitude to LA21. Overall, previous literature suggests that size is associated with LG resources and capacities and as a consequence with the degree of difficulty. The shortage of both human and economic resources has been considered an important factor that

complicates the actual process of implementation. This result might derive from the relative homogeneity of size of most LGs in the Basque Country. 60% of Basque LGs in the sample have less than 5,000 inhabitants and 76% less than 10,000. In Europe, LG population varies greatly. The LGs in the Nordic countries are usually the largest. According to the European Union's NUTS data base, the average size of LGs in the Nordic countries ranges from Sweden's 30,830 inhabitants (the maximum) to Finland's 11,673 (the minimum), compared to the European average (UE-25) of 4,074. But we also believe that size may be positively associated with the degree of difficulty in implementing LA21 processes and that, as a consequence, the resources and capacities effect could be compensated by the difficulty effect. Nevertheless, this surprising result should be tested in other geographical contexts.

As expected the role of HLG appears as very relevant. All factors relating to the policy networks effect brought about by HLGs correlate significantly with attitude to LA21 (comprehensiveness, lines of support-adequacy of goals, HLG commitment and network of LA21 users and density of LG relations). Regression results show that, of these factors, comprehensiveness, lines of support-adequacy of goals and density of LG relations have the most explanatory power for explaining attitude to LA21. These results are in line with previous research. Previous case studies have pointed to barriers against the diffusion of LA21 created by lack of support from some HLGs (for instance, state or regional governments) or by inconsistency between the lines of support created to prompt the SD and the essence of LA21. Previous case studies have also shown that the creation of networks of LGs to fuel LA21 processes may have positive effects on LA21 diffusion, even in the absence of comprehensiveness.

Interestingly some cross impacts between internal and external factors have been found. For instance, high correlation is found between environmental factors

(comprehensiveness, political commitment, integration, network dimension) and the presence of key individuals. This suggests that policy-making might boost the performance of individuals who are especially prone to tools such as LA21. Policy-making could be specially oriented towards discovering and supporting these individuals in order to create a group of ‘believers’ in LGs ready to drive and lead processes. Key individuals could constitute the target market for the ‘marketing actions’ of HLGs. Another interesting result refers to the density of LGs relations. In this case, action by HLGs is not the only factor that explains the LG relationship. HLG policy-making serves, in these cases, to foster and refocus relations that were already in place. HLGs can act on these pre-existing networks, stimulating joint work for making action plans, for the launch of joint actions and the creation of platforms to facilitate the diffusion of knowledge concerning good municipal practices.

The results of our study are conditioned by its context. They refer to a single regional context in which many of the elements may be relatively homogenous. Nonetheless, we believe that our work has a sufficient degree of heterogeneity to offer relevant conclusions. State or regional support, for instance, might be considered to be similar for all LGs. However, municipal managers hold that there are disparities because these governments might exert more energy in some territories than in others. As mentioned above, in the context of the Basque Country not all provincial governments have provided equal support for LA21. Whatever the case, future investigations are required in broader geographical contexts in order to either corroborate these results, or find anomalies in them. This research may be considered a first attempt at providing a measurement model that could be utilised in wider geographical areas.

References

- Adolfsson S, 2000, "Local Agenda 21 in practice – A Swedish example" *Sustainable Development* **8**(4) 201-214
- Adolfsson S, 2002, "Local Agenda 21 in Four Swedish Municipalities: A Tool towards Sustainability?" *Journal of Environmental Planning and Management* **45**(2) 219-244
- ARE, 2005 *National Promotion of Local Agenda 21 in Europe*, Federal Office for Spatial Development (ARE), Switzerland
- Barrutia J M, Aguado I, Echebarria C, 2007, "Networking for Local Agenda 21 implementation: Learning from experiences with Udaltalde and Udalsarea in the Basque autonomous community" *Geoforum* **38** 33-48
- Bell M, Evans D M, 1997, "Greening 'the heart of England' -- redemptive science, citizenship, and 'symbol of hope for the nation'" *Environment and Planning D: Society and Space* **15**(3) 257-279
- Burgess J, Harrison C M, Filius P, 1998, "Environmental communication and the cultural politics of environmental citizenship" *Environment and Planning A* **30**(8) 1445-1460
- Carter, N, Nunes Da Silva, F, Magalhaes, F, 2000, "Local Agenda 21: Progress in Portugal" *European Urban and Regional Studies* **7**(2) 181-186.
- Coenen F, 2001, "The Netherlands: Probing the essence of LA21 as a value-added approach to sustainable development and local democracy", in *Sustainable Communities in Europe* Ed. W M Lafferty (Earthscan, London) pp 153-179
- Coenen, F, 2009, "Local Agenda 21: 'Meaningful and Effective' Participation?", in *Public Participation and Better Environmental Decisions* Ed. F. Coenen (Springer, Netherlands) pp.165-182
- Cohen, W M, Levinthal, D.A, 1990, "Absorptive Capacity: A New Perspective on Learning and Innovation" *Administrative Science Quarterly* **35**(1), 128–52
- Conchar, M P, Zinkhan, G M, Peters, C, Olavarrieta, S, 2004, "An Integrated Framework for the Conceptualization of Consumers' Perceived-Risk Processing" *Academy of Marketing Science* **32**(4) 418-437
- Di Maggio P J, Powell W W, 1991, "The Iron Cage Revisted: Institutional Isomorphism and Collective Rationality", in *The new Institutionalism in Organizational Analysis* Eds. W W Powell, P J Di Maggio (The University of Chicago press, Chicago) pp 63-82
- Dwyer, F R, Schurr, P H, Oh, S, 1987, "Developing Buyer-Seller Relationships" *Journal of Marketing* **51**(April) 11-27
- Echebarria C, Barrutia J M, Aguado I, 2004, "Local Agenda 21: Progress in Spain" *European Urban and Regional Studies* **11**(3) 273-281
- Echebarria, C, Barrutia, J M, Aguado, I, 2009, "The ISC Framework: Modelling Drivers for the Degree of Local Agenda 21 implantation in Western Europe" *Environment and Planning A* **41**(4) 980-995

- Eckerberg K, 2000, "Sweden: Progression Despite Recession", in *Implementing Sustainable Development. Strategies and Initiatives in High Consumption Societies* Eds. W M Lafferty, Meadowcroft (Oxford University Press, Oxford)
- Eckerberg K, Coenen F, Lafferty W M, 1999, "The Status of LA21 in Europe: A comparative overview", in *Implementing LA21 in Europe: New Initiatives for Sustainable Communities* Ed. W M Lafferty (ProSus, Oslo, Norway)
- Eckerberg K, Dahlgren K, 2007, "Project or Process? Fifteen years experience with Local Agenda 21 in Sweden" *Ekonomiaz* **64** 130-149
- Eckerberg, K, Lafferty, W M, 1998, "Comparative perspectives on evaluation and explanation", in *From the Earth Summit to Local Agenda 21 — Working Towards Sustainable Development* Eds William M. Lafferty and Katarina Eckerberg (London, Earthscan) pp 238-262
- Evans B, Joas M, Sundback S, Theobald K, 2005, *Governing Sustainable Cities* (Earthscan, London)
- Farrell, J, Gallini, N T, 1988, "Second-Sourcing as a Commitment: Monopoly Incentives to Attract Competition" *The Quarterly Journal of Economics* **103**(4) 673-694
- Fidélis, T, Pires, S M, 2009, "Surrender or resistance to the implementation of Local Agenda 21 in Portugal: the challenges of local governance for sustainable development" *Journal of Environmental Planning and Management* **52**(4) 497-518
- Frels J K, Shervani T, Srivastava R K, 2003, "The Integrated Networks Model: Explaining Resource Allocations in Network Markets" *Journal of Marketing* **67**(January) 29-45
- Fudge C, Rowe J, 2001, "Ecological modernisation as a framework for sustainable development: a case study in Sweden" *Environment and Planning A* **33**(9) 1527-1546
- Garcia-Sanchez, I M, Prado-Lorenzo, J M, 2008, "Determinant factors in the degree of implementation of Local Agenda 21 in the European Union" *Sustainable Development* **16**(1) 17-34
- Gomila M F, 2000, "La Agenda 21 Local en Europa: un análisis comparado [Local Agenda 21 in Europe]", in *Local y sostenible. La Agenda 21 Local en España* [Local and sustainable. Local Agenda 21 in Spain] Eds. N Font, J Subirats (Icaria, Barcelona) pp 29-64
- Gram-Hanssen K, 2000, "Local Agenda 21: Traditional Gemeinschaft or Late-Modern Subpolitics?" *Journal of Environmental Policy & Planning* **2**(3) 225-235
- Hair Jr, J F, Anderson, R E, Tatham, R L, Black, W C, 2010 *Multivariate data analysis* (7th ed, Pearson Education, Upper Saddle River, New Jersey)
- Hanf, K, Morata, F, 2008, "Institutional capacities for sustainable development: experiences with Local Agenda 21 in Spain" in *In pursuit of sustainable development. New governance practices at the sub-national level in Europe* Eds S. Baker and K. Eckerberg (Abingdon: Routledge/ECPR Studies in European Political Science) pp 99-121
- Heskett, J L, Jones, T O, Loveman, G W, Sasser, E W, Schlesinger, L A, 1994, "Putting the Service-Profit Chain to Work" *Harvard Business Review* **72**(2) 164-174

- Joas M, Evans B, Theobald K, 2007, "Local Agenda 21 in Europe – The Second Phase of Ecological Modernisation in Local Government" *Ekonomiaz* **64** 92-111
- Katz M L, Shapiro C, 1985, "Network externalities, competition, and compatibility" *American Economic Review* **75** (3) 424-440
- Kazana, V, Kazaklis A, 2009, "Exploring quality of life concerns in the context of sustainable rural development at the local level: a Greek case study" *Regional Environmental Change* **9** 209–219
- Kern K, Koll C, Schophaus M, 2007, "The Diffusion of Local Agenda 21 in Germany: Comparing the German Federal States" *Environmental Politics* **16**(4) 604-624
- Kern K, Löffelsend T, 2004, "Sustainable Development in the Baltic Sea Region. Governance Beyond the Nation State" *Local Environment* **9**(5) 451 - 467
- Krueger R, Agyeman J, 2005, "Sustainability schizophrenia or actually existing sustainabilities? toward a broader understanding of the politics and promise of local sustainability in the US" *Geoforum* **36** 410–417
- Lafferty W M, 2001, "Introduction", in *Sustainable Communities in Europe* Ed. W M Lafferty (Earthscan, London) pp 1-14
- Lafferty W M, Coenen F, 2001, "Conclusions and Perspectives", in *Sustainable Communities in Europe* Ed. W M Lafferty (Earthscan, London) pp 266-304
- Lam, S Y, Shankar, V, Erramilli, M K, Murthy B, 2004, "Customer value, satisfaction, loyalty, and switching costs: An illustration from business-to-business service context" *Academy of Marketing Science Journal* **32** 293-311
- Larrue C, Emelianoff C, Di Pietro F, Héland L, 2001, "France. LA21: A new tool for sustainable policies?", in *Sustainable Communities in Europe* Ed. W M Lafferty (Earthscan, London) pp 180-205
- Lichtenstein D R, Netemeyer R G, Burton S, 1990, "Distinguishing coupon proneness from value consciousness: An acquisition-transaction utility theory perspective" *Journal of Marketing* **54**(July) 54–67
- Lindström M, Johnsson P, 2003, "Environmental Concern, Self-concept and Defence Style: a study of the Agenda 21 process in a Swedish municipality" *Environmental Education Research* **9**(1) 51-66
- Lorenzo R, Vannucci S, Franchini P, Lucci P, Luise A, 2004, "Agenda 21 Locale 2003, Dall' Agenda all' Azione: linee di indirizzo ed esperienze", APAT, Dipartimento Stato dell' Ambiente e Metrologia Ambientale, Settore Sviluppo Sostenibile, Italia, http://www.apat.gov.it/site/contentfiles/00137200/137279_Manuali_31_2004.pdf.
- Meister M, Japp P M, 1998, "Sustainable development and the global economy: rhetorical implications for improving the quality of life" *Communication Research* **25**(4) 399–421
- Meyer, J. and Rowan, B., 1991, "Institutionalized Organizations: Formal Structure as Myth and Ceremony". In W.W. Powell and P.J. Di Maggio (Eds.) *The New Institutionalism in Organizational Analysis* (pp. 41-62), Chicago, The University of Chicago Press
- Morgan, R M and Hunt, S D, 1994, "The Commitment-Trust Theory of Relationship Marketing" *Journal of Marketing* **58**(3) 20-38

- Niemi-Iilahti, A, 2001, "Finland. In search of new implementation Pattern", in *Sustainable Communities in Europe* Ed W. M. Lafferty (Earthscan, London) pp 40-57
- Nunnally, J C, 1978 *Psychometric Theory* (2nd Edition, New York, McGraw Hill)
- O'Riordan T, 1996, "Democracy and the Sustainability Transition", in *Democracy and the Environment Problems and Prospects* Eds. W M Lafferty, J Meadowcroft (Edward Elgar, Cheltenham) pp 140-156
- O'Riordan T, Voisey H, 1998 *The Transition to Sustainability – The Politics of Agenda 21 in Europe* (Earthscan, London)
- Oliver, R L, 1993, "Cognitive, Affective, and Attribute Bases of the Satisfaction," *Journal of Consumer Research*, **20**(3) 451-466
- Russel D, Jordan A, 2009, "Joining up or pulling apart? The use of appraisal to coordinate policy making for sustainable development" *Environment and Planning A* **41**(5) 1201-1216
- Sancassinani W, 2005, "Local Agenda 21 in Italy: An Effective Governance Tool for Facilitating Local Communities' Participation and Promoting Capacity Building for Sustainability" *Local Environment* **10**(2) 189-200
- Sawhney M, Parikh D, 2001, "Where Value Lives in a Networked World" *Harvard Business Review* **1**, 79-86
- Scott, J, 1991, *Social Network Analysis* (Newbury Park, London, Sage)