

## Use of ICTs and Mass Media in the Planning Processes: the Two Sides of the Same Coin

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### 1 ABSTRACT

In recent years, Information and communication technologies (ICTs) and mass media are increasing used by governments within the decision-making processes, changing the modalities to involve citizens. Moreover, these types of tools entail different benefits, such as greater transparency and the promotion of participation. In particular, the research work focuses on planning processes at the regional scale, analysing the case study of the Sardinian Regional Landscape Plan (RLP). Indeed, during the elaboration and implementation of the RLP, Web sites, blogs and mass media have been used to encourage new forms of institutional communication and participation. On the other hand, political issues have negatively influenced the outcomes of planning processes. For example, newspapers and television have represented the political arenas where officials of the local and regional governments clashed over the modalities of implementation of the RLP. As a consequence, the specific purpose of the regional government policy has been to legitimate its supremacy over the planning choices at the local level, utilizing tools that should grant a greater transparency and involvement on behalf of the local communities within planning processes.

### 2 WEB 2.0 AND E-GOVERNMENT

Nowadays, the use of ICTs and mass media within decision-making processes represents an undeniable opportunity for governments at any level. Before introducing the use of the Internet and personal computers, governments have used technology in order to enhance the managerial effectiveness of public administrators and to increase productivity (Yildiz, 2007). In the recent decades, governments, at any level, have changed the way to involve citizens within decision-making processes, introducing two important concepts, such as Web 2.0 and e-government.

First of all, it is appropriate to define what the term Web 2.0 means. According to Chang and Kanan (2008, p. 10), Web 2.0 "...is a networked world supporting individual users creating content individually and collectively, sharing and updating information and knowledge using sophisticated, diverse sharing devices and tools, and remixing and improving on content created by each other. It is a network platform that allows high levels of user interactions...". Moreover, using Web 2.0 tools allows to display information, provide particular services and, in a wider perspective, to encourage and promote greater participation and collaboration (Sandoval-Almaza et al. 2012). In addition, Bertot et al. (2012) identify three important opportunities for the use of technology in governments: democratic participation and engagement, co-production and crowdsourcing solutions and innovations. The first is related to the opportunity to provide a voice in discussions of strategies and policies; the second concerns the improvement of service quality and responsiveness. The third entails the development of innovative solutions in relation to societal questions. Indeed, the use of Web 2.0 tools has transformed power relationships between citizens and governments, facilitating openness, transparency and democratization (Picazo-Vela et al., 2012).

As a consequence, the term "government" assumes the meaning of electronic government (e-government), which, as suggested by Gil-Garcia et al. (2006, p. 639) is "...the selection, implementation, and use of information and communication technologies in government to provide public services, improve managerial effectiveness, and promote democratic values and mechanisms, as well as the development of a regulatory framework that facilitates information-intensive initiatives and fosters the knowledge society". From the methodological perspective, Layne and Lee (2001) define a model that describes the e-government projects in relation to four stages. Although this model was developed in 2001, it remains extremely actual. In particular, the first phase, called cataloguing, concerns the provision of information through web sites. The second entails online transactions with government agencies. The third stage concerns the integration of government services within functional subjects; meanwhile the last phase regards horizontal integration. As a result, the first and the second stages focus on provision of government information and services, guaranteeing a unidirectional information flow and a two-way communication respectively. On the other hand, the last two phases concern the integration of e-government services and activities within the existing governmental framework.

From this conceptual perspective, the upcoming of computers and particularly of the Internet, with the consequential use of ICTs has entailed a wider potential contribution to transparency and participation in the planning processes (Bonsón et al. 2012). Indeed, the last two concepts, transparency and participation, represent two of the eight characteristics that a good governance should have in terms of free availability, direct access to information and freedom of expression and association (UNESCAP, 2011). In particular, transparency concerns the right to access government information, entailing important benefits, such as democratic participation, trust in government, accuracy of information and prevention of corruption (Cullier and Piotrowski, 2009). Moreover, the use of the Internet has reduced the costs of collecting, distributing and accessing information (Bertot et al., 2012).

On the other hand, although theoretically the use of ICTs and mass media within the planning processes should increase and promote transparency and public involvement, the real benefits of their utilization are related to forward-looking intentions and strategies. From this viewpoint, this paper aims at analysing the pros and cons of the use of ICTs and mass media within regional and urban planning processes. Moreover, this study attempts to answer the following research question: do regional governments use these tools whether to promote participation and enhance transparency or to obtain a greater consensus among local municipalities and citizens? In particular, the study intends to interpret the two sides of this issue through the analysis of a case study related to the Sardinian Regional Landscape Plan (RLP). In particular, the research work focuses on the use of ICTs and mass media within the participatory processes used during the elaboration and revision phases of RLP.

### **3 RESEARCH STRATEGY, DESIGN AND METHODS**

The research is based on a qualitative strategy and a case study design with a triangulation of different methods that traditionally are included in qualitative or quantitative research approaches. The study intends to analyse the specific case of participatory approaches used during the elaboration and revision phases of Sardinian RLP. In particular, the research focuses on the landscape area number one called “Gulf of Cagliari” due to the size of region. Indeed, Cagliari represents a critical case study in the Sardinian context owing to complexity of interests at stake.

In addition, data have been collected through semi-structured interviews and self-completion questionnaires. The choice to use semi-structured interviews reflects the purpose of obtaining information without influencing the answers of the interviewees. Indeed, in qualitative research, the approach is not so much structured because the interviewees’ viewpoints are the main focus. Moreover, the semi-structured interviews allow obtaining further information that is not strictly connected with the used schedule or model. Indeed, in this way it is possible to ask new questions in relation to the interviewees’ replies. Therefore, the semi-structured interview method represents a more flexible instrument that allows obtaining subjective answers from the interviewees. In addition, semi-structured interviews have involved four members of the academic field and four officials of the regional government, in order to get in depth information from two different perspectives: the authority, which organizes the participatory process, and the experts in planning and participatory processes. In particular, the category of academicians includes different educational figures, such as PhD student, professor, and researchers. The choice of these specific scholars is related to their knowledge about the specific case study of the Sardinian RLP due to their researches or personal interests. From this perspective, their levels of experience in the planning field and the age are different from each other.

The self-completion questionnaires have involved nineteen people who are: officials of local and provincial governments, practitioners, technicians of building enterprises, members of environmentalist organisations and other public institutions. All the officials have an experience of more than five years in the regional government and their age varies between forty and sixty. On the other hand, this information is not detailed because the interviews have to be anonymous without the possibility of recognizing the interviewees. Indeed, the collection of personal information does not guarantee the anonymity of involved people, in particular in relation to technicians of small municipalities. Moreover, the questionnaires identify response sets in a likert scale from one to five. The number five and four represent satisfaction in relation to different aspects of participatory processes. Meanwhile, low numbers, such as one and two, indicate a low satisfaction. In addition, self-completion questionnaires were administered by email through the use of the Internet. This choice arises from both time and economic considerations. First of all, the use of the Internet entails

immediacy of responses from participants. Secondly, no money was spent as in the case of postal questionnaires. However, this type of instruments implies an intrinsic uncertainty about the effective responses of participants.

For what concerns the analysis of data, the results of the semi-structured interviews are interpreted through a thematic analysis. Meanwhile, the results of questionnaires have been analysed through a statistical analysis in order to confirm or reject the concepts, and data of interviews.

The participation relating to interviews has been complete. However, the participation concerning the questionnaires has been only partial due to different reasons, such as lack of time or disinterest. Despite this failed participation, the interviewees have highlighted important and significant aspects that have balanced the problems of partial involvement of questionnaire's respondents.

#### **4 CASE STUDY: SARDINIAN REGIONAL LANDSCAPE PLAN**

Sardinia is one of the two main Italian islands with a population of around 1.8 million people in 2011 (Istat, 2011), with a rather low density (SardegnaStatistiche, 2008). In this section, the elaboration and revision phases of RLP are analysed in order to define the two participatory approaches and to identify the main problems.

The RLP was elaborated in 2005. The participatory approach was based on 24 co-planning conferences that involved local municipalities, provinces and organizations and associations relating to industry, commerce and craft (Regione Autonoma della Sardegna, 2006a). Moreover, information was guaranteed through two websites, the RLP website and the thematic website "Sardinia Territory", and the mass media.

First of all, the RLP website aims at releasing information in order to implement a new form of institutional communication. The website is composed of six sections: procedure, reports, regulations, cartography, conference and schedule of meetings. Moreover, each part contains information in relation to specific subjects. Indeed, for example, the "Procedure" section provides modalities and timetable of the elaboration and approval of the RLP. Secondly, only after the RLP was made available to the public was the website "Sardinia Territory" published on the Internet. On this platform, it could be possible to consult geographical information, aerial pictures and regional, provincial and local planning tools, through the use of GIS-based tools. Thirdly, mass media such as regional television channels and newspapers, represented important sources of information, as the mass media followed the entire process of elaboration of the RLP. Moreover, although the participatory process used during the elaboration phase aimed at defining a new planning tool that could be shared by local municipalities and the community in general, the approaches did not guarantee a real inclusive process due to a lack of effective participatory techniques or methods. In addition, a plan proposal has been elaborated yet and, for this reason, the participatory process was not directed to build sharing objectives and strategies that have already been identified by local government. Indeed, the implementation process was a failure that made it necessary to revise the RLP.

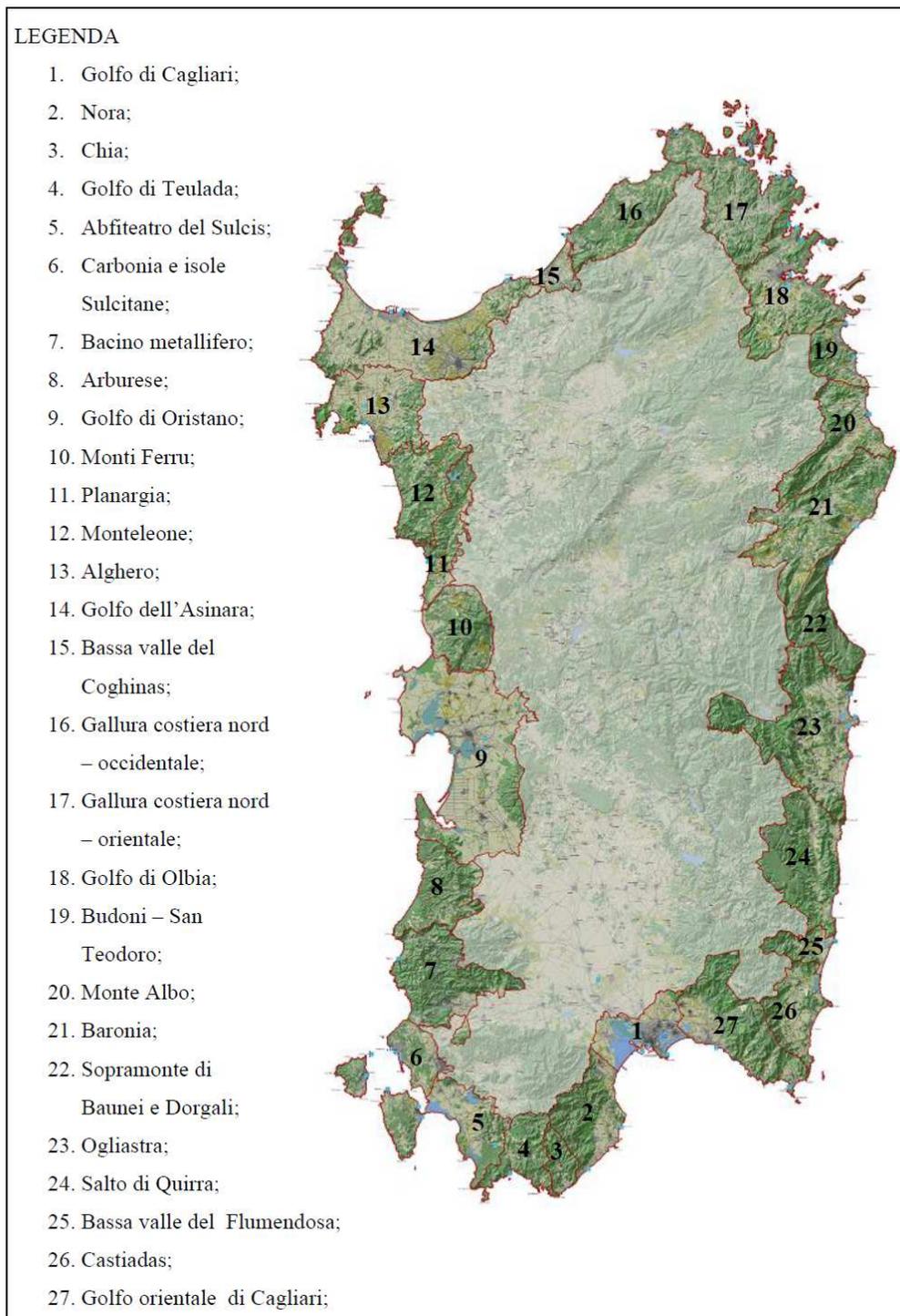


Fig. 1: Landscape areas in relation to RLP (adapted from Regione Autonoma della Sardegna, 2006b)

From this perspective, the RLP has been subject to many criticisms in terms of contents, modalities to analyse the region, administrative competences and participatory approaches. In relation to these problems, the regional government has activated a revision phase of RLP, where the participation of stakeholders has acquired a fundamental importance through a participatory process called “Sardinia New Ideas”. The aim of this process has been to build a multidirectional dialogue among regional government and other stakeholders (Regione Autonoma della Sardegna, 2010a). The new participatory process has been organized through operative and informal meetings called “landscape workshops”, where representatives of coastal local municipalities have been involved (Regione Autonoma della Sardegna, 2010c). In addition, the information was disseminated through the website “Sardegna Territorio” [Sardinia Territory] and mass media as in the case of the elaboration phase. However, in the website “Sardegna Territorio” a tool “Sardegna Geoblog” [Sardinia Geoblog] was available in order to support the dialogue among different authorities which govern

the territory. In a nutshell, this tool allowed the continuation of the participatory process. Moreover, it was possible to collect and share observations and suggestions in relation to planning (Regione Autonoma della Sardegna, 2010b).

In conclusion, the new participatory approach has solved some problems of the first phase, building a sharing scenario of region's values. However, even in this phase, the participatory process has been intentionally directed to public institutions without a direct involvement of citizens, contravening the normative approach of the European Landscape Convention to participation (Council of Europe, 2000).

## 5 DATA ANALYSIS

The participatory processes, used during the elaboration and revision phases have involved different problems in terms of ICTs and mass media. From this perspective, this section describes these negative elements in order to understand their implications for the participatory processes. Moreover, the data analysis intends to identify the benefits of the use of ICTs and mass media within the planning processes in order to understand if regional governments use these tools whether to promote participation and enhance transparency or to obtain a greater consensus among local municipalities and citizens.

The appropriate use of participatory tools can influence the effectiveness of participatory processes. In particular, the use of ICT tools and mass media could promote transparency of the participatory processes and public involvement. During the elaboration phase, the regional government used the RLP website, the thematic website called "Sardinia Territory" and mass media. Meanwhile, during the revision phase, the regional government used "Sardinia Territory", the "Sardinia Geoblog" tool and mass media.

First of all, the majority of interviewees argue that methods and tools to involve stakeholders, used during the elaboration and revision phases, have influenced, in negative terms, the effectiveness of the participatory processes. These results are confirmed by the analysis of questionnaires (see figure 2), where around 77 percent of respondents consider the impact as whether "strong negative" or "negative".

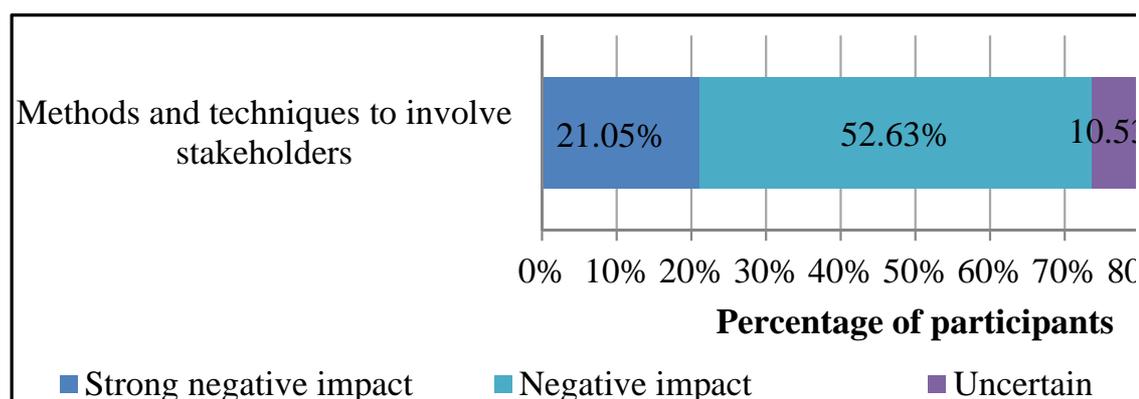


Fig. 2: Level of agreement in relation to methods and techniques to involve stakeholders, which have influenced in negative terms the effectiveness of the participatory processes used during the elaboration and revision of RLP.

In relation to the specific tools, the website Sardinia Territory and mass media were used in both elaboration and revision phases. All interviewees agree that this website should be useful in order to inform the local communities on the plan's contents. An academician argues that "...The website Sardinia Territory is an innovative tool. However, the utility of some functionality is poor. Indeed, the financial resources, which were spent to develop it, were ten times bigger than other European cases. In conclusion, Sardinia Territory represents an informative phase, not a real participatory tool..." On the one hand, the information was unidirectional without allowing having feedbacks from participants. On the other hand, the information was technically complex, not allowing a real understanding of the plan's contents. In other words, Sardinia Territory was a helpful tool for participation, but it did not guarantee a real participation. These observations are partially confirmed by the questionnaires. Indeed, the respondents of questionnaires highlighted a difference in the use of the tool Sardinia Territory between the elaboration and the revision phases. Indeed, in the first case, the most part of the respondents, around 37 percent, (see figure 3) consider this tool as either absolutely not appropriate or inappropriate. Moreover, the percentage of uncertain respondents is quite high, representing 32 percent. On the other hand, in the revision phase, 53 percent defines the website as either appropriate or absolutely appropriate, emphasizing an improvement with respect to its contents and use.

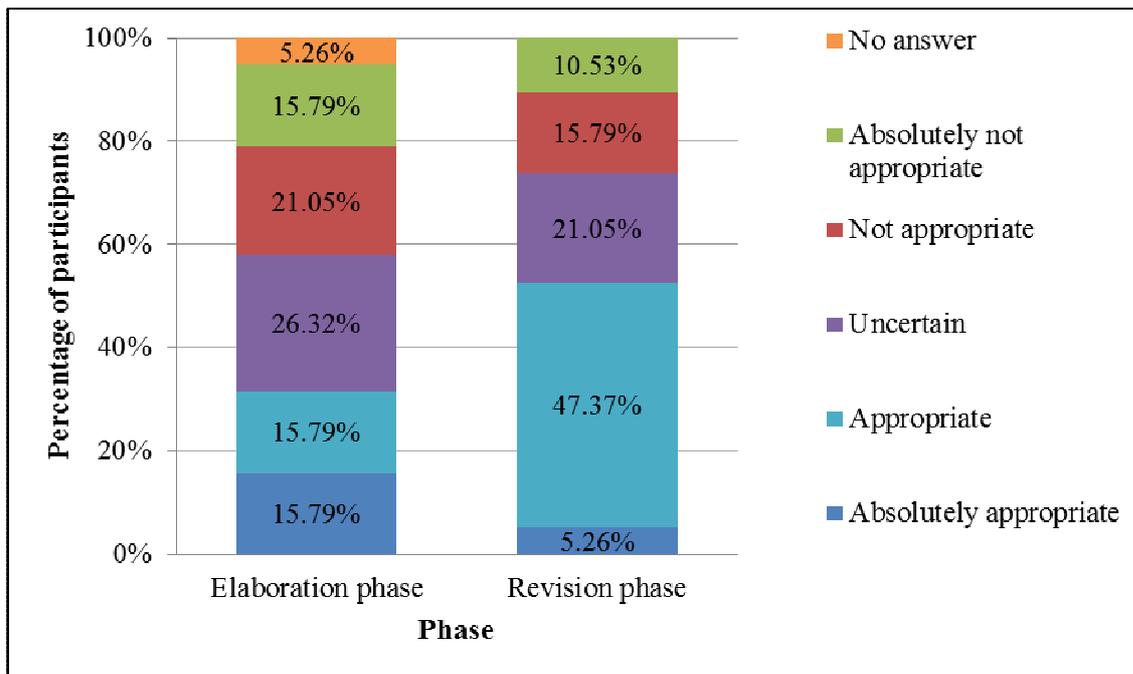


Fig. 3: Level of agreement in relation to the appropriateness of the tool Sardinia Territory in the elaboration and revision phases

In relation to mass media, the majority of interviewees agree that the elaboration of RLP has sensitized public and political opinion about the importance of landscape protection in relation to the sustainable development. Indeed, for example, an official of the regional government argues “...Although the participatory process is not defined as real and inclusive, it informed local community on the qualitative and quantitative values of a good landscape. Indeed, the regional government has conducted advertising campaigns through mass media, and the press...”. From this perspective, one of the main goals of the regional government was to present the planning process and the plan as innovative. From this view, advertising campaigns through newspapers, television and the Internet, echoed on public opinion, which become more conscious of the landscape as a common good that need to be protected. On the other hand, some interviewees argue that despite this undeniable benefit, mass media, such as regional television channels and newspapers, demonstrated the controversial relationship between the regional government and local municipalities. Indeed, newspapers and television represented the political arena where officials of the local and regional governments clashed over the modalities of implementation of the RLP. The results of questionnaires partially confirmed this controversial opinion on the use of mass media in the elaboration and revision processes of RLP (see figure 4). Indeed, around 30 percent is uncertain in relation to the appropriateness of the mass media in the elaboration phase and around 10 percent does not answer. In relation to the revision phase, the percentage of uncertainty increases, achieving around 40 percent.

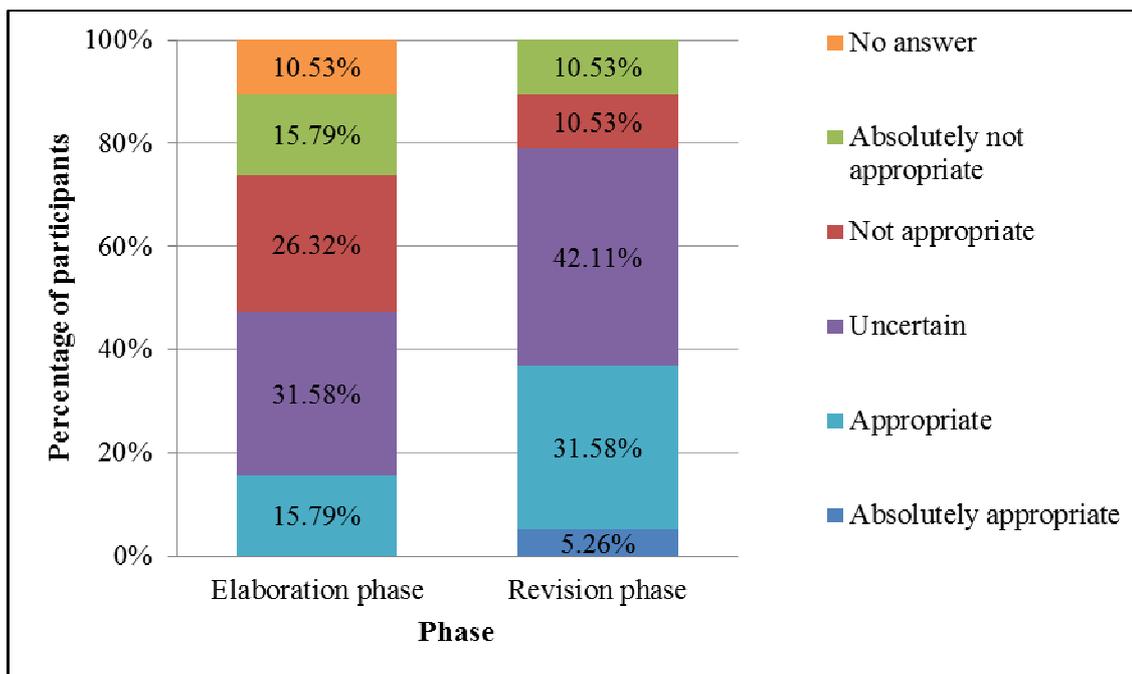


Fig. 4: Level of agreement in relation to the appropriateness of the mass media in the elaboration and revision phases

In relation to Sardinia Geoblog, it was used only in the revision phase and an official of the regional government considers this tool absolutely appropriate. However, the most part of interviewees argue that Sardinia Geoblog was not effective for two reasons, as follows. First of all, there was probably distrust with respect to the regional government’s actions. Secondly, the officials of the local municipalities did not have enough time to interact through this new tool. Moreover, an academician argues that “... The technological platform of Sardinia Geoblog is efficient even if it copied the free functionalities of Google map. However, there were some management problems, such as the lack of a prior guideline on data elaboration in order to allow the integration among geographic information coming from different sources. Indeed, for example, a church can be represented by a point or a polygon. In addition, there was not a strong connection to the real planning processes...” These data are not confirmed by the questionnaires. Indeed, 42 percent of the respondents (see figure 5) argue that Sardinia Geoblog was either appropriate or absolutely appropriate in order to guarantee a real participation. On the other hand, the percentage of this uncertainty is significant, reaching around 37 percent. Moreover, in the technological platform there are not any posts that should prove the real change of information. From this perspective, it is easy to understand that although this kind of tool shows strong future potentialities, its real use created some management problems.

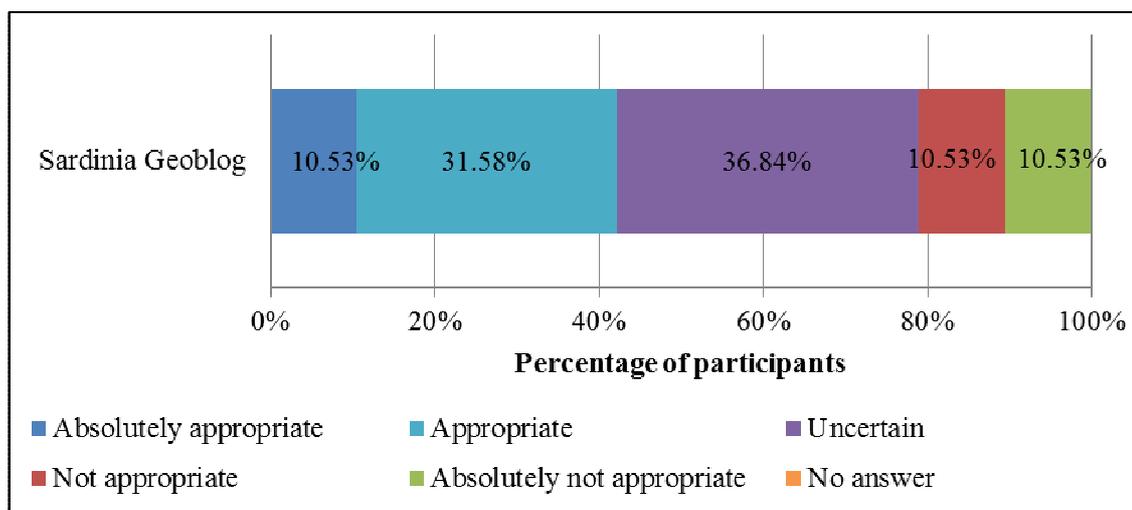


Fig. 5: Level of agreement in relation to the appropriateness of the tool Sardinia Geoblog, used during the revision phase

In conclusion, in the elaboration phase, ICTs and mass media were used to inform citizens about plan’s contents without guarantee a real participation, due to a unidirectional communication flow. On the other

hand, in the revision phase, despite its limited use, Sardinia Geoblog should guarantee a certain degree of interactivity. From this perspective, a more conscious awareness and culture of the importance of participation would be necessary in order to take further steps forward. Indeed, ICTs and mass media are useful tools if their use is inspired by forward-looking intentions.

## 6 CONCLUSION

The research work concerns the analysis of the participatory approaches in support of the decision-making processes. In particular, the case study of the Sardinian RLP is analysed in order to identify the pros and cons of the use of ICTs and mass media within regional and urban planning processes. In particular, the study intends to interpret these controversial aspects that characterised the use of ICTs and mass media within the planning process, providing the final considerations and recommendations coming from the research work.

The data analysis has emphasised the undeniable dualistic nature of ICTs and mass media. Sardinia Territory, Sardinia Geoblog and mass media represent tools, and for this reason, the appropriateness of their use is influenced by intentions and aims that inspire their utilization. As a consequence, the data analysis point out a main theme concerning the impact of political ideas on the planning decisions. Indeed, the appropriateness of tools can be connected with political and management issues. The analysis highlights that the main problems of tools are linked to incapacity or not will of the regional government to conduct a real participatory process. This situation is clearly traceable in the elaboration phase; meanwhile, in the revision phase political influences seem less important. For example, respondents of questionnaires underline an improvement in the appropriateness of Sardinia Territory, from the elaboration to the revision phases.

From this perspective, in the elaboration phase, the aim of the process aimed at establishing the supremacy of the regional government over the planning choices at the regional and local levels. In no way was the participatory process conducted to build a multidirectional dialogue between the regional government and the local municipalities, where the individuation of the communities' needs and the definition of sharing strategies and objectives could represent two important priorities. Moreover, during the elaboration phase, the power relationships were imbalanced. Indeed, the strong and managerial regional government structured the participatory process in relation to the idea that local municipalities did not have skills, competences, capacities and culture in order to take part in the planning process in an efficient way. However, the regional government not conduct effective information campaigns in order to train technical personnel in the local municipalities, and did not elaborate strategies for enhancing skills and competences in order to enable participation.

In relation to the revision phase, the absence of a shared awareness on the importance of participation in support of the decision-making processes entails, as a consequence, that practitioners and politicians do not have enough skills to apply participatory methodologies in an efficient way. On the other hand, the new participatory process sought to compensate for the problems of the elaboration phase. This improvement could be entailed by an increased attention and awareness of the importance of participatory practices. However, these apparently forward-looking intentions could be ensued by a specific idea. Indeed, the RLP established in the first phase, was elaborated by a regional government which belong to an opposite political alignment. Therefore, this increased awareness may conceal a specific political aim to represent itself as a forward-looking administration in order to increase consensus among citizens, local and provincial administrations, practitioners and the economic and productive sectors. On the other hand, this hypothesis could be confirmed or rejected only by the new RLP that will demonstrate whether the participatory process influenced the planning process.

Moreover, analysing the Sardinian planning situation in Sardinia in its entirety, the lack of communication and coordination between regional and local governments is exacerbated in relation to the contrast between coastal and inland areas. In the case of inland areas, the lack of communication and coordination has entailed a "hole" in the planning system that should govern the territory. The Sardinian regional planning system assumes the form of a "doughnut". The coastal areas are regulated by the RLP, whereas in the inland municipalities, only the historic centres are analysed in the RLP.

The essay focuses on the use of ICTs and mass media by the regional government. On the other hand, Sardinia Territory and newspapers are tools to involve citizens that are not experts. As explained in the data analysis, the electronic and not article, used to inform local communities, were technically complex. It could

be necessary a sort of facilitator in order to guarantee that all citizens could understand. Moreover, rarely do the older citizens use websites and other tools on the Internet. In this way, the use of ICTs could exclude all those citizens who do not use these kinds of technology.

In conclusion, by recognizing the intrinsically dualistic nature of the use of ICTs and mass media within the planning processes, the appropriateness of their utilization concerns the intentions and aims that inspire this specific planning process. As a result, “learning from failing” represents an important lesson of the research work. Indeed, despite the undeniable failures that characterise the current use of ICTs and mass media within the planning processes, these tools remain significant elements that could give a decisive contribution to the effectiveness of planning decisions.

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