The future of citizen engagement in cities—The council of citizen engagement in sustainable urban strategies (ConCensus)

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A R T I C L E   I N F O

A B S T R A C T

Efforts by European cities to engage residents in sustainability efforts began in earnest in the 1990s with the initiation of Local Agenda 21. While these efforts have heightened citizen awareness and facilitated exchange of information between citizens and decision-makers, most have not achieved broad, genuine, and continuous engagement in policy formulation. In no case has a local administration ceded responsibility for oversight to citizens. We prescribe a process for municipal administrations to effectively engage citizens in policy development and implementation for sustainability through the use of social networks, traditional media channels, and technical support for developing long-term policies.

1. Introduction

This article analyzes a process for municipal administrations to more effectively incorporate citizens in policy development and implementation regarding sustainability by rewarding engaged citizens with greater political responsibility in exchange for their engagement. This need for effective reciprocity is a problem documented in much previous research. Existing models of engagement, designed to empower greater citizen input in policy-making, are insufficient for achieving this objective. After assessing successes and failures in previous urban-focused engagement efforts, we identify an alternative framework better able to achieve a democratically inclusive sustainable development implementation process. Such a framework not only incorporates citizen voices in decision-making but also increases the responsiveness of government by endowing citizens with oversight authority and the capacity to hold officials accountable. We term this governance framework the COuNcil of Citizen ENgagement in Sustainable Urban Strategies: or, ConCensus.

This framework does not prescribe new strategies for bolstering citizen awareness or involvement in what is commonly termed "visioning." Instead, it is intended to facilitate ways for concerned citizens to participate in the establishment of policies that aim to develop sustainable cities: places characterized by a resilient, protective environment that also promotes robust, equitable, nimble, and appropriately scaled development and social justice. Moreover, sustainable cities are places that actually empower residents to affect the implementation, evaluation and possible revision of these policies; to become more future-oriented in the process; and, thus, free from the traditional pressures of having to demonstrate positive results in the light of upcoming local elections.

Our geographic focus – and aspired model – for this framework is Europe, where special efforts have been made in recent years to enhance the aggregate power of citizens to induce municipal-level change through education and other efforts. The key science question we seek to answer is: can this process overcome deficiencies in public engagement identified in the literature? (European Innovation Partnership, 2015). We examine this question by considering how – and how well – this new process improves upon

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decision-making, constructively employs digital platforms for engagement, ensures continuity of decisions, and assures a genuine sharing of authority as well as responsibility. While our assessment is bound to be limited as preliminary – before the ConCensus process has fully played out anywhere – this preliminary evaluation approach has precedent in the policy design literature. This literature suggests the value in conducting program evaluation early in the policy development cycle to afford greater impact on program design, and to facilitate needed adjustments (Tietenberg & Johnstone, 2004).

We begin by first discussing the experience of citizen engagement processes in cities – focusing on their shortcomings as well as successes. We then articulate our alternative framework and its methodological basis. Following this, we discuss how such a framework might actually be implemented with respect to sustainability-related problems, as well as major challenges that remain to be addressed.

2. Citizen engagement – local perspectives

While citizen engagement in local or municipal government has been variously defined, it is generally characterized as the process through which individuals, groups, and organizations are given the opportunity to take part in the decision-making that will affect them, or in which they have an interest. For activities pertinent to sustainability as an important element in citizen engagement, researchers have pointed to the importance of appropriate governance innovations that permit durable decision-making, information sharing through social and other media to connect stakeholders, forums that facilitate meaningful public participation, and direct access by the public in decision-making through mechanisms that connect different local governments and civil society groups (Akhmouch & Romano, 2016; Fleischer, Haslinger, Jahnel, & Seitz, 2012; Ostrom, Tiebout, & Warren, 1961; Scholl, Petschow, & Ferdinand, 2012).

The United Nation's Agenda 21 (1992) established a framework within which engagement in issues of sustainable development was to be encouraged. Adoption of a Local Agenda 21 (LA21) in numerous municipalities underlined the advantages of *The Quadruple Helix* (the inter-sectorial cooperation between citizens including representatives of NGOs, industry, researchers and public authorities (United Nations Agenda, 1996). Lay participation in the early stages of LA21, while constructive, was generally limited to attendance by various members of the urban populace at public conferences or workshops, where the possibility of questioning local experts was occasionally afforded, but was sometimes ineffectual. Nevertheless, in many municipalities this was not the case, and the LA21 process overall led to the legitimate recognition of further, more advanced citizen engagement practices.

These experiences mirror a larger, well-documented trend in local stakeholder participation efforts that often have failed to fully embrace or effectively implement participation for four major reasons. First, participants sometimes collaborate only as a means of advocating their own interests, and are often unwilling to contribute towards jointly negotiated solutions to common problems. As a result, no new outcomes are actually produced. This is a key challenge that must be surmounted in any method for public engagement on sustainability issues and requires a direct role in policy implementation for the engaged public (Bodin, 2017). Second, it is often impractical for participants from different backgrounds and interests to collaborate effectively given the time commitment involved in trust and confidence-building (Munck af Rosenschöld, Honkela, & Hukkinen, 2014; Raab, Mannak, & Cambre, 2015).

Third, local environmental problems are often highly contested and fraught with inequalities of power and influence among stakeholder making dependence on collaboration alone as a means of problem solving naïve at best. In Europe, for instance, a well-documented example of this is afforded by the futile efforts of Swiss environmental groups to compel changes to that country's nuclear energy policy during the first decade of the century despite close collaboration among three opposing coalitions (Shellenberger & Nordhaus, 2009; Zachrisson & Beland Lindahl, 2013; Fischer, 2014). Finally, enhanced collaboration may, in itself, escalate new conflicts if collaboration is unable to address conflicts of interest and successfully find a middle ground for compromise (Castro & Nielsen, 2001; Walker & Hurley, 2004).

Despite such sources of failure, the presumed legitimacy of citizen engagement has been validated by such supranational organizations as the European Union (EU) (Europe for Citizens Programme, 2018) which has stated the necessity to encourage the democratic and civic participation of citizens at the EU level, by developing their understanding of the EU policy making-process, and stimulate interest and involvement in EU policy making. The Organization for Economic Co-operation and Development (OECD) (Akhmouch & Romano, 2016; World Bank Group, 2014) has further made explicit – for the water sector in particular – the need for "… growing recognition that services work better when designed and delivered in partnership with citizens, and that listening to stakeholders' insights can foster innovation in service delivery practices and better risk management. In doing so, inclusive city administrations legitimize government actions and set a foundation for successful policymaking and implementation, thus allowing a focus on medium and long term planning, an essential feature of effective water policymaking." Moreover, in 2014 the World Bank argued: "Growing evidence confirms that under the right conditions, citizen engagement can help governments achieve improved development results (World Bank Group, 2014)." In these and other instances, an underlying assumption is that stakeholder participation at the local level could work effectively if it could actually alter pre- conceived preferences of participants – in effect, that engagement could be both adaptive and transformative – a point to which we shall shortly return.

There are numerous examples of stakeholder engagement in municipalities that illustrate a wide range of aims and means of implementation – and which are predicated on changing participants' minds. These include New York City's adaptation strategies aimed at tackling climate change which strongly relies on stakeholders' engagement to identify and implement energy-saving measures, the Bologna Local Urban Environment Adaptation Plan for a Resilient City, devoted to improving energy efficiency, renewable energy adoption, and renewed urban forestry through participatory and agreements with stakeholders, the Paris Water Observatory, a consultative platform prior to discussion at the City Council and Singapore's Active, Beautiful, Clean Waters (ABC Waters) Programme that aims to raise awareness and build consensus regarding water-related projects (Akhmouch & Romano, 2016;

BLUE AP, 2014).

While not focused explicitly on environmental sustainability, another example is the Local Governments of the Future initiative launched by the Ministry of the Interior and Kingdom Relations in the Netherlands in 2014. Its goal, to devolve governmental tasks and responsibilities related to social care to local citizens, has been characterized by one observer as a Neo-liberal attempt to fortify the power of established elites who are preoccupied with economic and technological trends they view as immutable and unalterable. As this is hardly a recipe for adaptive citizen-driven transformation (Ossewaarde, 2017), the example further raises questions about the efficacy of local stakeholder initiatives. Discerning positive results from these activities with regard to citizen engagement is, thus, not always easy. In general, these and other activities rarely seek much local citizen participation except at initial stages of the policy process when an environmental or other societal problem is being defined, usually in a generic manner.

This problem-definition phase precedes specific decision-making solutions or processes. Instead, stakeholders are simply informed that the problem at hand is being studied by policy-makers, but offers no means to provide additional, concrete input.

In this phase, there is often a lack of *participant advocates* to be found, and the leadership, resources, and integration skills which some consider essential for successful cross-sector collaboration are also absent (Feldman & Ingram, 2009). Such citizen engagement, be it a result of public workshops, conferences, science cafes, school activities, virtual interactive platforms such as DSPs, social media or open neighborhood consultation, might appear to some critics as political theatre or, worse, as a form of co-optation of public dissent. If this is true and the politician in question acts in such a way then potential pitfalls may appear. As described by Pat Fiorina, a senior research analyst at *Gallup,* negative effects may include situations leading "… to gridlock, lack of consensus, abuses to power, manipulation of facts or the politicization of issues (GOVTECH, 2013)."

Notwithstanding these limitations there are numerous examples in which conventional urban-focused citizen engagement initiatives have been responsible, together with support from the scientific research community, for cultivating raw materials of engagement central to effective and coherent political action: these are public awareness, knowledge-generation, and consensus over the need for action. The presence of public awareness or knowledge in relation to a specific issue – if extensive enough to embrace a wide array and number of urban citizens – better prepares the community to become involved in solving those challenges which their city faces. (In 2015, OECD noted that in relation to stakeholder engagement for inclusive water governance there is a need to map potential stakeholders and engage those typically omitted from decision-making, despite their ability to provide vital input) (Akhmouch & Romano, 2016). Likewise, knowledge production has taken place in those instances where innovative frameworks for stakeholder participation enable participants to manage moderately structured and unstructured problems where certainty is at a premium, identifying divergent political perspectives on a problem is important, and the need for absolute consensus is low. Examples include stakeholder participation within the Dutch Environmental Assessment agency's efforts to improve diagnoses of ecological uncertainties, as well as cases where local water managers and user groups – in Europe and North America – have found it opportune to share what they know about local water problems with what climate scientists know about general climatic conditions in an effort to improve forecasts by combining local expert knowledge with statistical trends (Hage, Leroy, & Petersen, 2010; Guston, 2001, and Skogstad & Shaver, 2005).

Agreement on the need to take action has also sometimes occurred in ways mirroring our idealized framework – ConCensus – is based. An example of such a procedure has been provided by IMAGINE, the European INTERREG IVC project coordinated by the organization ENERGY-CITIES, which was implemented in eight European cities between 2012 and 2015. IMAGINE was born out of a series of workshops in Arc-et-Sennans in Northern France in 2006. Major participants (policy makers, scientists, industrialists and NGOs) realized that if the cities of the future were to be energy sustainable, a long-term vision established by all the stakeholders of a local community would need to be produced. Their vision aimed at establishing the 'low-energy city with a high quality of life for all' in order to contribute to enriching the reflections and strategies of social, institutional and economic players at all levels.

Under the coordination of Energy Cities and with the socio-technical support of HafenCity University in Hamburg, eight municipalities engaged local stakeholders in order to create together their local Energy Roadmaps 2050. The results in the participating cities, Bistrita (RO), Dobrich (BG), Figueres (ES), Lille (FR), Milton- Keynes (GB), Modena (IT), Munich (DE) and Odense (DK) were a series of dynamic strategies capable also of reflecting the local idiosyncrasies and specific challenges faced by the individual project partners. As an example, Figueres, a small city situated in the North-East of Catalonia (Spain) employed six different strategies during the creation of their energy roadmap: Open Debate Forums with the participation of citizens and experts, a public on-line survey, public conferences, an Energy Project Competition for Secondary Schools, Energy Workshops for Primary Schools and an Energy Photography competition.

IMAGINE demonstrates that through adoption of distinct, simple and practical approaches in participating cities, citizen engagement in policy creation can lead to a high degree of public awareness and the resulting social consensus necessary for practical policy implementation. It demonstrated that with easily-accessible information, a comprehensive communications strategy and sufficient staffing, local decision-making becomes more social and less political in the strict sense of the word. Above all, the IMAGINE experience underscores the importance of empowerment and incentives, financing and continuity, which ConCensus seeks to refine. IMAGINE also exemplified an inherent weakness o established engagement processes in Europe. In the City of Figueres, many engaged citizens found it difficult to accept that once the policy establishment stage had been reached, their services were no longer required. This frustration was further enhanced when in 2011, subsequent to a change of government the results of IMAGINE's efforts were diminished due to local partisan rivalries. ConCensus seeks to address this issue by legally empowering citizens to oversee that policies approved under one party's term in office are continued until they have been fully implemented (co-author Elelman was Deputy Mayor of Figueres, 2007–2011).

Another example that has displayed some success at innovation diffusion across cities is ICLEI – the International Council of Local Environmental Initiatives for Sustainability, an NGO representing some 1200 local governments and local governmental associations

engaged in sustainable development efforts from over 70 countries. Its goal is to provide valid, reliable data on energy, resource management, and related problems, and to help local communities and cities engage in climate change reduction, mitigation, and adaptation activities. Formed in 1990 at the conclusion of the World Congress of Local Governments, its premise is that locally designed initiatives can provide effective, cost-efficient ways to achieve sustainability– especially if these efforts engage multiple publics ((ICLEI) International Council on Local Environmental Initiatives, 1997, 2007, 2010).

Best known for providing technical consulting, training, and information services to build capacity, share knowledge, and support local governments in implementing sustainability innovations, ICLEI publicizes and awards notable "success stories" in order to promote emulation by other cities, and among other activities, completed an assessment of New York City's progress in reducing GHG emissions (Kugler, 2007). Moreover, ICLEI spawned a network, initially based in Europe, called *Local and Regional Authorities for Biodiversity,* or LARAB, which in 2009 was renamed "Local Action for Biodiversity" (LAB). LAB encourages habitat restoration and endangered species protection in urban areas, filling a void few international NGOs have performed, and even fewer countries have championed. In addition to providing a vehicle for exchanging information about best practices and successful

cases of implementation, LAB, like ICLEI itself, widely publicizes its efforts in the popular media and profiles examples of successful local biodiversity efforts (LAB, 2011).

While effective in facilitating diffusion, ICLEI and IMAGINE are merely forerunners of what we envision as a more ambitious model of sustainable urban civic engagement.

3. A new model

The methodology of ConCensus was developed principally by co-author Richard Elelman, when serving as Deputy Mayor in the Spanish city of Figueres (2007–2011). Observing citizen frustration at participation being reduced to the role of passive spectator at infrequent public events, Elelman decided to introduce a mechanism whereby citizens not only became more deeply involved in the imagining of future initiatives but were rewarded by being offered the opportunity to fulfil an important political role – that of policy watchdog. This is significant because, from the standpoint of a new science of public engagement, ConCensus was an effort to directly intervene in the municipal governance process both practically and experimentally – by offering a new practice that could alter decision-making.

ConCensus may thus be viewed as a vehicle through which a local administration, having already created a long-term roadmap with the active contribution of citizens, and interacting with representatives of the research and private sectors, can implement this roadmap. ConCensus is an enhanced form of representative democracy designed principally to oversee the implementation of strategy. It is also a move towards a more direct form of municipal democracy in which the input of citizens themselves, and not just elected community representatives, is embraced. The municipal council would name those who have contributed to the design of a specific policy as the overseers of an action with which they fully identify.

The decision as to which citizens would constitute the ConCensus is important. Local political-party or financially-motivated interests would seek to populate such an entity with their own people. However, we believe that conscientious and effective employment of Digital Social Platforms as developed in the project 'POWER' affords a possible solution that supports the selection of genuinely concerned individuals.

The local administration and/or subcontracted agencies responsible for the technical implementation of a strategy must report the progress of the initiative to this voluntary group on a regular basis. The latter, in turn, would report to the plenary session of the City Council, local neighborhood associations and the entire community. The underlying environmental problems, however, are often more enduring; hence, a fundamental challenge is to better understand how collaborative endeavors can be better adopted by formal bureaucracies and incorporated into existing government structures and processes. The goal is not to replace formal bureaucracies, but to enhance their effectiveness by combining the strengths afforded by both formal and informal processes. This raises the question of why a participatory model is needed at all: i.e., an intermediary set of institutions between citizens and government to effectively address the challenges of sustainability.

We offer three principal reasons. First, environmental problems are tied to the complex structures and processes of boundary-spanning ecosystems – systems which do not respect political boundaries yet are directly affected by locally-generated actions such as land use, resource exploitation, transportation, and manufacturing and agriculture. Thus, effective and long-lasting solutions to environmental problems require these ecosystem characteristics, and the actions of people whose activities directly affect and are affected by them, be explicitly taken into account (Holling & Meffe, 1996). Second, efforts to protect species and areas threatened by human activities generates disputes between users, particularly between those involved in traditional industries, such as agriculture and forestry, and more modern economic activities such as tourism and recreation. Moreover, as landscape use thus shifts from production to service provision, as evidenced by the increasing importance of recreation and leisure activities in regional economies, both traditional and place-based stakeholders must share resource management with new user groups, who have modern ideas on resource utilization. This not only generates multiple-land use problems but resource disputes as well – a situation observed throughout Europe, especially in parts of Scandinavia, for instance (Hovik, Sandström, & Zachrisson, 2010).

Third, and of special relevance to cities, emerging approaches to social learning note the importance of an active role for local stakeholders in knowledge production – alluded to earlier, especially around issues of sustainability. These approaches contend that joint knowledge production and mutual learning of science and society are necessary to foster the transition to a sustainable society. To produce and gather these (new) forms of knowledge, not only scientists, but also societal no indentation between "societal" and "stakeholders".

stakeholders and citizens must be involved. Combining different ways of knowing and learning will permit different social actors

to work in concert, even with much uncertainty and limited information (Hage et al., 2010; Thompson-Klein, 2004).

In sum, many of the most pressing and complex environmental problems take place at regional and global scales – necessitating formal, and often centralized administrative responses. Furthermore, instigating and maintaining effective collaboration might be the only feasible option to address environmental problems at these scales – meaning that some collaborative efforts need to be national in scale, not merely local. The challenge, then, is developing a collaborative model able to wed national-level administration and coordination with local knowledge of sustainability challenges, a capacity for user engagement that permits resolution of disputes, and scientific expertise.

Central to the advanced form of representative democracy we are proposing is a bold focus on public information and its dissemination. Public information concerning ConCensus would be reinforced via smart, virtual channels of communication known as Digital Social Platforms (DSPs) that would be made widely available (HORIZON, 2018) together with more traditional methods such as regular press conferences, district meetings and similar activities. This unique feature will result in a more clearly defined purpose for citizen engagement by addressing four explicit aspirations of citizen engagement in the modern administrative state. These are, first, enhanced administrative transparency and accountability of political leaders will improve civic confidence and trust. In order to overcome the digital divide faced by minorities and the poor who lack access to digital decision-making processes, ConCensus would encourage open access to networks, set up internet exchange points and create local caches for frequently used content and ensure affordability of PCs, and PC access (e.g., via Internet cafes). This draws on lessons regarding how to enhance local Internet access drawing from experiences in both Europe and developing regions (Oleg Shchetinin & Massenot Baptiste, 2008; Shenglin, Simonelli, Ruidong, Bosc, & Wenwei, 2018).

Second, endowment of citizen engagement with both a relevant political and practical role will be needed. Ideally, any deviation from the established plan would have to be explained to and approved by the ConCensus who in turn would be advised and supported by the research community. Failure to convince the ConCensus would lead necessarily to an intense municipal political debate.

Third, the continuity of a long-term sustainable strategy will be assured regardless of what political party or faction governs a municipality – thereby protecting the mandate of public support. Finally, the often-observed abandonment of publically financed policies before their conclusion, due to the waxing or waning of local or regional party political support is likely to be avoided.

Fourth, the ConCensus model is uniquely equipped to address the need for decision-making foresight to help urban policies more effectively confront critical, yet unplanned challenges. By adaptive responses we mean responding to problem situations for which solutions lie outside the current way of operating, where there is a gap between a desired state and reality that cannot be closed by existing approaches alone, and where nimble, flexible solutions are required (Heifetz, 2010).

Adaptive, foresight-driven responses require that stakeholders agree on a shared economic, ecological, and social vision based on principles of individual and group reflection, democratic decisional processes, and ecological awareness.

Agreement is facilitated by leaders viewing themselves as team-builders and teachers, as opposed to dominating "diktats" (Heifetz, 2010; Maser, 1996). As facilitators, they must also be able to engage people in learning how to adapt and change priorities, attitudes, and behaviors

in order to thrive in a changing world. And, they must be willing to shift responsibility from the authority structure to the stakeholders themselves, thereby permitting a further shift away from envisioning solution-building as technical work and toward embracing more innovative and adaptive strategies which include attention to factors that can reshape urban planning visions around such challenges as human aging and the built environment, accessibility, and livability.

Finally, participants learn about the ecosystem in which their policy conflicts take place – including the interconnections, interdependencies, and interactions between such variables as air, soil, water, biodiversity, human population, and climate

– and how their choices affect its well-being and that of future generations (Gudowsky, Sotoudeh, Caparia, & Wilfing, 2017; Maser, 1996). It is the facilitator's task to create a safe place in which common bonds among participants can be built, maintained, and strengthened through good communication. The latter entails defining technical terms clearly and precisely and ensuring all parties have equal access to information. What ultimately makes this model of facilitation "transformative" is that participants listen to one another, share common

experience in a common governance framework, and acknowledge the need to balance and integrate "contrasting perceptions of data, fact and truth … in such a way that the rifts between opposites can be minimized and healed" (Maser, 1996). In sum, contradictions and differences are not ignored but viewed as grist for deliberation, debate, and the finding of common ground. Can the viability of this approach be assessed?

3.1. ConCensus – the prerequisites

In an effort to undertake a preliminary evaluation of ConCensus, an apt starting point is the set of preconditions cited in the literature which are thought to be necessary to permit basic establishment of an effective engagement effort. We can think of these pre-conditions as first order benchmarks for evaluating probable success. Three conditions are paramount.

First, during the policy formulation period citizen awareness of the key issues that the local administration wishes to address must be clearly articulated and nurtured throughout the process. The decision to address a particular issue may be conceived as either being *reactive* or *proactive*. A reactive decision is the direct result of local circumstances which demand action e.g. natural catastrophes such as floods in which case, citizens tend to be more aware of a specific situation during a determined time period but equally capable of losing interest in the subject once the effects have diminished. This type of situation is one that could lend itself to adaptive responses – as discussed in the previous section – if a community was prepared to empower citizens to respond adaptively. The reality, for too many communities, is that local administrations are reactive and consequently risk paying the high cost of

inaction rather than afford themselves the opportunity to be adaptive, in part because it is difficult for people to sustain prolonged periods of uncertainty (Gudowsky et al., 2017; Watkiss, 2007).

A proactive decision, by contrast, is the result of a "*coherent long-term social, economic and ecological agenda* (Van Leeuwen & Elelman, 2015)" which looks to prevent a problem rather than merely remedy one, and which is thus willing to embrace experimentation and policy innovation. Public awareness is the result of a determined political desire to create just such a situation employing to the full, effective communication (face-to-face, through the traditional press channels and by full use of modern social media methodology such as DSPs) initiated by the administration itself, which must lead and encourage citizens to access the necessary information and to attend events in which dialogue between all stakeholders is facilitated. The latter requires the open network access previously mentioned, as well as PC access.

Awareness, in turn, must be nurtured. A long-term strategy requires effort and approaches which will capture the imagination of the general public be they young or old supported by the aforementioned social media, and the local press, reinforced by a constant influx of data provided by smart city technology. Thus, one means of initially evaluating the prospects for ConCensus is determining whether a particular local administration has a track record of reactive, risk averse policies in response to environmental threats. A second and related means is to ascertain whether there exists a local infrastructure able to promote public awareness.

There are many examples of campaigns that can be cited which adhere closely to this aspiration, and, thus, provide some preliminary evidence for the ConCensus approach. These range from the Science-Art method which has been employed by the signatory cities of the Dubrovnik Declaration of Intent on Water (NETWERC H2O, 2018) to the aforementioned techniques demonstrated by the partners of IMAGINE (ENERGY-CITIES, 2018). School prizes, science cafés, on-line surveys, conferences, seminars, youth events, the list is endless. No one method is the correct one in all cases. Each city must learn and exchange experiences with other municipalities, thus enabling themselves to better decide which approach is the most adequate in order to address both the nature of the challenge and the characteristics of the municipality in question within a concept which has been described as "*winning-by-twinning*" (BLUESCITIES, 2018).

A second pre-condition is the provision of clear and comprehensive technical support provided by local administration to all those stakeholders who voluntarily participate in the process. Technical support helps better articulate a visioning of objectives and the development of a long-term strategy. The information, be it a baseline ecological assessment, social report or economic evaluation must be visual, accessible to all and technically valid (Ulanicki & Strzelecka, 2016). The role of both local administrative staff and related research Institutes and other sectorial experts is vital here, so as to provide the objective facts necessary for the taking of valid decisions.

The course of action decided upon must be based on a strong element of social consensus. Supporters have developed an acronym, SMART, to capture – in shorthand – its major features as well as possible criteria for evaluating whether social consensus has been achieved. SMART means that the course of action being prescribed must be *Specific (i.e., target a specific area or domain of activity for improvement), Measurable (it must seek to quantify or at least suggest an indicator of progress), Assignable (it must specify a party who is responsible for conducting the activity and meeting the target), Realistic (it should state what results can realistically be achieved, given available resources), and Time-related (it should seek to specify when the result(s) can be achieved)* (Ulanicki & Strzelecka, 2016).

A third pre-condition is that during policy formulation citizen participation must be carefully recorded within strictly controlled ethical procedures that ensure that participants' personal data is not used improperly. Whether the participant in question is the representative of an NGO, a neighborhood or community organization, a school, college or university, SME or enterprise, or simply an individual whose interest or concern has led them to take part in the process, their attendance should provide that individual sufficient scope in order to express their views. The SWITCH method (Anton & van der Steen, 2011) illustrated in Fig. 1 is a depiction of how policies should be decided upon within the bounds of ethical procedures.

These three pre-conditions are, by themselves, insufficient to achieve the goals of ConCensus unless a mechanism for accountability of local governance to citizen participants is provided – the subject of the next section. The essential factor making
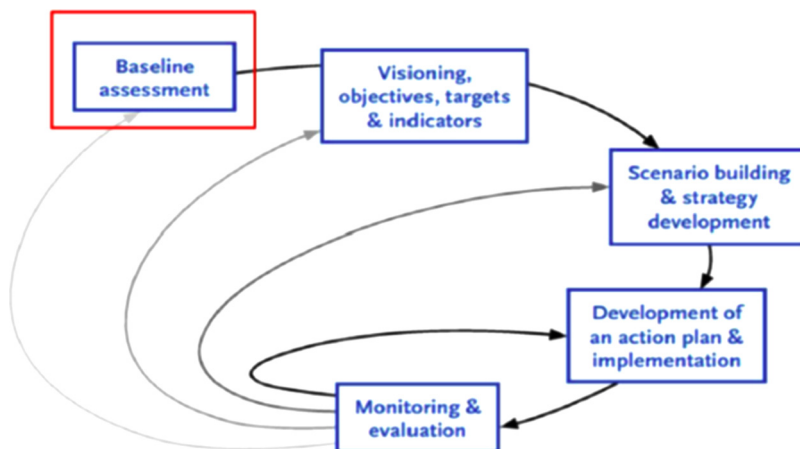

Fig. 1. Policy Development. Source: SWITCH.

accountability possible, we contend, is a reward structure for citizen engagement. While the investing of more high-quality information into the urban citizenry can generate heightened interest and, thus, a desire to become more deeply involved in decisions, efforts must be made to reward this heightened involvement lest frustration, mistrust, and even indifference arises.

One basis for reward is for participants to agree on the importance of what they want for their children as a legacy of decisions they make today, as well as consensus over what they want their community and its supporting ecosystem to look like in the future (Maser, 1996). Voluntary participation should be rewarded rather than abruptly ceased once a course of action has been decided upon. Therefore, a local or regional authority which has begun such a process as that exemplified by IMAGINE or described by SWITCH ((ICLEI) International Council on Local Environmental Initiatives (1997)), or even engaged in by an ICLEI-type venture must satisfy the demand for the continued engagement which it has created.

3.2. Recruiting and rewarding a local ConCensus – the role of social media

A local COUNCIL OF CITIZEN ENGAGEMENT IN SUSTAINABLE URBAN STRATEGIES would consist of interested citizens who by way of recorded attendance will have demonstrated a serious concern regarding the subject in question. A 'serious concern' means that they will have been involved in the process from the beginning. They will answer the initial call to attend local events on the issue and they will have voluntarily contributed to the shaping of the resulting policy in the subsequent workshops, seminars and conferences and the consequences of an effective use of applied Digital Social Platforms (DSP) (HORIZON, 2018) and other channels of communication.

The active recruitment of the ConCensus membership is a simple one. Employing the POWER DSP methodology (https://www.power-h2020.eu/power-dsp/), virtual participants would, through the local DSP run by the city in question, participate in a number of activities for which they are awarded points. The citizens with the highest number of points would be invited to participate in ConCensus. This reinforces two important aspects. First the role of social media in the furtherance of local political transparency and secondly, the avoidance of a system whereby the local elected representatives feel free to choose their own 'people'. The absence of political party candidates means that rather than seeking broad social influence, the members of the ConCensus are motivated by a genuine concern for and belief in the specific policy they would be supervising.

The effectiveness of this reward structure can be assessed through efforts that go well beyond access and affordability. Education and skill training in the use and application of digital technology must be exploited through digital literacy workshops that enable citizens to use the Internet and foster a deeper integration of digital technologies into public service (HORIZON, 2018; Shenglin et al., 2018). Stronger attention should be drawn to the necessary conditions to develop the knowledge and the shared competence necessary to achieve a more in (Knowledge of the United Nations Sustainable Development Goals or in the case of water, an endorsement of the OECD Principles on Water Governance would represent a serious commitment to implement better policies) (Akhmouch & Romano, 2016).

From the beginning, the local administration will have advertised through Digital Social Platforms and in a concentrated campaign in the local press and social media, via e-mails, SMS, advertisements, posters and so forth, the fact that a number of citizen participants will be offered the opportunity to play an important role during the detailed planning, implementation and post-implementation stages of the action.

The number of subsequent members of the ConCensus will depend on a) the size of the municipality, b) the original number of citizens who will have become involved and c) the desire on the part of said citizens to accept a role in the process.

3.3. Other process considerations in recruitment and reward

A number of non-social media considerations also must be met to ensure accountability. Process participants should be representative of the community while deliberative considerations should embrace the advantages of such entities as citizens' juries recognized for some time as permitting deliberative democracy in the light of three criteria: inclusivity, deliberation and citizenship (Smith & Wales, 2000; Ward, Norval, Landman, & Pretty, 2003). Between approximately 10–20 members would be an optimal number and should include at least one representative from each interested non-governmental municipal institutions (NGOs, neighborhood or community organizations, schools, colleges or universities, SMEs or enterprises, commerce representatives) and distinct channels of public communication (printed and digital press, local television and radio).

Small rural communities might be expected to involve fewer people. Large urban communities of more than 500,000 inhabitants should consider implementing ConCensus at a district or borough level rather than trying to represent an entire metropolis. If a policy is unable to attract at least 10 volunteers, this would probably be due to a failure in the earlier process of awareness and consensus creation. If this were the case, then further activity in this field would be required before proceeding.

In response to the possible concern that the "wrong' kind of people – or individuals who are opposed to sustainability principles might join and thwart ConCensus efforts, the project would be designed to avoid this problem by virtue of the fact that regulations would be designed to be subject to constant re-interpretation and effective mechanisms required to settle different interpretations would be afforded. Competition and value conflict are not viewed as liabilities but as strength. Most adaptive organizations and communities honor a mix of values, and the competition within this mix largely explains why adaptive work so often involves conflict. The key to making ConCensus work is that participants with competing values are encouraged to engage one another as they confront a shared situation from their own points of view.

ConCensus would acknowledge the need to balance the respective, appropriate roles of government and citizen engagement - decisions regarding distribution of costs and benefits, as well as distribution of political rights, is political by nature and should be the
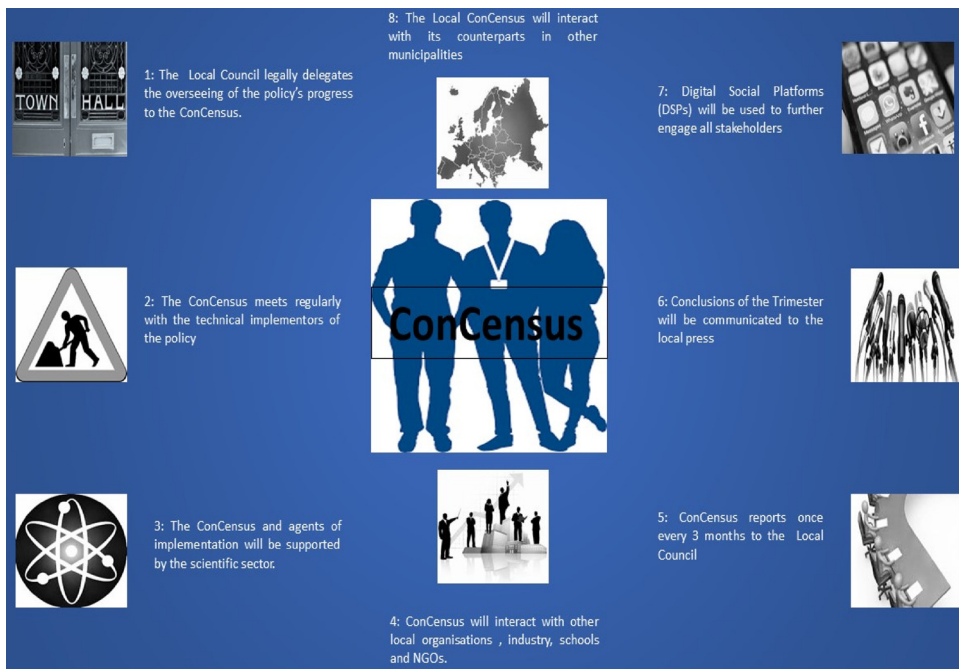
Fig. 2. How ConCensus functions. Source: R. Eleman.

concern of representative government. Realistically – to ensure civil discourse

– enabling rules must be established to combine central governance and local participation, especially to assist facilitation of the local actors' involvement in nature conservation and they must be prepared to solve any political issues that arise as a consequence of the local actors' involvement (Heifetz, 2010; Hovik et al., 2010).

The formal creation of a ConCensus in any given municipality should comprise an integral part of the political and legal process for obtaining official approval of policy proposals. The process of legal municipal policy approval does vary from one European state to another but in general the approval by a simple majority of elected city councilors in a plenary session is necessary. Specific details regarding membership, duration of member terms, qualifications of members of ConCensus, budget, and other considerations should not be taken for granted but be explicitly prescribed in a charter in order to facilitate public trust and confidence in the process, and further ensure transparency. In order to envision how this all might work, let's take a hypothetical *SMART* example (Fig. 2).

In this case, the ideal situation would be that the members of ConCensus are named for an eight-year period. However, this would demand much of the ConCensus members so two principal conditions should be established: i) The original members of the ConCensus agree to being part of the mechanism for a minimum of 4 years and

ii) there are, selected from those citizens who will have participated in the formulation of the policy, a list of volunteers prepared to substitute those who for whatever reason decide to abandon the project. ConCensus members could also be divided according to the established phases of the policy so that the length of ConCensus membership will coincide with the timing of individual actions as illustrated in Fig. 3 below such as the *pedestrianization* stage (Year 1–2) or the establishment of the sought after frequency of bus routes (Year 1–4).

Many issues which municipalities face, be they environmental, social, or cultural, to name just three sectors, require long term visions translated into practicable, coherent stages in order to be implemented. The ConCensus approach may actually produce decisions that are more likely in the long run to lead to environmentally sustainable cities and other localities, putting into effect the hitherto often unfulfilled claims of earlier *Agenda 21* reports. The individual stages themselves often require time in order to prove themselves technically, socially and economically viable. In short, what is often required is constancy which, in an often-volatile political climate is at best difficult to achieve and at worst may be impossible. ConCensus may contribute to the obtaining of such stability since it is designed to help ensure continuity of sustainable strategies: as depicted in Fig. 3.

3.4. Evaluating ConCensus – assessing operations

Ideally, ConCensus will function according to the following parameters. Once its constitution and roles are approved, municipal councils will delegate the responsibility for overseeing the policy's progress to the ConCensus, while ensuring that the entity is supported adequately with municipal manpower and resources, if and when required. Further, all members of ConCensus will have regular meetings with the municipal agents and /or subcontracted entities responsible for implementation of policy. ConCensus and its agents of implementation should be supported by research stakeholders. Such academic experts can be invited to participate in the ConCensus meetings when deemed necessary. "Scientific information is likely to be effective in influencing the evolution of social

- After an effective participatory process the *Specific* target is a reduction of CO2 emissions due to privately-owned vehicles.

- So as to be *Measurable* it has been decided in line with objectives established by Mayors Adapt that the reduction should reach 40% by 2030 in relation to a baseline assessment which has been undertaken during the period of engagement and consensus. (An excellent example of such a baseline assessment is the City Amberprint developed by De Montfort University within the BlueSCities project)

- The implementation is to be *assigned* to municipal civil servants and a sub-contracted agency specialised in such actions.

- Having assessed the resources available it has been decided that the policy must be divided into a series of *Realistic* and achievable aims which will contribute to the overall objective. They are **i)** The *pedestrianisation* of the city centre and ehe establishment of interactive ICT support mechanisms (Year 1-2). **ii)** Improved bus routes The creation of cycle lanes (Year 3-4.) **iii)** The creation of free parking in the city suburbs connected to the city centre by bus routes (Year 5-6) and, **iv)** A public review of the results obtained (Year 7-8)

- In order to facilitate political acceptance and the maintenance of public enthusiasm for the policy it has been established that the above actions will adhere to the timings which appear in brackets but that all actions will be completed in a period of 8 years.

Fig. 3. Applying ConCensus.

responses to public issues to the extent that the information is perceived by relevant stakeholders to be not only credible, but also salient and legitimate (Cash et al., 2003)"

Other municipal institutions such as neighborhood councils, industry and SMEs, schools and colleges and relevant NGOs will be kept informed and their opinions taken into consideration by ConCensus. Each member of ConCensus would act as the contact for specific institutions, therefore permitting a close, knowledgeable relationship. If necessary, larger public meetings and/or workshops may be organized. This is especially important at the conclusion of policy deliberations, when both a post-implementation analysis and further proposals are prepared. ConCensus, agents responsible for policy implementation, and other municipal stakeholders will report, at least every three months, to the municipal council in public plenary session in order to articulate its concerns and policy recommendations. This will be followed by a media communiqué and formal press conferences organized by the ConCensus media officer, as well as social media dissemination.

Continual output from the ConCensus and input from all stakeholders can be obtained using Digital Support Platforms (DSPs), social media such as Facebook, Twitter, LinkedIn and e-mails, thus ensuring an effective and continual social communication and engagement. The use of DSPs permits all stakeholders to be able to efficiently contribute data, submit forms and access necessary information from other actors with ease. ConCensus would be encouraged to interact with other similar entities in other municipalities in order to exchange experience and knowledge, thus improving the efficiency and quality of its work. The completion of the implemented policy and the post-implementation analysis, a report of which will be presented to the municipal council in plenary session will signify the cessation the ConCensus activities.

One final evaluation challenge must be acknowledged: to date, there has been no example of a municipality employing the ConCensus methodology. Moreover, there has been no process within the context of environmental policy in Europe whereby engaged citizens have been granted legally recognized oversight and control role by a local authority. In part to remedy this situation, and under the auspices of the European Horizon 2020 project: Political and social awareness on Water Environmental challenges or POWER, for short, is at present being undertaken in four cities: Jerusalem (IL), Sabadell (ES) Milton Keynes and Leicester (UK). A four-year initiative, in 2015 POWER developed a DSP in order to address specific issues of water and has now entered the stage in which ConCensus will be undertaken in the four Key Demonstration Cities before being replicated in a series of 'follower cities'.

These four cities will address water scarcity, reuse, quality and flooding from the perspective of different approaches to municipal government within Europe and a neighboring country. An impact assessment methodology is currently being developed to determine the application and impact of the POWER DSP under ConCensus, as well as its political, social and technological implications and possible relevance to other cities worldwide. In order to refine the methodology, pilot-specific reporting will take place at two junctures: 1) halfway through ConCensus pilot deployment (October 2018) and 2), towards the end of pilot deployment (October 2019). This assessment will help us better understand the role and impact of ConCensus and how to better enable the transition towards more effective decision-making and implementation of urban water services. Most importantly it will also permit a self-

evaluation of the capacity for initiative continuity as gauged by citizens' perceptions.

4. Conclusion

The objective of ConCensus is to provide a framework for effective civic engagement within which voluntary participation in the creation of a policy is rewarded. It offers an open and more democratic means of supervising the progress of an action that has previously been decided upon as the result of public consultation. It is true that there will always be a possibility of political-party bias being present in such a mechanism, but ConCensus does open the floor to people who would not necessarily wish to be under the direction of a specific party platform or ideology – an important consideration, historically, in Europe, and elsewhere. The question of partisan neutrality or, conversely, positive discrimination against partisanship is a complex one. One must ask oneself if it would be preferable to guarantee the participation of a certain percentage of men and women, different academic levels, types of profession, age and so on. We contend that the only prerequisite should be a genuine interest in the issue at hand – and that persons are residents in the neighborhood affected, or whose interest is based on a broader social concern – what Bellah refers to as a community of memory – an idea based on the notion that long- term municipality residents often share a place-based sense of identity that revolves around shared experiences and appreciation for a common community history (Bellah, 1996).

Politically, the ConCensus approach, by disseminating innovations from one city to another, by recruiting citizens as partners in environmental governance and by further developing the aims of the original Agenda 21 approach may actually produce decisions that are more likely in the long run to lead to environmentally sustainable cities and other municipalities. ConCensus represents a move towards enhanced municipal administrative transparency and strengthens the administration's representativeness of the community. This will lead to greater public confidence in the activities undertaken and reduces the possibility of reactive, uninformed opposition. Furthermore, ConCensus permits the politician involved, the opportunity to interact more closely with the electorate and guarantees that the broad political strategy which they have advocated is more likely to resist the test of time and the result of said politician not continuing in their post.

Given that ConCensus remains conceptual – that is, a largely future-oriented, aspirational model for public engagement – why should we repose confidence it its likelihood of success when other similar proposals have failed to provide a more stable and inclusive participatory process? Three factors stand out for consideration. First, ConCensus is designed to oversee the implementation of one specific action, previously agreed by all the stakeholders concerned at precise, given time. Such specific actions, as we have seen, should be proactive efforts by local administrations to address an environmental problem before it becomes critical and politically-divisive. – as the aforementioned Dubrovnik declaration of Intent on Water as well as the IMAGINE partners illustrate.

Second, ConCensus entails citizen-volunteers being legally recognized by local governance through a legal-political process that is designed to ensure that official approval of policy proposals related to sustainability must be first approved through ConCensus before the action can be taken. This creates a potentially win-win situation: citizens gain official recognition of their task and are empowered to oversee policies through the use of social networks as well as traditional media channels. Moreover, citizen input is directly incorporated into municipal decisions and provides a consistent reporting and accountability mechanism by local agencies back to citizens, particularly through Digital Social Platforms, robust opportunities for planning, implementation, and post-implementation policy evaluation, and in deliberative processes of decision-making.

Third, funding agencies at higher political jurisdictional levels that are empowered to support, nurture, and fund local sustainability efforts will be in a better position to observe whether local political leaders are carrying through on local needs, and that a project's direction is in conformance with – and is not diverting resources away from – the budget allocated to support the action. The continuity of a policy provides benefits beyond the borders of a particular municipality. Supranational organizations such as the EU, the World Bank, the UN and The OECD, together with entities such as ICLEI, ENERGY CITIES, and the European Innovation Platform for Water or NETWERC H2O are constantly producing long-term strategies in order to answer the challenges which face our global society.

In sum, many international efforts seek to implement similar ideas. The United Nations' Sustainable Development Goals (SDGs) and the European Commission's Covenant of Mayors for Climate and Energy, seek to recruit the active collaboration of municipal and regional governments who together with other stakeholders representing the Quadruple Helix are now fully recognized as key actors. Such work is often financed through public funds such as the European Structural Investment Funds, European Regional Development Funds LIFE, INTERREG and HORIZON 2020. The creation of a ConCensus in order to supervise a specific action can provide the financing, as well as a supranational entity with a tangible guarantee that the investment will not be subject to the changing winds of local political life but will continue to be financed and administered as an important issue and a long-term priority (Akhmouch & Romano, 2016). Even efforts to approximate this goal, we believe, could be a measureable step in urban sustainable development efforts.

What makes ConCensus unique is its emphasis on a detailed action plan, the requirement that stakeholders be directly involved in implementation of policy as well as in subsequent monitoring and evaluation of the results, and the further stipulation that – in evaluation of its effectiveness –citizens who contributed to the original decision-making roadmap will be directly involved. The latter will be rewarded through being given the authority to articulate an overall vision for local sustainability, set goals, engage in operationalizing these goals, monitor results, and reflect on progress. In so doing, they are assured a direct role in policy implementation, afforded opportunities to engage with other participants from different backgrounds and interests, and placed into positions of authority where they may actually enable policy change – all of which, as the literature on public engagement has shown, are traditional shortcomings of participatory processes (Castro & Nielsen, 2001; Fischer, 2014; Shellenberger & Nordhaus, 2009; Walker & Hurley, 2004 and Zachrisson & Beland Lindahl, 2013).

Acknowledgements

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