Walking to school?

Building local institutional capabilities for sustainable mobility. Top-down and bottom-up structures of civic participation.

Francisco Costa\(^1\), Mário Alves\(^2\), David Carvalho\(^3\) and Márcia Ferreira\(^4\).

[The coming sustainable revolution], ‘like the other great revolutions (…) will also change the face of the land and the foundations of human identities, institutions, and cultures (…) like the previous revolutions, it will take centuries to unfold fully - though it is already under way’ (Meadows et al. 2004: 269).

Abstract

Sustainable development (SD) is one of the most important challenges humanity is facing. To cope with those challenges, international organizations and nation-states have been defining policies, plans and strategies toward SD.

Studies done, in Portugal and abroad, refers that there is generally a lack of local institutional awareness and capabilities to cope with local implementation of those policies, plans and strategies and, at the same time, people’s behaviour is not in-line with the orientations defined from above.

We also note that, even when there is a receptive institutional framework and local institutions are developing new capabilities toward SD, it is difficult to involve civil society, particularly when it comes to sustainable mobility (SM) concerns, and to foster civic participation, making the efforts and resource allocation of local institutions less cost-effective. In this paper, we intend to discuss the role of the State providing local political-institutions the necessary capabilities to implement and respond to those new challenges.

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In this paper we will use the research-action sustainable mobility ‘Walking to School Project’ (WSP)\(^5\) that was carried out in six pilot-school communities in the municipalities of Loures and Barreiro, in the Lisbon Metropolitan Area\(^6\), aiming at creating institutional capabilities toward sustainable mobility. Amongst other objectives, the project intends to produce a replicable model that helps to promote behavioural changes to students and parents concerning the use of automobile when travelling to and from school. In this particular case, we show how transferring institutional capabilities to local institutions is a way to intervene creating new conditions to implement behavioural change for sustainable mobility.

The project also aims at fostering new institutional capabilities and make a research programme driven by policy-making concerns toward local communities’ capabilities building, namely concerning the need of intervention of states creating new institutional structures of civic participation that foster participation at large.

\(^5\) Although being a research-action project, the WSP name is inspired in the Walk to School Living Streets campaign (see: http://www.walktoschool.org.uk/).

\(^6\) The team of this paper wishes to acknowledge the participation in this study of all the technicians of the municipalities, parishes and schools, as well as teachers, parents and students.
Introduction

In this new era of Anthropocene, in which major transformations in ecosystems have taken place due to human activity (Crutzen 2002, Zalasiewicz et al. 2011, Dukes 2011), we can identify three important challenges for the XXI century that claim for new responses. One concerns globalization processes and the way they impact on peoples and nations; the other has to do with sustainability, resource scarcity and population growth; in the top of these challenges, we also face a third one: climate change. Global organizations like the United Nations (UN) have been addressing these challenges. The Millennium Development Goals and the Kyoto Protocol are meant to deal with those problems. The European Union (EU) and their member-state also try to tackle these new challenges defining strategies and plans to cope with negative effects.

These different processes correspond to new realities that demand different and antagonistic dynamics that will have an impact on the traditional role states should play (or not) in development (Evans 1989, 1995).

Globalization is paving its way modelling and questioning the nation-state predominance (Sckoopol 1995, Robinson 1998, Sassen 1991). Governance strategies try to cope with those patterns of ‘less state’ by transferring to civil society part of the ‘load’ that used to belong to state. At the same time, concerns of sustainability, climate change and sustainable development demand new answers from the states. In fact, today, development can no longer be considered without economic, social and environmental sustainability concerns. But the very concept of sustainable development must be probed and largely discussed. Without this discussion one risks to conceive sustainability as a mere technical and procedural device, oversimplifying it to the point of dismissing the political, environmental, social, historical and cultural dimensions involved. Therefore, to identify ‘the conditions which benefit or prevent’ state efficacy and to understand the impact of ‘state policies and structures’ and its institutional arrangements (Ostrom 2008) fostering SD is clearly a step forward to act towards the discussion of the limitations of the post-colonial idea of development and the role of states.

In line with Evans (1995:10) we believe that the question is not really ‘how much’ state do we need, but ‘what kind’ of state intervention is needed in different areas,
namely concerning the need for new local institutional capabilities to cope with the challenges we are facing under new and more and more uncertain circumstances that the future reserve us (about the way politics respond to the idea of future see Innerarity 2011).

As we can easy acknowledge, great part of SD strategies are to be implemented locally, that’s why involving local institutions, organizations (public, civic and private ones) and people is considered as *sine qua non* condition.

New approaches focused on social, economic and environmental transformations (Castles 2002, Costa 2011b) and on bottom-up dynamics of local participation arise new questions concerning local administrative institutions awareness and capabilities to cope with new challenging sustainable development policies.

Will the new strategies for SD defined by the states be sufficient, efficient and effective? Are local administrative institutions aware of the new challenges of XXI century? Should the State intervene, providing local political-institutions the necessary capabilities to respond to these new challenges? How can local administration involve their communities in behavioural change? What kind of new structures are necessary?

Having those questions in mind, our main concern in this paper is to support that the State has a fundamental role creating local institutional capabilities for SD, i.e., creating the necessary conditions for local institutions to promote SD, namely trough new structures of public, private and civic intervention and participation. Studies about people’s participation in governing the commons (Ostrom 1990) have shown the importance of the involvement of communities in development and question approaches centred only on the state or on the market. Nevertheless, projects of participatory and deliberative governance (Evans 2004) show that participation is at the centre of successful implementation. In fact, one can have very good top-down strategies and plans, but, if they don’t take people’s involvement and participation into account, they are doom to fail. This is more relevant if we think about the lack of embeddedness of people and locally active institutions and the inability to gather all local segments of the population around a collective endeavour, which is a major problems facing implementation of SD policies. One can question: why is it so difficult to get people to collaborate in processes in which they are ultimately the main beneficiaries? How can participation in city sustainability initiatives be
enhanced? Will state intervention fostering structures of participation be a solution? How relevant are those structures, particularly in a weak civic participation context? In fact, besides top-down strategies, some notes are required on the approach to the bottom-up processes. This is particularly significant in order to allow new ways of organizing human and social structures that harmonize interests and dynamics from above and from below. Nevertheless, and because new mentalities and behaviours have immense inertia, new institutional capabilities are considered as essential to create the basis for new participatory structures and dynamics. We also explore the idea of leadership behavioural change as a meso-level relevant to the study of the dynamics between institutions and agency.

In order to reflect about the questions we have posed, we will use the research-action sustainable mobility project WSP. The project aims at fostering institutional capabilities to develop sustainable mobility projects, within six school communities in the municipalities of Loures and Barreiro in the Lisbon Metropolitan Area. In order to study the process of capabilities building and public participation processes we will explore the empirical findings of WSP trying to understand how investment in new institutional capabilities is a necessary condition to create new structures of institutional and civic participation that will support implementation of SD.

Next, we will deepen the framework we have just specified, namely and first, (1) concerning the relation between SD and the need for new approaches toward state role; secondly, (2) we will explore the relevance of the state and the local institutional capabilities approach; in the third part, (3) we will discuss the questions of structure and agency and relevance of meso-level strategies promoting SD behavioural change; in the fourth part, (4) a brief approach to sustainable mobility and people’s participation will be done; in the fifth part, (5) we will consider methodological and empirical aspects of WSP project and present results of qualitative and qualitative analysis. We will also refer the tools (e.g. Sustainable Mobility Kit for local communities) we have developed within the municipalities of Loures and Barreiro in the Lisbon Metropolitan Area. Finally, a conclusion and forward lines of research will end this paper.
1. Sustainable development and the relevance of State approach

Since the 70’s several organizations such as Greenpeace or Worldwatch Institute have been very vocal in alerting public opinion around the world. But it was the book “Limits to Growth” (Meadows et al., 1972) that explicitly focused the problems involved, highlighting the relationships between world population, industrialization, pollution, food production and resource depletion. With a neo-malthusian overtone, the book sounded the alarm on ecological ‘overshooting’ due to the imbalance between population and economic growth, and on the physical limits of earth to respond to human needs, the so-called “carrying capacity”. The relationship between economic growth, development theories and sustainability came to the fore with this bestseller. Twenty years later, “Beyond the Limits of Growth” (Meadows et al. 1992) again sounded the alert, pointing out that humanity had already overshot the planet’s carrying capacity posing severe problems of sustainability.

Several authors have elaborated on the concept of sustainable development. As Diana Miltin refers (1992:115) the concept started to be used for development projects and their capability to go beyond their own limits in terms of duration and lasting outputs and in terms of ‘development aid’ and autonomy or self-reliance. The term was also used to conceive sustainable tourism in developing countries as development projects financed by the World Bank started to have environmental impacts. Agriculture also gave a push: here it meant ‘the ability to maintain productivity, whether of a field or farm or nation, in face of a stress or shock’ (Conway and Barbier 1990: 37, cited in Miltin 1992: 115). Later on, criteria were established, which referred mainly to ecological sustainability, but soon several authors extended them to encompass other dimensions of life (ibidem). In fact, in the 80’s and the 90’s, both the concepts of sustainability and of SD were reworked in different disciplines and several definitions were given7. As the concepts started to stabilize, revolving around natural/environmental, social and economic sustainability, the key idea was: ‘for the present generation and retention of future options for our children’ (Dixon 1989: 83). The Brundtland Commission (1987) coined the definition: "Sustainable development is development that meets the needs of the present without

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compromising the ability of future generations to meet their own needs.”⁸ Although some critics point out some academic fuzziness of the concept, for example in terms of the definition of ‘needs’ (Redclift, 1993), from that moment on the Brundtland definition became widely accepted. In fact, the definition is now part of important institutional documents such as the World Bank, the OECD, and the European Commission. Scholar publications also adopted it.

A large scientific production on sustainability and sustainable development came out in the 90’s. One of the most important was a UNESCO/MOST program⁹. Acknowledging the multidimensional nature of sustainability, the researchers were most critical of the lack of results on the social dimension of the process and of the technical overtone adopted by international and national agencies. Pleading for a strong theoretical framework, where three closely-linked dimensions (‘a strategic or political dimension, a normative one and an analytical one’) support the conceptual elaboration, specific criticism targeted the fuzziness of SD concept and its initial dependence of neo-classical economic models (Becker et al. 1997:7). Another obvious problem arises from the fact that this definition apparently includes almost everything. How exactly is sustainability operationalized is no less an object of dispute.

A new version (“Limits to Growth. The 30–year update”) came out in 2004, showing that earth’s carrying capacity has been overshot in several aspects, and pleading for an intervention aiming at changing the trends of the five variables (world population, industrialization, pollution, food production and resource depletion) in order to achieve a sustainable feedback pattern. Despite the overwhelming evidence called upon by the authors, critics of the book arose, rejecting its ‘technological blindness’. Among the critics, there are those who warn that unsustainable economic growth still represents an important strategy for a number of countries. Developing countries are most vocal, defending that developing economies cannot afford paying for the wrongs of developed countries a second time. Such is the case of countries like Brazil, Russia, India, China (BRIC), and others in Africa, where economic growth is making its way and where several kinds of ‘waste’ pollution affect local cities. Again,

problems of resource management and land use become a priority in national and international agendas.

If maintaining ‘business as usual’ will lead us to ecological collapse why do we still act as if nothing is going on? Why is it so difficult to get people to collaborate in processes in which they are ultimately the main beneficiaries? How is it possible to enhance participation in city sustainability initiatives?

2. Local institutional capabilities approach

Amartya Sen focuses on the individual as an agent that can (or not) have the capabilities and the freedom to 'do what they want to do'. Nevertheless, the author notes that 'it is important to simultaneously give recognition to the centrality of individual freedom and to the force of social influence on the extent and reach of individual freedom', in fact, has Sen observe, ‘we have to see individual freedom as a social commitment.’ (Sen 1999:xxi). Many studies have been focusing in the inevitable relationship between individual approaches and institutional structures as constrain to action (see Deneulin 2008). Going beyond state and governance relations by adding concerns about the way human and social structures articulate with institutions, organizations and social action is a way to understand how both state and society have capacities and abilities to ‘change behavior or oppose the demands of such actors or to transform recalcitrant structures’ (Skocpol, 1989:19). According to Theda Skocpol (1989), and following other research approaches towards state capacities (Sen 1999, Nussbaum 2000, Comim 2008), one should move forward to ‘examining regime characteristics: degree of commitment to clear policy goals, technical capacities, monitoring abilities, state-controlled investments resources, and state international positions’ (Skocpol, 1989:19). Policy networks (local, national and international) resulting both from ‘strategies for managing “interdependence” within the world capitalist economy’ and from causal relationships between state and society are also important. In fact, because both processes impinge in state rationalization toward capabilities development and international commitment (Skocpol, 1989:19), they are important factors to be considered when establishing causal relationships that could allow us to better understand the constraints in state capacities and abilities to develop efficient governance toward SD.
Migdal (1988:4) talks about a ‘state capabilities to achieve the kinds of changes in society’, which include ‘the capacities to penetrate society, regulate social relationships, extract resources, and appropriate or use resources in determinate way’. We will add to Migdail’s (1988) central state capabilities another function: to develop institutional capabilities for SD. Following Peter Evans rationale (2008, 2010a, 2010b), we support the idea that ‘growth theories focused primarily on traditional capital accumulation will no longer suffice’, we also should consider that private lack of interests on capabilities investment is a constrain to SD making states responsibility for fostering capabilities a priority. The author puts it in a very clear way:

‘Since social returns to the expansion of human capabilities are substantially higher than private returns, private markets consistently and perennially underinvest in human capabilities. Instead, markets channel investment to other areas where total returns are lower but private returns appear higher. (...) In short, private investors will and under invest in “human capital” because they cannot fully control the human being in whom it is embodied. Therefore, markets will chronically fail to supply optimal levels of the “human capital” crucial to bit-driven growth.’ (...) Precisely because of the large “collective goods” element in capability-expansion, productive alliances with private capital are less easily constructed. State-society ties remain, nonetheless, critically important. ’ (Evans, 2008:12-15)

As Peter Evans (2008), we believe that State responsibilities need to turn their focus from industrial production to enhancing institutional capabilities, namely by investing in developing new capabilities for SD. Cost-effective strategies could center attention on meso-level institutional leadership as roles for behavior.

3. Meso-level institutional leadership

Policies seldom escape the top-down framework, and even when the ‘bottom’ is acknowledged, the lack of understanding of ‘how it works’ ends up in interventions bypassing the agency dimension of individuals (including ‘institutional individuals’), which we deem to be a major potential resource for sustainability. Frequently the lag between top-down and bottom-up dynamics is a factor of entropies that affects both the devised mechanisms of states and the dynamics of bottom-up communities.

Besides top-down institutional strategies, some notes are therefore required on the approach to the bottom-up processes. This is particularly significant in order to allow
new ways of organizing human and social structures that harmonize interests and dynamics from above and from below and, therefore, allow the creation of more effective actions toward the efficacy of state in its institutionalization of values, norms and regulatory mechanisms and, simultaneously, as active social actor toward SD.

In this process, meso-level changes are very relevant to the study of the dynamics between institutions and agency (Deneulin 2008). Institutional leadership is very relevant because by means of mimetic mechanisms new ‘roles’ are defined and new behaviours legitimized and adopted by people at large. Finding ways to meet both livelihood and sustainability needs will involve that meso-level agents, what Peter Evans (2002) call as an “ecology of actors”, that are made up of the different urban agents, capable of challenging the existing institutional “modi operandi” whilst building their capabilities through efficient planning and public and private resource allocation. Also Migdail talks about politicians, ‘strongman’ and ‘implementors’ as an interactive model in which the process of adjustment between social structures and agency results on a ‘triangle of accommodation’ process in which all the forces tend to agree. This ‘triangle’ corresponds to a bargaining process that tries to put together two kinds of social control (‘not under their direct control’): one belonging to the state and involving ‘intrastate and party-state bargaining’ with implementers, and the other to the strongman involving the same implementers, as State representatives and ‘local strongman’.

We consider that the different institutional and organisational configurations fundamentally depend on the articulation of three orders of factors and corresponding dynamics. On the one hand, the way institutions are coined and how they effectively “penetrate” the functioning of their organisational structures. Taking in consideration our institutional target, the key questions are: What are their competences and what existing capabilities do Portuguese local institutions actually have? How are the actions of the organisational structure monitored, both in adhering to the institutional values and principles defined by the State and, concretely, in their execution? On the other hand, differences depend on the social, human, economic, cultural and religious structures within which institutions and organisational structures move, and, particularly, in the way they interact.

10 Migdail defines them as ‘a corps of middle-level officials who have responsibility for implementing programs [who] have been strategically placed between the top policy-making elements of the State and most of country’s population’ (Migdal, 1988:238-239).
Taking into consideration these dynamics, and assuming that more organised local institutions, with a more embedded autonomy, will allow a better and effective performance of the State, the key question has to be: how do local institutions impinge in the development of embedded autonomy processes toward SD? In this context, the concept of embeddedness (Granoveter 1985), i.e., the way society and State come together (or not) is fundamental to the understanding of variations at the levels of interaction between State and society, and of how these processes interfere with the functioning of institutions and of societal structures, respectively, by reinforcing, changing or by causing ruptures in them.

A third aspect, concern the role of institutional leaders, both, concerning the formal rules of the game (North, 1990) and by fostering new institutional (formal and informal) mechanisms that responds and fosters societal dynamics.

So, state institutions, their bureaucratic machines and corresponding organizational structures make up privileged elements for the understanding how top-down, middle and bottom-up dynamics are determined and determine the institutional configurations within which they perform. Institutions do not operate in isolation, and beyond their own internal dynamics (that generate differentiated outcomes), they interact with each other increasing the complexity of these outcomes, thus generating different processes of institutional and individual change, adaptation and/or innovation.

For that reason, we believe that any shaping of action relating to the issues in discussion in this paper should consider, on the one hand, local authorities and their leaders, and on the other, their connection to society and their capacity to generate social participation.

4. Mobility and sustainable development. Difficulties changing behavior for SM

Motorization rate (usually measured as number of motor vehicles per 1000 people) is rising dramatically in the world and Portugal has not been an exception in the last decades. This coupled with increase geographic and sociological complexity of metropolitan lives leads to new challenges. The need to manage complexity and limits will make mobility planning and management more participatory and therefore more political. In the last decade it became more and more acceptable the idea that institutions would need to overcome their previous passive role of supplying more and
more transport options and solutions and move to actively change people’s travel behavior.

The traditional transport policy treated mobility demand as a fatality. Contrary to the “predict-and-provide” paradigm where the objective was to optimize the performance of every transport mode, a more policy oriented planning and management of mobility patterns is the new trend. It is now more accepted among transport professionals and politicians that some, if not most, of their work is to influence people’s demand patterns towards more sustainable ways (Alves, 2010).

To find equilibrium and pursue policy objectives, other paradigms have been proposed as alternatives to the traditional “predict-and-provide” such as: “debate-and-decide”, “aim-and-manage”, “cap-and-share”, for example. Probably all of these will be necessary in the future. But if “predict-and-provide” was the absence of policy and the realm of laissez-faire technocracy, using these new approaches is eminently political. These kind of measures will put to the fore the need to develop institutional capabilities to understand and support new people’s attitudes and behaviors. This new approach is conventionally called Mobility Management (MM).11

Transport systems are known to produce considerable amounts of externalities that are not fully charged to the mobility consumer (ICLEI 2005). This creates a market-failure that works against the use of more sustainable modes (see for example European Environment Agency 2007). However, the path to real-price economics applied to transport systems will be politically difficult and therefore slow. Excluding urban road pricing, real-price economics will be controlled and addressed or not mainly by central governments. For local governments and city political managers it will become more acceptable to try to tap directly on people’s perceptions and believes towards more sustainable transport modes. To obtain this legitimacy policy makers and mobility managers will need to establish long-term objectives, based on a shared vision of the future - hence, increasing the importance of politics in transport and mobility planning and management and highlighting the contradictions of public policies. Without a coherent story it will be extremely difficult to engage people in a narrative of change. The perception now is that institutions are only going through the motions of the politically correct without a sincere will of changing the status quo.

11 The European Platform of Mobility Management defines MM as the “concept to promote sustainable transport and manage the demand for car use by changing travellers’ attitudes and behaviour.”
This is even more obvious in issues like “walking to school”. If public spaces are the mirror of the lack of interest of institutions on walking this contradiction is quickly apprehended by parents that are invited to engage their children to walk more. This backdrop of wants to promote walking makes it extremely difficult for parents to believe in the sincerity of the campaign. Despite the interest of institutions in promoting new sustainable mobility, the way public spaces are addressed makes it extremely difficult for parents to believe in the authenticity of the institutional messages.

Given the already mentioned hidden economic incentives favoring the use of the car and a public space designed for cars the existence of these campaigns can be perceived only as adding up to the contradictory noises regularly put out by institutions exacerbating the suspicions about their sincerity and true willingness to change. Changing travel pattern behavior towards more sustainable modes is not easy (Department of Transport 2005). It needs not only a step-by-step awareness but also a coherent institutional narrative. These first attempts can only show the internal contradictions of a society forced to reluctant change. However only with a correct institutional support people will be able to make substantial changes in their daily lives. Most their travel behavior depends on safety and comfort of public space and economic incentives brought by the tax system. Until all these aspects are not presented as a holistic policy package, it is very hard to expect people to go along with messages that are daily contradicted by institutional practices.


Over the last years we’ve been observing a dramatic fall in the number of students walking to and from schools. The drop-off of students at school gates by their parents, each one in their own car, has become a serious Mobility Management (MM) problem with impacts in the quality of public space in schools surroundings and impacts (Ferreira 2011) on, both, physical and psychological autonomies, raising concerns about the way relations and public spaces are perceived by children’s (Sauter et al. 2005), as we can see in the following example of cognitive mapping done in our project by the students (Figure 1).
Results from qualitative analysis of 92 drawings revealed that children who walk to school, when compared with those who travel by car, do pay more attention to details and are more capable to define with accuracy what they see. In fact, the problems we refer evokes the need to promote new modes of sustainable mobility (SM), capable of changing decision making in, both, local authorities and people at large, in order to change travel behavior.

The general goal of WSP is twofold: first, to foster new kinds of SM and; secondly, to consolidate a replicable social intervention model, able to raise awareness and promote a behavioral shift of, both institutions (particularly institutional leaders), students and families, in regards to their mobility patterns to and from schools. It is also intended to increase students’ autonomy relative to their families when commuting to school, endowing and sensitizing them to: public space orientation, road safety, citizenship and respect for public space, sustainability and physical and mental health.

In this project we decided to use a research-action technique, with a methodology that develops itself on a ‘spiral’ research process, interactive and focused on a particular problem: school sustainable mobility of students. This technique translates into a double objective methodology, being one the research (theoretic and empiric) and the other one the action, with territorial incidence. In this particular case, we envisage the development of the project on the selected school
communities, in order to obtain results on the observation and comprehension levels by the researcher and, the type of intervention and attainment of behavioral shift.

Besides rising awareness, it is intended to lead the community to practice more sustainable daily habits. The project sustains itself on the knowledge transfer and awareness-raising of the institutions and population in respect to active mobility\textsuperscript{12}, particularly walking. It is, therefore, a systematic learning process oriented to the praxis, which requires it to be submitted to test. For that, there were performed several info collection techniques, namely quantitative survey strategies, exploratory and semi-directive interviews, application and analysis of cognitive maps for students and several mobilizations and knowledge transfer actions (Table 1), involving the local community and leaders of local institutions.

<table>
<thead>
<tr>
<th>Table 1: Knowledge transfer actions</th>
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<tr>
<td><strong>Type 1</strong></td>
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<tr>
<td>Awareness raising</td>
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<tr>
<td><strong>Goals</strong></td>
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<tr>
<td>- To raise awareness and enlighten the target audience about urban mobility constrains.</td>
</tr>
<tr>
<td>- Present alternatives to erratic behaviours and incentives to change.</td>
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</table>

As result of the research-action technique, implemented during the course of the project, in strict articulation with the municipalities involved, we aimed at creating new structures of public participation in local administration (municipalities, parishes, local police and other local associations) in order to create better conditions to implement new methodologies oriented to people’s behavioral change toward more sustainable mobility practices.

In line with those objectives, it was added to the initial project proposal, the intention to create a Sustainable Mobility KIT, being this in digital support (DVD) with a collection of the different documents used during the project (info flyers, didactic materials, established protocols, research-action material like surveys, interview guides, supports of information both in paper and in PWP presentations,

\textsuperscript{12} Recently several European projects have this particular objective as their main drive. Namely, Active Acess (www.active-access.eu) and LifeCycle (www.lifecycle.cc).
amongst others relevant material). This KIT will serve as a base of information so other entities, public, civic or private can develop identical actions in different areas of the territory. It is, essentially, a basic guide to be used for projects in the scope of sustainable mobility, of behavioral shift and involvement and participation of local authorities and civil society in communal projects. The KIT is intended to be an element that will help foster ‘bottom-up’ dynamics at the level of civil society and will help putting pressure on local administration institutions to create the condition to develop local SM initiatives. It is also our intention to create grassroots initiatives around the Lisbon Metropolitan Area in order to raise awareness of central powers to the problem of SM. In what follows, we will look at some of the empirical findings, namely concerning the parents’ survey.

5.1 The survey – Parents sample.

We have made two surveys, one to students and another one to parents. The intention was to force a contact of, school, students and parents with the thematic of sustainable mobility. We aimed particularly at give awareness of the consequences of using the car to and from the school, both for the students’ physical and psychological development, for the environment and ultimately for the development of healthy social connections amongst students and parents.

The sample of this research covered all the students and tutors from the six pilot-schools of the ‘Walk to School’ project (a total of 1272 parents and students were surveyed). However, for this particular paper, it will only be considered the parents survey. The questioners were delivered to parents and the percentage of return was 66.9% (total of 851). To guarantee a good rate of return, the inquiries were delivered to schools ‘focal point’\(^{13}\) which then distributed to all selected teachers. The students were then instructed by their teachers, both on how to fill in their own questionnaire and how to ‘convince’ their parents to respond.

In respect to the tutors gender and age, the respondents were mainly women (75.3%), with age ranging from 22 to 69 year old. However, the vast majority are in their thirties (53.6%) and forties (27.7%).

\(^{13}\) The ‘focal point’ is the person to whom it is assigned the task of articulating with the researchers all the work to be done in the school.
Regarding the distribution over different levels of income, the sample is relatively heterogeneous. Nevertheless, the results show (Figure 2) that over 60% of the households are living with less than the mean income per household in Portugal (€1491, source: National Statistics, 2011 – Household budget survey).

In respect to education levels (Table 2), the majority of respondents have an High school diploma (47.2%), followed by those with university degree (21.2%) and finally by those with a 3rd cycle diploma (12%).

<table>
<thead>
<tr>
<th>Table 2: What is your school level?</th>
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<tbody>
<tr>
<td>Levels</td>
</tr>
<tr>
<td>No School</td>
</tr>
<tr>
<td>1st Cycle</td>
</tr>
<tr>
<td>2nd Cycle</td>
</tr>
<tr>
<td>3rd Cycle</td>
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<tr>
<td>High school</td>
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<tr>
<td>University</td>
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<tr>
<td>Diploma</td>
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<tr>
<td>Master</td>
</tr>
<tr>
<td>Doctoral</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>
5.2 Some empirical finding of WSP project:

Distance is perhaps the first criteria when one needs to decide which transport will use to reach its destination. Therefore, a key question to understand parents’ choice when taking their children to school has to be how far away they live from it. In this respect, results show that more than 60% of children live less than 1km away from school, and nearly 30% live more than 1,5Km away (Table 3). Early conclusions could be that majority of children live within walking distance from school, while a considerable percentage is forced to choose other type of transport due to distance.

<table>
<thead>
<tr>
<th>Distance</th>
<th>Frequency</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 500 metres</td>
<td>285</td>
<td>34,4</td>
<td>34,4</td>
</tr>
<tr>
<td>500 – 1000 metres</td>
<td>216</td>
<td>26,1</td>
<td>60,5</td>
</tr>
<tr>
<td>1000 – 1500 metres</td>
<td>92</td>
<td>11,1</td>
<td>71,6</td>
</tr>
<tr>
<td>&gt; 1500 metres</td>
<td>235</td>
<td>28,4</td>
<td>100,0</td>
</tr>
<tr>
<td>Total</td>
<td>828</td>
<td>100,0</td>
<td>-</td>
</tr>
</tbody>
</table>

When asked how children travel to school, two major groups stand out with virtually the same percentage (Figure 3): those who walk to school (46%) and those who go by car (47%).
Cross analysis of travel distance with transport used (Figure 4) confirms the strong and direct relation between these two indicators. The results clear show that children living by the school do walk and that the farthest away they live the less children walk and car becomes the elected transport.

Nevertheless, there is still a large percentage (26%) of those living less than 1 Km away from the school that uses the car, instead of walking.

Figure 4: Modal split by travel distance.

Another crucial criterion for deciding which transport mode to choose is obviously the financial one. Car ownership, for example, is expensive and thus not everyone can afford it. Options on how to commute to school will therefore be limited by the household budget. It is possible to infer that those with a tight budget choose to walk not because they want to, but because they can’t afford to have a car or to pay for public transport.

Results from cross analysis of household budget with transport used (Figure 5) revealed a positive relation between the two. It can be seen that those at the lower end tend to walk more than those at the higher end, while private car use is also clearly more of a choice for those with higher earnings and much less for those with a low household budget.
Finally, other factors besides distance and finances can reasonably affect parents’ decision on how to take their children to school (Table 4).

<table>
<thead>
<tr>
<th>Reasons</th>
<th>Frequency</th>
<th>Valid Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Road traffic safety</td>
<td>247</td>
<td>31,0</td>
</tr>
<tr>
<td>Public space quality</td>
<td>99</td>
<td>12,4</td>
</tr>
<tr>
<td>Personal safety</td>
<td>241</td>
<td>30,3</td>
</tr>
<tr>
<td>Travel distance</td>
<td>206</td>
<td>25,9</td>
</tr>
<tr>
<td>Others</td>
<td>3</td>
<td>0,4</td>
</tr>
<tr>
<td>Total</td>
<td>796</td>
<td>100,0</td>
</tr>
</tbody>
</table>

When asked what are the main concerns when opting for sustainable mobility practices, distance comes only in third place (25.9%) behind road traffic and personal safety (31.0% and 30.3% respectively). These figures may help explaining why some prefer not to walk, even though travel distance is in their favor, and perhaps why parents and children find themselves in the obvious vicious circle: car traffic leads to more unsafe roads that increase parents feeling of insecurity resulting in more parents driving children to school by car...

To clarify parents’ perceptions of personal safety they were asked if their children were once victims of assault or intimidation on their way to school. The results on this were expressive, as only 2.5% (21 students) answered ‘yes’, showing a clear discrepancy between perceptions and reality, which helps to justify how parents perceptions of dangers can strongly affect their willingness to let their children walk to school.
5.3 Thanks… but no thanks! Results on participation

Even if we consider the resistances we have talked about, when parents were asked if they would allow their children to walk to school by ‘Pedi-bus’14, the majority (62%) said ‘yes’ (Figure 6).

These results show not only a good receptivity to the idea of organizing a ‘Pedi-bus’, but also, and perhaps more important, that parents were willing to engage their children in sustainable mobility initiatives and that they do care about sustainable mobility.

Furthermore, when parents were asked if they would be interested in being volunteers, 13% answered ‘yes’ (Figure 7), which is also a reasonable number of volunteers, considering previous results on permission to participate. This voluntary adherence is, in fact, in line with other empirical studies about volunteering in Portugal. The latest report revealed that only 12.7% of the Portuguese population was engaged in volunteering activities (GHK, 2011)

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14 ‘Pedi-bus’ is a walking to school bus driven by an adult volunteer (usually a parent) and followed by the school children. It is a human leg ‘powered’ bus that travels along a set route to school, picking up children along the way at designated bus stops and following a set timetable. The idea behind ‘Pedi-bus’ is to encourage children to walk to school by offering them a safe and friendly atmosphere to do it so.
However, our field experience revealed a clear disparity between their initial motivation and the actual commitment. A number of meetings and contacts have been done in order to engage parents in the ‘Pedi-bus’ organization, and the project team was time flexible to address parents’ availability. But the results were scarce, sometimes meaningless, as parents’ attendance to preparatory meetings and workshops was very weak. This could lead the argument that, despite acknowledging the benefits of ‘Pedi-bus’ and allowing their children to participate, parents are not very keen to come forward making it to happen. Nevertheless, it was noted in both municipalities that, whenever local institutions were invited and attended those events, particularly the local Police, participation increased slightly.

Additionally, an essential step to start the ‘Pedi-bus’ required parents to formalize their interest and commitment (to be a driver and/or to allow their children to participate) by signing enrolment forms. Empirical results on this continue to draw attention on the lack of people's participation on local development projects. By looking back to survey data on parents’ permission and volunteering, and comparing this with the number of signed forms returned, it is possible to observe how drastic the potential participation dissipates when parents are asked to come forward (Figure 8).
Analysing the specific reality of each municipality, Loures and Barreiro, some disparities could be found in the number of children and volunteers participating. In the case of the three pilot schools in the municipality of Loures, the level of effective participation of students and volunteers was higher when compared with the pilot schools in the municipality of Barreiro (Table 5).

![Figure 8: Participation.](image)

<table>
<thead>
<tr>
<th>School</th>
<th>CHILDREN</th>
<th></th>
<th>PARENTS</th>
<th></th>
<th>Drivers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Allowed</td>
<td>Signed</td>
<td>Participants</td>
<td>Volunteers</td>
<td>Signed</td>
</tr>
<tr>
<td></td>
<td>(potential)</td>
<td>forms</td>
<td>(effective)</td>
<td>(potential)</td>
<td>forms</td>
</tr>
<tr>
<td>Loures</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EB1/JI Flamenga</td>
<td>127</td>
<td>22</td>
<td>5</td>
<td>23</td>
<td>6</td>
</tr>
<tr>
<td>EB1/JI Sacavém</td>
<td>109</td>
<td>23</td>
<td>7</td>
<td>23</td>
<td>11</td>
</tr>
<tr>
<td>EB1/JI Fanqueiro</td>
<td>78</td>
<td>11</td>
<td>2</td>
<td>13</td>
<td>5</td>
</tr>
<tr>
<td>Barreiro</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EB1/JI J. R. Seixas</td>
<td>75</td>
<td>4</td>
<td>1</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>EB1/JI Barreiro nº 8</td>
<td>80</td>
<td>3</td>
<td>0</td>
<td>21</td>
<td>1</td>
</tr>
<tr>
<td>EB1/JI nº2 do Lavradio</td>
<td>88</td>
<td>12</td>
<td>9</td>
<td>16</td>
<td>4</td>
</tr>
<tr>
<td>TOTAL</td>
<td>557</td>
<td>75</td>
<td>24</td>
<td>111</td>
<td>25</td>
</tr>
</tbody>
</table>

In the municipality of Loures, since the ‘Pedi-bus’ started more students wanted to join, revealing a good response to it as the initial concerns and fears dissipate. This situation was mainly found in the school of Sacavém, where the number of participants increased by 4 students. In the Barreiro municipality, at school nº2 of Lavradio, there was a particularly strong dynamics among volunteers, with several drivers working under rotation for the same route. In both municipalities,
while the ‘Pedi-bus’ was still active, parents manifested a growing interest in the whole initiative. Some asked for the possibility to keep the ‘Pedi-bus’ running the following year, suggesting its positive popularity among children and parents, which shows that the ‘message’ passed and was assimilated by some parents. In order to reinforce their motivation and increase participation in the next school year, the project team suggested for the six pilot schools to play The Traffic Snake Game®\textsuperscript{15}, during which children and their parents are stimulated to break the vicious circle and encouraged to walk to school.

5. Looking forward: Is participation a common good?

Building local institutional capabilities was a very important achievement of WSP. New institutional capabilities were developed in the local communities.

At this time, all the pilot-school communities have had some contact with the idea of sustainable mobility and the advantages of adopting new kinds of mobility behaviour. Most of them are aware of the multidimensional nature of “Walkability”\textsuperscript{16}.

Institutional leaders and meso-level institutional matrices constitute a very important way to start; giving the example through institutional leaders is a way to create new role-model changing patterns of consuming and using common resources.

We believe that adherence to new mobility habits depends very much on the dynamics that are created locally, both at institutional and individual levels. The matrix of institutions and their leaders is more involved. Local institutions and particularly the municipalities are prepared to support new initiatives that arise from institutions, civil society or people that want to practice new kinds of sustainable mobility. This is a very important step toward a different future, where new conditions will force different mobility responses. New institutional capabilities have been fostered inside local institutions, particularly schools and local administration. This is a very important achievement of the project.

\textsuperscript{15} The Traffic Snake Game\textsuperscript{®} is a European campaign for primary schools that stimulates and enables young children and their parents to go to school in an environment-friendly, safe and healthy way. The campaign consists of a game and other actions on traffic and mobility. Through the game, children and their parents are encouraged to travel to school safely and in an eco-friendly way” (CONNECT, 2011).

\textsuperscript{16} Walkability can be defined as “the quality of walking conditions, including factors such as the existence of walking facilities and the degree of walking safety, comfort and convenience” (Litman 2003)
It was the Portuguese Calouste Gulbenkian Foundation that contributed to create the starting conditions for municipalities of Loures and Barreiro to adhere to SM. The construction of a ‘SM Kit’ for School communities is a step forward to the adherence of other municipalities and school communities, not only at a local level but also at regional and national ones. We just hope that this example will become a contribution toward policy-making, concerning the way we all (the State) envisage development. At this moment, the Portuguese central state doesn’t play a relevant role in what sustainable mobility in school communities is concerned.

We believe that local political-institutions should have the necessary capabilities to respond to the challenges of the 21st century sustainable growth, particularly because local administration is in a better position to involve their communities in changing behaviours. This is more relevant if we think of the difficulty in making people get involved and collaborate even in processes in which they are ultimately the main beneficiaries.

Although, after those, let’s say, starting conditions were created a new difficulty arise concerning parents’ participation. In fact, parent’s participation has been detected as a central problem. Has we have seen in the case studies, the dynamics of civil society participation are very difficult even when there are interest and involvement from institutions and individuals. We consider that in cases where civic participation is weak, the need to transfer new skills and abilities to institutions of local communities is more relevant and a step forward should be taken. Not only future projects should consider transference of new capabilities to implement SD initiatives but they should also consider the need to create new structures of participation that really involve people in implementation of local sustainable initiatives.

Participation is a key element and new structures that attract people to participate should also be a priority of local administrative institutions. In fact, we start considering that participation must be seen as a common good and become part of the collective investment that the states should provide. Institutions take too much time to adapt to changes of compressed time and space brought by globalization processes, thus making it more difficult to implement and maintain the dynamic as a unifying systematic participation. The creation of new structures of participation in state institutions is, therefore, a priority that the private sector is not really interested in investing in. The costs of participation are much lower than the costs of non-
participation, which, therefore, makes investment in structures of participation a good public policy. We just can expect that new ways of sustainable mobility will emerge from grassroots in order to press local and central power to be more accurate in creating the necessary institutional capabilities to foster sustainable development.

In fact, what we notice is that if there is a lack of involvement and insistence from local institutions, it will take longer for questions of sustainable mobility start being an issue in school communities and no child will be better prepared for new changes to come.

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