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AN URBAN STRATEGY IN TIME OF CRISIS: MOBILITY MANAGEMENT AND LOW-COST PUBLIC SPACE DESIGN

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This research underlines the importance of mobility management tools and small-scale targeted interventions of public space upgrades in order to encourage conscious sustainable mobility behaviour. The paper reviews tools and tactics of soft transport policy measures, as well as of small-scale and low-cost public space design approaches and strategies in the USA and Europe to assess their characteristics and results. It will then focus on Thessaloniki (Greece) presenting 1) the main findings of a trip survey concerning the impact of the economic crisis on mobility behaviour and 2) the shift to low-cost street scale urban design projects which have emerged during the crisis. The paper states that quality public space and urban transport constitute conditions necessary to attain long-term change in mobility behaviour. While the importance of hard transport policy measures should not be underestimated, the strategy for achieving sustainable urban mobility and public space design adapted to the economic crisis-specific conditions is discussed.

Key words: **mobility management, economic crisis impacts, soft transport policy measures, small-scale and low-cost public space design, Thessaloniki.**

INTRODUCTION

Mobility management attempts to change travel behaviour (how, when and where people travel) in order to reduce car use and to promote sustainable urban transport modes. It endorses actions and "soft" transport policy measures such as information and communication, organizing services, coordinating stakeholders and promoting initiatives. In some countries, the definition of mobility management is equivalent to transport demand management (MAX, 2007). In contrast, "hard" measures include the development and the physical improvement of public transport networks and infrastructures (tram lines, bus and bike lanes, transit priority, traffic calming), as well as the introduction of taxes and regulations to control the road space and car use (road pricing, traffic and parking management) (Gärling *et al*., 2009). The main advantage of "soft" measures is that their implementation requires fewer financial resources than the "hard" ones; they are cost effective methods and can also contribute to enhancing accessibility and decrease social exclusion associated with transport (Clarke, 2012). "Soft" measures are demand-oriented while "hard" measures are supply-oriented. As stated by Bamberg *et al*. (2011) soft transport measures are designed to voluntarily change people's travel attitudes (Loukopoulos, 2007) and they are also mentioned as psychological and behavioural strategies (Fujii and Taniguchi, 2006) or mobility management tools (Cairns *et al.*, 2008).

According to Cairns *et al*. (2008) soft policy measures give emphasis to management and marketing activities rather than operation and investments and they include personalized travel planning, public transport information and marketing, travel awareness campaigns, workplace and school travel plans, and teleworking. As reported by Friman *et al.* (2012) soft measures are considered bottom-up approaches that aim to encourage and support people to decide themselves if they wish to change their existing travel choice according to their personal characteristics, needs and goals. They are opposed to top-down process which is oriented to impose new habits and attitudes (Taylor and Ampt, 2003).

In the framework of an integrated approach soft measures can been combined and create synergies with supply-oriented measures or supportive actions concerning planning, constructing and operating infrastructures.

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These could include spatial and land use planning, public transport improvements, bicycle and pedestrian facilities, transport information systems, car parking management, and congestion pricing (MAX, 2009; MIDAS, 2008). The soft policies could be more effective in motivating car users to switch to other travel options with the implementation of hard and supportive transport policies that change the relative attractiveness of these options (Bamberg, 2011).

In this context, of particular interest are a number of local development and interim design strategies adopted recently in various cities worldwide. They focus on short-term, street-scale and community-led interventions, promoting sustainable mobility and immediate regaining and improvement of public space, and they are part of a more generalized tendency to look for alternative urban design strategies in the time of crisis. Among them we can cite:

- "Urban acupuncture" that promotes community-led, targeted but catalytic, small scale interventions as part of a larger strategy, in order to achieve the maximum effect through minimum investment (Parsons, 2007; De Sola Morales, 2008; Unt and Bell, 2014).
- The more recent and radical concepts and movements of "adaptive planning" or "tactical", "temporary", "guerrilla", "pop-up", "informal", "emergent", and "DIY" urbanism that encourage low-cost and often self-funded, short-term actions and initiatives, of well-intentioned but illegal character, causing long-term changes in the city (Rasmussen, 2012; Fernández, 2012; Lydon and Garcia, 2015).

All these strategies draw on basic principles and concepts of planning approaches and theories which resulted from criticism of rational planning (such as incrementalism, participatory, advocacy, progressive, transactive, collaborative planning), as well as on tools and techniques proposed by transport engineers to reconfigure roadways to meet safety and people's needs. Furthermore, most of them derive from a critical and often resisting attitude against mainstream market-led policies and large-scale, long-term, top-down urban regeneration projects realised during the 1990s and 2000s, under the influence of neoliberal ideology in urban space production. In fact, crisis has only accelerated and multiplied these urban design approaches to planning.

These approaches clearly indicate a shift of interest to more localised, low-cost, low-impact, low-risk, low-tech, temporary or transitional, bottom-up, flexible, soft, alternative, experimental, creative and pragmatic strategies of city making and public space design and use. Together with special events and intervention projects, often situated at the cutting edge of architecture, engineering, urban design, art and social action, and based on citizens' participation, they aim to increase public awareness of urban sustainability (Bishop, 2012; Chapel, 2012; Athanassiou *et al.*, 2012). In a period of scarce resources and political and economic uncertainty, these approaches seem to fit perfectly with the limited financial capabilities of local authorities, but also with the changing mobility needs and environmental conditions. They also respond better to the demand and pressure of the community for quick results which in most cases are inconsistent with the usually complex and lengthy typical planning and implementation processes. Fernández (2012) believes that there is a need to adopt new forms of intervention in the city from three perspectives: as dynamic performance against the crisis which is most apparent at the local level; as preparation strategy against climate change with resilient and transitional models as alternatives for the adaptation of the physical environment, the infrastructures and local communities; and as tactical intervention in the city (tactical urbanism) against the exhausted model of hierarchical, centralized and institutional city planning.

SOFT TRANSPORT POLICY MEASURES AND LOW-COST DESIGN TACTICS

Soft measures

Best practices of the soft transport policy techniques come from Austria, Germany, Japan, Netherlands, Sweden, UK, and USA while in other countries their implementation and evaluation are uncommon. Mobility management initiatives in Australia are known as "voluntary travel behaviour change" (VTBC) and in Japan as "travel feedback programs" (TFP). According to Möser and Bamberg (2008) the first five measures presented in Table 1 are the most often implemented during the last decade (Richter, 2010).

Richter (2010) reviewed that in general soft transport approaches seems to be effective in many countries but more research is needed to understand the reasons. According to Richter *et al.* (2009) and Friman *et al.* (2012) the combination of soft and hard measures creates positive interactions and reduces car use further. Richter *et al*. (2009) states that studies from Netherlands and USA report that work travel plans combined with parking management measures or bus subsidy can create a decrease of car use by 20-25%. Without hard measures, the decrease is only 5-15% (Cairns *et al.*, 2008). The quality of public transport (reliability, frequency, travel time, fare level, comfort and cleanliness) is also an important factor in mode choice. As stated by Taylor (2007) the results from studies conducted in Auckland, New Zealand demonstrated that the good quality of public transport system is a significant prerequisite for the successful implementation of soft measures. Findings from research carried out in Porto, Portugal show that in order to attract potential users on public transport, the service provided should satisfy the quality expectations of the customers (Beirão and Sarsfield Cabral, 2007). In addition, it seems that public transport marketing campaigns particularly influence people who are at points of change in their life, so they are more susceptible to changes (Richter *et al.*, 2009). Hence, transitional periods like economic crisis could be the right moment for implementing low cost measures that enhance the quality of mass transit and public space in coordination with soft initiatives that promote sustainable mobility.

Interim, low-cost, and community-led public space design strategies

The improvement of the quality of pedestrian environment, which constitutes one of the principal goals of alternative urban design strategies, would directly lead to a more efficient use of public space, a broader choice of contents and space, and thus to the increase of walking as a

Table 1. Classification of soft measures, adapted from Cairns et al. (2008) and (Clarke, 2012)

Travel awareness campaign	Increases awareness and informs public opinion about problems resulting from car use and proposes sustainable mobility solutions
Public transport information and marketing	Mass advertising and branding campaigns to make public transport desirable and to promote new integrated ticketing policy
Personalised travel planning	Advises and supports individuals and households on sustainable travel options depending on their personal characteristics and location
Workplace travel plan	Encourages employees to reduce the use of the car for commuting in favour of walking, cycling, car sharing or public transport
School travel plan	Encourages young people who live within a realistic walking distance of their school to walk or cycle instead of being driven in a car
Carpooling and Car sharing	Web-based matching of travellers for commuting and business purposes, which can be promoted via work place events, road signs and promotional campaigns.
Car club	Membership based schemes enabling people to gain temporary use of a car without the need to own one.
Teleworking and Teleconferencing	Employers allow employees to work at home or at other locations using information and communications technologies
Home shopping	Electronic retailing and goods ordered by mail, telephone or online which are delivered at the customer's home

sustainable travel attitude in medium sized cities (Đukić and Vukmirović, 2012).

Urban Street Design Guide prepared by the National Association of City Transportation Officials (NACTO) constitutes a very detailed guide on the redesign of different types of streets as a catalyst for urban transformation taking into account the multi-faceted role they could play in any city (walking, driving, cycling, taking transit, parking, working, shopping etc.). According to the Guide, "Interim design strategies are a set of tools and tactics that cities can use to improve their roadways and public spaces in the near-term. They include low-cost, interim materials, new public amenities, and creative partnerships with local stakeholders, which together enable faster project delivery, and more flexible and responsive design,") (see Table 2). These tools and tactics are in fact a combination of soft initiatives and low-cost supportive measures enhancing public space and promoting sustainable mobility.

Concerning interim plazas, one of the most interesting and well known examples, especially because of its extent, is the New York City Plaza Program launched in 2008. A similar approach has been adopted by other large US cities such as Los Angeles, San Francisco, and Philadelphia (NACTO). Another tactic that seems to be more and more attractive is the replacement of on-street parking spaces by parklets. It was originally applied within the initiative PARK(ing)DAY which first occurred in 2005 in San Francisco and spread rapidly, becoming an annual open-source global event. In 2011, it temporarily reclaimed 975 parking spaces in 165 cities, 35 countries, and across six continents. This event,

Table 2. Tools and tactics of interim design strategies, adapted from NACTO Urban Street Design Guide

Tools and tactics	Characteristics	Results
Moving the Curb	Curbsides can host a wide variety of uses beyond parking: bus lanes or cycle tracks / parklets, bike corrals or stations and temporary traffic calming devices	More efficient use of valuable street space Reclaiming space devoted to automobiles Activating street life and creating a destination within the street
From Pilot to Permanent	Phased approach to major redesigns Small-scale, interim changes, such as sidewalk widening, public plazas, street seating	Assessing the impacts of the intended project in real time Building support for a project by realising the benefits for the community more immediately Testing the functionality in a case of full-scale capital project and possibility for modifications
Parklets (street seats or curbside seating)	Public seating platforms that replace one or more parking spaces. Usually distinctive design (often standardized) incorporating seating, food tracks, greenery and/or bike racks Installed and managed by the city or product of partnership between the city and local businesses, residents or neighbourhood associations and non-profit organizations which assume design, installation costs and maintenance	Providing gathering place, vibrant community spaces and pedestrian amenities which encourage non-motorized transportation Increasing foot traffic and visitors, in some cases, revenue for adjacent businesses
Temporary Street Closures	Regularly scheduled restricting of a street to pedestrians and bicyclists at specific times of day, specific days of the week or during the year, or for certain seasons (play streets, block parties, pedestrian streets, street fairs, open streets etc.)	Taking better advantage of the roadways, especially at off-peak hours or weekends and raising awareness about the harmful effects of the automobile Increasing foot traffic and visitors, which promote local economic development
Interim Public Plazas	Underutilized roadway spaces, especially intersections, transformed into public spaces for surrounding residents and businesses Use of low-cost, environmentally friendly materials and moveable equipment Product of a partnership between the city and a business or neighbourhood association and non-profit organization which maintains, oversees and programs the space	Slowing traffic speeds and making intersections safer, more compact, and easier to cross for pedestrians Creating foot traffic that can boost business and invigorate street life in a neighbourhood Taking advantage of all the benefits mentioned in the Pilot to Permanent tactic

together with some influence from New York City Plazas and European open-streets movements, is thought to be the precursor to San Francisco Parklet and Pavement to Parks Programs which were initiated in 2010. The example of San Francisco has inspired other US and Canadian cities such as Philadelphia, Los Angeles, Chicago, Oakland, Montreal, Vancouver, and European cities as well (see Dublin Street Parklet Beta Project) (Lydon, 2012; Loukaitou-Sideris, 2012; NACTO).

URBAN STRATEGY AND MOBILITY BEHAVIOUR IN THESSALONIKI DURING THE ECONOMIC CRISIS

The impacts of economic crisis in mobility behaviour

International experience shows that during an economic crisis, income reduction together with the rise of ticket prices harms both private and public transport means by causing staff reductions, cutting routes and reducing maintenance and quality of service. Citizens, and especially low income classes and the unemployed, are forced to dramatically decrease travel expenses, trip frequencies and travel distances with all transport modes, or choose to use more often mass transit and non-motorised modes for short and medium distances. However, conscious preservation of sustainable mobility behaviour in the future is not certain after the end of the economic crisis. In general, car use is the most affected even from the beginning of the crisis. Further changes depend on the local conditions and the quality of the public transportation system. Spatial coverage, accessibility, frequency and prices are some of the factors that make mass transit attractive and define whether the modal shift takes a permanent or temporary character. For example, when ticket prices remained high, illegal behaviour (free riding, ticket fraud) rose and in many cases the volume of transit users decreased (Papagiannakis, 2014).

The global financial crisis of 2008, the indigenous and skewed Greek economic model of the 70's onwards, combined with the adopted austerity measures imposed by the Financial Aid Programme (May 2010), resulted in sweeping and often violent changes in the society and in all strategic national sectors. Negative economic indicators did not only affect the prospects of the country, but they also had significant impact on the everyday life of citizens, their mobility behaviour and the modal split and the trip frequency patterns in the cities.

A trip survey was conducted from April to May 2014 in order to compare the characteristics of commuting trips between the city centre and the Greater Thessaloniki area, before and during the crisis (Papagiannakis, 2014). The study area included 9 different districts located in the historic centre of Thessaloniki, a dense mixed land-use area, which contains trip generation poles for all trip purposes. The sample consisted of 853 randomly selected pedestrians on typical working days, during morning and evening hours. The methodology applied is a random quota sampling following the sex and age distribution of the overall population in the municipality of Thessaloniki (2011 census).

Drawing from the main results of the research we conclude that the residents of Thessaloniki have reduced the frequency of their trips by private car, with greater reductions observed in trips for shopping and entertainment. Also, a modal shift is observed towards public transport and soft modes. Thirty-eight percent of the respondents stated a differentiation of transport mode choice during the crisis, while the remaining 62% did not modify transport mode preferences. Figure 1 illustrates the main transport mode preferences of the citizens before and during crisis, in the whole sample. We can observe a clear trend of decreasing preference for the private car and taxi with an inverse upward trend in the preferences of the bus, walking, motorcycle and bicycle. More specifically, before the crisis a percentage of 43% of the sample usually preferred private car and taxis, while nowadays this rate is limited to 26%. The reduction of 17 percentage points observed in car use corresponds to an equivalent increase in the use of bus (from 35% to 47%), walking (14% to 17%), bike (from less than 1% to slightly over 1%) and the motorcycle (from 7% to 9%).

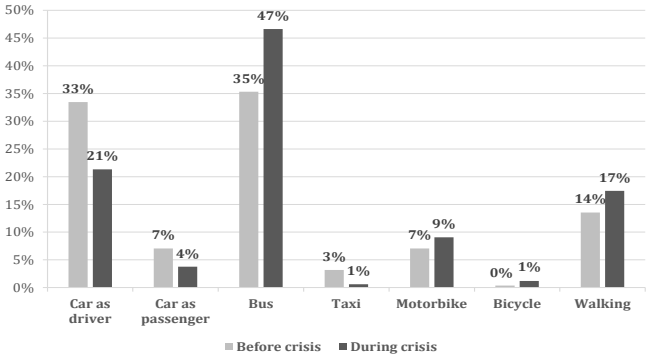

Figure 1. Main modal choice before and during the crisis

In particular (Table 3), almost one in two respondents that used to travel with car before the crisis continues to do so (51%). But the other half has shifted to other transport modes for downtown trips. A figure of 36% of the primarily car users has mostly replaced the car by the bus, 7% by motorbike, 4% by walking and 1% by cycling. None of the people who preferred the taxi before the crisis, continues to do so. Seventy percent of the primarily taxi users replaced it with the bus, 7% with the car and 19% with walking. Concerning the public transport, 80% of the bus riders before the crisis are still traveling by bus, 7% replaced the bus with walking, while 11% shifted towards the car.

Table 3. Changes in transport mode choice during the crisis

	During the crisis, modal split						
Before the crisis, people whose main mode was:	Car	Taxi	Bus	Moto	Walking	Bike	Total
Car	51%	1%	36%	7%	4%	1%	100%
Taxi	7%	0%	70%	4%	19%	0%	100%
Bus	11%	0%	80%	1%	7%	1%	100%
Walking	1%	0%	7%	1%	90%	1%	100%

In order to investigate whether people understand the long term benefits of limiting the use of private car and adopting sustainable travel behaviour, the survey also explored the changes in the use of transport modes as well as the willingness to preserve these changes (Table 4).

Table 4. Willingness to preserve changes in the use of transport modes

		Willingness to preserve changes			
	Sample Percent	**Yes**	**No**	**Maybe**	**I don't know**
People who reduced car use	29%	40%	36%	14%	10%
People who increased bus use	28%	42%	28%	15%	14%
People who increased walking and biking	10%	76%	6%	14%	5%

According to the results, a clear trend towards the adoption of changes in travel behaviour concerning car, taxi and bus is not observed since the minority of 40% answered clearly "yes," while the remaining 60% stated "No," "Maybe," "I don't know." But 10% of the people that choose to walk and bike more frequently during the crisis, seemed to be more determined to continue this habit in the future. In any case, the future preservation of the new travel habits is not due to awareness of sustainable mobility, but mainly related to cost issues. Forty-five per cent of the respondents declared the high gasoline price as the major cause of the reduction of car use, while 27% stated the expensive cost of parking. For 9% of the sample the high ticket price is the most important reason for decreasing bus use although for 7% it is the overcrowded vehicles. Finally, only 3% of the respondents indicated a modal change due to environmental awareness.

In general, the effects of the economic crisis are proving more effective in limiting the car use compared to any kind of hard or soft policies and measures promoting sustainable mobility that have been implemented in the past. But the answer to the crucial question, whether the financial crisis is an opportunity for sustainable development or not, is neither simple nor easy.

Public space design and sustainable mobility in Thessaloniki during the crisis

Urban and especially metropolitan areas that are particularly affected by the crisis should re-orient planning principles and content, improve democratic participation in the planning process and make the most of the available resources to promote their resilience so as to face new types of emerging problems (Thoidou, 2013). In fact, in Thessaloniki, there has been a shift in the type and character of the public space projects since 2010 towards sustainable urban mobility as confirmed by research concerning the creation of public space in the city since 1980, which was based largely on the consult of the municipal archives (Department of Urban Design and Architecture) (Vitopoulou, 2015).

The period 1995-2010 is characterized by the rhetoric and deficient implementation of a major urban renewal strategy and the key-role of public space in achieving urban restructuring and overall improve of the image of the city. Fragmented funding, often by different sources and financing programs (central government bodies, EU etc.), resulted in the postponement, the partial implementation or the impoverishment of large-scale projects dominating the agendas of local authorities. During the last three decades, the city has also been in constant discussions to promote major public transportation projects and infrastructures (metro, tram, suburban railway, and suburban sea bus) or awaiting their implementation. The existing public transport system, exclusively based on a bus network, lags behind its European counterparts for cities of similar population and urban characteristics as Thessaloniki. The only significant hard measures that have been implemented are the creation of bus lanes in main arteries, the expansion of the bus network in the suburbs, the bus telematics system, the parking management in the centre, and a cycle paths network of limited length, which proved not enough to reduce car use. In the same period a number of small-scale projects of public space embellishment were realized in a rather ad hoc and piece-meal manner. Some of these, especially during the 2000s, concerned supportive sustainable mobility measures such as sidewalk upgrade in main arteries, curb extensions, ramps and bollards protecting sidewalk space from car parking in the main streets.

As shown in Figure 2, during 1995-1999 a large number of public space design/redesign projects were implemented or elaborated. This can be easily explained as the program of the Organization of Cultural Capital of Europe "Thessaloniki '97" was underway. In fact, it focused not only on the construction of cultural equipment but also on the improvement of public spaces, especially the ones surrounding important monuments. From 2000 to 2009 there is a significant reduction with an almost equal distribution every five years, while during the last five years a significant increase is observed.

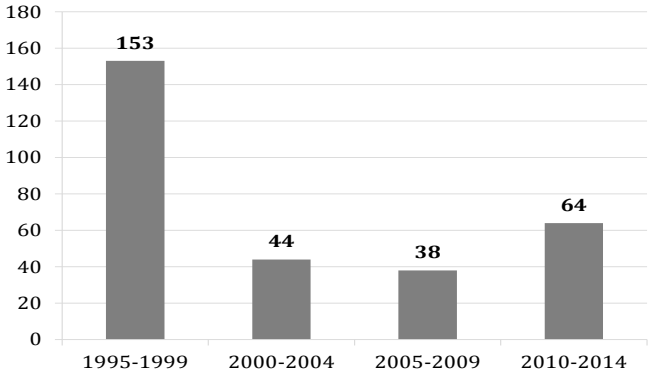

Figure 2. Elaborated/implemented public space projects during 1995-2014

According to the distribution analysis of different types of public space projects every five years, the "street redesign projects" is the second most frequent type after the "open/green space redesign projects". Its maximum value is reached during 1995-1999, followed by a constant decrease during the 2000s, reaching the minimum value during 2005-2009, before increasing again significantly during 2010-2014 almost approaching the levels of the period 1995-1999 (Figure 3).

The noteworthy increase of the small-scale street redesign projects explains the rather peculiar overall increase of public space projects during the period of crisis. Moreover, it points out a shift in the general strategy of the Municipality (we should also bear in mind the political change in the head of the Municipality of Thessaloniki in 2010), from major urban renewal projects that require bold funding and a long

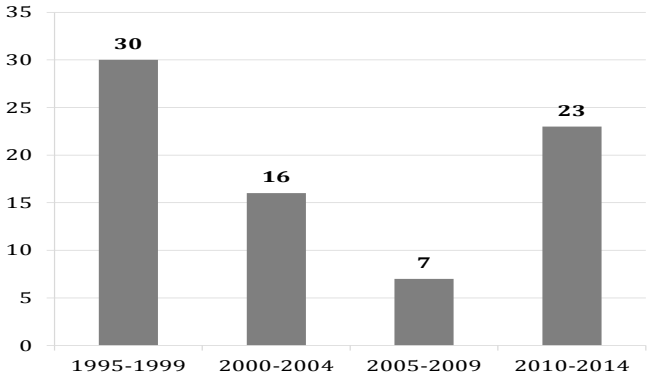

Figure 3. Street redesign projects during 1995-2014

period of implementation, often ever perpetuated, to small-scale targeted and flexible interventions which are part of a larger strategy of reclaiming space devoted to cars. Based on projects elaborated by the municipal technical service, of an immediate implementation and low-cost minimal character, they mostly concern sidewalk widening, traffic-calming streets and pedestrian streets, applied both downtown and in some residential neighbourhoods (Vitopoulou, 2015).

They also concern interim design, such as the temporary closure of the coastal street on certain Saturdays or the transitional phase of pedestrianisation of a part of Aghias Sofias street, an important axis of historical value in the city centre. This was achieved by using temporary materials and moveable equipment, while waiting for the necessary funding and the completion of the complex and lengthy Greek planning and approval procedure of the major redesign project. Many of these interventions are based on the ideas and suggestions made by citizens and communities or local initiatives and partnerships with local stakeholders. Thus, they also indicate a change in the planning and implementation process (Christodoulou, 2013). We could argue that this "strategy of the feasible" (Athanassiou *et al.*, 2012) constitutes in reality the first application of small-scale integrated urban and transport planning in the city.

This change in urban design practice and governance is reinforced by the multiplication of urban interventions and creative actions promoting more efficient or alternative use of public space, which are stimulated mainly by private initiative, that is, volunteer groups, associations or non-profit organizations (such as the "Union for Pedestrian Rights", the "Thessalonistas", the "Thessaloniki Cyclists", the group "BikeRespect" which launched the bicycle sharing system "i-bike" etc.). It should be underlined though that these initiatives had formed long before the crisis a dynamic of various claims and different views on the public space manifested in different opportunities (Christodoulou, 2013).

CONCLUSIONS

In the context of the economic crisis, small-scale, low-cost, interim and community-led integrated urban and transport planning interventions in combination with soft measures (e.g. campaigns, actions, etc.) seem to be gaining ground as an urban strategy in more and more cities worldwide. These approaches face the problems of uncertain and scarce funding while bypassing the complex and lengthy planning and implementation processes. Thus, they offer direct and quick results to local communities, and attempt to adapt planning to the changes in mobility needs and environmental conditions. These bottom-up approaches involve stakeholders, residents, neighbourhood associations and non-profit organizations in the planning process, as well as in urban management practices.

In the case study of Thessaloniki a tendency towards this type of urban strategy is detected, as well as a slight change in mobility behaviour towards more sustainable transport modes. However, they are not directly related to each other. New travel attitudes are mostly related to cost issues, and thus it is not certain that they will be permanent. The main reasons for this are the lack of an integrated public transport system and the generally degraded public space despite the improvement already achieved. Quality public space and urban transport constitute conditions necessary to attain a long-term change in mobility behaviour. The absence of this in Thessaloniki constitutes the main reason why the aforementioned urban strategy lacks the effectiveness it has abroad.

In order for the city to adjust to and profit from the economic crisis repercussions in favour of sustainable mobility, it is crucial to undertake initiatives that develop and consolidate synergies in the three following directions:

1. Mobility management measures which facilitate citizens' recognition and understanding of the personal and social benefits of environmentally friendly transport. While not capital spend projects, soft transport measures could be used with a view to enhance and preserve the forced changes observed in the trip choices and travel behaviour.
2. Low-cost hard transport measures and supportive actions preserving an adequate level of quality of public transport service. Since securing funding for the realization of medium and long-term projects for the development of major transport infrastructures is difficult, low-cost and short-term measures for the improvement of the existing urban transport system should be prioritised. A competitive price for public transportation is strong motivation that should be combined with more effective measures enhancing the quality of service (frequency, reliability and comfort) such as: priority of public transportation in the road network (extension and strict bus lane enforcement), parking management and strict parking enforcement in the city centre.
3. Tools and tactics of interim design strategies or tactical urbanism which allocate a part of the road space to promote walking and cycling as conscious mobility behaviour.

Based on the literature review, the proposed urban strategy can make a visible improvement in public space and endorse sustainable urban mobility. However, further quantitative research is needed in order to assess the effectiveness of this crisis strategy, as well as the depth and permanence of the changes that it could bring to the mobility behaviour and the public space appropriation by citizens.

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