Preface

Cities are more than infrastructure; they are communities of individuals and families with different backgrounds, needs and aspirations. Properly understood, managed and planned, cities have the potential to provide great benefits, where cities can be part of the solution to many of today's challenges from an ageing population to developing sustainable strategies for water, waste, land use and energy. For example, cities where residents have easy access to convenient public transport, social gathering places, and shops and cultural amenities within walking distance, tend to be places with a significantly lower carbon footprint per capita, in part because the urban form does not necessitate daily car usage. Less driving and more walking can translate into less obesity in cities, and fewer deaths and injuries due to vehicle crashes. Likewise, access to more social activities tends to reduce social isolation and thus improves physical and mental health. The higher intensity of economic stimuli and opportunities encourages the search for enjoyment and self-expression.

If cities have the potential to be part of the solution, it is important to know more about what makes cities attractive or liveable places. Whilst part of this challenge is about improved technology, greener buildings, and energy efficiency, it is also about understanding how to make cities more liveable places for people. Of course, cities are not all the same; there are attributes and public policies that make some cities more attractive to live in than others. Given the importance of cities for the foreseeable future, there is an urgent requirement to go far beyond technocratic perspectives and understand how urban design, planning, public policy and management, and other aspects of the city affect or determine whether a city is people friendly. In other words, there is a need to clarify what makes a city most liveable so researchers can advise policymakers and others as to the "best practices".

In a world rich with digital data from street sensors, social media and municipal open data sources, it is crucial—in particular—to identify how this additional data might provide a more informed perspective on the needs and aspirations of city dwellers whilst promoting greater citizens' participation in urban planning and design. This should lead to cities being both "smart and liveable cities" that bring communities together and encourage social inclusion. Services, products and

places are needed to leverage on data richness to allow people of different back-grounds, ages, abilities, shapes and sizes to engage with their environment and with each other. To understand their needs, citizens need to be engaged in a dia-logue about their cities and develop a sense of co-ownership not only of the hard-ware, but also of the software of cities. However, most of the practical questions on how to progress in this direction are still unanswered.

Part I

Some of these questions have been the topics of conversation and debate for the last three years as part of a European research network funded by the COST organisation attracting participation from 28 countries ranging from Iceland to Israel. This publication provides a snapshot of some of the innovative ideas emerg-ing from the network. From the outset, the publication provides a radical view of cities through a Manifesto for Cities that challenges traditional approaches and argues the merits for a greater bottom-up model to compliment top-down city planning approaches. This is followed by a new framework for collaborative urbanism based on the concept of soft and hard city infrastructures as well as com-mentary on the mutual benefit of using both 'small' and 'big' data.

Part II

Given the importance attached to the subject of big data, the next section of the book focuses on the growing topic of crowdsourcing which is influencing local and national politics and by implication urban planning and design. The evolution of crowdsourcing is explored as spontaneous bottom-up socio-technological net-works that produce non-planned forms of citizens' empowerment in urban gov-ernance. Self-empowering practices performed by social actors with the aim of improving the organisation and functioning of the city are here discussed.

The theme of technology is continued by examining urban design in the context of data-rich urban environments and networked society, focusing on human activi-ties, experiences and behaviours. It does so by examining how urban design theory deals with social and spatial changes within network society, i.e. by examining urban design through the lenses of integral theory. In this context, a chapter is devoted to describing a case study for the City of Amsterdam that used visualisa-tion tools and Planning Support Systems (PSS) to promote dialogue between plan-ning practitioners, citizens and decision-makers as part of a collaborative process.

Another innovative approach presented is the so-called ModularCity that com-bines computer-assisted planning, geography and social work. The model allows planning representatives to analyse the socio-spatial context of future development projects by editing, collecting and visualising geo-referenced, objective, as well

as subjective, data in one planning tool. The focus is on the translation between stakeholders' different planning concepts, goals and languages in order to develop strategies of integration, visualisation to the translate demand in sustainable urban planning. In contrast, Time Quality Assessment (TQA) is presented in the subsequent chapter as a time–people–place-oriented approach to evaluate the quality of living environments. The model links quality of time spent for certain activity in certain place as an indication of the quality of living environments, based on the assumption that time is an universal expression and measure of quality of living that challenges the preconceptions of planners, decision-makers and city dwellers.

Part III

Of course real data from case studies are needed to verify and calibrate innovative tools and techniques for the future design of Smart and Liveable cities. With this in mind, a number of case studies are presented towards the end of the publication. The first of these is the development of a Social Urban Network called SUN4Matera for the Italian town of Matera. The methodology is based on a bottom-up citizen participation approach to collect and aggregate data from citizen interviews that feed into urban design decision-making. Continuing the theme of case studies, the experience of introducing Digi Tel digital tool is critiqued, where the City of Tel Aviv embarked on a collaborative urbanism prototype where citizens were invited to join the Digi Tel club. Registered citizens were awarded a membership card that provides access to certain municipal facilities and furthermore enables citizens to express priorities for future developments in the city.

In comparison, the digital tool called WAY is presented as a smart phone application linked to an iCloud Web service that facilitates citizens' participation in the planning and design of public parks and places as part of the Cyber Parks initiative. The tool was tested in the cities of Barcelona, Lisbon and Ljubljana. Lastly, the experience of introducing Web-based services for the Romanian city of Bucharest is described in the context of municipal administration.

In summary, by the very nature of collaborative urbanism, the book has attracted contributions from a wide range of disciplines. The resulting variety of perspectives on data-rich cities provides stimuli for a further consolidation of the field, which emerges as still in an early structuration phase. Yet all the concepts and methods ultimately aim to engage citizens more in urban planning and design in order to increase the livelihood and liveability of cities in the twenty-first century. We hope you find the wealth of information a valuable depository of knowledge and ideas to promote your own strand of collaborative urbanism.

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