

TeMA

Journal of
Land Use, Mobility and Environment

The fragile/resilience city represents a topic that collects itself all the issues related to the urban risks and referred to the different impacts that an urban system has to face with. Studies useful to improve the urban conditions of resilience are particularly welcome. Main topics to consider could be issues of water, soil, energy, etc..

Tema is the Journal of Land use, Mobility and Environment and offers papers with a unified approach to planning and mobility. TeMA Journal has also received the Sparc Europe Seal of Open Access Journals released by Scholarly Publishing and Academic Resources Coalition (SPARC Europe) and the Directory of Open Access Journals (DOAJ).

Rotterdam

Climate Change Adaptation Strategy

THE RESILIENCE CITY / THE FRAGILE CITY.
METHODS, TOOLS AND BEST PRACTICES.



ROTTERDAM CLIMATE INITIATIVE
Climate Proof

THE RESILIENCE CITY/THE FRAGILE CITY. METHODS, TOOLS AND BEST PRACTICES

1 (2018)

Published by

Laboratory of Land Use Mobility and Environment
DICEA - Department of Civil, Architectural and Environmental Engineering
University of Naples "Federico II"

TeMA is realized by CAB - Center for Libraries at "Federico II" University of Naples using Open Journal System

Editor-in-chief: Rocco Papa
print ISSN 1970-9889 | on line ISSN 1970-9870
Licence: Cancelleria del Tribunale di Napoli, n° 6 of 29/01/2008

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Cover Image: Rotterdam Climate Change Adaptation Strategy . Available at: http://www.rotterdamclimateinitiative.nl/documents/2015-en-ouder/Documenten/20121210_RAS_EN_lr_versie_4.pdf

TeMA. Journal of Land Use, Mobility and Environment offers researches, applications and contributions with a unified approach to planning and mobility and publishes original inter-disciplinary papers on the interaction of transport, land use and environment. Domains include: engineering, planning, modeling, behavior, economics, geography, regional science, sociology, architecture and design, network science and complex systems.

The Italian *National Agency for the Evaluation of Universities and Research Institutes* (ANVUR) classified TeMA as scientific journal in the Area 08. TeMA has also received the *Sparc Europe Seal* for Open Access Journals released by *Scholarly Publishing and Academic Resources Coalition* (SPARC Europe) and the *Directory of Open Access Journals* (DOAJ). TeMA is published under a Creative Commons Attribution 3.0 License and is blind peer reviewed at least by two referees selected among high-profile scientists. TeMA has been published since 2007 and is indexed in the main bibliographical databases and it is present in the catalogues of hundreds of academic and research libraries worldwide.

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TeMA

Journal of
Land Use, Mobility and Environment

THE RESILIENCE CITY/THE FRAGILE CITY. METHODS, TOOLS AND BEST PRACTICES

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CALL FOR PAPERS: TEMA VOL. 11 (2018)

The Resilience City/The Fragile City. Methods, tools and best practices.

The fragile/resilience city represents a topic that collects itself all the issues related to the urban risks and referred to the different impacts that an urban system has to face with. Studies useful to improve the urban conditions of resilience (physical, environmental, economical, social) are particularly welcome. Main topics to consider could be issues of water, soil, energy, etc.. The identification of urban fragilities could represent a new first step in order to develop and to propose methodological and operative innovations for the planning and the management of the urban and territorial transformations.

The Journal also welcomes contributions that strategically address the following issues:

- new consideration of the planning standards, blue and green networks as a way to mitigate urban risks and increase city resilience;
- the territorial risks and fragilities related to mobility of people, goods, knowledge, etc.;
- the housing issue and the need of urban regeneration of the built heritage;
- socio-economical behaviour and the "dilemma" about emergency and prevention economy;
- the city as magnet of the next future's flows (tourism, culture, economy, migration, etc.).

Publishing frequency is four monthly. For this reason, authors interested in submitting manuscripts addressing the aforementioned issues may consider the following deadlines

- first issue: 10th January 2018;
- second issue: 10th April 2018;
- third issue: 10th September 2018.

CALL FOR PAPERS: GENERAL CALL.

Papers in Transport, Land Use and Environment

The Journal welcomes papers on topics at the interdisciplinary intersection of transport and land use, including research from the domains of engineering, planning, modeling, behavior, economics, geography, regional science, sociology, architecture and design, network science, and complex systems

TeMA

Journal of
Land Use, Mobility and Environment

TeMA 1 (2018) 149-171
print ISSN 1970-9889, e- ISSN 1970-9870
doi: 10.6092/1970-9870/5540

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REVIEWS PAGES

THE RESILIENCE CITY/THE FRAGILE CITY. METHODS, TOOLS AND BEST PRACTICES 1(2018)

Starting from the relationship between urban planning and mobility management, TeMA has gradually expanded the view of the covered topics, always remaining in the groove of rigorous scientific in-depth analysis. During the last two years a particular attention has been paid on the Smart Cities theme and on the different meanings that come with it. The last section of the journal is formed by the Review Pages. They have different aims: to inform on the problems, trends and evolutionary processes; to investigate on the paths by highlighting the advanced relationships among apparently distant disciplinary fields; to explore the interaction's areas, experiences and potential applications; to underline interactions, disciplinary developments but also, if present, defeats and setbacks.

Inside the journal the Review Pages have the task of stimulating as much as possible the circulation of ideas and the discovery of new points of view. For this reason the section is founded on a series of basic's references, required for the identification of new and more advanced interactions. These references are the research, the planning acts, the actions and the applications, analysed and investigated both for their ability to give a systematic response to questions concerning the urban and territorial planning, and for their attention to aspects such as the environmental sustainability and the innovation in the practices. For this purpose the Review Pages are formed by five sections (Web Resources; Books; Laws; Urban Practices; News and Events), each of which examines a specific aspect of the broader information storage of interest for TeMA.

01_WEB RESOURCES

The web report offers the readers web pages which are directly connected with the issue theme.

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02_BOOKS

The books review suggests brand new publications related with the theme of the journal number.

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03_LAWS

The law section proposes a critical synthesis of the normative aspect of the issue theme.

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04_UBAN PRACTICES

Urban practices describes the most innovative application in practice of the journal theme.

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05_NEWS AND EVENTS

News and events section keeps the readers up-to-date on congresses, events and exhibition related to the journal theme.

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Journal of
Land Use, Mobility and Environment

TeMA 1 (2018) 149-171
print ISSN 1970-9889, e- ISSN 1970-9870
doi: 10.6092/1970-9870/5540

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评述页：

提高城市系统对自然及人为变化顺应能力的方法、 工具和最佳实践

TeMA 从城市规划和流动性管理之间的关系入手，将涉及的论题逐步展，并始终保持科学严谨的态度进行深入分析。在过去两年中，智能城市（Smart Cities）课题和随之而来的不同含义一直受到特别关注。

学报的最后部分是评述页（Review Pages）。这些评述页具有不同的目的：表明问题、趋势和演进过程；通过突出貌似不相关的学科领域之间的深度关系对途径进行调查；探索交互作用的领域、经验和潜在应用；强调交互作用、学科发展、同时还包括失败和挫折（如果存在的话）。

评述页在学报中的任务是，尽可能地促进观点的不断传播并激发新视角。因此，该部分主要是一些基本参考文献，这些是鉴别新的和更加深入的交互作用所必需的。这些参考文献包括研究、规划法规、行动和应用，它们均已经过分析和探讨，能够对与城市和国土规划有关的问题作出有系统的响应，同时还对诸如环境可持续性和在实践中创新等方面有所注重。因，评述页由五个部分组成（网络资源、书籍、法律、城市实务、新闻和事件），每个部分负责核查 TeMA 所关心的海量信息存储的一个具体方面。

01_WEB RESOURCES

网站报告为读者提供与主题直接相关的网页。

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02_BOOKS

书评推荐与期刊该期主题相关的最新出版著作。

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03_LAWS

法律部分提供主题相关标准方面的大量综述。

author: Maria Rosa Tremittera
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04_URBAN PRACTICES

城市的实践描述了期刊主题在实践中最具创新性的应用。

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05_NEWS AND EVENTS

新闻与活动部分让读者了解与期刊主题相关的会议、活动及展览。

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THE RESILIENCE CITY/THE FRAGILE CITY. METHODS, TOOLS AND BEST PRACTICES 1(2018)

REVIEW PAGES: WEB RESOURCES

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In this number

AWARDS FOR GREEN CITIES

The protection of our territory has become one of the highest priorities and the concept of sustainable development has increasingly taken off among the various countries of the European Union. Sustainable development has long been the focus of attention in the European project, and the EU's commitment supports a development that meets the needs of today without compromising the ability of future generations to meet their own needs (COM (2016)), 739 final).

In urban areas, population and therefore the density of urban activities are increasingly growing, with a consequent increase in pollution. However, though cities represent a significant source of global pollution, they can develop mitigation and adaptation strategies to combat the effects of climate change (Papa et al., 2014). In recent years, in fact, the European Commission has recognized the role and commitment of local authorities in implementing strategies for achieving a sustainable development and in this regard it has presented several projects aimed at rewarding efforts and initiatives of those cities that strive to promote a more environmentally-friendly urban life. Moreover, prizes are awarded to the cities that have stood out for intelligent planning, i.e. those cities which propose models and tools for sustainable urban development on the basis of new requirements (energy, waste, sustainability, etc.) as a priority imposed by global challenges (climate change, land use, etc.) (Papa et al., 2015).

The prizes identify the winning cities as the "role-models" to inspire other cities by creating a sort of friendly competition so that cities can share their experiences and then try to overcome themselves in a challenge that may only grant a higher level of common well-being.

Awarding a prize to a city can also be a source of pride for its citizens who can be encouraged to lead an environmentally-friendly lifestyle, not underestimating the fact that a green city becomes a pole of attraction for new green investors.



European Green Capital

<http://ec.europa.eu/environment/europeangreencapital/>

ENVIRONMENT EUROPEAN GREEN CAPITAL is the website developed by the European Commission which shows two prizes awarded each year to different cities: the European Green Capital Award and the European Green Leaf Award. The European Green Capital Award is the result of an initiative organized by 15 European cities (Tallinn, Helsinki, Riga, Vilnius, Berlin, Warsaw, Madrid, Ljubljana, Prague, Vienna, Kiel, Kotka, Dartford, Tartu & Glasgow) and the Association of Estonian cities on May 15, 2006 in Tallinn, Estonia.

At the top of the webpage are present two sections: about ECGA and Applying for ECGA, where applicants can read all the information on how to participate in the award, the jury and selection criteria as well as the cities that won the prize in previous years.

This award is open to any EU Member States and candidate countries for EU membership, Iceland, Liechtenstein, Norway and Switzerland. Another key requirement is that the cities of the countries listed above, which aspire to the prize, must have a population of more than 100,000 inhabitants. The winning city will not be able to resubmit the application for a period of ten years after its year as European Green Capital.

After submitting the application, the city that aspires to the role of European Green Capital will be evaluated by a jury made up of representatives of seven European institutions, including the Commission itself. The jury will evaluate the city on the basis of 12 environmental indicators:

- Climate change: mitigation;
- climate Change: adaptation;
- sustainable urban mobility;
- sustainable land use;
- nature and biodiversity;
- air quality;
- noise;
- waste;
- water;
- green growth and eco-innovation;
- energy performance;
- governance.

The jury will assess the information provided by each city on the basis of the 12 indicators above listed and will draw up a shortlist of cities. The shortlisted cities will be invited to submit to the jury the communication strategies supported by the action plans in order to explain how they intend to realize their green year project. Following these presentations, the jury will select the European Green Capital. Stockholm was the first winning city in 2010, followed by Hamburg in 2011, Vitoria-Gastiez in 2012, Nantes in 2013, Copenhagen in 2014, Bristol in 2015, Ljubljana in 2016, Essen in 2017, Nijmegen in 2018 and Oslo in 2019.

All the cities are recognised for their coherent record of achieving high environmental standards and commitment to ambitious targets. Lastly, in the "about ECGA" section, by clicking on Quicklinks it is possible to connect to social media like YouTube, Facebook and Twitter. Furthermore, under the section board, there is a string which allows to view videos on YouTube.



EUROPEAN GREEN LEAF

<https://ec.europa.eu/environment/europeangreencapital/>

Another award shown on the ENVIRONMENT EUROPEAN GREEN CAPITAL website is the European Green Leaf Award. This competition is aimed at cities and towns across Europe that have populations of between 20,000 and 100,000 people, recognizing the commitment to improving environmental performance, with a particular focus on the efforts that generate green growth and new jobs. In the top bar, by clicking on the European Green Leaf it is possible to access ten sub-sections displaying information about the competition: the rules of participation, the award criteria, the cities that previously won the prize, the jury's training and the objectives of this competition.

Every year cities can apply for the European Green Leaf Award but the previous years' winners of this award can not apply for a three-year period, and in the same year the same city can not apply for the Green Leaf Award if it has already applied for the Green Capital Award.

The Green Leaf Award has a two-stage evaluation process. First, an international independent expert group assesses each city's application by selecting a shortlist for the next phase of the competition. Applicants are assessed on the basis of six topic areas:

- Climate change and energy performance;
- sustainable urban mobility;
- nature, biodiversity and sustainable land use;
- air quality and noise
- waste and circular economy;
- water.

The European Green Leaf Award application form also includes a 'City Introduction and Context section', where every applicant is asked to briefly present the respective city, indicating the main challenges it faces and how to address them. A Good Practice Section is also included at the end of the application form where cities are invited to submit three good practices they are undertaking across three different environmental topic areas. This information and the links from which it is possible to download all the material for participation in the competition are available in the subsection EGLA Evaluation process. Moreover, by clicking on EGLA Winning Cities, it is possible to view all the cities that have received the prize in previous years, as the Spanish city of Mollet del Vallès and the Portuguese city of Torres Vedras, which won the inaugural European Green Leaf Awards in 2015; the Irish city of Galway is the winner of the European Green Leaf Award 2017 and the Belgian city of Leuven and the Swedish city of Växjö are the joint winners of the European Green Leaf Awards in 2018. In addition, within the same section, for each city the winner is linked to the respective press release documents. In the EGLA subsection 2019 (in the lower right side) there are links to social media such as YouTube, Facebook and Twitter. Lastly, by going back to the initial page of the site and clicking on the section of the European Green Leaf Award (in addition to a brief description of the award and the background) it is possible to view an animated video that shows how to make cities greener with a link to a YouTube section dedicated to the same theme.



CRESCO AWARD

<https://crescoaward.ideatre60.it/>

CRESCO AWARD is the website promoted by the Sodalitas Foundation which has been committed to supporting and spreading the culture of sustainability for over 20 years. The website is organized into six sections:

- CRESCO AWARD: sustainable cities;
- competition;
- how to participate;
- evaluation criteria and processes;
- companies awards;
- partnership.

This award (unlike the two above mentioned) is addressed to Italian and non-European cities and aims to enhance the innovative drive of Italian Municipalities by establishing a recognition for the most effective initiatives to promote the sustainable development of territories in a widespread way.

Participation in the CRESCO AWARD is open to Municipalities, Metropolitan cities and the Union/Association of Municipalities that can submit one or more projects related to the themes presented in the Sustainable Development Goals. Participants will have the opportunity to become part of the ANCI "Smart Cities Observatory" and to give visibility to their projects through the "Agenda Urbana" portal, the national platform promoted and implemented by ANCI that collects the innovative design experiences implemented by Italian cities. The results of the CRESCO AWARD will be disseminated through a communication plan drawn up by Fondazione Sodalitas, ANCI and the project partners. Applicants for the CRESCO AWARD can access the crescoaward.ideatre60 website by clicking in the "Participate in the Competitions" section and selecting the entry "CRESCO AWARD Sustainable Cities".

Lastly, in the home of the website, at the top right side, there are links with social networks like facebook and twitter.

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IMAGE SOURCES

The images are from: <http://ec.europa.eu/environment/europeangreencapital/>; <https://crescoaward.ideatre60.it/>; <https://pixabay.com/it/la-tutela-ambientale-886669/>

THE RESILIENCE/THE FRAGILE CITY. METHODS, TOOLS AND BEST
PRACTICES 1(2018)

REVIEW PAGES: BOOKS

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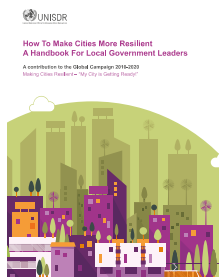
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In this number

STRATEGIES AND POLICIES

Over the fifty percent of the world's population now live in urban areas, and this is projected to increase to sixty-six percent by 2050. Growth and the complex characteristics of cities can present occasions for sustainable development, while at the same time they have the potential to increase vulnerabilities and risk. Physical and spatial characteristics of urban areas, the socio-economic vulnerability of the population, the inadequacy of institutional capabilities and environmental challenges are some of the risk drivers that thrive under the complex situation that is in cities. Strategies and policies can be developed to address each of these issues and move towards safe, equitable and sustainable urban development. Cities are not only the places in which a majority of people live, they are also the core of the world's economy, generating over of eighty percent of global GDP. Today, almost all disproportionately phenomenon born in the cities, as the effects of climate change, aging infrastructure, population growth and migration, and social and economic inequity (Balaban & Şenol Balaban, 2015). In these places, there are important political centres and stand at the forefront of the challenges and opportunities. The spatial planning tools potentially can make a significant contribution in tackling the uncertainty and complexity of climate change (Salata & Yiannakou, 2016). So, the world has grown more urban, more integrated, and with a greater number of people at risk than ever before. These conditions require new models of urban governance. From extreme weather events to refugee crises, from disease pandemics to cyber-attacks, business-as-usual models of reactive planning and decision-making will not engender the fundamental strength and flexibility essential for the human to live. Building urban resilience is to survive, adapt, and grow the capacity of individuals, communities, institutions, businesses, and systems to live within urban areas. Acute shocks are sudden, sharp events that threaten the urban areas, such as earthquakes, disease outbreaks, or terrorist attacks. Chronic stresses, such as high unemployment, overtaxed or inefficient public transportation systems, or chronic recurrent flooding, weaken the urban area over time and exacerbate the effects when they inevitably occur. Mayors, local government officials, and decision makers are at the forefront of dealing with the impact of these negative phenomena. According to these themes, this section suggests three books and reports that help to better understand the issue of this number: *How To Make Cities More Resilient A Handbook For Local Government Leaders*; *The London Plan - The Spatial Development Strategy for Greater London*; and *Cities Taking Action*.



Title: **How To Make Cities More Resilient A Handbook For Local Government Leaders**
Author/editor: Ebru A. Gencer (CUDRR+R and UPAG)
Publisher: The United Nations Office for Disaster Risk Reduction (UNISDR)
Publication year: 2017
ISBN code: 978-92-1-101496-9

This handbook is designed primarily for local government leaders and policy makers. It seeks to support public policy and decision making so they can implement activities to reduce disaster risk and build resilience. It sets out practical guidance for putting the “Ten Essentials for Making Cities Resilient”, into action. This handbook showcases the knowledge and expertise of several Campaign cities. It responds to the call for better access to information and knowledge resources, and tools to effectively deal with the impacts of natural hazards and climate change. It provides an overview of key strategies and actions as part of an overall sustainable urban development strategy. The annex to this Handbook contains links to tools, resources, and examples from partner cities. A web-based information platform, where cities and local governments can share their own tools, plans, regulations, and practices complements the handbook. Throughout the handbook, we refer to “cities” and “local governments.” The approach to resilience, as described, also applies to sub-national administrations of different sizes and levels, including at regional, provincial, and metropolitan, city, municipal, township, and village levels.

A Resilient City is one, where: There is strong leadership and coordination and responsibilities in disaster risk management are clearly delineated. This includes effective stakeholder engagement, well defined policies and strategies and distribution of tasks, effective lines of communication and mechanisms that facilitate effective risk management; The city is up-to-date on knowledge about hazards. Risk assessments are routinely prepared as a basis for urban planning and long-term development, including current and future investment decisions that contribute to improved resilience; There is an adequate financial plan that complements and promotes mechanisms to support resilience activities; Urban planning is carried out based on up-to-date risk information with a focus on the most vulnerable groups; Natural ecosystems within and around the city’s territory are identified, protected and monitored to sustain and safeguard their protective functions as natural buffers; All institutions relevant to a city’s resilience are strengthened to have the capabilities they need to execute their roles; The social connectedness and culture of mutual help are strengthened through community, education, and multi-media channels of communication; There is a strategy to protect, update and maintain critical infrastructure to ensure that services continue and to increase resilience against hazards and the impacts of climate change; Effective disaster response is ensured by creating and regularly updating preparedness plans, connecting to early warning systems and increasing emergency and management capacities through public preparedness drills; Post-disaster recovery, rehabilitation, and reconstruction strategies are aligned with long term planning and provide an improved city environment after disaster events. The four priorities for action are: disaster risk management should be based on an understanding of disaster risk in all its dimensions of vulnerability, capacity, exposure of persons and assets, hazard characteristics and the environment; Disaster risk governance at the national, regional and global levels is very important for prevention, mitigation, preparedness, response, recovery, and rehabilitation. It fosters collaboration and partnership; Public and private investment in disaster risk prevention and reduction through structural and non-structural measures are essential to enhance the economic, social, health and cultural resilience of persons, communities, countries and their assets, as well as the environment; The growth of disaster risk means that there is a need to strengthen disaster preparedness for response, take action in the anticipation of events, and ensure capacities are in place for effective response and recovery at all levels.



Title: **The London Plan - The Spatial Development Strategy for Greater London**
 Author/editor: Mayor of London
 Publisher: Greater London Authority
 Publication year: 2017
 ISBN code: -

Under the legislation establishing the Greater London Authority (GLA), the Mayor is required to publish a Spatial Development Strategy (SDS) and keep it under review. The SDS is known as the London Plan. As the overall strategic plan for London, it sets out an integrated economic, environmental, transport and social framework for the development of London over the next 20-25 years. The general objectives for the London Plan, and the process for drawing it up, altering it and replacing it, are set out in the Greater London Authority Act 1999 (as amended) and supporting detailed regulations. The Plan has been developed in line with these requirements. The legislation stipulates that the London Plan should only deal with things of strategic importance to Greater London taking account of the principal purposes of the Greater London Authority which are: promoting economic development and wealth creation in Greater London; promoting social development in Greater London; and promoting the improvement of the environment in Greater London. In developing this strategy, in accordance with the legislation and associated regulations, the Mayor has had regard to: the principle that there should be equality of opportunity for all people; reducing health inequality and promoting Londoners' health; achieving sustainable development in the United Kingdom; climate change and the consequences of climate change; the desirability of promoting and encouraging the use of the Thames, particularly for passenger and freight transportation; the resources available to implement the Mayor's strategies. The document brings together the geographical and locational aspects of the Mayor's other strategies, including those dealing with Transport, Environment, Economic Development, Housing, Culture, Health and Health Inequalities. The draft Plan has been developed alongside the Mayor's other statutory strategies to ensure consistency with those strategies. The London Plan is legally part of each of London's Local Planning Authorities' Development Plan and must be taken into account when planning decisions are taken in any part of London. Planning applications should be determined in accordance with it, unless there are sound planning reasons (other material considerations) which indicate otherwise. The Plan provides the strategic, London-wide policy context for borough local development plan documents; all local development plan documents and Neighbourhood Plans have to be 'in general conformity' with the London Plan. This means it is not an alteration or update to previous Plans. This Plan will be the third London Plan, the previous ones being the 2004 Plan produced by former Mayor of London Ken Livingstone and the 2011 Plan produced by former Mayor of London Boris Johnson. All of the other iterations of the London Plan from 2004-2016 have been alterations. Once adopted this Plan will replace all previous versions. This Plan is different to those that have gone before it. It is more ambitious and focused than any previous Plans. The concept of Good Growth – growth that is socially and economically inclusive and environmentally sustainable – underpins the Plan and ensures that it is focused on sustainable development. The drafting of the Plan aims to ensure that London is ready to implement this ambitious Plan as soon as possible and that the policies do not take years to implement due to the time it can take to update local development plan documents. As the London Plan is part of every borough's development plan, there is no requirement for the policies to be repeated at the local level before they can be implemented. However, in some instances a local approach is required within the context of the overall policy. The Plan clearly sets out where this is the case. This Plan provides the framework to address the key planning issues facing London. This allows boroughs to spend time and resources on those issues that have a distinctly local dimension and on measures that will help deliver the growth London needs.



Title: **Cities Taking Action**

Author/editor: 100 Resilient Cities

Publisher: Rockefeller Foundation

Publication year: 2017

ISBN code: -

The Rockefeller Foundation has been a leader in urban policy since the late 1950s when it launched an Urban Design Studies program. One of its first grants was to a then-obscure author for the research and writing of *The Death and Life of Great American Cities*. In 2013, building on this long tradition, and in celebration of its 100-year anniversary, the Rockefeller Foundation launched 100 Resilient Cities (100RC), a non-profit dedicated to helping cities around the world become more resilient to the physical, social, and economic challenges of the 21st century. The mission is to catalyze an urban resilience movement, and we have rapidly built a dynamic global organization. The Foundation work along four key pathways in pursuit of our mission: City action; Resilience solutions; Local leaders; and Global Influence. 100RC's diverse and dynamic network of cities is facing a common set of shocks and stresses. Member cities face rainfall flooding, infrastructure failure, earthquake, extreme heat, and disease outbreak as their most common shocks, and aging infrastructure, a lack of affordable housing, inadequate public transportation, environmental degradation, and economic inequality as their most common stresses. The more than 30 Resilience Strategies published by 100RC member cities so far contain more than 1,600 action-oriented initiatives – from discrete social programs to ambitious infrastructure projects, running on timescales from a few months to multiple generations. These cities are already hard at work implementing these actions, and thus far have leveraged more than \$535M in external funding from private, public, and philanthropic sources to that end. This report focuses on some of the ways cities are now taking action, looking closely at the following seven projects, and illustrates how resilience thinking can maximize the impact of a city's efforts and ensure each project returns multiple benefits for residents: Boston is incorporating racial equity goals into its plans for extending its metro transit system; Medellín is protecting informal communities from landslides while improving social cohesion among residents; Melbourne will create a cohesive strategy for managing urban forests across its many jurisdictions; Surat will address its twin problems of insufficient water quantity and quality; New Orleans is developing new systems for flood protection; New York is exemplifying the ethos of "build back stronger" in a highly vulnerable community; Mexico City is deploying innovative finance to meet the basic water needs of its vulnerable populations in a manner that will also protect its ecosystems and boost its resilience to climate change.

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 THE RESILIENCE CITY/THE FRAGILE CITY. METHODS, TOOLS AND BEST PRACTICES 1 (2018)

REVIEW PAGES: LAWS

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In this number

 CLIMATE CHANGE ADAPTATION OF COASTAL AREAS
 IN THE EU MEMBER STATES

In 2013 European Union adopted the EU Strategy on Adaptation to Climate Change, in line with the Green Paper on “Adapting to climate change in Europe – options for EU action” of June 2007. This strategy was one of the steps that European Union has been sweeping in order to encourage the Member States to adopt adaptation strategies at different levels that are national, regional and local (Papa et al., 2014). In particular, the aim of the strategy is “*to contribute to a more climate-resilient Europe [...] enhancing the preparedness and capacity to respond to the impacts of climate change at local, regional, national and EU levels*”. The EU Adaptation Strategy focuses on promoting:

- the adoption of adaptation strategies by the Member States and supporting adaptation also at the local level through the Covenant of Mayors for Climate and Energy;
- the climate-proofing action at EU level in specific key vulnerable sectors (e.g. agriculture, cohesion policy, etc.) for making Europe more resilient (Swart et al., 2009);
- the sharing of knowledge about adaptation among decision-makers through the development of specific platform such as Climate-ADAPT.

Together with the EU Adaptation Strategy there are several documents, named Commission Staff Working Documents (SWDs). Those SWDs focus on how to implement adaptation policies in specific fields, one of which – the SWD (2013) 133 - is referred to coastal areas. Coastal areas are considered the most productive areas in the world but, at the same time, the most vulnerable areas to climate change and natural hazards (Neumann et al., 2015). Such document highlights the importance of those areas as pointed out firstly by the Recommendation on the Integrated Coastal Zone Management (ICZM) in 2002 and then by the Directive 2014/89/EU of the European Parliament and of the Council establishing a framework for maritime spatial planning. In particular, the document highlights that “*under a no-adaptation scenario, it is estimated that between 200,000 [...] and 780,000 people [...] could be affected by coastal flooding by 2100*”. In this perspective, effective adaptation action can influence positively the resilience of coastal areas to climate change impacts. Nowadays, the majority of EU Member States have adopted their own National Adaptation Strategies. Nevertheless, the National Adaptation Strategies adopted by Member State with coastline include specific strategies or addresses for coastal zones.

Hence, in this number the National Adaptation Strategies of the Netherlands, Denmark and Germany are presented in order to highlight which strategies they propose for coastal areas in relation to the EU Adaptation Strategy and eventually which addresses are provided for the future territorial and urban planning.



NATIONAL ADAPTATION STRATEGY IN THE NETHERLANDS



The National Adaptation Strategy in the Netherlands has been adopted by the Council of Ministers in December 2016 and it is one of the most recent National Adaptation Strategy in Strategy updates the previous National Adaptation Strategy “Make Space for Climate”, laid down in 2007. Its formulation has been addressed by the Climate Agenda for Adaptation and Mitigation adopted by the Dutch Cabinet in 2013. The aim of the strategy is to help to “climate-proof” the Netherlands through initiatives at different territorial levels.

The strategy is articulated into five parts: the first one introduces the NAS and describes its main characteristics; the second one sets out the main effects of climate change in the Netherlands; the third and the fourth ones illustrate which actions are necessary to implement and how to reduce the susceptibility of the Netherlands to the negative effects of climate change; in the last part the Climate Adaptation Implementation Programme is paved. The 2016 NAS defines four conceptual frameworks. In each framework opportunities and threats are reported for specific effects of climate change which are warmer climate, wetter climate, drier summers and rising of the sea level. Moreover, for each framework implications for nine specific sectors are also identified. Those sectors are: Water and spatial management; Nature; Agriculture, horticulture and fisheries; Health; Recreation and tourism; Infrastructure (air, road, rail, water); Energy; IT and telecommunications; Safety and security. Even if the strategy identifies different policy sectors, it highlights the importance to consider the integration between spatial planning and those policy sectors for defining effective solutions. Indeed, for climate-proofing the Netherlands the NAS promotes the development of the Delta Plan for Spatial Adaptation. In particular, the NAS highlights how much *“it is important to formulate the climate adaptation process in a broader context, to include consideration of the consequence of climate change for nature, health, the food supply chain, spatial design, cultural heritage, housing, urban transformation, and so forth”*. In this context, spatial planning plays a key role. The NAS introduces a specific approach for identifying single solutions, which address multiple issues. Such solutions are named “crossovers”. Several “crossovers” are referred to the spatial planning and, in particular, to the spatial planning of coastal areas. Coastal areas are not specifically defined and analyzed by the strategy, but the relationships between the Dutch land and the water is clear. The Strategy, indeed, identifies specific crossovers, referred to the interaction between Water-Spatial Planning-Public Spaces-Housing-Infrastructure. The crossovers are:

- Urban transformation based on climate-proof design;
- Use new planning and environmental legislation to promote cooperation and create cohesion;
- Tackling potential flooding within the spatial structure is cheaper than doing so within the water system;
- Knowledge-sharing between local authorities and suppliers such as tree nurseries with a view to promoting climate adaptation through the choice of species to be planted;
- New design requirements for (residential) buildings and roads;
- Subsidence and water table management in relation to spatial functions: there can be conflicts of interest which lead to economic dilemmas and a need for transformation.



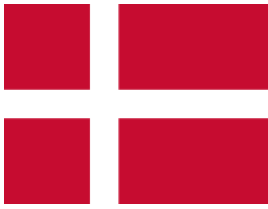
NATIONAL ADAPTATION STRATEGY IN GERMANY

The German Adaptation Strategy (Deutsche Anpassungs Strategie, DAS) has been adopted by the German Federal Cabinet in 2008, before the adoption of the EU Adaptation Strategy, but in line with the EU principles expressed by the Green Paper on “Adapting to climate change in Europe – options for EU action” in 2007. The objective of the DAS is *“to reduce the vulnerability of natural, social and economic systems and to maintain and improve their capacity to adapt to the inevitable impacts of global climate change”*.

The Strategy is articulated into five parts that illustrate: the principles of the strategy; the current state of knowledge with regard to the expected climate changes worldwide and in Germany; the climate change impacts and the ways for facing them; an overview of the international context and Germany’s contribution to adaptation in other parts of the world; finally, the approach and the next steps of the German Adaptation Strategy. The Strategy identifies the future climate change impacts on 15 sectors and areas that are referred also to urban planning. Indeed, among the sectors, there are the Building sector, Energy sector and the Transport infrastructure. A specific focus is given to the Water regime, Water management, coastal and marine protection sector and its impacts. Indeed, studies indicate that it could be an increase in the frequency and size of storm surges and, consequently, coastal areas could be at risk of flooding. Therefore, the Strategy proposes an integrated approach in order to reduce potential risks in the German coastal regions of the North Sea and Baltic Sea by means of the Integrated Coastal Zone Management (ICZM) approach. ICZM *“is intended to bring about better reconciliation of the protection and development of natural resources and near-natural land with economic and social demands”*. In addition, spatial planning plays a key role in the adaptation of coastal areas. Indeed, spatial planning has *“the important function of reconciling different claims on the same space”*, supporting at the same time both mitigation and adaptation. In particular, in coastal areas *“regional planning must lay the foundations for ensuring continued maximum protection from increasing storm surge and flood risks in the future. Adaptation to climate change requires not only dyke building and refurbishment measures, but also the development of new forms of safety precautions – especially passive ones”*. In this perspective, the DAS supports the integration between spatial planning and ICZM approach.

In order to guarantee the implementation of the Strategy, in 2011 the German Federal Cabinet has adopted the “Adaptation Action Plan”. Moreover, the Strategy defines some institutional structures for supporting the strategy process. The last part of the DAS, indeed, has provided for the institution of an inter-ministerial working group on adaptation to climate change, called IWG Adaptation Strategy (IMA Anpassungsstrategie), consist of delegates from the Federal Government. The aim of this working group is to prepare the Adaptation Action Plan, propose updates of the DAS and monitor their implementation. With regard of the cooperation with the German Federal States, the Strategy promotes another wide mandate about the “Federal-Länder dialogue on adaptation to climate change”, initiated by the Ministry of the Environment, Nature Conservation and Nuclear Safety.

The DAS highlights also the importance of the Competence Centre on Climate Impacts and Adaptation (KomPass) and of its services, which will be constantly expanded and opened to all users. Finally, also research plays a key role in the implementation process of the strategy. The need of improving information and advisory facilities for developing effective strategy is the core task of the Climate Service Centre (CSC), coordinated with KomPass and other establishments (e.g. German Weather Service).



NATIONAL ADAPTATION STRATEGY IN DENMARK

In 2008 the Danish Government has adopted the Danish strategy for adaptation to a changing climate. The Danish Strategy is based on the concept that climate change impacts are uncertain and adaptation to climate change is a long-term process. Its purpose is *"that that in future climate change should be considered and integrated into planning and development in the most appropriate way"*. In order to define solutions, the strategy describes the future climate with a focus on the variability of the temperature, precipitations and sea level in Denmark and it identifies vulnerabilities of 11 relevant sectors, including Coastal Management and Land Use Planning, for its implementation. With regard to the coastal areas, the Danish Strategy highlights that the risk of flooding and erosion will increase and cities may face complex issues *"since they can be under pressure from higher sea levels, increased precipitation and runoff, as well as changes in groundwater levels"*. Therefore, the Strategy defines some recommendations. In particular, concerning new construction or renovation of dykes, coastal protection or harbor installations, *"it is important to consider how many years' climate change should be included in the basic design"*. Even if there are no regulations about the coastal protection, the Strategy points out that the Danish Coastal Authority will recommend minimum heights for building footings and dyke heights. Furthermore, even if a socio-economic analysis is required for a better adaptation to the climate change of those areas, the Danish Strategy doesn't consider at all the ICZM approach. The basic approach of the strategy is to consider the future climate change *"integrated into planning and development"*. In this perspective, especially in the coastal areas where about 43% of Danish population lives, the Strategy pushes for a more effective planning of land use in order to better face the climate change impacts. Municipalities have a guiding role for integrating adaptation measures in their plans. Indeed, municipal planning should reflect and adapt to the risks and consequences of climate change. The national authorities, indeed, will monitor municipal planning. In this framework, national legislation could be *"limit building and construction in high-risk areas"* or support significant and expensive solutions such as coastal protections, dyke construction, infrastructure protection or water pumping.

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IMAGE SOURCES

The images are from: Fig.1 https://en.wikipedia.org/wiki/Flag_of_Europe; Fig.2 https://en.wikipedia.org/wiki/Flag_of_the_Netherlands; Fig. 3 https://en.wikipedia.org/wiki/Flag_of_Germany; Fig. 4 https://en.wikipedia.org/wiki/Flag_of_Denmark.

 THE RESILIENCE CITY/THE FRAGILE CITY. METHODS, TOOLS AND BEST PRACTICES 1 (2018)

REVIEW PAGES: URBAN PRACTICES

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In this number

 PLANNING FOR RESILIENT CITIES: TWO
 EUROPEAN CASE STUDIES

With a greater concentration of people and assets in urban areas, cities need to address an increasingly complex range of shocks and stresses to safeguard development gains and well-being. Managing disaster risk and the impacts of climate change have long been an important focus of urban resilience (Galderisi, 2014; Galderisi, Mazzeo, Pinto, 2016), but recent examples have shown how economic crises, health epidemics, and uncontrolled urbanization can also affect the ability of a city to sustain growth and provide services for its citizens, underscoring the need for a new approach to resilient urban development. In response of these concerns, in the last few decades, researchers from different disciplines have started investigating the meaning, aspects and elements of urban resilience, suggesting that resilience is a complex and multifaced concept with wide implications for planning practices (Salat and Bourdic, 2012), also arguing that achieving resilience in urban areas requires a strong partnership between local governments, research centres, the non-profit sector, private stakeholders, citizens, and communities (Stumpp, 2013).

Within this context, several initiatives involving both public and private organisations have been created in the last few years, aimed at fostering resilience in urban areas. A notable example in this direction, is the *100 Resilient Cities* initiative, pioneered by the Rockefeller Foundation. The initiative represents one of the most remarkable effort to assist city governments to build greater resilience to climate and disaster. It is dedicated to helping cities around the world become more resilient to the physical, social and economic challenges that are a growing part of the 21st century. The 100 Resilient Cities programme defines urban resilience as “the capacity of individuals, communities, institutions, businesses, and systems within a city to survive, adapt, and grow no matter what kinds of chronic stresses and acute shocks they experience”. Based on this definition, the programme has established the “City Resilience Framework” (CRF), in partnership with the global design firm Arup. The framework provides an innovative model for the local authority to develop a holistic city strategy in collaboration with adjacent municipalities, local academic institutions, private stakeholders, and communities of the city and represents the foundation for the developments of a city resilient strategy. The programme has been established in 2013, in honour of Rockefeller’s 100th anniversary and had initial funding of \$100 million (although the level of funding support has grown since the programme was launched). Since 2013, 102 cities worldwide have joined the programme, and 37 Resilience Strategies (with nearly 1,900 concrete actions and initiatives) have been developed. This contribution presents two relevant Resilient Strategies, developed in Europe within the 100 Resilient Cities framework: ii) the Rotterdam (the Netherlands) Resilient Strategy and ii) the Thessaloniki (Greece) Resilient Strategy.



ROTTERDAM

Rotterdam is a thriving world port city with an urban population of 639,587 inhabitants. The city has a long tradition of continually adapting to new circumstances and anticipating and benefitting from economic and social change. On May 2016, the city of Rotterdam, released its Resilience Strategy within the 100 Resilient Cities framework, outlining its plan to address the main challenges the city will face in the 21st century. The Strategy establishes seven resilience goals, each of them is accompanied by fly wheel actions and additional actions. Fly wheel actions are bigger actions which will make big leaps towards Rotterdam reaching a citywide state of resilience, while the additional actions contribute with lesser impacts. These goals are:

- *Rotterdam: a balanced society.* The goal concerns with building and strengthening resilience in Rotterdam at the individual and the societal level. According to the strategy, this will be achieved through a coordinated mix of actions such as: i) providing educational opportunities for young people to make them competitive and the ready to work in the “next economy”; ii) supporting a balanced population demographic in Rotterdam and attracting highly educated people to the city by increasing housing affordability for the young population iii) fostering social cohesion through networking initiatives aimed at create permanent links between the different social and ethnic communities populating the city;
- *World Port City built on clean and reliable energy.* This goal concerns with the development of a flexible and sustainable energy infrastructure for the port area of the city. This will be achieved through a mix of joint initiatives (involving industries, government and the Rotterdam Port Authority) focused on renewable energy and energy conservation investments;
- *Rotterdam Cyber Port City.* This goal focuses on increasing the resilience of the port area and of the companies working in the port industry against cyber threats. This will be achieved by enhancing awareness, sharing knowledge and joining forces to realize ICT products able to protect computers, networks, programs and data related to the port industry from unauthorized access or attacks that are aimed for exploitation;
- *Climate Adaptive city to a new level.* This goal will reinforce the efforts already started with the Climate Adaptation Strategy (2013) and finalized to enhance the climate resilience of the city. Actions in this domain include: i) small projects led by citizens and businesses under the motto “many small actions make a big difference”; ii) key projects specifically designed to inspire and create publicity and interest around urban resilience, and iii) effective large-scale government- lead projects such as the redevelopment of the city’s waterfront;
- *Infrastructure ready for the 21st century.* This goal deals with increasing the resilience of critical urban infrastructures and networks. The goal is supported by different initiatives, ranging from research initiatives aimed at gaining a better understanding of interdependencies between key infrastructures, to planning initiatives aimed at developing protocols and standard procedures for the asset management of underground infrastructures;
- *Rotterdam network: truly our city.* This goal focuses on fostering the engagement and mobilization of Rotterdam’s citizens. To this aim a number of initiatives are included such as: i) the creation of networks of government, citizens and institutions to share knowledge around key initiatives; ii) the

development of a “district controlled planning program” aimed at promoting the involvement of the Rotterdam citizens in the decision-making process concerning with the management and planning of district-level facilities, and iii) the re-development of the city’s open-data platform and the implementation of other information and inspiration platforms;

- *Anchoring resilience in the city.* This goal concerns with improving the lives of those living in Rotterdam South, a disadvantage part of the city, where the average educational level is lower, there is a higher unemployment rate and the quality of housing is worse. The strategy intends to improve the neighborhood conditions by locating in Rotterdam South new iconic buildings and new public facilities as well as by improving the design and the quality on the neighbor public space.



THESSALONIKI

Thessaloniki is an important Greece city of 363 987 inhabitants, with an active port, a respected university, and a robust tourist industry. The city has recently experienced significant shocks and stresses including a devastating fire and a major earthquake. On March 2017, the city of Thessaloniki released its Resilience Strategy with the support of the 100 Resilient Cities initiative. More than 2,000 people and 40 organizations from across the city participated in workshops, teams, and questionnaires to express their views on Thessaloniki’s resilience, with a notable focus on issues related to the local economy and mobility. The strategy will enable the city of Thessaloniki to better address current and forthcoming main challenges and is organized around four main goals, broken down into 30 objectives and more than 100 actions:

- *Shape a thriving and sustainable city with mobility.* The mobility system in Thessaloniki is facing several significant challenges including limited public transport options, over reliance on private car use, and ageing infrastructure. To address these challenges, the strategy presents a number of coordinated initiatives, including: i) reforming the Public Transport Authority to better meets the needs of a complex and evolving mobility system; ii) re-structuring the metropolitan SUMP and align local SUMPs; iii) developing new mobility options in coordination with new urban developments (i.e. according to the principles of Transit Oriented Developme); iv) developing smart urban logistic solution aimed at minimizing costs for businesses and reducing the environmental impacts v) move to clean power for public transport vehicles;
- *Co-create an inclusive city.* This goal deals with the introduction of new methods for civic engagement that will help the city to source local solutions to urban challenges. To meet this goal, the strategy assigns a central role to the “Boroughs” (administrative entities representing a bridge between citizens and the city administration) that currently have very limited authority and thus a weak impact on the development and progress of the city. In particular, the strategy foresees: i) on the institutional side, a complex reform of boroughs; ii) on the practical side, the development of a portfolio of methods for Boroughs to enable community-led projects. A campaign to re-introduce the Boroughs to the people, followed by capacity building workshops are also included in the strategy;
- *Build a dynamic urban economy.* This goal concerns with the development of an urban economy policy agenda which supports local economic cluster activities and prepares the city for a changing world through financial resilience. The agenda includes a series of interventions in different neighborhoods of the city aimed at clustering in specific areas economic activities. For instance, the agenda introduces

decision-making and integrated planning models for the commercial districts of the city. It also provides an integrated Market Redevelopment Strategy for Kapani market area and support tourism and creative economy through specified zones and incentives;

- *Re-discover the city's relationship with the sea.* The city waterfront forms an integral part of Thessaloniki's identity. It also one of the main reasons for Thessaloniki's commercial, cultural and educational success over thousands of years. However, its potentials for fostering urban resilience have not fully exploited. With this strategy, the Municipality of Thessaloniki intends to put forward different initiatives aimed at maximizing the attractiveness, leisure potential and multi-functionality of the waterfront. Initiatives aimed at achieving these goals include: i) the re-development of the bay area, with the location of new recreational infrastructures along the sea-side; ii) the development of resilient off-shore interventions and iii) the restoration of the matitme ecosystem through environmental engineering artworks.

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IMAGE SOURCES

The image shown in the first page is from: [100resilientcities.org](http://www.100resilientcities.org). The images shown in the second page is from: [rotterdamtravelettes.net](http://www.rotterdamtravelettes.net). The image shown in the third page is from: [salonicagreece.com](http://www.salonicagreece.com)

THE RESILIENCE CITY/THE FRAGILE CITY. METHODS, TOOLS AND BEST PRACTICES 1 (2018)

REVIEW PAGES: NEWS AND EVENTS

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In this number

URBAN RESILIENCE AND SOCIO-ECONOMIC FRAGILITY

As an interdependent global society enters an era of unprecedented change, resulting from unforeseen natural and social disasters and vulnerabilities, the resilience of global cities to survive is a pressing concern, as demonstrated by the growing consideration given to global mitigation and adaptation policies (Galderisi, 2104). In this regard, large attention has been focused on the construction of buildings and infrastructures designed to withstand catastrophic events and ensure greater security for the cities, while another important aspect of urban resilience, the socio-economic one, has been more neglected. If the concept of resilience simultaneously embodies the capacity of urban systems to bounce back, adapt or transform, can we say that a city with a static socio-economic structure is inherently fragile?

There are several tragic examples of difficulties for a population to react to socio-economic factors changes even in the absence of destructive environmental disasters that seem to confirm this hypothesis. It is the case of the so-called *shrinking cities*, a phenomenon that generally refers to a metropolitan area that experiences significant population loss in a short period of time. These are cities that have been depopulated as a result of a process of socio-economic changes that they have not been able to adapt to. Particularly vulnerable in this sense are cities that depend on one or few resources such as a specific industry or a mineral resource, with a high risk of depopulation in case of obsolescence of the technology they serve and the related know-how.

Therefore, the differentiation of resources and functions could be an important element for the increase of urban resilience. In human societies the ability to differentiate one's activities, to find new sources of energy or income, to know how to adapt to contextual change, necessarily passes through a series of specific mechanisms and favorable environmental conditions: education, technology, financial abilities of individuals, the redistribution of wealth, inclusiveness in the decision-making system, corruption, judicial bodies, crime etc. Is it possible to calculate the degree of resilience of a city based on these socio-economic characteristics? Attempts to measure social resilience or, on the other hand, its vulnerability, have been carried out by developing investigative tools such as the Social Vulnerability Index (SoVI), which groups 42

variables concerning the socio-economic conditions of the population of a given geographical area in order to examine the spatial patterns of social vulnerability to natural hazards at the county level in the United States and to understand the related social burdens of risk (Cutter et al., 2003). This kind of tools open the way to a thorough knowledge of the phenomenon and above all to its synthetic measurement. Therefore, while the analytical tools start to be formalized, the questions are: what kind of strategies are the best to improve the identified weaknesses of the urban system in terms of socio-economic fragility? and how to measure their effects?

The following selected conferences could represent a fertile ground for scientific advances on these topics.



SECOND ANNUAL INTERNATIONAL URBAN SECURITY AND RESILIENCE CONFERENCE – WORKSHOP

Where: Toronto, Canada

When: 8-10 May 2018

<http://urbansecurityresilienceconference.ca/>

The increased risk of catastrophic events, whether accidental or deliberate, or by way of natural disasters, means there is now more so than ever before, a need to ensure the resilience of our cities. Large scale urban built infrastructure is a critical node within the intertwined networks of urban areas, which include not only physical components, but also integrated hardware and software aspects. To date, a comprehensive and holistic approach to improve the resilience and security of large scale urban developments against attacks and disruptions, has not been developed thoroughly; therefore, the Second Annual International Urban Security and Resilience Conference could represent a good opportunity to share different experiences and researches on this topic. The conference is divided in six Panels and three workshops alternated with keynote speakers' speeches. The titles of the panels are the followings:

- Cyber risk and the changing role of leadership;
- innovation;
- critical infrastructure planning, design and implementation;
- urban transportation and soft targets;
- counter-terrorism;
- governance and civil society: European perspective.



AESOP

AESOP ANNUAL CONGRESS 2018

Where: Gothenburg, Sweden

When: 10-14 July 2018

<http://www.aesop-planning.eu/>

This event will offer the opportunity for scholars from Europe, as well as from around the world, to contribute to the exchange of experiences, ideas and knowledge regarding planning in the 21st century, in particular in relation to the main congress theme: *making space for hope*. It is divided in sixteen tracks articulated in eleven parallel sessions. Among these tracks the number 13 called *Ecologies* "seeks to critically explore the normative content of today's planning for sustainable development in an era that is often called the anthropocene, but also to discuss alternative ways of working with sustainability issues such as

mitigation and adaptation, zero-carbon urban development, resilience of places, human/non-human interaction within planning, more-than-human approaches to planning and interrelationships between nature and culture in planning". All these elements drive towards one main question: "Do today's challenges call for new planning practices, new designs, new policies and tools and also new ways of teaching planning?", which will represent the main focus of the session discussion.



THE INTERNATIONAL DISASTER AND RISK CONFERENCES (IDRC)

Where: Davos, Switzerland

When: 26-30 August 2018

<https://idrc.info/>

The International Disaster and Risk Conference IDRC Davos 2018 is organised by GRF Davos, an organization which promotes the worldwide exchange of know-how and expertise, creates solutions and fosters good practices in integrative risk management and climate change adaptation. The IDRC is a multisectoral platform for disaster risk reduction addressed to practitioners and scientific experts from politics, government, business, science, NGOs, media and the public. Through the IDRC conferences and workshops the GRF Davos wants to make the disaster risk reduction a policy priority, hoping for the institutional strengthening, moved by the awareness that urban resilience is a phenomenon of simultaneous reconstruction of individual personalities, collective identities and public apparatus. This commitment is triggered by the great economic, social and environmental losses of events related to extreme weather and climate conditions, including hydrological ones. Along with climate change, socio-economic developments such as population growth and economic wellbeing, developments in risk areas and degradation of natural ecosystems will influence the exposure and vulnerability of many regions all over the world. To deal with the large number of risks and disasters society is facing today, it is necessary a multidiscipline approach. Therefore, reinforcing the resilience imposes cognizant and public procedures for participation of interests, sharing of citizenship experiences and best practices.



ISCRAM ASIA PACIFIC 2018-INNOVATING FOR RESILIENCE

Where: Wellington, New Zealand

When: 5-7 November 2018

<http://www.confer.co.nz/iscramasiapacific2018/>

The ISCRAM Association's primary mission is to foster a community dedicated to promoting research and development, exchange of knowledge and deployment of information systems for crisis management, including the social, technical and practical aspects of all information and communication systems used or to be used in all phases of management of emergencies, disasters and crises. The conference, which arises from an innovative path of dialogue and cooperation between operators, policy-makers and scholars developed as a result of the earthquakes that hit New Zealand in the last years, will discuss the international experiences presented in the perspective of building the city's resilience strategy, as in the case of Christchurch, Darfield, Seddon and Kaikoura, which developed an appropriate information systems to

support crisis management, after several natural earthquakes. This is a precious opportunity to access valuable knowledge and experience in a field - that of critical asset resilience and strategic infrastructure - of great interest and relevance for the development of our cities' resilience strategy. The purpose of ISCRAM Asia Pacific 2018 is to exchange research into and experiences of information systems use in emergency management, focusing on understanding disaster risk, strengthening disaster risk governance to manage disaster risk, investing in disaster reduction for resilience, and enhancing disaster preparedness for effective response and to "Build Back Better" in recovery, rehabilitation and reconstruction. The conference is articulated in nine tracks, namely:

- Resilience to cope with the unexpected;
- Monitoring and Alerting Systems supporting Business as Usual and Emergency Warnings;
- Data Issues for Situation/Disaster Awareness;
- Geospatial and temporal information capture, management, and analytics in support of Disaster Decision Making;
- Human centred design for collaborative systems supporting 4Rs (Reduction, Readiness, Response and Recovery);
- Understanding Risk, Risk Reduction, Consequences and Forecasting;
- Social Media and Community Engagement Supporting Resilience Building;
- Information systems for disaster healthcare;
- Enhancing Resilience of Natural, Built, and Socio-economic Environments.

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IMAGE SOURCES

The image shown in the first page is taken from:
<https://redguard.deviantart.com/art/Glass-City-33589180>

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