

## **Focus**

Sustainability has become a fundamental requirement for the future of our cities.

This requirement is mostly associated to environmental issues, and a great effort has been made in the past years to build a low-carbon society. However, sustainability should also be associated to safety.

As a consequence, in seismic countries, sustainable cities must be not only low-carbon emitting but also earthquake safe.

This concept represents the basic premise of this Conference.

According to this premise, in seismic nations like Italy – where over 75% of the building stock is both highly earthquake-prone and energy-consuming – energy renovation actions should be combined with seismic upgrades. This assumption has to be promoted for the following main reasons: energy renovation alone will be worthless if an earthquake destroys the building; to prevent life losses and damages; to avoid several costs otherwise duplicated (costs for building-site setup and scaffolds, claddings, plasters and other finishings, etc.).

Nevertheless, many barriers significantly limit the real possibility to undertake combined retrofit measures, especially in case of multi-owner housing and high-rise buildings. These barriers are of different kinds: economic/financial (high renovation costs, insufficient incentives and subsidies, landlord-tenant dilemma, etc.), technical (ineffectiveness of conventional upgrade solutions, need of regulatory simplification, etc.), organizational (temporary alternate accommodation for occupants, consensus to the retrofit expenditure by condominium ownerships, excessive time for getting construction permits, etc.), and cultural/social (insufficient information and skills, lack of adequate policy measures for promoting renovation actions).

This Conference aims to overcome these barriers and to bridge the gap between sustainability and safety, with a link that may conserve both human and environmental resources.

### **1. Urban vulnerability and sustainable cities**

Sustainability and safety of cities. Description of the vulnerability and/or energy performance scenario of any region or town. Tools and methods for assessing the urban vulnerability to natural hazards and for determining the scale of intervention to adequately reduce this vulnerability. Cost evaluation for the improvement of the urban resilience to natural hazards. Scenarios of possible financial incentives.

### **2. Seismic and energy regeneration strategies at district and urban scale**

Urban regeneration strategies for the reduction of seismic vulnerability and/or energy dependence. Integrated land use and transport planning to reduce energy consumption due to private means of transportation.

### **3. Construction techniques of historic and recent buildings**

Description of construction techniques adopted for historic buildings (i.e. built before 1950) and recent buildings (i.e. built from the 1950s to the 1980s). Relationships between construction techniques and seismic or energy performance of buildings.

### **4. Diagnostic techniques and numerical models to assess seismic vulnerability and energy performance**

Development of novel diagnostic techniques and numerical models to determine the seismic vulnerability and/or the energy performance of historic and/or recent buildings.

### **5. Technical solutions, materials and methods for seismic and energy renovation**

Technical solutions, materials and methods for the seismic and/or energy renovation of historic and/or recent buildings.

### **6. Retrofit optimization through prefabricated systems**

Development of prefabricated systems to accelerate seismic and/or energy renovation activities, in order to reduce costs and inconvenience to the occupants.

### **7. Design, monitoring and management tools**

Novel tools for design, monitoring and management of existing buildings (e.g BIM, parametric design, form finding, sensor grids, building management systems, etc.), with particular reference to renovation and post-renovation activities.

### **8. Economic and financial policies to promote renovation measures**

Economic and financial tools, measures and policies to promote renovation activities.

### **9. Decision support tools for the selection of the optimal retrofitting scenario**

Development of user-friendly decision support tools to select the best seismic and/or energy renovation scenario, in terms of effectiveness, efficiency, costs, available incentives and subsidizes, safety, inconvenience to the occupants, etc.

### **10. Resolution of organizational and practical problems**

Strategies to overcome different organizational and practical problems, which considerably limit the real possibility to undertake retrofit actions, especially for multi-owner housing and high-rise buildings: consensus to the retrofit expenditure by condominium ownerships, excessive duration

of renovation works and temporary alternate accommodation for occupants, split-incentive/landlord-tenant dilemma, excessive time for getting construction permits, need of regulatory

## **11. Strategies for promoting the social sensitivity to prevention actions**

Development of new policies to promote the awareness of the disastrous consequences of inadequate or insufficient prevention actions. Strategies to disseminate, among interested stakeholders, technical skills and competences on retrofitting measures, as well as to highlight the economic convenience of undertaking combined seismic and energy renovations. Training activities.

### **Abstract Guidelines**

Please click [here](#) to download the Abstract template (maximum 300 words) in MS Word format. To submit an abstract, please use the [Easy Chair](#) web platform. Corresponding authors must open an account, login and upload the file. There is no rule for the file name, since the system assigns automatically a new name.

If the same corresponding author is submitting more than one abstract, he can use the same login for each submission.

After the review process, authors will receive the final confirmation of paper acceptance (see [Important Dates](#)).

### **Papers Guidelines**

Please click [here](#) to download the Paper template in MS Word format.

To submit a paper, please use the [Easy Chair](#) web platform. The paper file must be smaller than 20 Mb. There is no rule for the file name, since the system assigns automatically a new name.

After the review process, authors will receive the final confirmation of paper acceptance (see [Important Dates](#)).

**Please note that at least one author must register in full to attend and present the paper at the Conference.**

**The author, by submitting a paper for the conference, is guaranteeing that the work submitted is original and has not been previously published.**

### **Registration**

All those who present a paper must pay a Registration Fee. Authors who would like to attend the Conference must pay the 2<sup>nd</sup> Author Registration Fee.

Kindly note that the Committee requires that the lead author must be registered by the 10<sup>th</sup> of January 2018 for a paper to be presented and included in the proceedings. The fee covers: handling, refereeing and publication of papers in the conference proceedings, the provision of space and programming of presentations in the busy schedule, coffee break and two lunches.

All students must present evidence of their student status on registration.

## Papers Publication post-conference

The conference proceedings will be published by [EdicomEdizioni](#) in e-book format (ISBN 978-88-96386-56-9) for long-term, open access availability. Automated feeds of the book will be generated for Amazon, Google, World Public Library™ (NetLibrary), Ebooks Corporation, MyiLibrary, Ebrary and Overdrive.

**Selected papers will be invited to submit an extended version of their research work for the [Special Issue](#) of the open access Journal [Sustainability](#) (ISSN 2071-1050). Articles accepted for publication in this Journal will get a special reduction of the publication fee (700 EUR, instead of 1400 CHF).**

## Queries

If you have any queries about the submission process or you want to withdraw an abstract / paper, please contact the organizing team at [info@ser2018.org](mailto:info@ser2018.org).

## Important dates

Date	Description
15 <sup>th</sup> July 2017	Abstracts Submissions closed
31 <sup>st</sup> August 2017	Decision on Abstracts
15 <sup>th</sup> October 2017	Papers Submissions closed
15 <sup>th</sup> November 2017	Final Paper Advice returned by this date
30 <sup>th</sup> November 2017	Final date for Full Papers Submissions

## Registration fees

### Professional registration

Price	Type	Period
€190	Early registration	until 1 <sup>st</sup> September 2017
€250	Regular registration	from 2 <sup>nd</sup> September 2017 to 31 <sup>st</sup> January 2018
€300	Onsite registration	from 1 <sup>st</sup> February 2018
€100	2nd author fee	

### Student\* registration

Price	Type
€150	Ph.D.
€100	Undergraduate

**Price      Type**

*\*Students must submit proof of status*

## **General enquiry | Programme | Registration | Accomodation**

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## **Submission enquiry**

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