**RESTORE Short Term Scientific Mission Hosting proposal**

STSMs are research visits to a host institution where the applicant will perform research activities that advance the objectives of RESTORE. STSMs must be between 5 and 90 days (although, they may exceed that duration in specific instances for Early Career Investigators). Successful STSM applicants are financially supported by the Action with a fixed contribution of up to 2500 EUR. STSMs do not fund research activities, only travel related costs. This information will be posted on the RESTORE website for potential applicants to review.

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| **HOST Institution:** | Name: CIEMAT  Country: SPAIN  ITC Country yes / **no**  Website: [www.ciemat.es](http://www.ciemat.es) | |
| **Supervisor of the STSM:** | Name: Emanuela Giancola  Position: Senior Researcher  Email: emanuela.giancola@gmail.com  Phone : +34653511330 | |
| **RESTORE MC Member:** **yes** / no | **ECI:**  **yes** / no |
| **The scope of the proposed research and its relevance for RESTORE Action**  Our research activity is linked to **WG5 “Scale Jumping: Thinking beyond the building, identifying scale jumping potentials to neighbourhood and city level sustainability”**, and to the **WG5 subtask 2.1 on “Digital tools and emerging technologies for supporting design”**.  Climate change can have significant impacts on the outdoor thermal comfort due to the variations of future extreme weather conditions (e.g., an increase of extremely hot days or tropical nights in future summers). The effectiveness of climate-adaptive design measures is expected to become even lower as the future climate changes. For this reason, the researches in the built environment must attempt to study global models according to future climate change scenarios. Impact studies can be developed by use top-down or bottom-up approaches. The STSM researcher will evaluate the climate impacts on urban typologies in the Mediterranean area by comparing the results obtained under different climate scenarios. The influence of the urban typologies’ characteristics in the urban microclimate behaviour and its impact on the outdoor thermal comfort in cities will assess. The activities to be carried out by the Grantee during the STSM will be : a) Define a STSM research plan b) Carry out a literature review on ddefinition of the current urban typologies in Mediterranean area and their characteristics, c) Knowledge the characteristics of the microclimate behavior for the studied urban typologies and d) Evaluation of outdoor thermal comfort for different urban typologies. The aim is that this research will result in a joint publication in a top international journal, based on the STSM final report.  The Energy Efficiency in Buildings unit (**UiE3**) is a multidisciplinary team of the Renewable Energies Division of the Spanish public research center CIEMAT. The UiE3 carries out R&D about integral energetic analysis of the building and energy savings potential of urban area considering the integration of passive and active thermal conditioning solar devices, in order to reduce the heating and cooling demand. The STMS researcher will collaborate with **UiE3** Research Group in developing a literature review regarding urban climate adaptation and resiliency modelling, modelling of urban nature based solutions, human well-being within the city. The work conducted during this STSM will be relevant for the RESTORE WG5. | | |
| **Potential applicant requirements:**  The ideal applicant should have at least some basic knowledge about parametric design and own some programming skills in Python. Fluent knowledge of spoken and written English. The candidate should have high motivation and team working capability. In order to maximise the success of the STSM, ideally the candidate should have access to some data. Applicants are also encouraged to bring their own research ideas and projects for discussion, with the aim of developing new collaborations. | | |

**NOTE:** This form should not exceed one page.