

Towards a zero-emission, efficient and resilient buildings and construction sector

COMMON STATEMENT AND COMMITMENT FORM

GlobalABC Secretariat United Nations Environment Programme

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COMMON STATEMENT -

By joining the Global Alliance for Buildings and Construction, we recognize that the buildings and construction sector can make a significant contribution to achieving the goals set in the fight against climate change, including the common global goal of keeping global warming below 2°C.

The buildings and construction sector is an economic powerhouse. It represents more than 50% of global wealth. The sector also offers one of the most cost-effective and economically beneficial paths for reducing energy demand and associated emissions while at the same time supporting adaptation and resilience.

The buildings and construction sector is responsible for nearly 40% of energy related global CO2 emissions. This figure is growing rapidly and could reach 50% of CO2 emissions by 2050. This rise increases risks and the vulnerability of countries, regions and local communities to the impacts of climate change. Rapid urbanisation, especially in emerging economies will accelerate this impact.

Buildings are also the result of investment processes involving many actors. To progress, it is essential to involve all partners in the value chain and to provide clear performance and monitoring criteria throughout the development cycle, including the construction supply chain. According to the Global Status Report 2018, investments in energy efficiency in buildings seem to slow down in 2017. Realizing the potential of the building and construction sector to achieve sustainable development objectives and avoid an inefficient building stock requires global efforts. The global average energy intensity of buildings per unit floor area needs to be at least 30% lower than current levels so that the International Energy Agency's (IEA) sustainable development scenario, which aims to limit the increase in global average temperatures to less than 2°C above pre-industrial levels by 2030, can be applied.

Many solutions are available, and the economic, health, and social benefits of sustainable buildings are significant, and have been demonstrated in most regions of the world. With early and efficient policies, the buildings and construction sector should therefore be more fully engaged in climate commitments.

Governments, major building and construction networks stakeholders, potential funders, and existing support initiatives, collectively committed to helping to put the buildings and construction sector on the *well-below 2* °*C path*, have therefore come together to form the **Global Alliance for Buildings and Construction (GlobalABC)**.

The GlobalABC aims at mobilizing ambitious levels of international resources for efficient local operational solutions, aligning existing initiatives, commitments and programmes to achieve greater scale, and catalysing greater pace and impact of climate action in the buildings and construction sector. The first *Buildings Day*, which took place at COP21 on 3 December 2015, provided an opportunity to launch this unprecedented alliance.

The Commitment Form shall be signed by all new GlobalABC members upon joining the GlobalABC.





 \boxtimes Research institution/think tank

COMMITMENT FORM -

Our organization is a:

□ National government/ministry/agency representing a national government
□ Civil society organization/networks
□ Intergovernmental organization
□ Public agency
□ Private sector organization/network

□ Sub-national government/network

GlobalABC focal point

Is the person signing also GlobalABC focal point? \Box Yes \boxtimes No

If the answer is no, please indicate the GlobalABC focal point below.

Last name: Erba	First name: Silvia
Organization: end-use Efficiency Research Group, Politecnico di Milano (eERG-PoliMI)	Position: Researcher
Email address: silvia.erba@polimi.it	Phone: +39 345 5317521

Work Areas

We would like to participate in the following GlobalABC Work Area (s) (please choose all that apply)

☑ 1. Education and Awareness ☑ 2. Public Policies (including focus on sub-national government)

 \Box 3. Market Transformation \Box 4. Finance \boxtimes 5. Building measurement, data and information

Commitments

Please briefly list the nature of your commitment to the GlobalABC (e.g. in-kind such as particular expertise for publications, hosting events, financial contributions, etc.)

- Contributing, based on previous and ongoing research, clarification on key concepts about energy performance, passive technologies, current definitions of Zero Energy in various regions.
- Contributing, based on previous and ongoing research, clarification on key concepts about comfort models (Fanger and Adaptive), their evolution and the corresponding recent update of Comfort Standards, .
- Contributing to a coherent use of terminology, in order to correctly adhere to the International Standards and allow clear and effective exchange about energy and comfort performance, policy formulation.
- Contributing results of our research on passive cooling and comfort under the conditions of global climate warming.
- Contributing results of our research and application one retrofit on Social Housing and Schools where we achieve reductions in "energy needs for heating and colling" in the order of 80 to 90 %, allowing the supply by on-site renewables, flexibility of demand, creation of zero energy districts





Please briefly describe your organization and its field of expertise (max.10 lines)

The end-use Efficiency Research Group of Politecnico di Milano (eERG-PoliMI) is dedicated to fundamental and applied research, technology transfer, policy advice and training about the efficient use of energy in buildings.

In particular, in the areas of: low and nearly zero energy buildings (both in new constructions and renovations), passive cooling techniques, thermal and visual comfort, efficient lighting and daylighting; cost-optimal analysis of buildings, technical and economic analysis of energy-using products. It has participated in, promoted and directed more than 60 projects and studies funded by public (e.g. Regional Governments, National Ministries, ENEA, European Union) and private bodies (e.g. Electric Companies, building components manufacturing, control manufacturing) on various aspects of buildings analysis and simulation, buildings monitoring, comfort surveys and energy economics and planning, with a special focus on end use efficient technologies and programmes.

The group Scientific Coordinator, Prof. Lorenzo Pagliano, is also Director of the Master Course on "Renewable energy, end-use energy efficiency, and energy regional planning of energy demand and supply" (www.ridef.polimi.it) of Politecnico di Milano.

Please briefly describe your interest in participating in the GlobalABC (max. 5 lines)

We would like to contribute to the GABC effort for comfortable and functional buildings, with very low energy needs for heating and cooling, for which delivery of renewable energy will be respectful of the territory and landscape and well-integrated in the architectural features of buildings. We can share the results of the H2020 project "ABC 21: Africa-Europe BioClimatic buildings for the XXI century"

Please attach your organization's logo when returning this form.



Global Alliance for Buildings and Construction



I confirm our commitment to the Global Alliance for Buildings and Construction and endorse the GlobalABC Common Statement and the GlobalABC Framework

Person signing the GlobalABC membership	
Last name: Pagliano	First name: Lorenzo
Organization:	Position: Professor, Coordinator of eERG-PoliMI
end-use Efficiency Research Group, Politecnico di	
Milano (eERG-PoliMI)	
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lorenzo.pagliano@polimi.it	: +39 342 0289 607
Signature	
Place: Milano	Date: 24/03/2021

The GlobalABC Secretariat

UN Environment

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