



Group of Experts on Energy Efficiency

Meeting of the Bureau

Online, 2 March 2022, from 15h00 to 16h00 (CET)

Report of the Meeting

Introduction

Meeting of the Bureau of the Group of Experts on Energy Efficiency (the Group of Experts) of the United Nations Economic Commission for Europe (ECE) was held online, on 2 March 2022, from 15h00 to 16h00 (CET).

Attendance

Co-Chairs *ad interim*

Mr. Stefan M. Buettner, Co-Chair, Task Force on Industrial Energy Efficiency (Institute for Energy Efficiency in Production)

Mr. Vahram Jalalyan, Co-Chair, Joint Task Force on Energy Efficiency Standards in Buildings (United Nations Development Programme in Armenia)

Dr Piyush Verma, Chair, Task Force on Digitalization in Energy (Harvard Kennedy School of Government)

Vice-Chairs (ECE member States)

Mr. Andrei Miniankou, Belarus

Ms. Sania Kapetina, Bosnia and Herzegovina

Mr. Petr Bobylev, Russian Federation (represented by Ms. Anna Belinson, Mr. Alexey Tulikov, and Ms. Olga Yudina)

Vice-Chairs (Organizations)

Prof. Martin K. Patel, University of Geneva

Dr Romanas Savickas, UNEP-CCC, Copenhagen Climate Centre

Mr. Zlatko Pavicic, Croatian Innovators Network

Observers

Ms. Julia Adamczewski, Delegation of the European Union to the UN and other international organisations in Geneva

Secretariat, ECE Sustainable Energy Division

Mr. Igor Litvinyuk

Adoption of the agenda (agenda item 1)

The provisional agenda of the meeting as circulated to the members of the Bureau was adopted.

The agenda comprised the following items:

1. Adoption of the agenda.
2. Extrabudgetary projects in support of the activities of the Group of Experts, and sustainable energy projects that the Group of Experts is expected to contribute to in 2022.
3. Preparations for the ninth session of the Group of Experts (scheduled 3-4 October 2022):
 - (a) Update on the status of implementation of the Work Plan of the Group of Experts on Energy Efficiency for 2022-2023;
 - (b) Documentation, practical arrangements, and assignments;
 - (c) Administrative matters.
4. Any other business.
5. Close of the meeting.

Extrabudgetary projects in support of the activities of the Group of Experts, and sustainable energy projects that the Group of Experts is expected to contribute to in 2022) (agenda item 2)

The secretariat informed the Bureau on the progress in implementation of the extrabudgetary projects in support of the activities of the Group of Experts, on projects that the Group of Experts is contributing to, and on proposed projects and studies. These are summarized in Table 1.

Table 1

Extrabudgetary projects, projects that the Group of Experts is contributing to, and proposed projects and studies overseen by the Group of Experts

<i>Title</i>	<i>Period</i>	<i>Beneficiaries</i>	<i>Area</i>	<i>Activities</i>
Enhancing national capacities to develop and implement energy efficiency standards for buildings in the UNECE region	2020-2022	UNECE member States, notably of SE and E Europe, the Caucasus, C Asia	Buildings	Gap analysis between the performance objectives of the Framework Guidelines for Energy Efficiency Standards in Buildings and the current standards Three national studies with a more detailed gap analysis A set of capacity-building activities (ongoing) 'Impact discovery' on better use of best practices (ongoing)
Study on "Potential for improving industrial energy efficiency in Kazakhstan and Ukraine"	2021-2022	Kazakhstan, Ukraine	Industry	Analysis of energy productivity in industrial sector Technological options for improving energy productivity and reducing carbon intensity in the industrial sector Identification of business models Identification of policy options to support improved energy productivity and decarbonization of industry
IKI programme "Improving the energy efficiency of the global building supply chain industry and its products to deliver high performance buildings"	...	Armenia, Georgia, Kyrgyzstan, Moldova, Tajikistan, Ukraine, Uzbekistan	Industry Buildings Digitalization Policies	A set of 22 activities (preparation phase proposal under consideration; details upon request)
Potential study on "Measures to support vulnerable households in the Republic of Moldova in reducing energy poverty by improving energy efficiency"	...	Moldova	Industry Buildings Digitalization Policies	Set of activities in line with the tentative title of the study (pending endorsement)

Abbreviations: SE and E Europe, South-Eastern and Eastern Europe; C Asia, Central Asia; IKI, International Climate Initiative.

Preparations for the ninth session of the Group of Experts (scheduled 3-4 October 2022) (agenda item 3)

(a) Update on the status of implementation of the Work Plan of the Group of Experts on Energy Efficiency for 2022-2023

The secretariat informed the Bureau on the progress in implementation of the Work Plan of the Group of Experts for 2022-2023 ([ECE/ENERGY/2021/10](#)), which is summarized in Table 2.

Table 2

Status of implementation of the Work Plan of the Group of Experts for 2022-2023

<i>Activities</i>	<i>Deliverables (shortened)</i>	<i>Timeline</i>	<i>Status</i>
A. Improving energy efficiency in industry	(a) Two reports on industrial energy efficiency in line with the Industrial Energy Efficiency Action Plan (ECE/ENERGY/GE.6/2020/3) and activities of the Committee on Sustainable Energy	First drafts: October 2022; final drafts: October 2023	In progress; title(s) under consideration by the Task Force
	(b) Workshops and information sharing sessions on relevant topics of interest	2022-2023	In progress, on track; two meetings held by the Task Force (1 December 2021 and 10 February 2022), next meetings scheduled for April 2022
B. Improving energy efficiency in buildings	(a) A set of workshops and train-the-trainer seminars on high performance energy efficiency standards in buildings in line with the Framework Guidelines on Energy Efficiency Standards in Buildings	2022-2023	In progress, on track; 10 events organized (including with the support of Regional Advisor) [source], one scheduled for 9-11 March 2022, a series of events are in the planning phase
	(b) Contribution, within the scope of expertise, to activities of the Committee on Sustainable Energy and its subsidiary bodies	2022-2023	In progress, on track
	(c) Additional centres of excellence on High-Performance Buildings supporting deployment of the Framework Guidelines on Energy Efficiency Standards in Buildings	2022-2023	In progress; two centres operational, finalizing MOU with 10 additional centres, letter of agreement with one additional centre, 14 future centres in line, and strategy involves engaging 13 additional centres (already identified) and those established as part of the IKI programme
C. Digitalization in Energy	(a) Two reports covering different topics on digitalization in energy in line with the activities of the other subsidiary bodies of the Committee on Sustainable Energy	First drafts: October 2022; final drafts: October 2023	In progress, on track; official: on Addressing Seven Mental Roadblocks to energy digitalization and on Digitalizing electricity systems (joint with the Group of Experts on Cleaner Electricity Systems), room document on Data Analytics in the Utility Sector
	(b) Compendium of case studies with a standard template of information for each case	January 2023	In planning phase; the task is to develop a compendium of successful case studies that have significant potential of replication.
	(c) Workshops and information sharing sessions on relevant topics of interest	2022-2023	In planning phase; the aim is to bridge the gap between academic research, industrial innovations, and policy needs.
	(d) Roundtable on energy digitalization policy for policymakers	March 2022	In planning phase; a roundtable for policymakers from ECE member States engaged on energy digitalization agenda, to share activities of the Task Force on Digitalization in Energy, brainstorm on stakeholder complexities as well as implementation challenges, and shape the future activities of the Task Force on Digitalization in Energy.
D. Regulatory and policy dialogue	(a) A set of workshops and seminars to enable policy dialogue addressing barriers to improve energy efficiency	2022-2023	In progress, on track; see B(a) (10 events organized (including with the support of Regional Advisor) [source]).

addressing barriers to improve energy efficiency	(b) A report on barriers for delivery of energy efficiency improvements in the ECE region	First draft: GEEE-9; final draft: GEEE-10	In progress, on track; study on “Improving industrial energy efficiency in Kazakhstan and Ukraine” is under development.
	(c) A report on the existing mechanisms promoting energy efficiency uptake and more efficient use of energy resources	First draft: GEEE-9; final draft: GEEE-10	On hold.
E. Assessing energy consumption and emissions of electric vehicles	(a) Continue dialogue among vehicle and energy experts to assess energy consumption and emissions of electric vehicles and explore pathways for a balanced integration of electric mobility	2022-2023	On hold.
	(b) A report containing considerations on viable pathways for a balanced integration of electric mobility	First draft: December 2022; final draft: GEEE-10	On hold.

Abbreviations: IKI, International Climate Initiative; MOU, Memorandum of Understanding; GEEE-9 / GEEE-10, ninth / tenth session of the Group of Experts (respectively).

The planned regular budget activities of the Group of Experts, as well as most of the planned activities pending extrabudgetary resources are being timely implemented driven by in-kind contributions by the experts. Implementation of activities B(a), B(c), D(a), and D(b) is supported by the Regional Advisory Services.

The Bureau acknowledged progress of the Group of Experts in implementing its Work Plan for 2022-2023.

On the activities of the Task Force on Industrial Energy Efficiency, the Bureau welcomed the Task Force’s enlargement by the means of holding regular information sessions, the Task Force’s efforts in establishing closer cooperation with the other subsidiary bodies of the Committee on Sustainable Energy, as well as exploring possibilities for participation in major events such as the 2022 United Nations Climate Change Conference (COP27) for which the Bureau proposed to join efforts. The Bureau further agreed to consider possibilities for including relevant joint activities, for example on such topics as industrial decarbonization using heat pumps, in its future discussions.

On the activities of the Joint Task Force on Energy Efficiency Standards in Buildings, the Bureau recognized progress in implementation of the respective work plan, and requested information on titles and locations of the referred International Centres of Excellence on High Performance Buildings be shared. In response to this request, a document of 1 December 2021 entitled “HPBI Executive Summary” in its entirety is presented in Annex I of this report.

On the activities of the Task Force on Digitalization in Energy, the Bureau also suggested rescheduling activity C(d) “Roundtable on energy digitalization policy for policymakers” to take place in the framework of the ninth session of the Group of Experts (3-4 October 2022), to take advantage of interpretation.

(b) Documentation, practical arrangements, and assignments

The secretariat informed the Bureau members of the timeline for preparation of official documents for the ninth session of the Group of Experts, as well as of the required actions in this regard.

As concerns agenda for the ninth session of the Group of Experts, the Bureau proposed that the secretariat develops, in close cooperation with the Bureau of the Group of Experts and its Task Forces, a tentative agenda taking note of the discussions during this Bureau meeting and specifically of the proposal to include considerations related to energy security and resilience in the ECE region.

The secretariat also informed the members of the Bureau on the scope of substantive documents that are scheduled for preparation, in coordination with the Chairs (Co-Chairs) of the respective Task Forces, and for submission for consideration by the Group of Experts at its ninth session.

Further substantive discussion was facilitated by the respective Chairs (Co-Chairs) of the Task Forces. The Bureau noted potential synergistic effect of cross-cutting work being done by the three Task Forces and requested that this potential be fulfilled to the extent possible.

(c) Administrative matters

The secretariat, with reference to the current list of serving Bureau members,¹ informed the Bureau that two-year mandates of 13 out of its 16 members (of which 6 nominated by the member States) expire at the end of the ninth session of the Group of Experts and encouraged the Bureau members to advise the secretariat on their intention to continue service on the Bureau, in which case to submit nomination letter to the secretariat in advance. Election of officers for the Group of Experts will take place during the session.

The secretariat informed the Bureau of the following nominations received as of 2 March 2022:

1. Mr. Stefan M. Buettner, as Chair of the Group of Experts on Energy Efficiency (Germany)
2. Dr Calvin Johnson, as Bureau member of the Group of Experts on Energy Efficiency (United States)

The secretariat also informed the Bureau of a nomination of Dr Chokan LAUMULIN (Kazakhstan), as Chair of the UNECE Committee on Sustainable Energy.

Any other business (agenda item 4)

It was brought to the attention of the Bureau members that the ninth session of the Group of Experts may take place in the framework of the twelfth International Forum on Energy for Sustainable Development should it be organized depending on the circumstances.

There were no other issues raised under this item.

Close of the meeting (agenda item 5)

The Chair closed the meeting at 16h00 CET.

¹¹ See: <https://unece.org/scd/documents/2021/04/post-session-documents/group-experts-energy-efficiency-members-bureau>

Annex I

UNECE High Performance Buildings Initiative. Executive Summary

UNECE
High Performance Buildings Initiative
EXECUTIVE SUMMARY

UNECE's High Performance Buildings Initiative (HPBI) aims to transform the built environment in terms of how buildings are conceived, built, operated, maintained, and eventually dismantled, and how the built environment delivers quality of life. To meet the goals of the Paris Climate Agreement and the 2030 Agenda for Sustainable Development, the quality of life and energy performance of buildings, as well as their embodied energy and carbon, must be addressed urgently.

Mandate

The initiative began in 2017 with adoption by the Committee on Sustainable Energy and the Committee on Housing and Land Management of the Framework Guidelines for Energy Efficiency Standards in Buildings. The updated mandate is described most succinctly in the 2021 report of the Committee on Sustainable Energy (Annex 1).

Elements of the Initiative

The initiative is comprised of: 1) a network of international centres of excellence on high-performance buildings; 2) a global building network of academic institutions working on research and education for the built environment; 3) an industry leadership group developing case studies on application of high performance buildings principles; and 4) a thought leadership group elaborating the outcomes expected of high-performance buildings.

Expected Outcomes of the Initiative

The initiative is expected to deliver tangible results in the follow areas:

- **Energy & climate** (affordable clean energy)
- **Water** (deluge/drought, contamination/sanitation)
- **Resilience** (affordability, weather - heat, cold, wind, natural disasters)
- **Resources** (land use, materials, waste)
- **Health** (comfort, air pollution, disease)
- **Mobility**
- **Social justice, equity, employment**
- **Technology access** (including digitalization)
- **Systemic effectiveness & technical efficiency**

The benefits of the individual centres of excellence for UNECE and our member States are described in a separate paper, but a question about the benefits of a single centre itself embeds an assumption that the centres are individual and working fully autonomously. The value of the



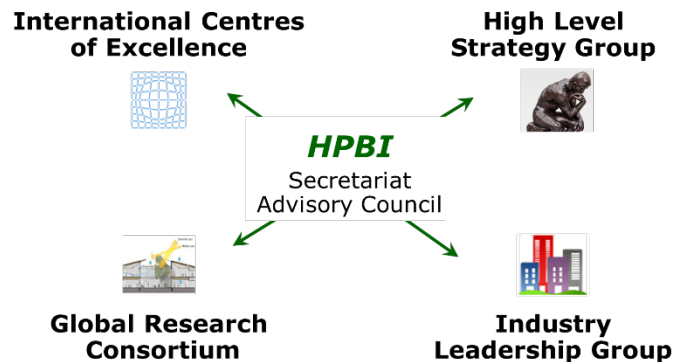
academic and professional networks does not lie in their individual contributions but rather in their impact as networks. Notably with the centres, it is their ability to share knowledge and approaches across the network that will allow us to develop a robust protocol for high performance buildings.

In terms of the impact of the network of centers, the metrics and targets for the outcomes are being developed as part of the UN protocol, with the various centres at various levels of readiness. An example of impact would be to reduce energy/m² by 60% within 5 years, with reports on progress each year. A desired outcome of the initiative is to arrive at common approaches to measurement and reporting across the network.

The high-performance buildings initiative is a global UN movement with partners who are passionate about the objectives. The work in this area is ground-breaking – few systematic attempts have succeeded in realizing the opportunities that exist at scale to improve both the societal and economic contributions of buildings and to reduce the environmental impacts of buildings over their entire life cycle and throughout their supply chain. Activity until now in the built environment can be characterised as fragmented.

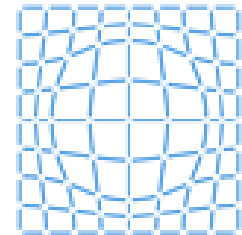
Annex: Components of the High-Performance Buildings Initiative

The HPBI comprises four distinct poles: international centres of excellence, research and advanced education, proofs of concept through case studies and city initiatives, and development of a protocol for high performance buildings. The poles are managed and coordinated through a secretariat, and an advisory council will comprise representatives of each of the four poles.



INTERNATIONAL CENTRES OF EXCELLENCE

International Centres of Excellence for High Performance Buildings provide implementation- oriented education and assistance to building developers, contractors, architects, and engineers, as well as regulatory and planning officials. They provide community-centric knowledge development and sharing, connecting with resources and accelerating uptake of high-performance buildings. The activities and projects of centres of excellence include:

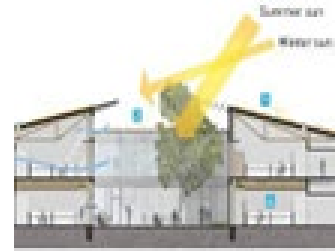


1. Convening dialogue among local and international industry leaders to identify challenges, share best practices and build a growing and diverse community of practice;
2. Gather and disseminate knowledge directly, and through partner organisations, including education and training, exhibits, case studies, research, demonstration projects, and the production of industry focused print and on-line resources;
3. Catalyze design and construction industry tools and training development, and identify potential barriers to adoption and implementation; and
4. Foster public demand and support for best practices through recognition and awards, open houses and tours, communication and marketing campaigns, public events, and demonstration projects.

When there is alignment and agreement on certification methods, the centres of excellence will be natural poles for providing both certification and certification training.

Global Research Consortium: research and advanced education

Research and advanced education in building materials, design, and construction for current and next generation architects, engineers, policy makers and other stakeholders will be needed. Pursuit of a research and educational agenda will require development of new, holistic curricula and texts and regular updates as the science of buildings progresses. Researchers and the educational community will promote sustainable, high performance buildings worldwide in support of both the UNECE Framework Guidelines and the International Centres of Excellence.



Industry Leadership Group: proof of concept through case studies and city initiatives

Application of the Framework Guidelines through demonstration projects in countries around the world will validate them in different climates, stages of development, and regulatory, legislative, and physical infrastructure. The initiative will develop a library of case studies for reference and to support training and education.



High Level Strategy Group: United Nations High Performance Buildings Protocol

UNECE has assembled a high level strategy group (HLSG) to develop and help deploy a protocol and action plan for the built environment with objectives, solutions, and priority actions to deliver required outcomes. The members of the HLSG are recognized thought leaders in the field of buildings and the built environment. A key objective of the HLSG is to raise the importance of the built environment for addressing climate change and the 2030 Agenda in the consciousness of the public, of industry, of city and community officials, and of governments. The current membership of the HLSG is focused on high performance buildings, notably the performance of building development, design, engineering and operations. There is a need to embrace thought leaders from the other dimensions of the built environment, notably mobility, energy supply, information and communications technology, water management, and other building services (e.g., food and waste). A near-term objective for the HLSG will be to recruit a fully representative thought leadership group.

International Centres of Excellence

International Centres of Excellence on High Performance Buildings (ICE-HPB) work to: disseminate the UNECE [Framework Guidelines for Energy Efficiency Standards in Buildings](#); engage dialogue among industry leaders to identify challenges, share best practices and build a growing and diverse community of practice; gather and disseminate knowledge, including education/training, exhibits, case studies, research, demonstrations, and the production of industry focused print and on-line resources; catalyze design and construction industry tools and training development, and identify potential barriers to adoption and implementation; and foster public demand and support for best practices through recognition and awards, open houses and tours, public events, and demonstrations.



The ICE-HPBs comprise a collaborative network of organisations focused on supporting their local industry in the rapid development of next generation of buildings consistent with United Nations framework guidelines for energy efficiency standards in buildings. The centres provide education, training, and other critical resources to regional building industry practitioners, while sharing these resources globally through collaboration with other network participants.

Their mission is to advance the rapid transition to high performance buildings, locally and around the world, in support of the United Nations Sustainable Development Goals and Paris Climate Accord, while fostering a thriving building industry that creates healthy, comfortable, and sustainable buildings everywhere for everyone.

Criteria for Designation as an ICE-HPB

- 1. Committed to the objectives of the Framework Guidelines, including dissemination, training, and education*
- 2. Committed to the objectives of and active engagement across the network of International Centres of Excellence and the Global Building Network*
- 3. Established as a going concern/legal entity with strong relationships in the local buildings communities*
- 4. Must have (local) political support and visibility*
- 5. In compliance with norms and requirements regarding potential conflicts of interest*
- 6. Demonstrated competency and capacity in the areas of high-performance buildings and training*
- 7. Self-funded*
- 8. Must have physical infrastructure (or access to it), including organizational infrastructure and a regional ecosystem that primes the centre for success, and demonstrated delivery mechanism*
- 9. Committed to an agenda relevant to the local region based on an agreed menu of activities and projects*

Terms of Reference for an ICE-HPB

Activities and Projects

The mission of an ICE-HPB designated by the UNECE is to advance the principles of the UNECE Framework Guidelines for Energy Efficiency Standards in Buildings by connecting real estate and design professionals to energy efficiency solutions through education, training, technical assistance, demonstrations, resources, and research. The ICE-HPB identifies opportunities, navigates barriers to adoption, brokers relationships, and showcases best practices through its partners, projects, data and performance statistics, and published case studies, and shares resources globally through the ICE-HPB network.

The ICE-HPB helps building developers, owners, operators, and designers save energy and reduce building-based carbon emissions through implementation and adoption of energy efficiency measures and best practices. The activities directly support climate action agendas and are consistent with the UNECE Framework Guidelines for Energy Efficiency Standards in Buildings.



Terms of reference have been established for the operations of the centres. The terms include an obligation to report on accomplishments for the previous period, on plans for the coming period, and on sources and uses of funds supporting the UN-related activities. This point is extremely important to ensure both proper oversight and a continuing link between any given centre and on-going work. The activities and projects of an ICE-HPB include:

1. Convening dialogue amongst local and international industry leaders to identify challenges, share best practices and build a growing and diverse community of practice;
2. Gather and disseminate knowledge directly, and through partner organisations, including education and training, exhibits, case studies, research, demonstration projects, and the production of industry focused print and on-line resources;
3. Catalyze design and construction industry tools and training development, and identify potential barriers to adoption and implementation; and
4. Foster public demand and support for best practices through recognition and awards, open houses and tours, communication and marketing campaigns, public events, and demonstration projects.

Global Building Network – a research and education consortium

The objectives of the work on research and education are redesign and re-write curricula, educate next generation professionals, help the international centres of excellence educate and engage the current generation professional community, advance research and knowledge on buildings and the built environment – pushing the envelope, and accelerate the migration of knowledge and technology from the “laboratory” to practice.

- Research will be conducted through a global consortium of research institutions related to building and energy design, technology, delivery, maintenance, improvement, life-cycle performance, management, finance, and regulation. Research will focus on the dual goals of (1) systematically articulating a new science of sustainable high performance buildings as a foundation for both educational curricula and professional practice, and (2) supporting in-the-field efforts to drive transformation.
- Education will be conducted through online, classroom, and in-the-field courses and other informational and instructional resources.
- Collaborations will be developed primarily through the global research consortium and a network of practice focused UNECE-designated Centers of Excellence.

PSU undertook to achieve the following outcomes:

- Hiring a director capable of establishing world-class stature for the GBN.
- Creating a global research consortium, the membership of which will be coordinated by PSU under this Memorandum with the UNECE.
- Creating online platforms and classroom based materials.
- Establishing a diverse Advisory Committee of individuals distinguished in relevant professions.
- Establishing a GBN-centric website.
- Recommending prospective and internationally diverse UNECE Centers of Excellence.
- Establishing liaison with relevant NGOs and civil society as needed to advance the work of the GBN in the developed and developing world.
- Developing curricula on strategic, technical, policy and cultural aspects of high performance buildings.



- Conducting briefings, symposia, conferences and training to advance the aims of the GBN initiative in the developed and developing world.
- Interfacing with the UNECE and other relevant UN agencies to enhance the outreach, of the GBN.
- Fundraising.

PSU has entered into agreements with the following institutions to join the GBN:

1	University of New South Wales	Australia		
2	University of Queensland	Australia	21	Technical University of Lisbon
3	McMaster University	Canada	22	National University of Singapore
4	Hong Kong University of Science and Technology	China	23	KTH Royal Institute of Technology
5	Berlin Institute of Technology	Germany	24	Swiss Federal Institute for Materials Testing and Research
6	EUROPEAN GROUP FOR INTELLIGENT COMPUTING IN ENGINEERING	Germany	25	Swiss federal Institute of Technology in Lausanne
7	TECHNICAL UNIVERSITY OF BERLIN	Germany	26	Istanbul Technical University
8	Technische Universität Darmstadt	Germany	27	Cardiff University
9	Technische Universität München	Germany	28	Glasgow Caledonian University
10	Indian Institute of Technology Bombay	India	29	Loughborough University
11	Heriot Watt University	Isreal	30	University of Nottingham
12	Alma Mater Studiorum-University of Bologna	Italy	31	University of Sheffield
13	Nat. Res. Cncl. DEPT. CHEM SCIENCES & MATERIAL	Italy	32	American Council for an Energy Efficient Economy
14	Narxoz University	Kazakhstan	33	CONSINFRA SAS/CONSINFRA LLC
15	Nazarbayev University	Kazakhstan	34	Hillcroft Group
16	Satbayev University	Kazakhstan	35	Marketing for Change
17	MOI University	Kenya	36	RESILIENCE CAPITAL VENTURES LLC
18	University of Nairobi	Kenya	37	University of Florida
19	Delft University of Technology	Netherlands	38	WORCESTER POLYTECHNIC INSTITUTE
20	Eindhoven University of Technology	Netherlands		

Industry Leadership Group – proofs of concept, demonstration, and investment

The fourth pillar of the HPBI is the Industry Leadership Group. This group is still in formation, but it is expected to deliver significant resources to underpin the initiative. The result will be application of the Framework Guidelines through demonstration projects in countries around the world to validate them in different climates, stages of development, and regulatory, legislative, and physical infrastructure. The initiative will develop a library of case studies for reference and to support training and education.

High Level Strategy Group – development of a UN protocol on high performance buildings

The UNECE has assembled a **High Level Strategy Group (HLSG) of thought leaders** to provide strategic guidance to the overall Initiative and to explore, develop, and promote a protocol on the built environment to support the 2030 Agenda and the Paris Climate Agreement.

Exploration phase: the Group is examining key outcomes expected from proper management of the built environment:

Energy and climate action (affordable clean energy)

Resilience (affordability, weather - heat, cold, wind, natural disasters)

Health (comfort, indoor/ outdoor air pollution, disease)

Social justice, equity, employment

Water (deluge, drought, contamination, sanitation)

Resources (land use, materials, waste)

Mobility

Technology access (including digitalization)

Systemic effectiveness and technical efficiency

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The first challenge is to explore whether these outcomes reflect the full spectrum. Once there is consensus on the outcomes, the Group will explore targets for each, recognizing that each country will have its own starting point and its own perspectives on objectives and pathways. The outcome of this exploration will be an indicative set of objectives to which countries should be prepared to commit.

The **development phase** of the Group's work will focus on preparing a menu of concrete policies and actions that could assist countries in achieving their objectives and commitments.

Finally, the **promotion phase** would involve wide deployment and dissemination of the full slate of policies and actions using local, national, regional, and international platforms to accelerate the contribution of the built environment to quality of life globally.

The final outcome of this work will be an **internationally agreed protocol for high performance buildings** and the built environment that sets out outcomes, targets, policies, and actions to support governments' commitments and objectives.