

Innovation Roundtable on:

“Scan to BIM Technology and Prefabrication of Innovative Insulation in Retrofitting of Residential Buildings”

12th December, 2023, 08:30 – 10:30 CET / 16:30 – 18:30 JST, online

Language: German and Japanese with simultaneous translation



Objective:

To achieve a sustainable building sector as part of Japan’s and Germany’s ambition to become climate neutral by mid-century, appr. 90% of residential building stocks in both countries need to be renovated (or rebuilt, taking up more resources). The GJETC believes that a key contributing factor is to economize this process by promoting and improving on making use of new technologies, such as Scan-to-BIM, that enable prefabrication and serial renovation.

The objective of the Innovation Roundtable is to identify competences in each country to advance retrofit initiatives and to develop ideas and concepts for joint projects, e.g., the development and demonstration of industrial construction/pre-fabrication of sustainable and space-saving insulation elements and concepts, conducive to scaling up cost-effective refurbishment.

To achieve this, the GJETC invites companies and research institutes specialized in retrofitting process coordination and technology, prefabrication for retrofitting, and sustainable building shell and insulation materials and prefabricated elements to a virtual table.

Agenda

08:30 – 08:35 CET 16:30 – 16:35 JST	<p>Welcome</p> <p>Technical instructions by the moderator</p> <p><i>Johanna Schilling (ECOS)</i></p> <p>Welcome and Introduction</p> <p><i>Stefan Thomas (Wuppertal Institute / Co-Chair of the GJETC) and Ichiro Kutani (Institute of Energy Economics, Japan)</i></p>
08:35 – 08:45 CET 16:35 – 16:45 JST	<p>Setting the scene</p> <ul style="list-style-type: none"> • Retrofitting the building stock as key to decarbonization efforts - results of GJETC study • Introduction of the purpose and goals of the Innovation Roundtable <p><i>Toshiyuki Kudo (IEEJ) and Lotte Nawothnig (WI)</i></p>
08:45 – 08:55 CET 16:45 – 16:55 JST	<p>Input: Introduction to methods of insulation and airtightness renovation of houses</p> <p><i>Yasuo Kuwasawa, Director of Environmental Engineering Dept., Building Research Institute (BRI)</i></p>
08:55 – 09:10 CET 16:55 – 17:10 JST	<p>Input: Innovative possibilities and potential benefits of prefabrication and Scan-to-BIM technology in retrofitting residential buildings – Insights into the “Energiesprong” project</p> <p><i>Paula Baptista, Senior Expert International Building & Construction, dena (German Energy Agency)</i></p>
09:10 – 09:30 CET 17:10 – 17:30 JST	<p>Participants’ View on the Challenges</p> <p>Short self-introduction of the participants and comment on the guiding question:</p> <p><i>What do you think is the biggest challenge regarding energy efficiency retrofitting residential buildings in Germany and in Japan resp.?</i></p>

<p>09:30 – 10:20 CET</p> <p>17:30 – 18:20 JST</p>	<p>Discussion on Potentials and Complementary Competences</p> <p>Interactive discussion among participants following the guiding questions:</p> <p><i>Do Scan-to-BIM and prefabrication hold the potential to use sustainable materials with low embedded carbon and circular design?</i></p> <p><i>And could the cost of energy efficiency renovation still be reduced compared to traditional practices?</i></p> <p><i>What type of collaboration would promote progress in the innovation process towards these objectives from your point of view?</i></p> <p>Objectives of the discussion:</p> <ul style="list-style-type: none"> ● Identifying complementary competences ● Brainstorming on how stakeholders from different countries and companies can collaborate effectively ● Exploring potential synergies and opportunities for knowledge exchange, e.g. connecting the innovation fields “Energiesprong (Scan-to-BIM) process” and “building shell material R&D”; Connecting innovation in building shell and insulation materials with space and shape constraints in retrofitting ● Develop concrete ideas and concepts for joint projects
<p>10:20 – 10:30 CET</p> <p>18:20 – 18:30 JST</p>	<p>Summary and Outlook</p> <ul style="list-style-type: none"> ● Summarize the key findings and collaboration opportunities identified during the dialogue ● Outlook on possible follow-up actions and next steps to be taken to enhance collaboration.
<p>10:30 CET</p> <p>18:30 JST</p>	<p>Closing</p>