



Pilot projects of phase 2, Case Study: KONN Tech – modular single family house

Prepared for:

Supported by:



based on a decision of the German Bundestag

May 2022



**1. Introduction:
Selection process and
high-level results of
technical cooperation**

**2. Case Study,
Jordan:
Konn Tech - Modular
single-family house**

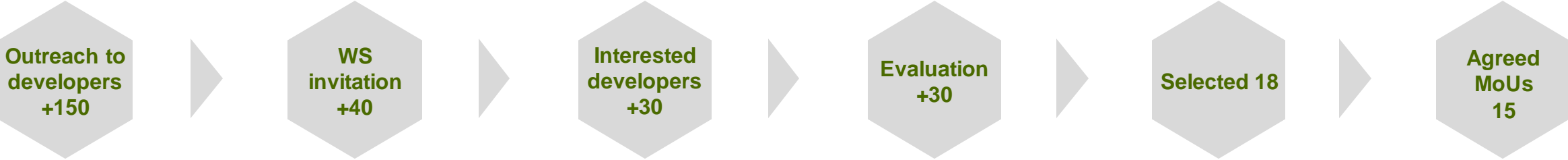


1. Introduction: Selection process and high-level results of technical cooperation

2. Case Study, Jordan: Konn Tech - Modular single-family house



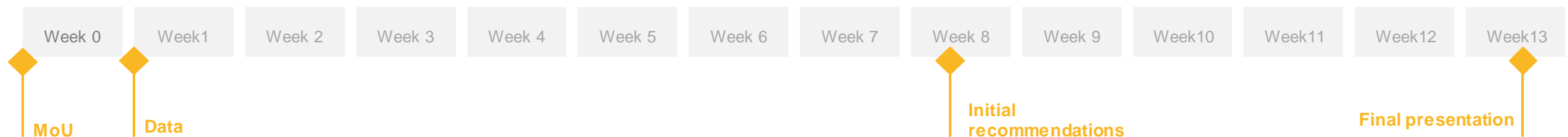
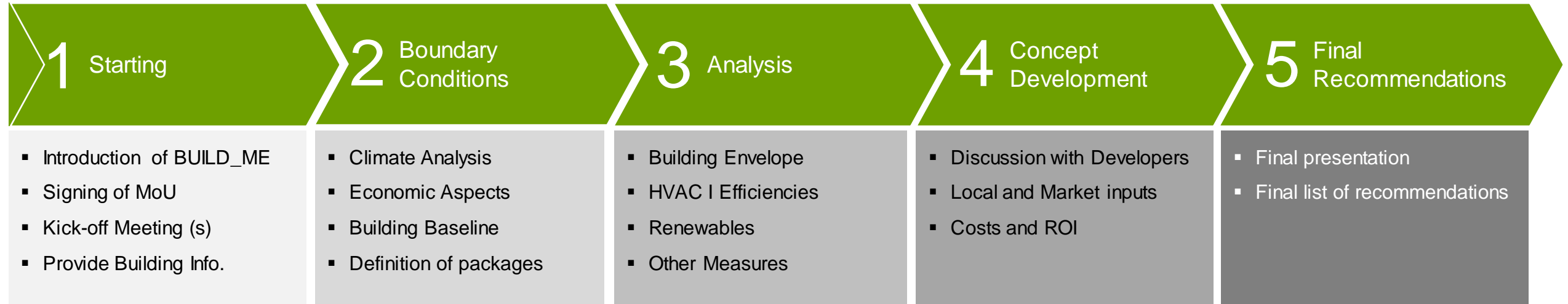
Selection process and overview of selected pilot projects



	Outreach to developers +150	WS invitation +40	Interested developers +30	Evaluation +30	Selected 18	Agreed MoUs 15	Status of PP, Oct 2021
EGY	On hold	Cairo West Residence MFH (Plan)	Beverly Hills MFH (Construction)	Heliopolis Residence Mixed-use (Construction)	Badya Resid. Compound (Plan)	Palm Hills Alexandria (Plan)	Al-Mansoura University (Plan)
JOR	On hold	Qusus Private Residence (Construction)	KONN Modular House (Finalized)	Dar Al-Oqoud (Construction)			
LEB	On hold	Kye Beachfront Resort (Construction)	KLEOS Houses (Plan)	Arcade Suites II (stopped because of the situation in Lebanon)	Collège Notre Dame (On hold)	Frames Mixed-use (Plan)	City Towers (stopped because of the situation in Lebanon)

Approach to support the pilot projects

Steps Towards a Low Energy Building



- Initial timeline to be adjusted according to the demands and development of the pilot project.
- Remain in close exchange of data, information and concepts
- Field visits will be coordinated and executed by BUILD_ME National Partners and/or local experts.

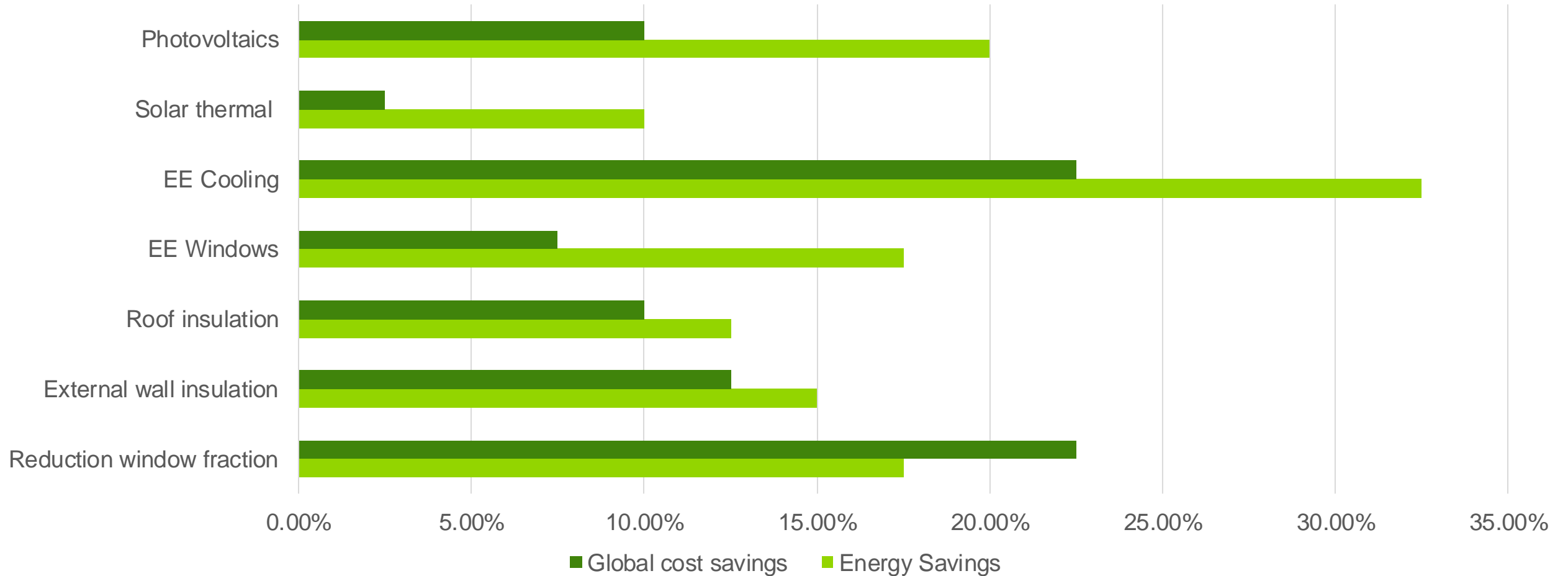
KPI's resulting from technical assistance to pilot projects

Target ranges of a optimized EE/RE packages (savings compared with baseline)

KPI's criteria	Residential building type
Savings (final energy / CO ₂ emissions)	50% - 95%
Additional costs for EE/RE measures	5% - 15%
Payback period	3 – 10 years

Technical recommendation for res. buildings (Egy, Jor, Leb)

Cost optimal ranges of ecological and economic attractive measures



Further details on web site

https://www.buildings-mena.com/files/BUILD_ME_SummaryReport-LessonsLearntoftechnicalassistanceofferedtoPilotProjects.pdf



Summary Report: Lessons Learnt of technical assistance offered to Pilot Projects

BUILD ME – boosting ambitions to achieve a climate-neutral building standard in the MENA region

Prepared for:

Supported by:



based on a decision of the German Bundestag

November 2021



<https://www.buildings-mena.com/info/pilot-projects-phase-ii-2019-2021>

The screenshot displays a grid of project cards for the BUILD ME pilot projects. The cards are organized by country:

- Egypt:**
 - Cairo West Residence:** A residential compound developed by SAJDA DEVELOPMENT and located on Cairo West Road. It consists of a diverse range of residential units in multi-family buildings and one boutique hotel. The project will also comprise of several carefully designed services and facilities. The BUILD_ME team will focus on one of the buildings of Cairo West Residences.
 - Heliopolis Residence, Cairo:** A mixed-use building developed by MISHA DEVELOPMENT and located in the heart of the urban district of Heliopolis near the Cairo International Airport. The project offers a variety of offices, residential and commercial units of different types.
 - Palm Hills, BADA:** A compound consisting of offices and multi-family houses, office parks, retail, hotels, educational, health care, and mixed-use areas. The project is located in 6th of October City and spreads over 12 million square meters. The BUILD_ME team will focus on providing energy efficiency recommendations for one of the project buildings.
- Lebanon:**
 - Beverly Hills 229, Cairo:** The residential building is located in Achrafieh, Beirut. The project will expand more than 11000 square meters and will include different facilities such as a amphitheater, open plaza, and parking area. BUILD_ME team will work with Pierre Darroussat & Partners, MEP Consultants of the project, to formulate an energy efficiency concept for the building.
 - Collège Notre Dame de Nazareth Extension, Beirut:** The educational building is located in Achrafieh, Beirut. The project will expand more than 11000 square meters and will include different facilities such as a amphitheater, open plaza, and parking area. BUILD_ME team will work with Pierre Darroussat & Partners, MEP Consultants of the project, to formulate an energy efficiency concept for the building.
 - Kye Beachfront Resort, Tabarja:** Kye Beachfront Resort is developed by Kye Properties and Kye Marina. It is a residential resort that consists of more than 36 buildings including serviced residential apartments, chalets, and other amenities. The project is located in Tabarja, 30 km north of Beirut. The BUILD_ME team will provide energy efficiency recommendations for one of the project buildings.
 - City Towers Project, Beirut:** A large mixed-use building in Beirut consisting of 11 buildings, each with 11 floors. It offers residential units, offices and commercial spaces. The BUILD_ME team will provide energy efficiency recommendations for one of the project buildings.
- Jordan:**
 - KONN Modular Houses:** KONN is designed and developed by Ghazal Architects. KONN concept represents a number of prototype of residential single-family houses. KONN houses is envisioned to provide affordable modular housing by using smart modular construction to empower community members and provide them with alternative housing solutions.
 - Private Residence, Amman:** A private single-family house designed by Ghazal Architects + Interior Design. The villa is located in Amman, Jordan and consists of two floors. It is an example of single-family houses in the Greater Amman Municipality.
 - Dar Al-Oqoud, Amman:** Dar Al-Oqoud is designed and constructed by Arch. Maher Alqasbi (MAG Design Studio) as a passive energy houses. Dar Al-Oqoud is constructed using traditional building techniques like Islamic Mediterranean loadbearing stone walls with vaults and domes, as well as a courtyard for residential purposes. The project is a multi-family house located in the village of Jab, which is thirty kilometers south of Amman. The project consists of three blocks with a total GFA of more than 4200 square meters and housing units of various sizes. The design supplies energy efficient measures such as double walls and double glazing windows. The BUILD_ME team will work with the project architects to make frame stone energy efficient.

1. Introduction:
Selection process and
high-level results of
technical cooperation

**2. Case Study,
Jordan:
Konn Tech - Modular
single-family house**



Contact

Basel Uraiquat – KONN Tech

basel@konn.tech

Riadh Bhar - Guidehouse

Riadh.Bhar@guidehouse.com



©2020 Guidehouse Inc. All rights reserved. This content is for general information purposes only, and should not be used as a substitute for consultation with professional advisors.

