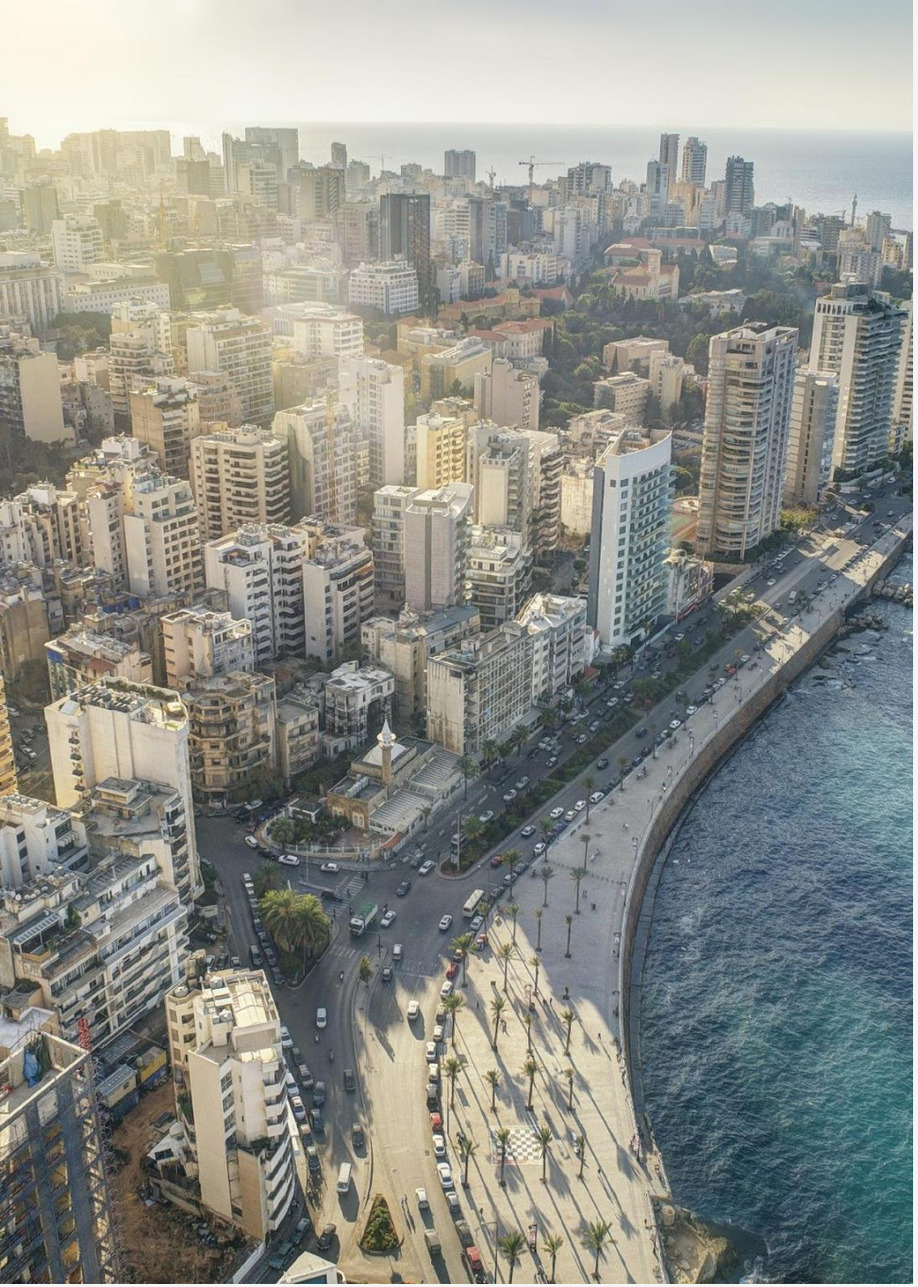
BUILD_ME Training:
Introduction of the BUILD_ME Project and the BEP Tool

26 October 2021

Supported by:

Federal Ministry
for the Environment, Nature Conservation
and Nuclear Safety

based on a decision of the German Bundestag



Agenda

- **Welcome** – 5 mins
- **Introduction and Situation of climate-friendly buildings in Egypt** – 20 mins
- **Introduction to BUILD_ME Project** – 15 mins
- **Introducing the BEP tool** – 15 mins
- **Break** – 10 mins
- **GGF** – 15 mins
- **EBRD/GEEF Project in Egypt** –20 mins
- **Discussion and Wrap-up** – 20 mins

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Technical instructions

Working together effectively

- Presentation will be published on our project website afterwards.
- The session will be recorded.
- We look forward to your active participation.
- Please stay muted but feel free to write your questions in the chat box or raise your hand.
- Please be punctual after the break.
- For technical problems/questions, reach out to:

  Rana Abouzeid at rana.abouzeid@idg.com.eg OR

  Doha Moharram at doha.moharram@idg.com.eg

Photo by Chris Montgomery on Unsplash

Welcome words

Dr. Ashraf Kamal (HBRC)
Dr. Mohamed Salheen (IDG)

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Objectives of the training session

For financial institutions

1. Understand the logic and functionalities of the BEP tool
2. Raise the interest in adaptation of BEP tool by integrating it into their loan operations
3. Increase awareness of the importance and financial attractiveness of investing in EE measures
4. Increase interest in collaborating with existing on-lending facilities to EE projects

Introduction and Situation of climate-friendly buildings in Egypt

Sara Ibrahim, RCREEE

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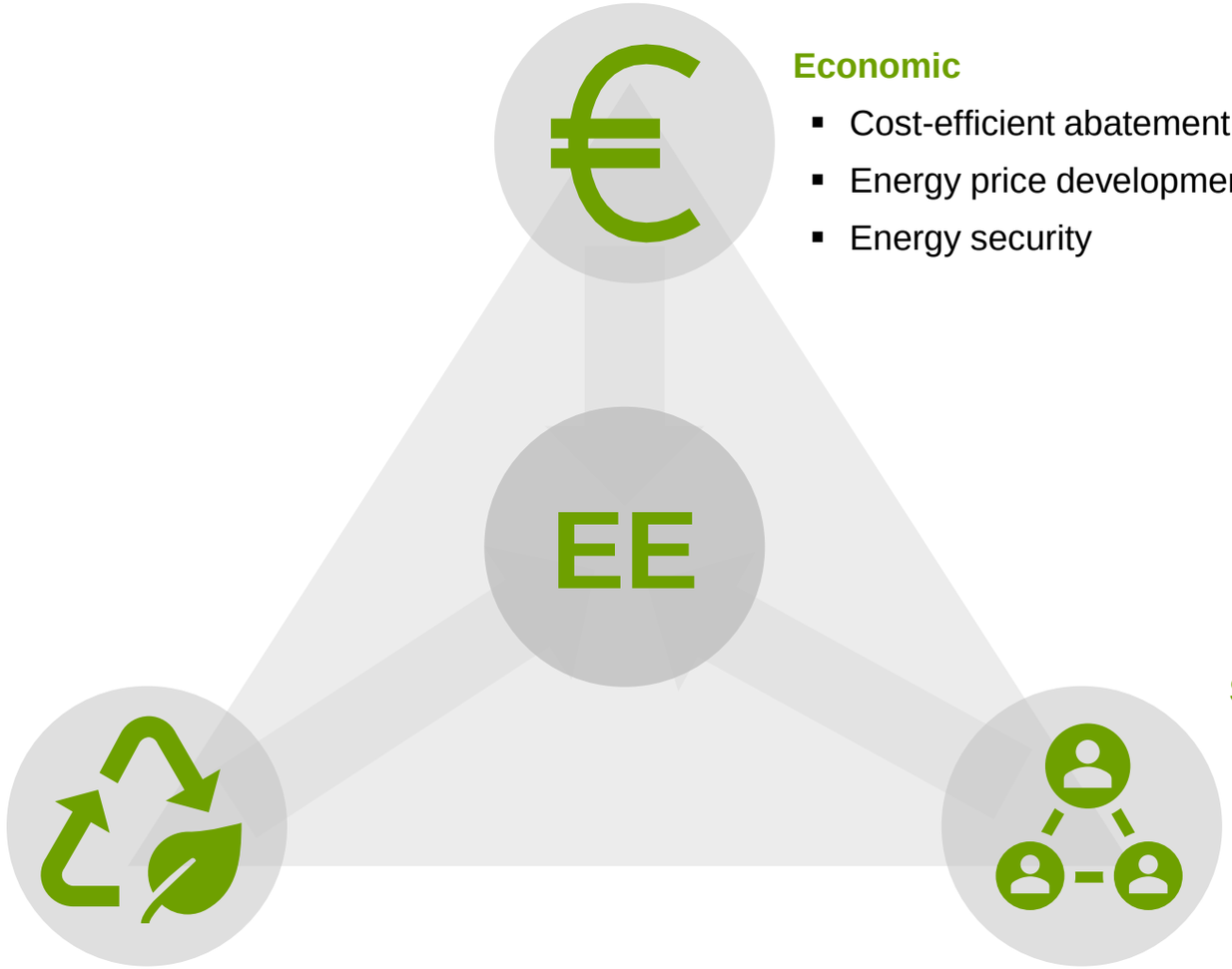
Setting the scene – the relevance of climate-friendly buildings

The building sector offers cost attractive measures to cut down GHG emissions



Economic

- Cost-efficient abatement
- Energy price development
- Energy security

Environmental

- Rising temperatures
- Extreme weather events
- Droughts

Social

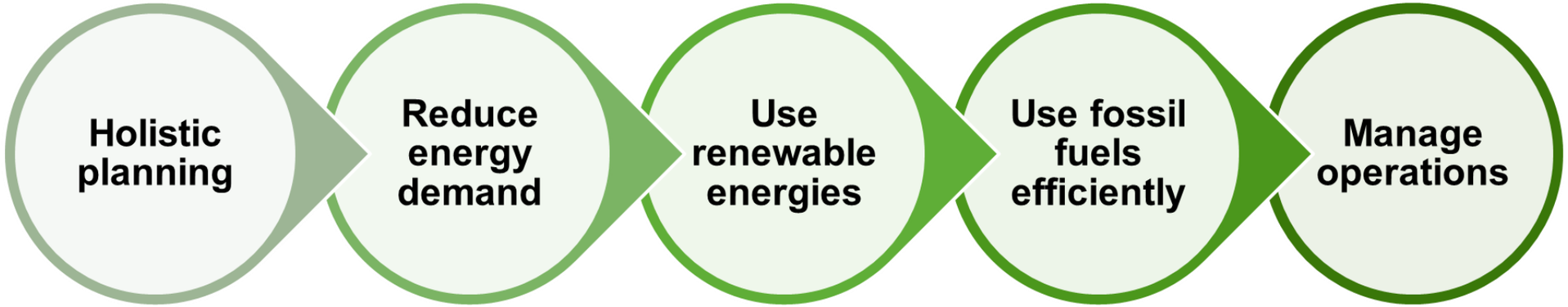
- Job creation
- Removal of subsidies
- Public health & productivity

What are climate-friendly buildings?

Definition

“A ‘green’ building is a building that, in its design, construction or operation, reduces or eliminates negative impacts, and can create positive impacts, on our climate and natural environment. Green buildings preserve precious natural resources and improve our quality of life.” *(S: World Green Building Council)*

General principles to conceive a low energy building embedding Trias energetica, „*The most sustainable energy is saved energy*“



Why are climate-friendly buildings relevant for financial institutions?

Green buildings becoming more and more a billion dollar market

"Green buildings represent a major global investment opportunity, with buildings making up the largest segment of the **US$ 231** billion energy efficiency market."

European Bank for Reconstruction and Development

" During the next decade, green buildings represent a significant low-carbon investment opportunity in emerging markets **$24.7 trillion** by 2030."…

IFC International Finance Corporation WORLD BANK GROUP

" Global green building materials market size is expected to reach **$377,029 million by 2022 from $171,475 million** in 2015 with a CAGR of 11.9% from 2016 to 2022….

Allied Market Research

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What is the status quo of climate-friendly buildings in Egypt?

Opportunities

1. Huge construction activity and increasing energy demand
2. Strategies and Regulative framework available
3. Increase of energy price
4. Market offers all relevant technologies
5. High solar radiation
6. Decrease of investment costs for PV

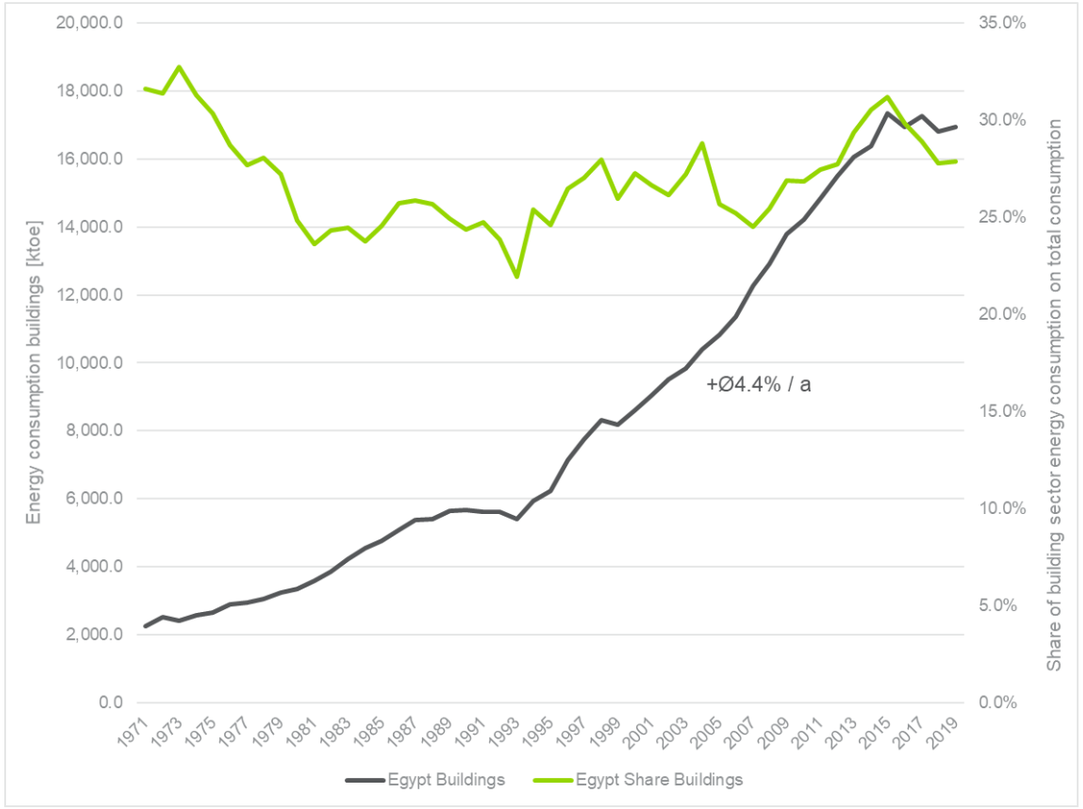
Challenges

1. Lack of defined Baseline
2. Low number of built climate-friendly buildings
3. Financial Institutions don´t prioritize climate – friendly buildings

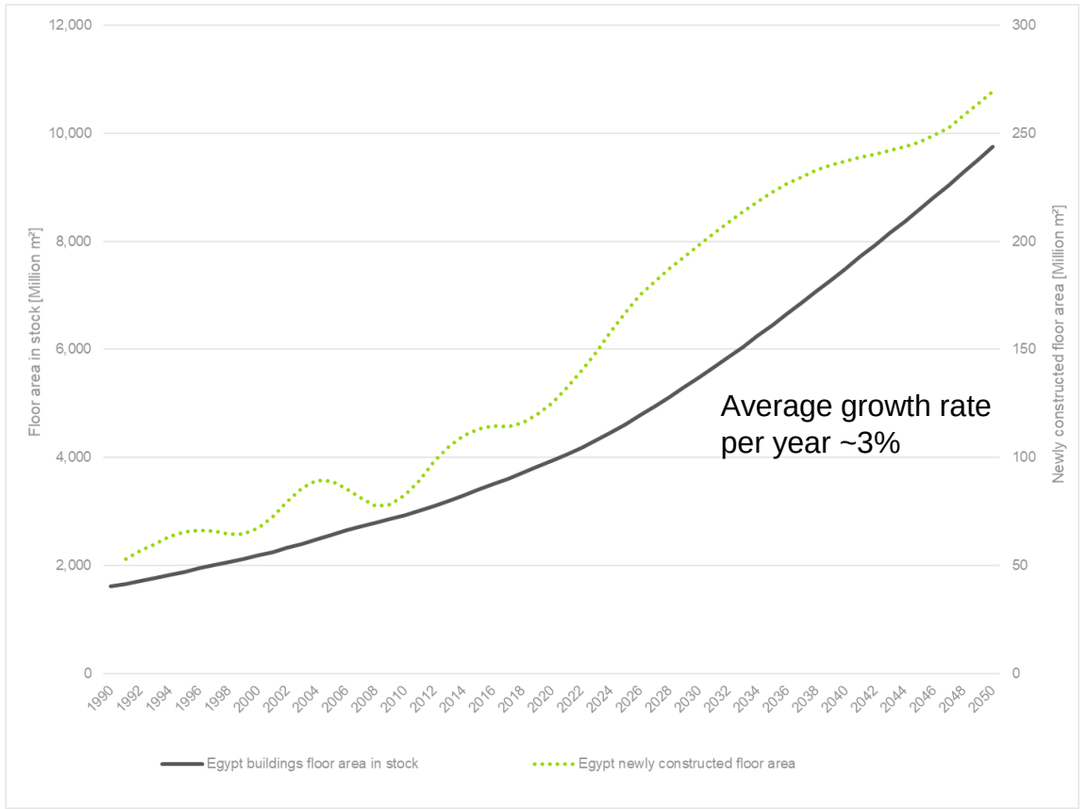
Opportunities for climate friendly buildings in Egypt

Huge construction activity and increasing energy demand

The energy consumption of the buildings sector in Egypt is and will stay highly relevant



Source: IEA energy balances 2021
All energy carriers included



30% share for the building sector (energy consumption)

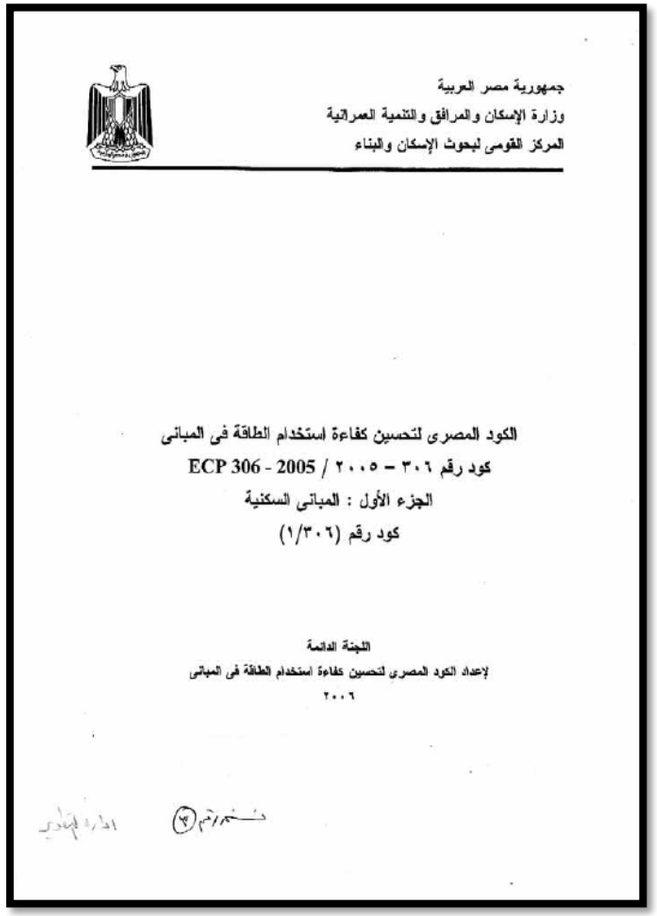
4% yearly increase of energy consumption

3% future yearly growth of new buildings

Established regulative framework

Strategies and Regulative framework available

Energy Efficiency Residential Buildings Code (EERBC)

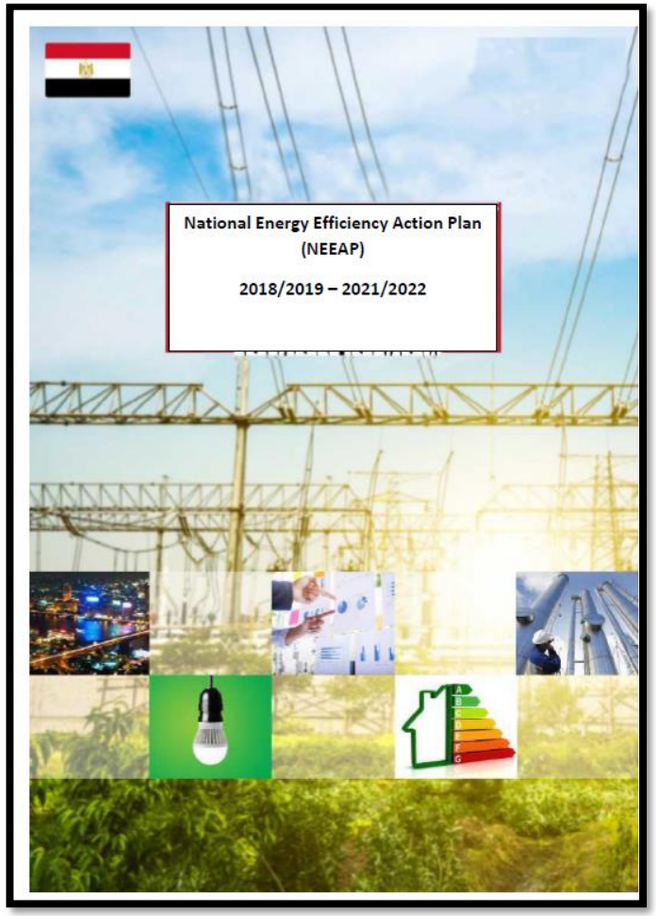


جمهورية مصر العربية
وزارة الإسكان والمرافق والتنمية العمرانية
المركز القومى لبحوث الإسكان والبناء

الكود المصرى لتحسين كفاءة استخدام الطاقة فى المبانى
ECP 306 - 2005 / ٢٠٠٥ – كود رقم ٣٠٦
الجزء الأول : المبانى السكنية
كود رقم (١/٣٠٦)

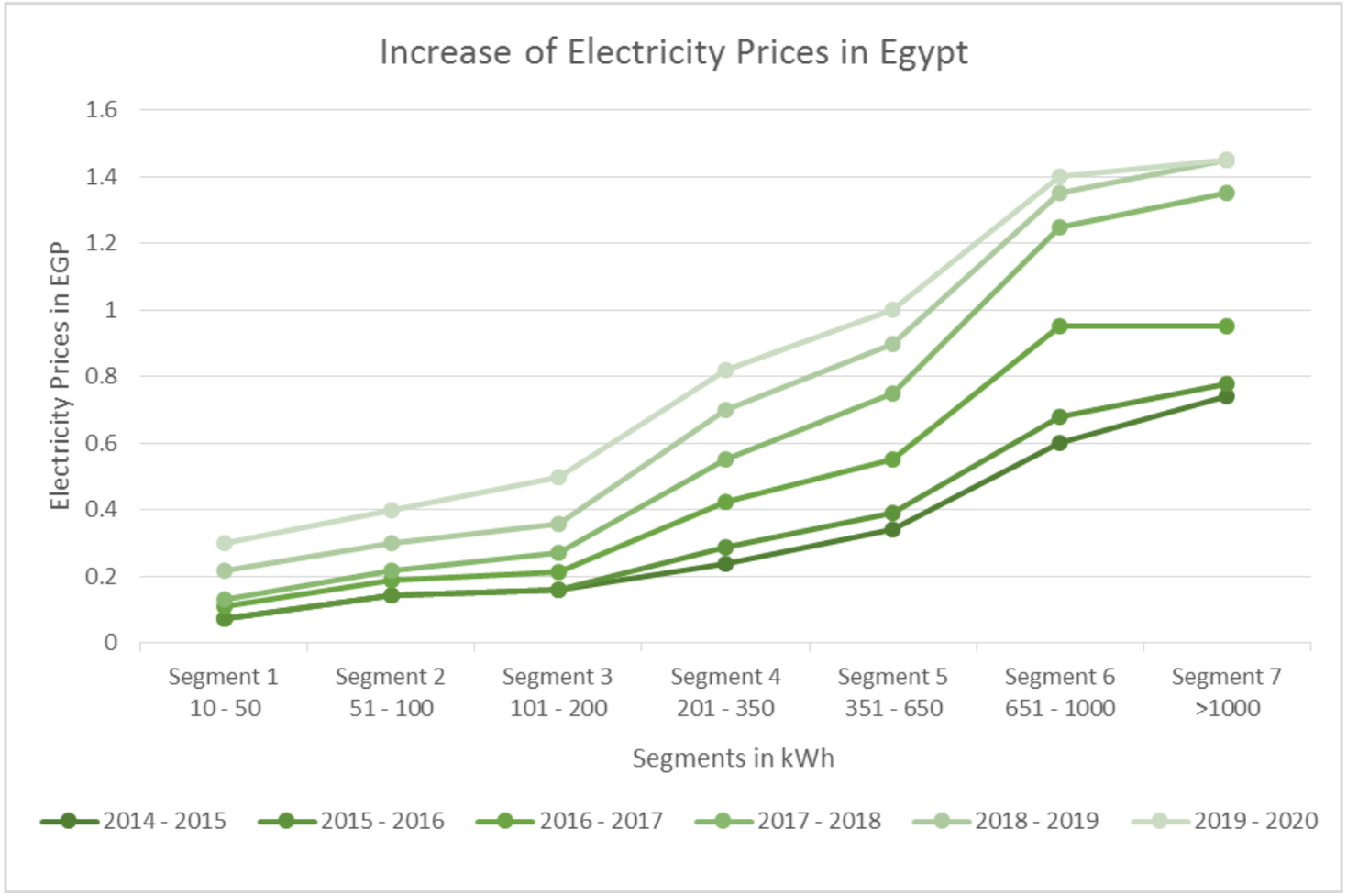
اللجنة الدائمة
لإعداد الكود المصرى لتحسين كفاءة استخدام الطاقة فى المبانى
٢٠٠٦

National Energy Efficiency Action Plan (NEEAP)



Increase of energy (electricity) price in Egypt

Development of energy price 2014 - 2020



Market availability of EE/RE technologies

Maturity and awareness of EE / RE technologies, despite availability

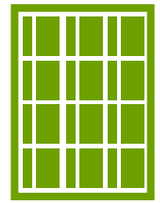
Envelope

- Roof Insulation
- Wall Insulation
- Floor Insulation
- Double Glazing
- Triple Glazing

HVAC

- Split System Chillers
- VRF
- District Cooling
- Absorbtion Chiller
- Floor Heating

Renewable

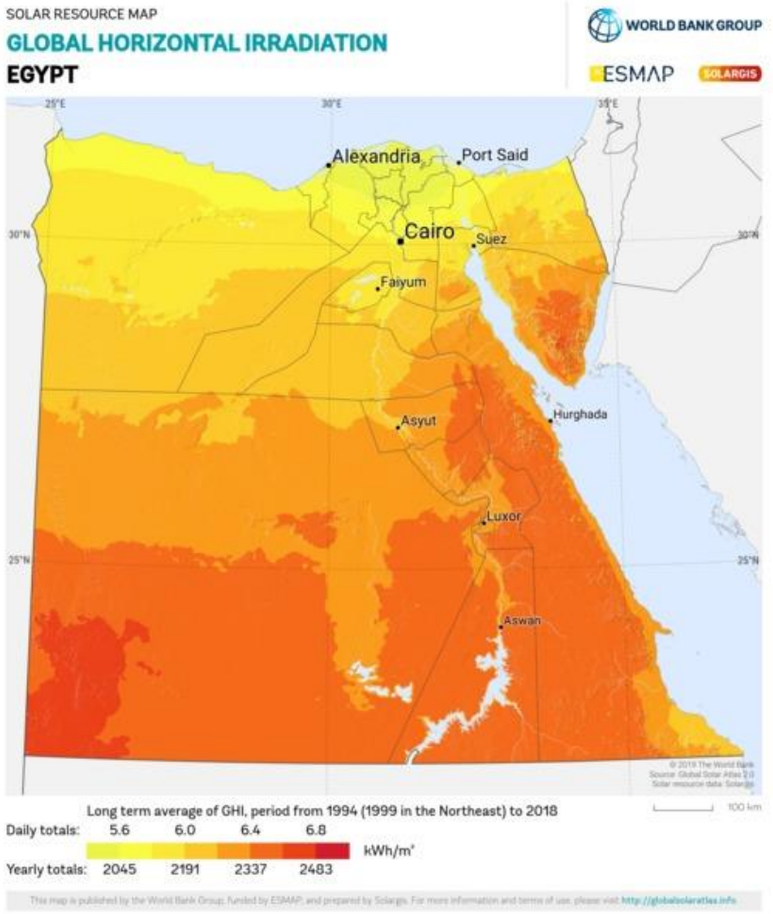


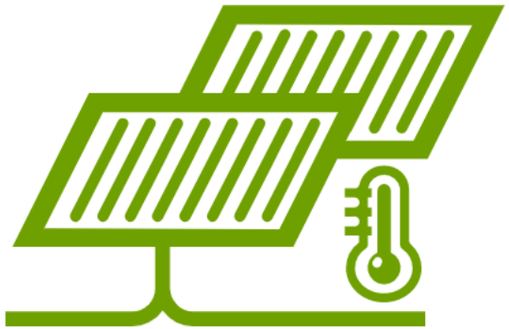
- PV
- Solar Water Heaters

Mature/ often used Moderatly used Immature/ not often used

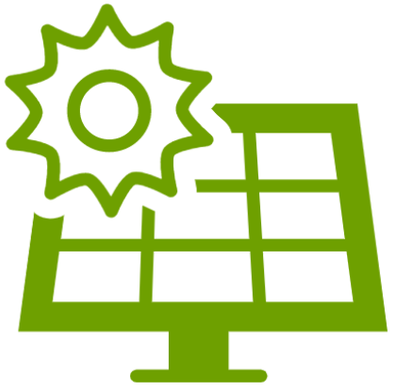
High solar radiation

Leads to a great potential to exploit solar energy opportunities





Solar thermal systems

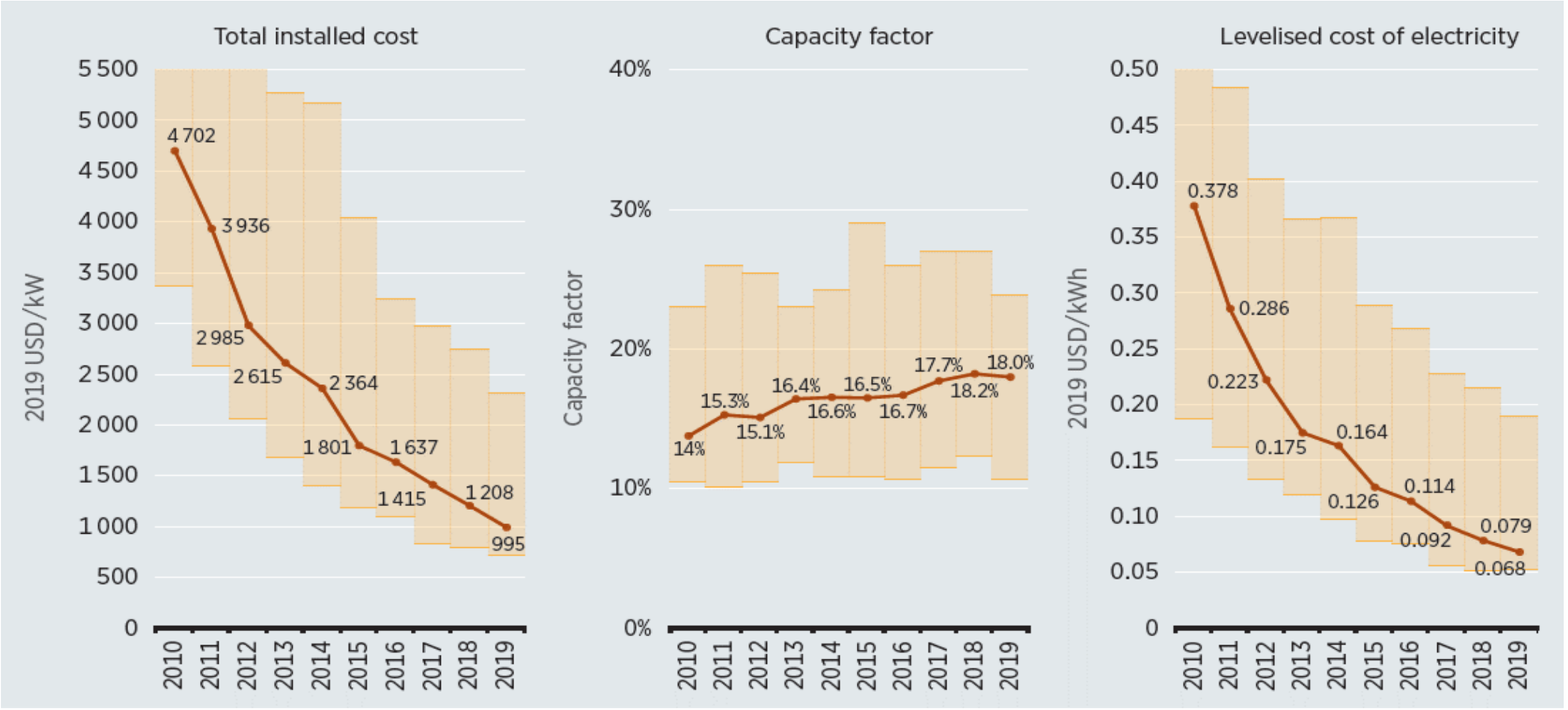


Photovoltaics

Source: https://solargis.com/maps-and-gis-data/download/jordan

Development of Photovoltaics (PV), S: IRENA

Global weighted average total installed costs, capacity factors and LCOE, 2010 - 2019



S: IRENA Renewable Cost Database

Challenges for climate friendly buildings in Egypt

Lack of baseline and enforced EE building codes

Creates a bottleneck for FI´s to finance climate-friendly buildings

Lack of enforcement of EEBCs

Lack of data about BaU constructions

No benchmarking of buildings' energy performance

Lack of
energy consumption baseline

Bottleneck
To finance energy efficient buildings

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Certified Green Buildings in Egypt

Available green building certificates (international and national) are not picked up sufficiently

Tarsheed: Less than 5 Certified Buildings

Tarsheed

- Royal Herbs Farm Complex
- Al Wahat al-Bahareya, Egypt
- Certification Earned: Tarsheed

GPRS: Less than 10 Certified Buildings

GPRS

- CIB Building
- Smart Village, Egypt
- Certification Earned: GPRS

LEED: Less than 30 Certified Buildings

LEED

- Business Link Headquarters
- New Cairo, Egypt
- Certification Earned: LEED

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Financial Institutions don´t favour climate-friendly buildings

Energy efficiency in the building sector is perceived as not attractive

- Projects are often too small scale
- Lack of demonstration projects
- Lack of business model that could be used as reference
- Process of assessing energy efficiency measures in buildings is complex
- No scalability

Conclusion for climate-friendly buildings in Egypt

Conclusion

There are a lot of **existing opportunities to unleash** the potential of the EE/RE market for the built environment

Dedicated mix of regulations, financial incentives and capacity building to promote the market of climate-friendly buildings **is needed**

Current Trends

Urban Development

Energy Sector

Current Trends & Mega Projects

New Cities

Construction of 20 Fourth Generation Cities in Egypt

Mobility

Modern network of roads & public transportation

Housing

Introducing huge stock to the housing market

Mega RE Projects

Developing mega RE projects such as solar parks and wind farms

RE & EE Legislations

Development of “Feed-In Tariff” then “Net-Metering” as a step towards more open Energy market

Foreseen Opportunities

Introduction of new infrastructure, local management & governance schemes

Optimized mobility, transportation and connectivity

Creates an opportunity for Macroeconomic Model for Energy Efficiency

Expanding cleaner energy production could encourage implementation of RE at smaller scales

Development of extensive codes & local rating scheme (GPRS) into more user and sector-oriented tools

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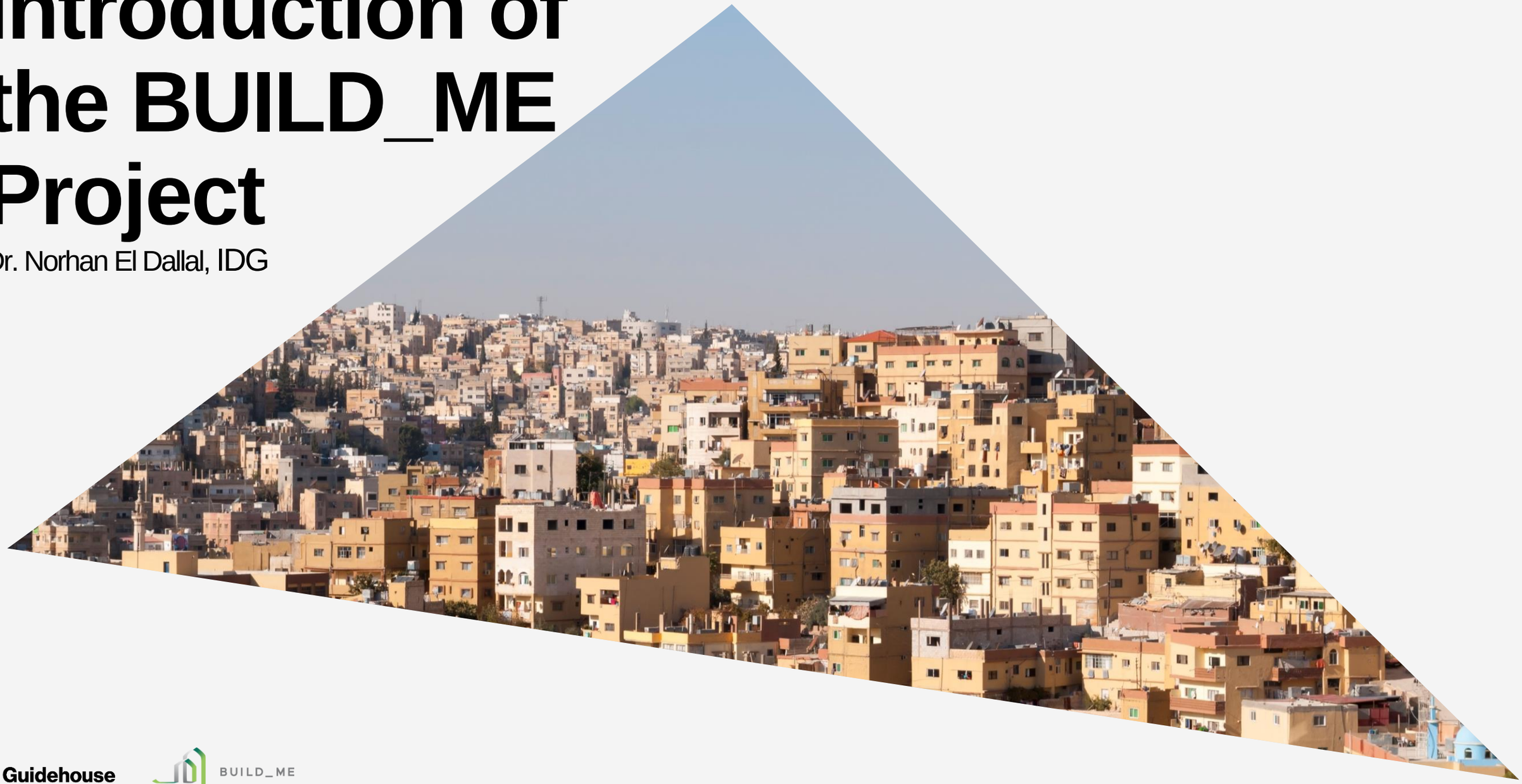
Introduction of the BUILD_ME Project

Dr. Norhan El Dallal, IDG



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Overview about the project

Fund

Scope

Partners

IKI International Climate Initiative,
German Federal Ministry of Environment

Supported by:

Federal Ministry
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and Nuclear Safety

based on a decision of the German Bundestag

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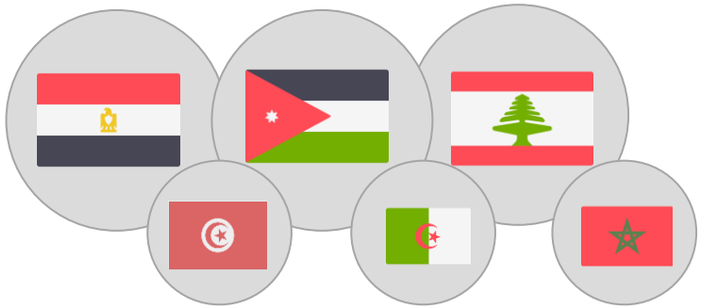

1st Phase: 2016 - 2018

2nd Phase: 2019 - 2021

HBRC

IDG MATRIX Integrated Development Group

Royal Scientific Society

LCEC

European Bank for Reconstruction and Development

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EGYPT GBC

LGBC

RCREEE Regional Center for Renewable Energy and Energy Efficiency

TRACK

ALCOR

BUILD_ME scope

Approach

Original project

2016 - 2018

- Extensive analysis and research
- Identification of barriers
- Recommendations

Project extension

2019 – 2021

- Implementation of recommendations
- Dissemination of results
- Upscaling

1.Easier access to financing for energy efficient buildings

How to design and finance an energy efficient project?

BEP Tool shows:

- ✓ [25]% energy saving in comparison with **baseline**
- ✓ Financing available at local bank

Intermediating **bank grants credit** based on trusted classification scheme

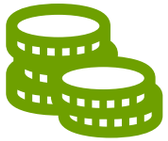
Project is realised as energy efficient building

2. Support the reform & transitions of political frameworks

National strategies
NEEAPs

Regulations:
EEBC
Standards

Voluntary Classification Scheme



Supporting Financial institutions

EE

towards improving energy efficiency in the building sector

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3. Support the implementation of energy efficiency measures in pilot projects

Technical support for pilot projects

New Mansoura university

Cairo West Residence

Policy work
To connect the challenges and lessons learnt with the policy frameworks activities

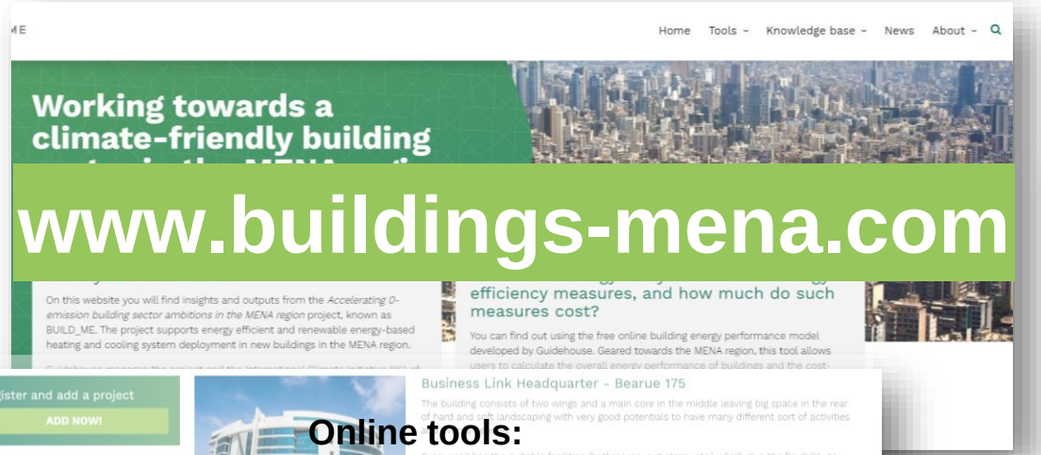
Test the tool
To test and improve the BEP tool with real-life examples

Test the classification scheme
The national classification scheme will allow for better access to the available green finance programs

Facilitating finance
Support the PP in their application (if any).

Capacity building
Provide training on EE and RE

4. Increase awareness and capacities [EE/RE in Buildings]



Online tools:

Demonstration project database

Building typology database

BEP tool

Trainings on the BEP TOOL

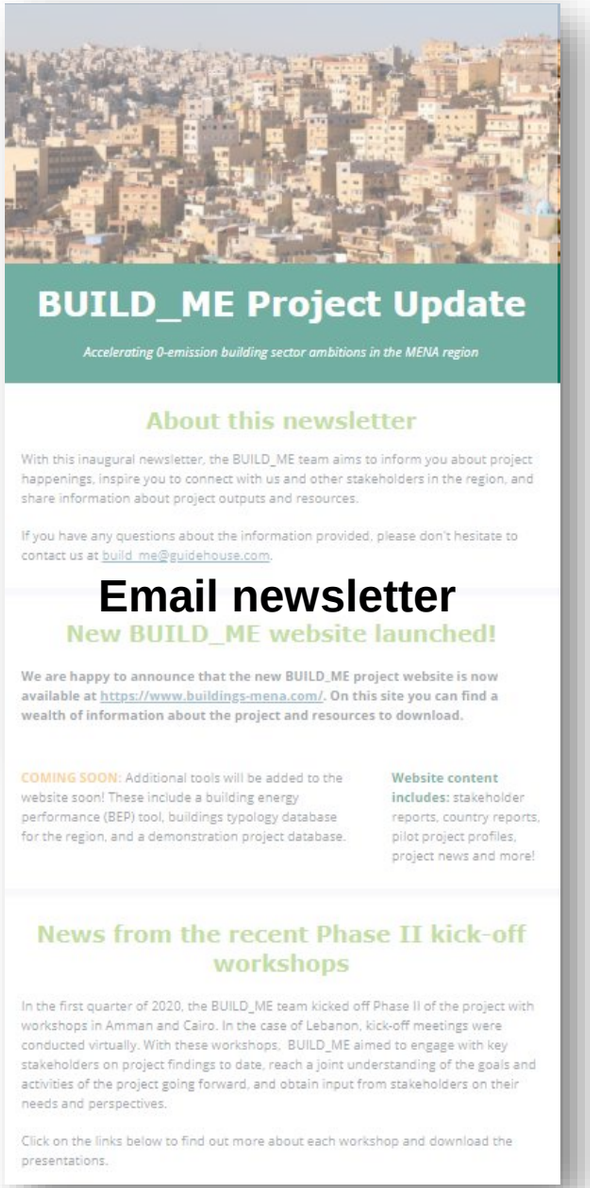
June – Oct 2021

News items:

Event at COP25

Two-page country factsheets

One-pager



Email newsletter

National kick-off workshops in Q1/2020

National WS in Q1/2021

Webinars

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Structure of Phase II

Approach

Objectives and Goals

- Facilitate & increase **access to financing** & funding opportunities for EE building projects.
- Support the reform & transitions of **political frameworks** towards improving energy efficiency in the building sector.
- Focus on supporting the implementation of energy efficiency measures in **pilot projects**

WP1
Preparatory Steps

- Software tool: energy performance & cost-effectiveness
- Building Typology
- Buildings specifications & reference values

WP2
Support Pilot Projects

- Technical support
- Collect insights on the ground as input for WP3
- Testing EE classification scheme
- Support financing applications

WP3
Framework Conditions

- Voluntary EE classification scheme
- Facilitate & increase access to financing
- Building codes
- Support national strategies (NEEAPs)

WP4
Capacity Building and Dissemination

- Website, workshops, trainings, database for best practice buildings, webinars, newsletters, brochures, etc.

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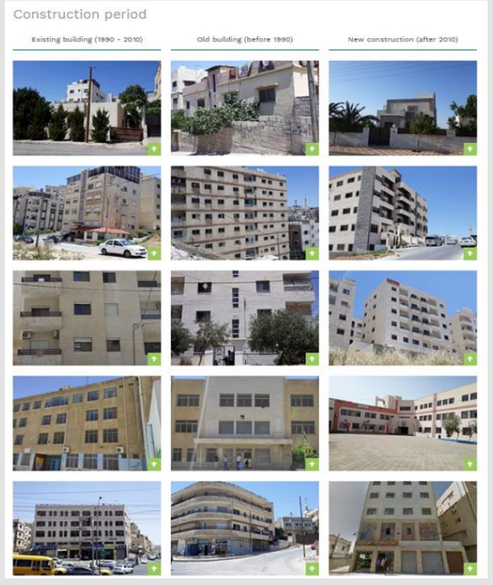
Zoom into Building Typology

Building Typology

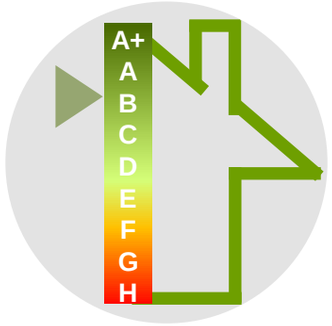
What is meant with building typology and why it is needed?

Building typology database depicts “reference buildings categorized into specific building types and their energetic characteristics based on their:



- **Building type**
- **Age group** (1950 – 1980 – 2000)
- **Region**
- **Building envelope**
- **Technical systems**

baseline



Definition of the baseline and BAU construction of different building types which allows for

- **Classification**
- **Comparison**
- **Facilitating finance**

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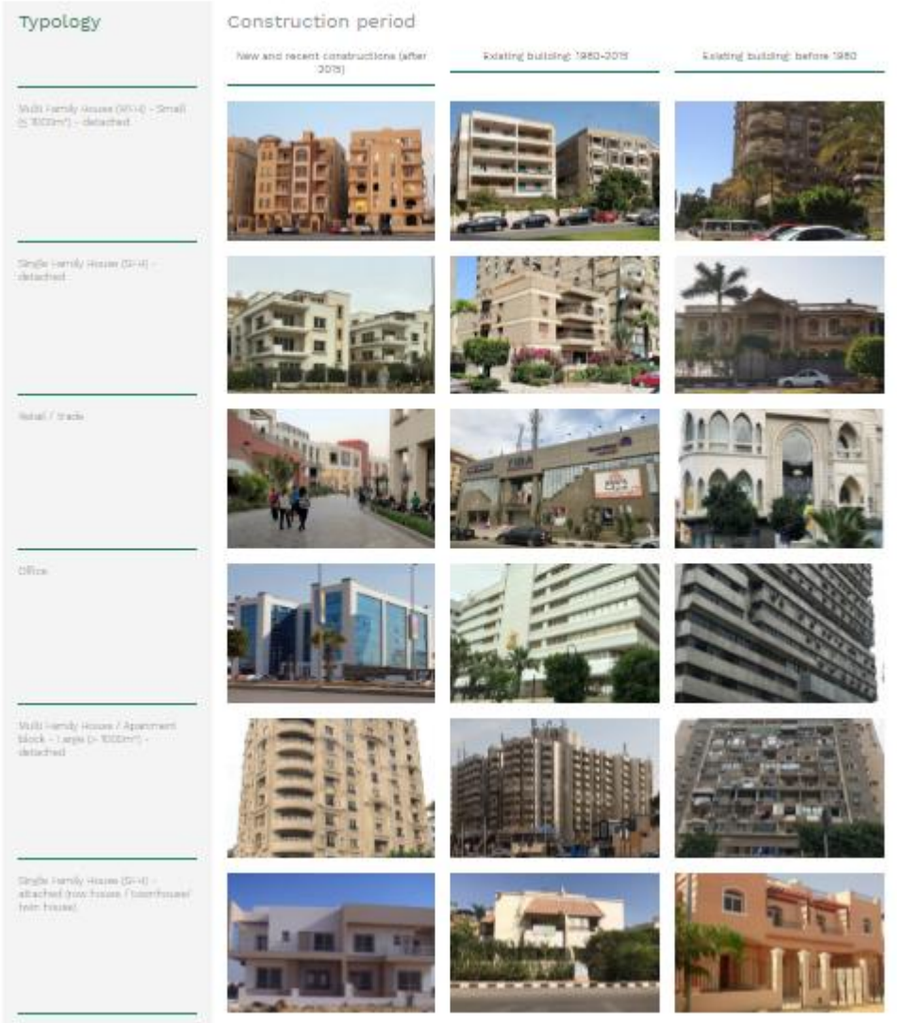
Building Typology | Egypt

Results

Building type	Age group	Regions
▪ Multi-family house ▪ Single-family house ▪ Education ▪ Retail/Trade ▪ Office ▪ Mixed-use ▪ Hospital ▪ Hotels	▪ New and recent constructions (after 2015) ▪ Existing building: 1980-2015 ▪ Existing building: before 1980	▪ National ▪ Cairo ▪ Alexandria ▪ Aswan

Link to the typology on BUILD_ME website



Zoom into Baseline

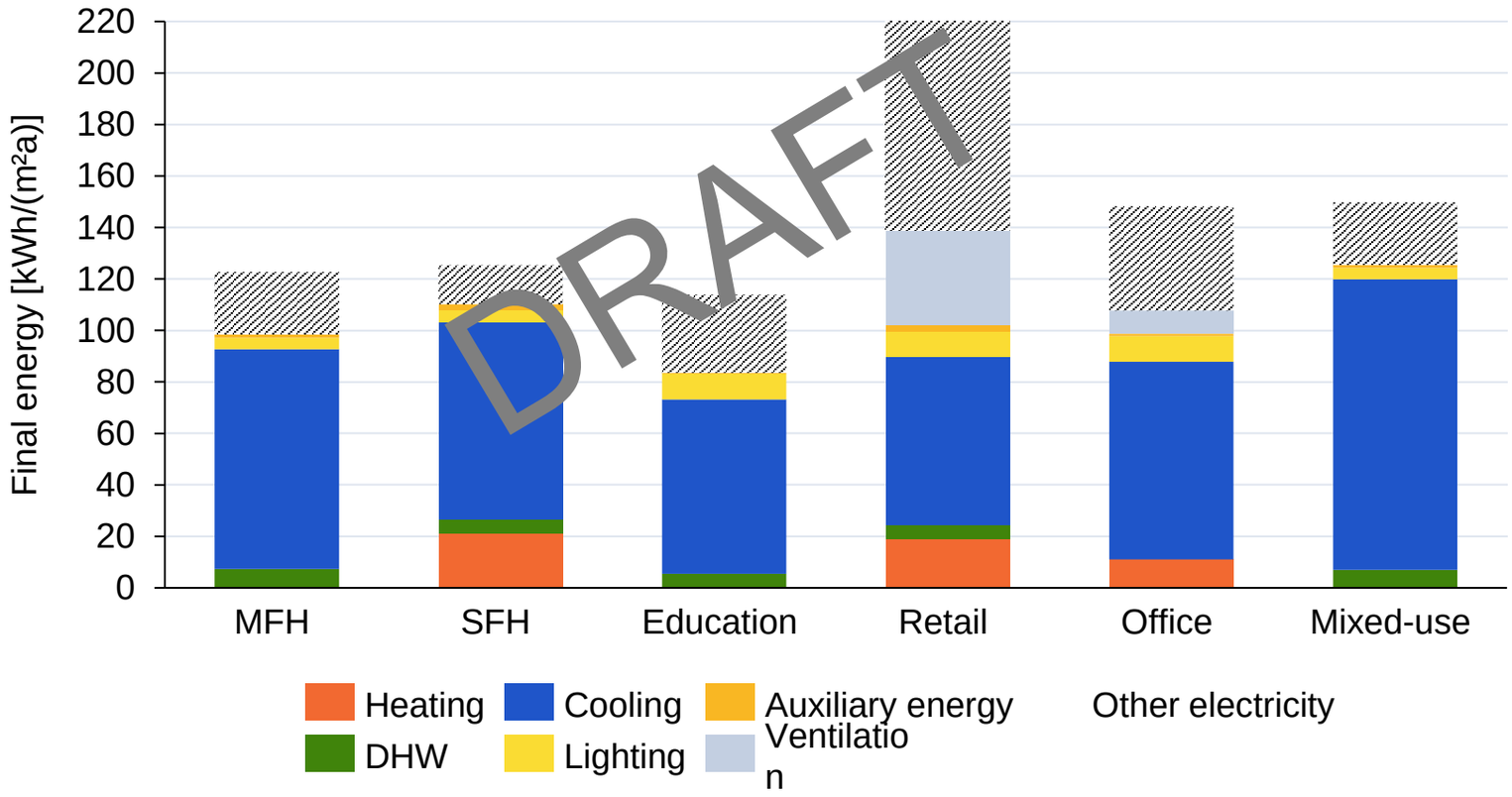
Baseline | Egypt

Illustrating energy intensity of select Egyptian building types

Key takeaways

- Specific final energy demand ranges between **115 – 220 kWh/(m²a)** for buildings constructed over the past decade
- **Space cooling** accounts for largest energy demand
- **Space heating** is only installed in less than 50% of the cases
- Note: Other electricity stands for plug-loads (e.g. fridge, TV, etc.) and is informational.

National baseline (new buildings, after 2015)



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Diving into the demonstration project database (DPD)

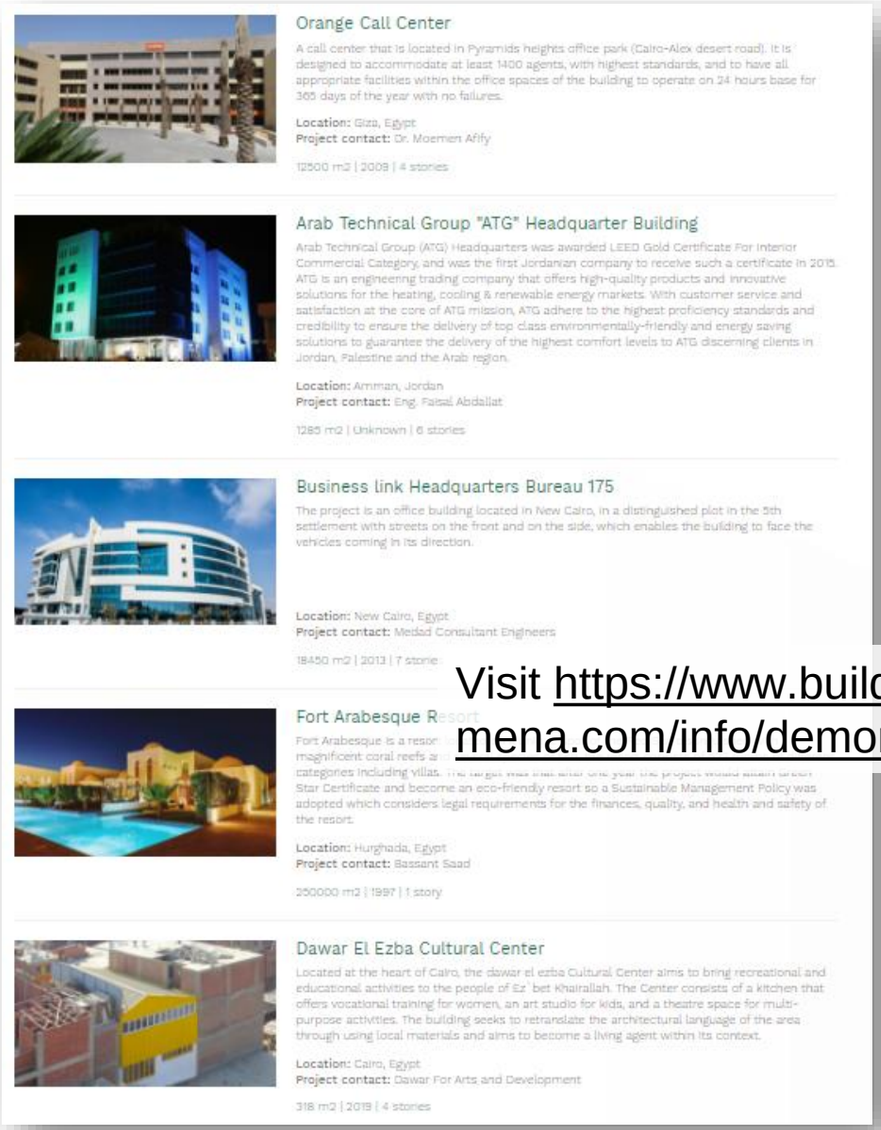
Demonstration project database

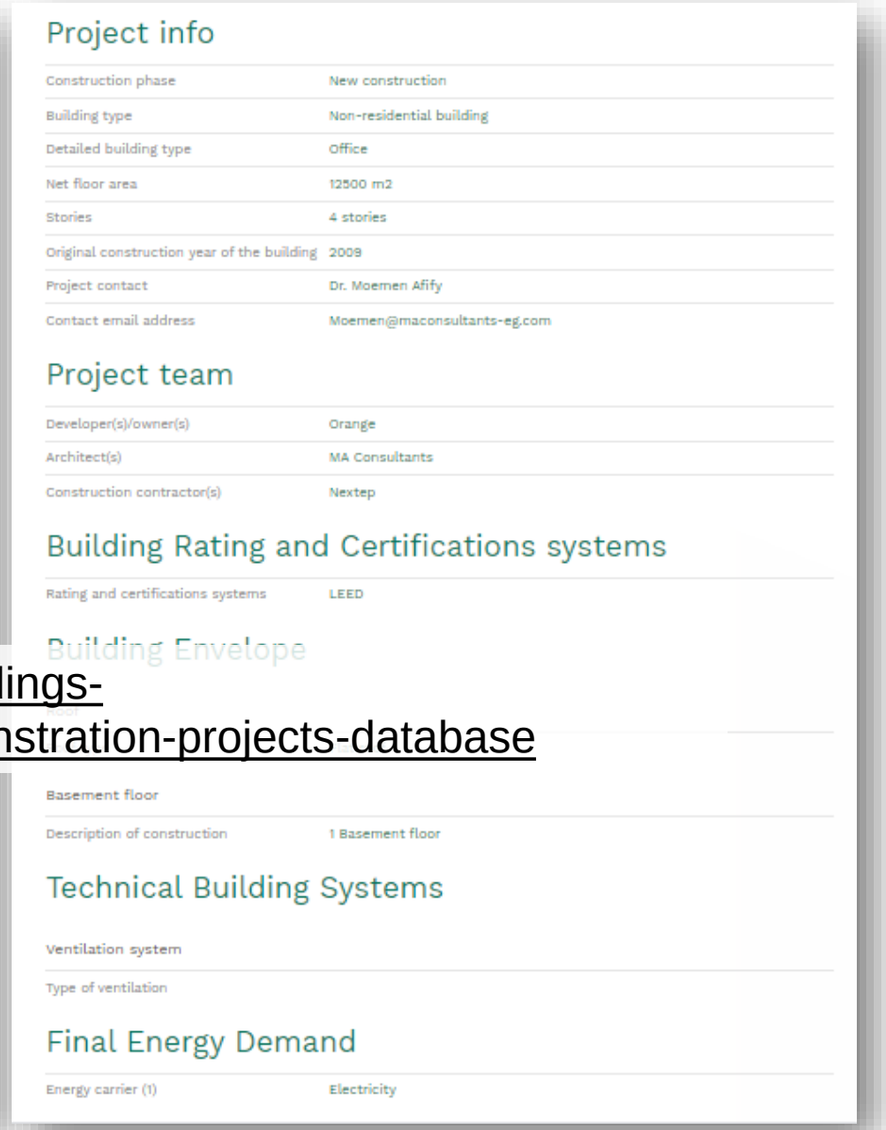
Crowd-sourced examples from the region

Register and add a project

ADD NOW!

- Searchable database of practical inspiration
- Welcome input from project developers, architects or contractors from across the region
- Currently approx. 50 examples





Visit https://www.buildings-mena.com/info/demonstration-projects-database

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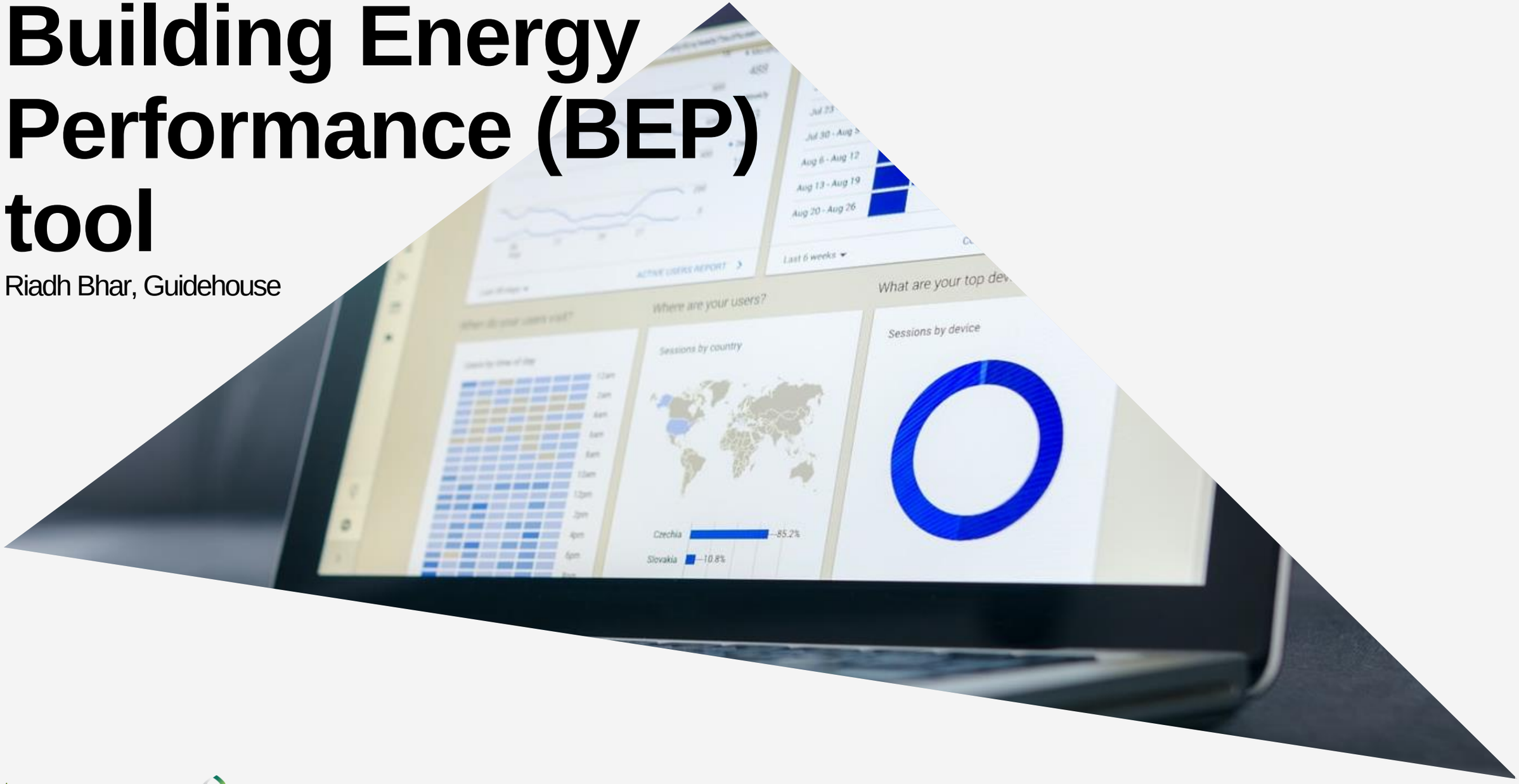
Building Energy Performance (BEP) tool

Riadh Bhar, Guidehouse



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Logic of the BEP tool

Customisable, transparent, adapted to the MENA region

Performance of energy efficiency measures & RE

- Calculate **energy demand** of building
- Compare it to the **country's baseline** buildings or other personal projects
- Determine the **energy savings** of single or multiple efficiency measures and the use of renewable energies

Calculation of monetary savings

- Identify **cost savings** resulting from the energy efficiency measures and get the **cost-optimal** case
- **Local market data** is already available for Egypt, Jordan and Lebanon (investment cost, energy prices) ...
- ...or enter the real investment cost and energy prices of the specific project *(not in beta)*

Free web application

- Tool is **free to use as browser application**
- Optimized for **mobile devices**
- Provides **default input values** for faster application, but also **advanced mode** for experienced user

Proven methodology

- Energy calculation is based on the **international norm** for modelling thermal building performance (EN ISO 52016)
- The BEP-Tool was already **successfully applied** in various projects and countries
- **Full transparency** with a detailed user manual, incl. all calculation steps and internal assumptions.

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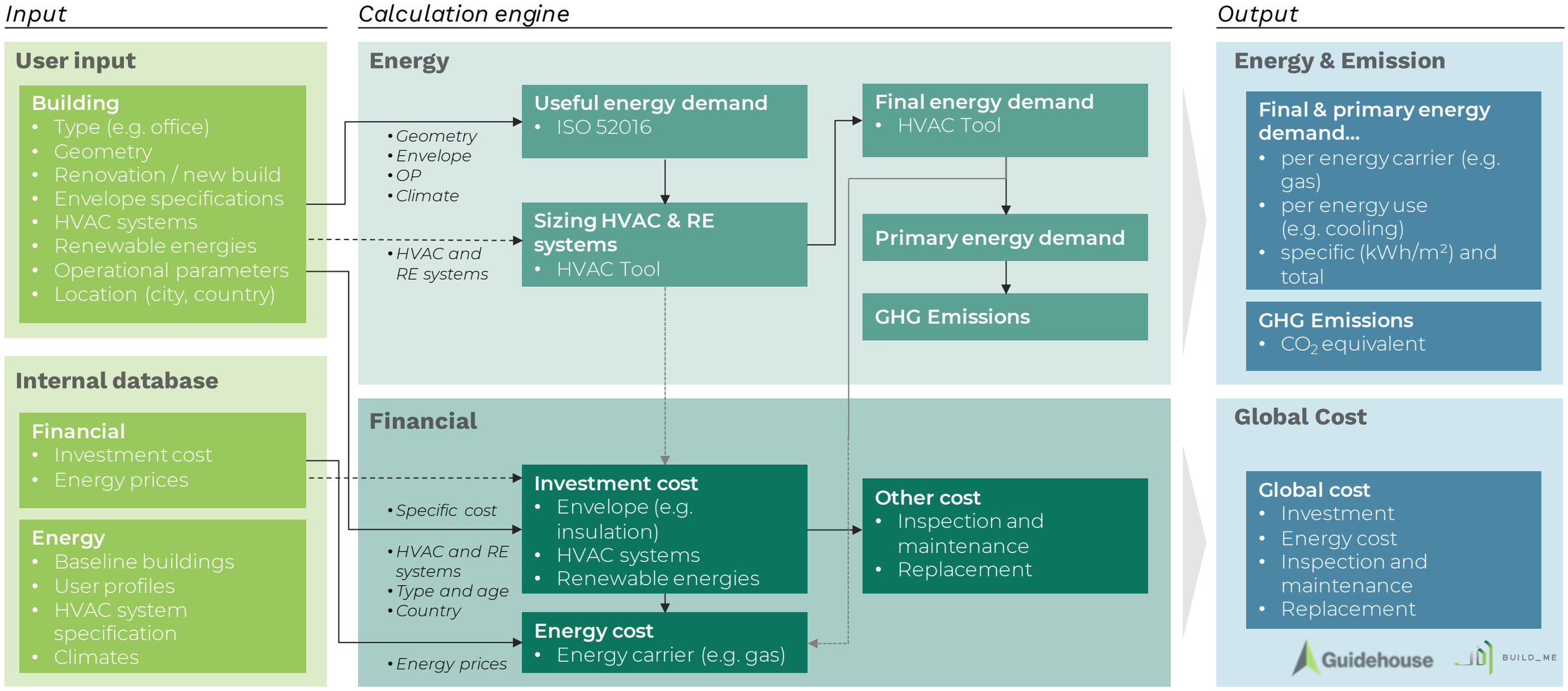
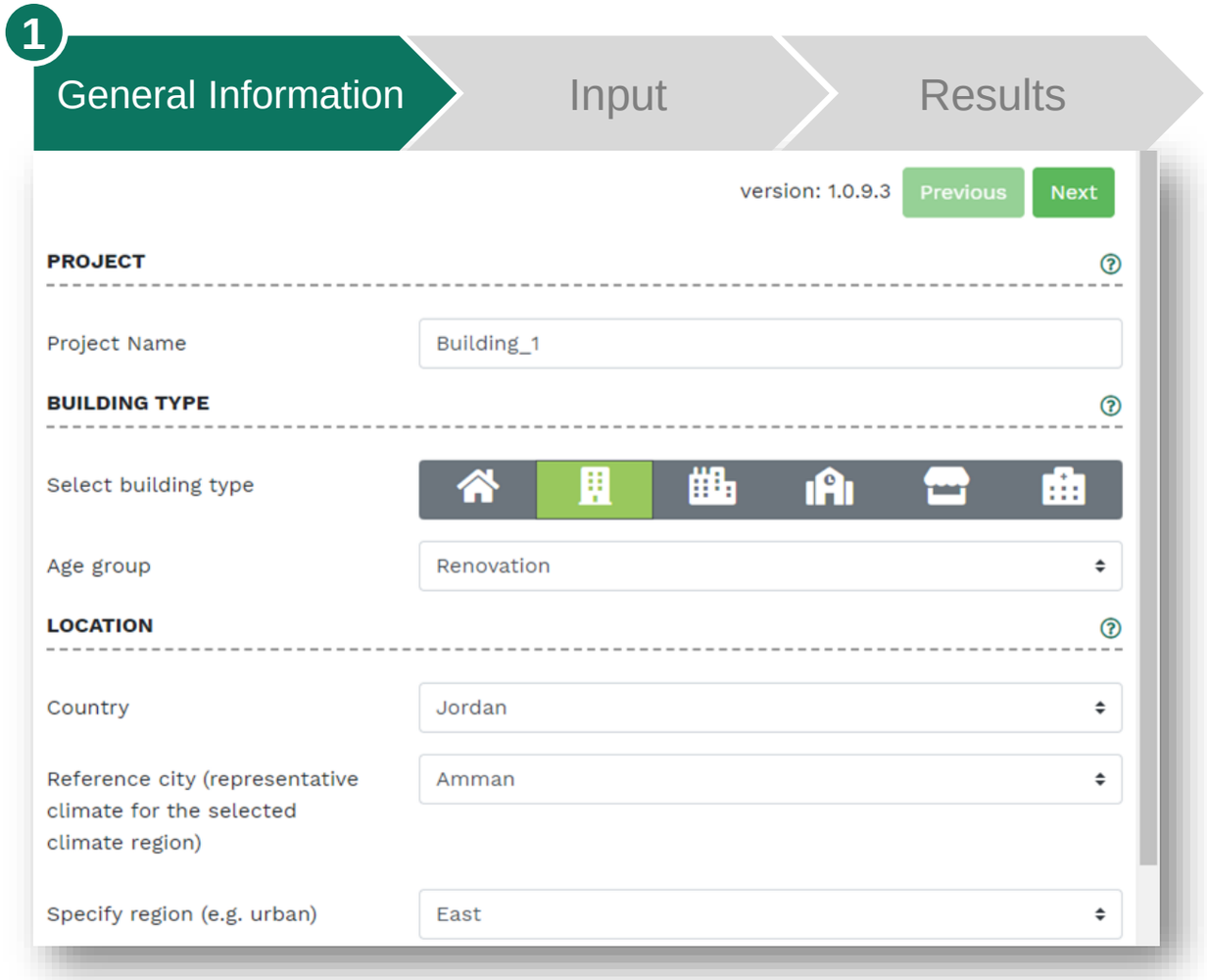
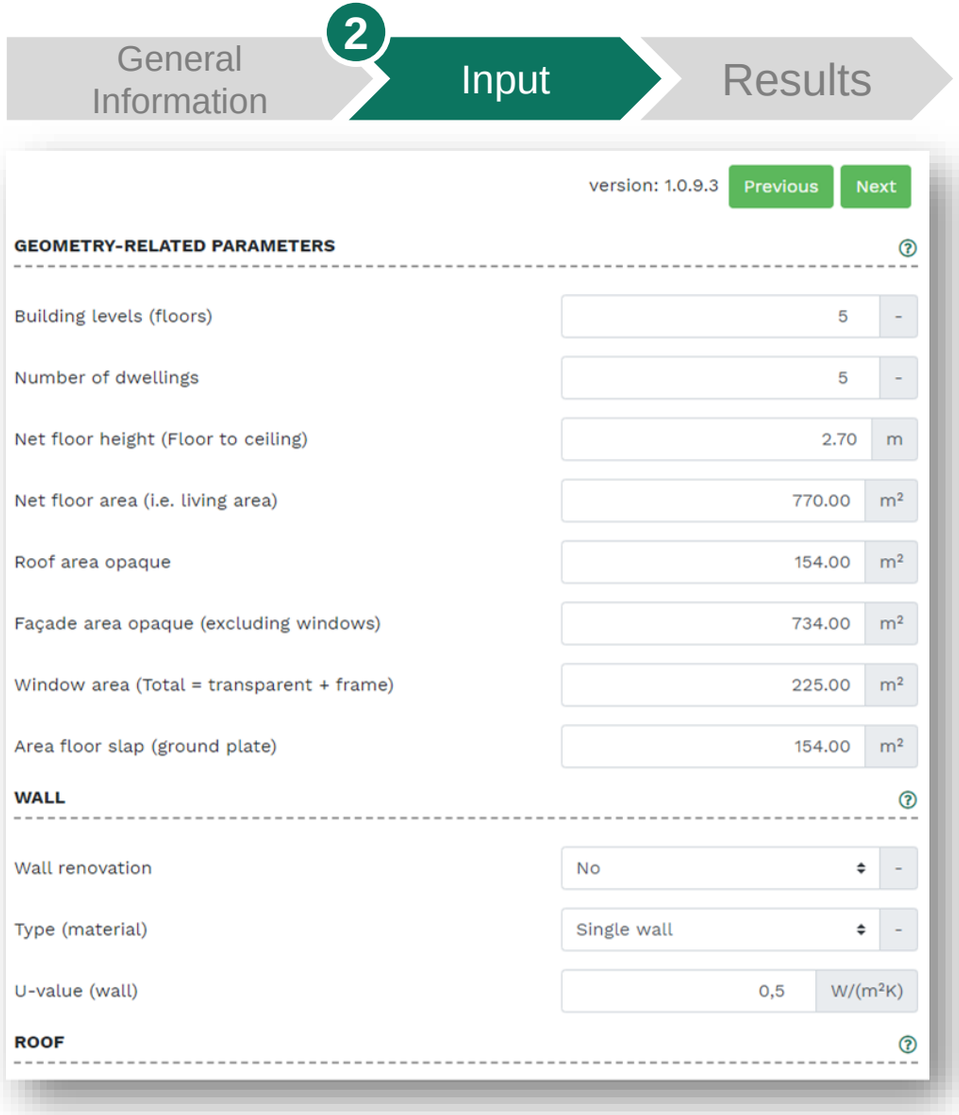
Calculation methodology



Online Web App - Input





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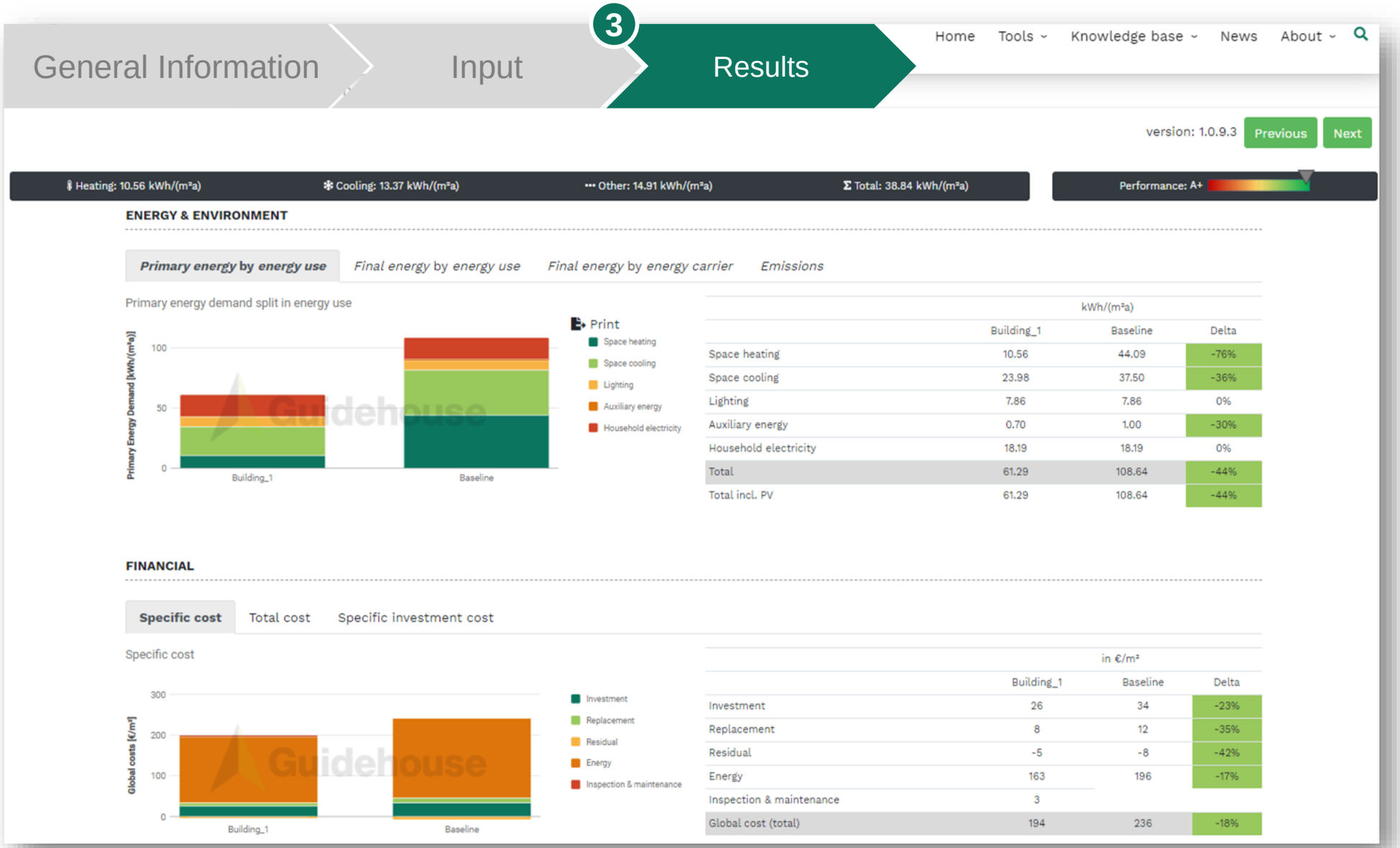
Online Web App – Results



Online Web App – Results detail

1| Quick overview

The main facts.

7| Performance rating

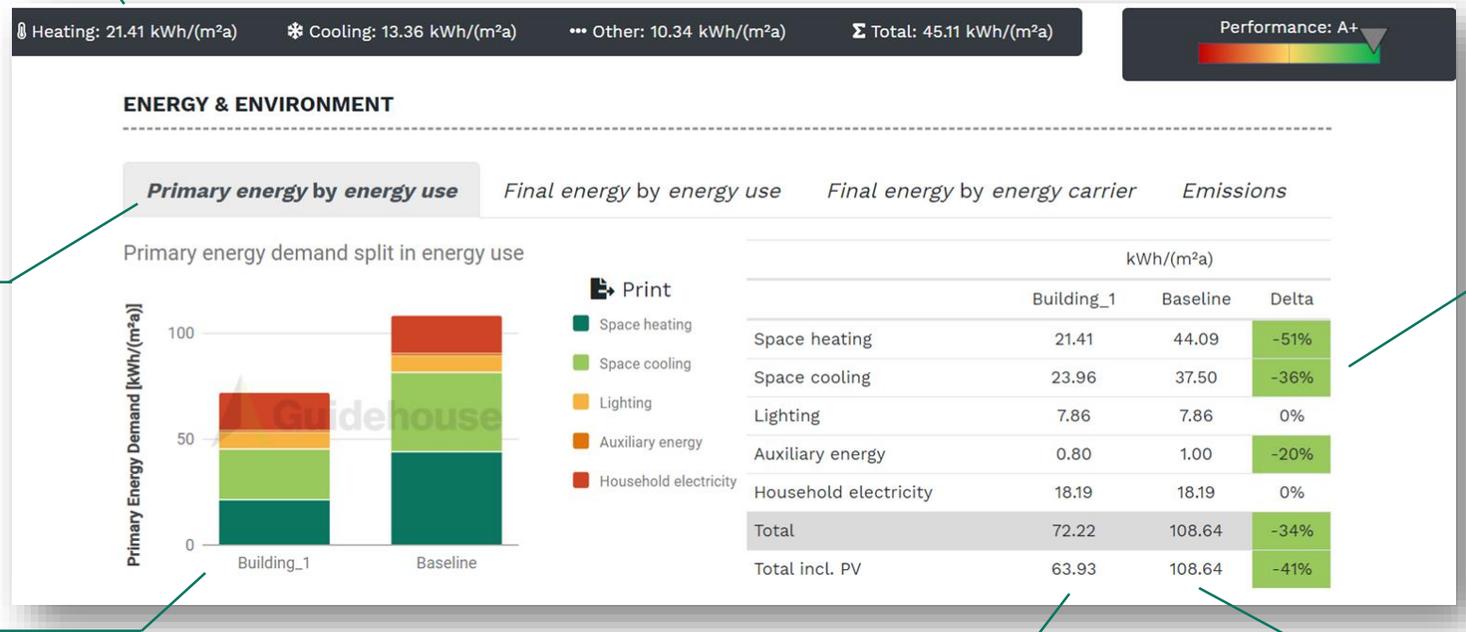
C = equal to baseline

2| Output selection

4 tabs to select the energy performance indicator.

6| Comparison

Difference to the baseline buildings.



3| Overview chart

Comparison to the baseline building.

4| Results table

Detailed results in numbers.

5| Baseline building

Detailed results of the baseline building.

Tested BEP Tool with 13 supported pilot projects

Project developer confirmed convincing result illustration and user friendliness

Lebanon

Frames / Baasir

Collège Notre Dame De Nazareth

Kye Beachfront Resort

City Towers Project

KLEOS / Ashrafieh Appartments

Arcade Suites II

Egypt

Cairo West Residence

Beverly Hills - 229

Palm Hills, Badya

Palm Hills, Alexanderia

New Mansoura university

Misr Alghad

Jordan

KONN Modular Houses

Dar Al-Oqoud, Amman (Jordan)

Private Residence

Conclusion of BEP Tool

Database from **local partners** & **international** calculation methodology

Baseline buildings

Local investment cost & energy prices

Tool was successfully applied in **building projects in the MENA region**

International calculation methodology: ISO 52016

Focus is on the countries: **Egypt, Jordan and Lebanon**

Baseline reflects the **country specific building** standard

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Methodology is applicable worldwide

Climate data of all countries in the MENA region

Local PEF and CO_2 emission Factors

All data input is collected and verified by **local partners** and project developers

The calculation standard is internationally acknowledged.

Internal market data is **collected from local partners** for Egypt, Jordan and Lebanon.

International energy calculation methodology.

Country specific climate data, incl. multiple climate zones within each country.

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Break

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Green for Growth Fund “GGF” in Egypt

Mayar Khaled
Rigel Valenzuela

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INVESTING IN ENERGY & RESOURCE EFFICIENCY AND RENEWABLE ENERGY

An Introduction to the Green for Growth Fund (GGF)

October 2021

GREEN FOR GROWTH FUND

THE GREEN FOR GROWTH FUND

- is an **impact investment** fund that **mitigates climate change** and promotes **sustainable economic growth** in Southeast Europe, Caucasus and in Middle East and North Africa
- initiated by the EIB and KfW, and supported by a diverse group of international financial institutions and private investors.
- provides **funding to financial institutions** to mainstream sustainable investments and makes **direct investments** in renewable energy projects and other energy service providers.

THE GGF TECHNICAL ASSISTANCE FACILITY

The dedicated TA Facility provides **know-how and technical expertise** to ensure investments are successfully and carefully implemented. It **raises awareness** on the **importance of energy and resource efficiency** and **builds capacity in the markets to deliver green finance**.

TYPES OF PROJECTS

- Capacity-building to financial institutions: build long-term and sustainable commitments to green finance
- Support to (RE) projects: assistance to meet international E&S standards; E&S studies, impact assessments, bankability support
- Awareness-raising and enabling markets: events and outreach initiatives, marketing support, stakeholder engagement etc.

01

About the GGF

GREEN FOR GROWTH FUND

WHY THE GGF

Scope & Approach

- Combination of financing and tailored technical assistance
- Wide range and flexible choice of technologies and projects
- Proven approach in 19 countries
- Offers products and structures needed by markets

Regionally Embedded

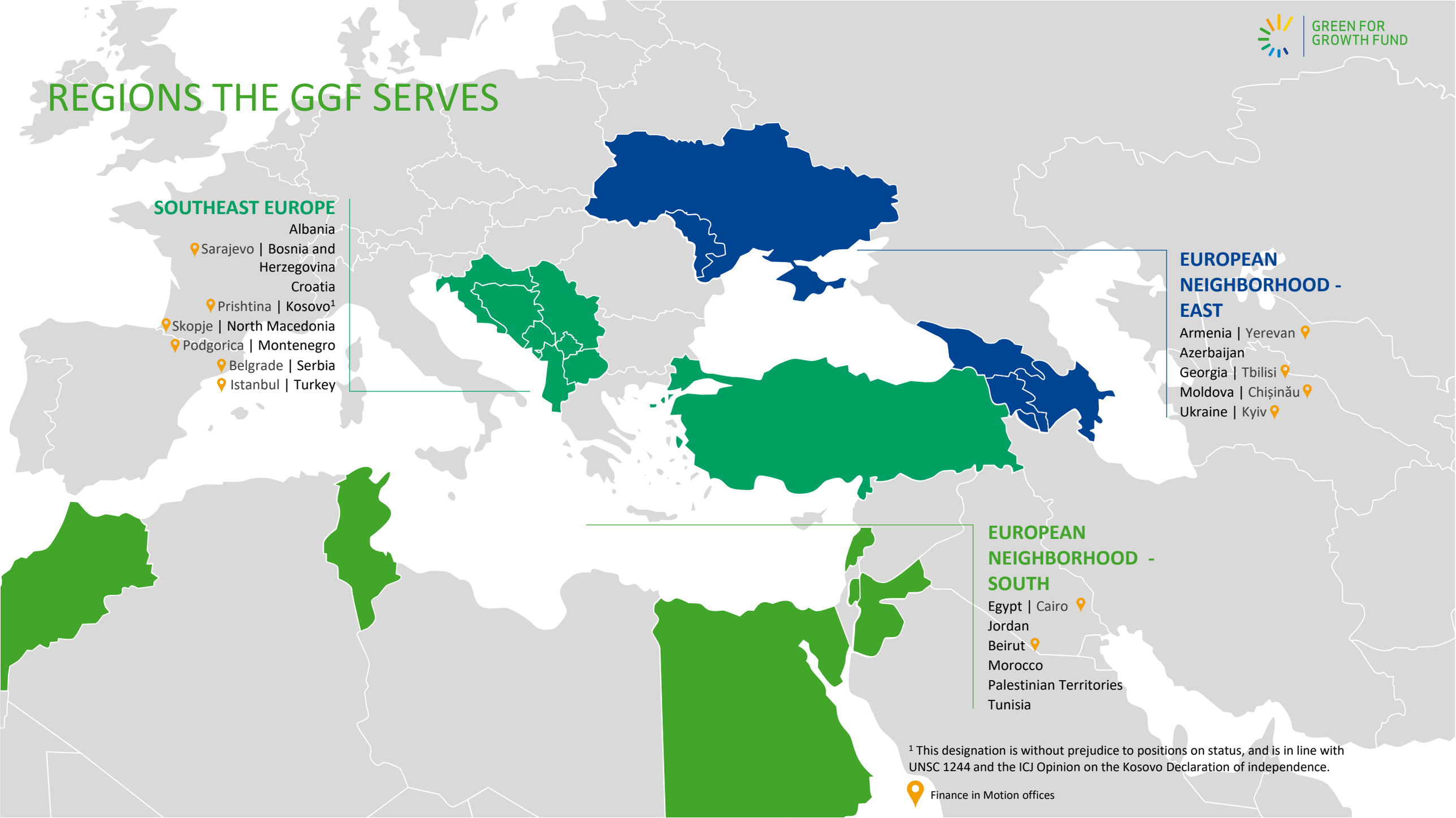
- Physical presence in the region
- Click to add text
- Strong local knowledge and experience
- Commitment to build long-term partnerships
- Willing to be a first mover in new markets and types of investments

Efficiency

- Professional management and quick delivery
- Dedicated and responsive client relationship management
- Tailored impact approach with software for reporting and eligibility

GREEN FOR GROWTH FUND

REGIONS THE GGF SERVES



SOUTHEAST EUROPE

Albania
Sarajevo | Bosnia and Herzegovina
Croatia
Prishtina | Kosovo[1]
Skopje | North Macedonia
Podgorica | Montenegro
Belgrade | Serbia
Istanbul | Turkey

EUROPEAN NEIGHBORHOOD - EAST

Armenia | Yerevan
Azerbaijan
Georgia | Tbilisi
Moldova | Chișinău
Ukraine | Kyiv

EUROPEAN NEIGHBORHOOD - SOUTH

Egypt | Cairo
Jordan
Beirut
Morocco
Palestinian Territories
Tunisia

[1] This designation is without prejudice to positions on status, and is in line with UNSC 1244 and the ICJ Opinion on the Kosovo Declaration of independence.

Finance in Motion offices

GGF IN EGYPT

GGF in Egypt

- The fund was established in **2009**, and closed its **first investment** in **2016**.
- The fund's investments in Egypt are mainly directed to promote Energy Efficiency, Resource Efficiency and Renewable Energy via the Fund's Partner institutions in Egypt.
- In 2020, GGF has provided its partner institutions with a **Green recovery package** to support them and their clients during the COVID-19 crises via widening the eligibility criteria to include **working capital loans, Loans to essential services and New Energy Efficient equipment.**

Total investments

- The fund currently has a total number of **5 debt investments** to financial institutions including 4 banks and 1 Leasing company and **2** investments for **Renewable Energy** in the **Benban Solar Park** under the **project finance umbrella.**
- **Total disbursed investments** as of date stand at **USD 135m** with an **outstanding** portfolio of **USD 104.4m** as of Q3 2021.
- The fund also provided **Technical assistance** projects in Egypt reaching a total of **32 projects** with a total cost of **USD 1.04m.**

Sub-Loan Portfolio

- The Sub-loan portfolio as of Q2 stands at **USD 140.4 m** to a total of **103 Sub-loan** since inception.
- The Sub-loan portfolio resulted in the below savings since inception:
- **CO2 savings**: 115,953 tons of CO2/year
- **Energy savings**: 536, 918 MWh/year
- **Nexus savings**: 96,503 tons of waste/water/material/year

THE FUND AND ITS INVESTORS

Legal Form

Luxembourg-based specialized investment fund (SICAV-SIF)

Inception

December 2009

Current Investors

Initiators

- Federal Ministry for Economic Cooperation and Development
- European Bank for Reconstruction and Development
- European Investment Bank
- FMO Entrepreneurial Development Bank
- KfW

Current Investors

- European Investment Fund (The European Investment Fund as Trustee for the European Commission)
- OeEB Oesterreichische Entwicklungsbank AG
- asn bank
- Deutsche Bank
- fair-finance VORSORGEKASSE AG
- Raiffeisen BANK
- GLS Bank das macht Sinn
- IFC International Finance Corporation WORLD BANK GROUP
- financeinmotion

TA Facility Donors

- European Investment Fund (The European Investment Fund as Trustee for the European Commission)
- Federal Ministry for Economic Cooperation and Development

The GGF falls under Article 9 of the Sustainable Finance Disclosure Regulation (SFDR). For relevant disclosures, visit the GGF website: https://www.ggf.lu/investors.

Proven Excellence

PARTNERS AND ELIGIBILITY CRITERIA

Eligibility Criteria

- Minimum 20% reduction in primary energy consumption
- Minimum 20% reduction in CO_2 emissions
- Promotion of renewable energy
- Flexible criteria for resource saving projects that also have an energy/CO_2 savings component.

Financial Institutions

- Local commercial banks
- Non-bank financial institutions, such as microfinance institutions and leasing companies
- Other selected financial institutions

Direct Investments

- Renewable energy projects
- Energy service companies
- Corporates
- Other non-financial institutions

IMPROVING RESOURCE EFFICIENCY VIA PARTNER INSTITUTIONS

Broad spectrum of measures

Retail	SME	Corporate	Municipalities
Insulation Improvement: often below EUR 1,000	Process Machinery Replacement: EUR 50,000 – 250,000	Process Improvements: often over EUR 1 million	Street Lighting: up to EUR 10 million
			
			
Boiler Replacement: typically between EUR 2,000 – 5,000	Agri-equipment Replacement: EUR 15,000 – 250,000	Renewable Energy Projects: up to EUR 10 million	District Heating/ Waste treatment up to EUR 10 million

PROVIDING FINANCING FOR EE CONSTRUCTION AND GREEN MORTGAGES

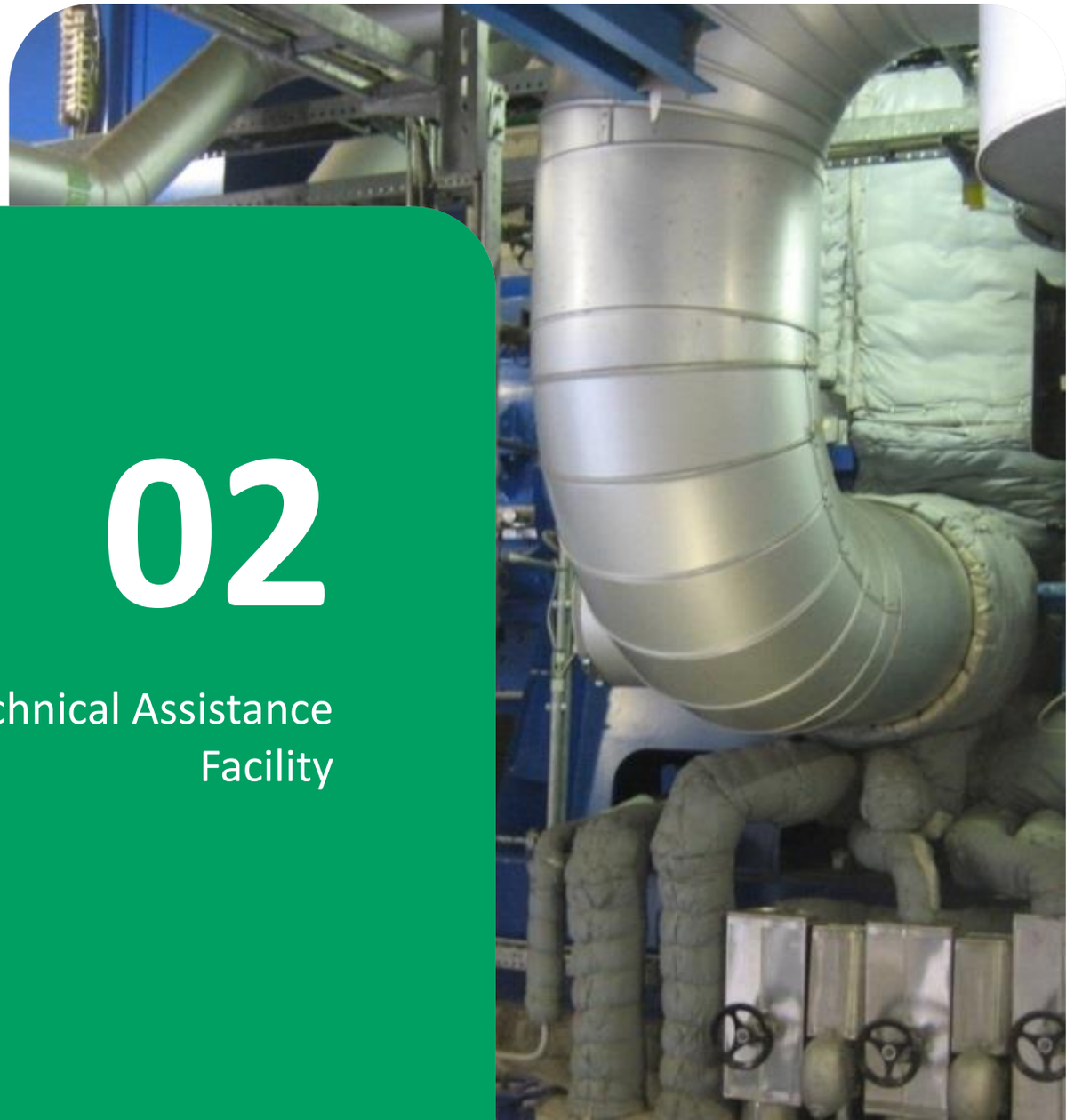
Eligible types for GGF financing

- New or renovated apartments/buildings can be eligible if they show **< 80% of the maximum acceptable required energy** either against national requirement for new construction (Egyptian building code)
- **Green Consultant** conduct assessments
  - required information from client/developer, approach is fine-tuned in collaboration with the partner institution
  - Technical support is fully covered by GGF TAF

	Example	Baseline	Delta
Space heating	-	-	-
DHW	18.67	18.67	0%
Space cooling	73.29	121.24	-40%
Lighting	11.26	11.26	0%
Auxiliary energy	1.85	2.68	-31%
Ventilation	-	-	-
Other electricity	26.06	26.06	0%
Total	131.12	179.91	-27%
Total incl. PV	131.12	179.91	-27%

Other Requirements

- Construction finance for green buildings is eligible with up to 50% of construction cost excl. land costs, and up to EUR 10mln can be reported to GGF. Post construction assessment required.
- Green mortgages: max. sub-loan up to EUR 500k



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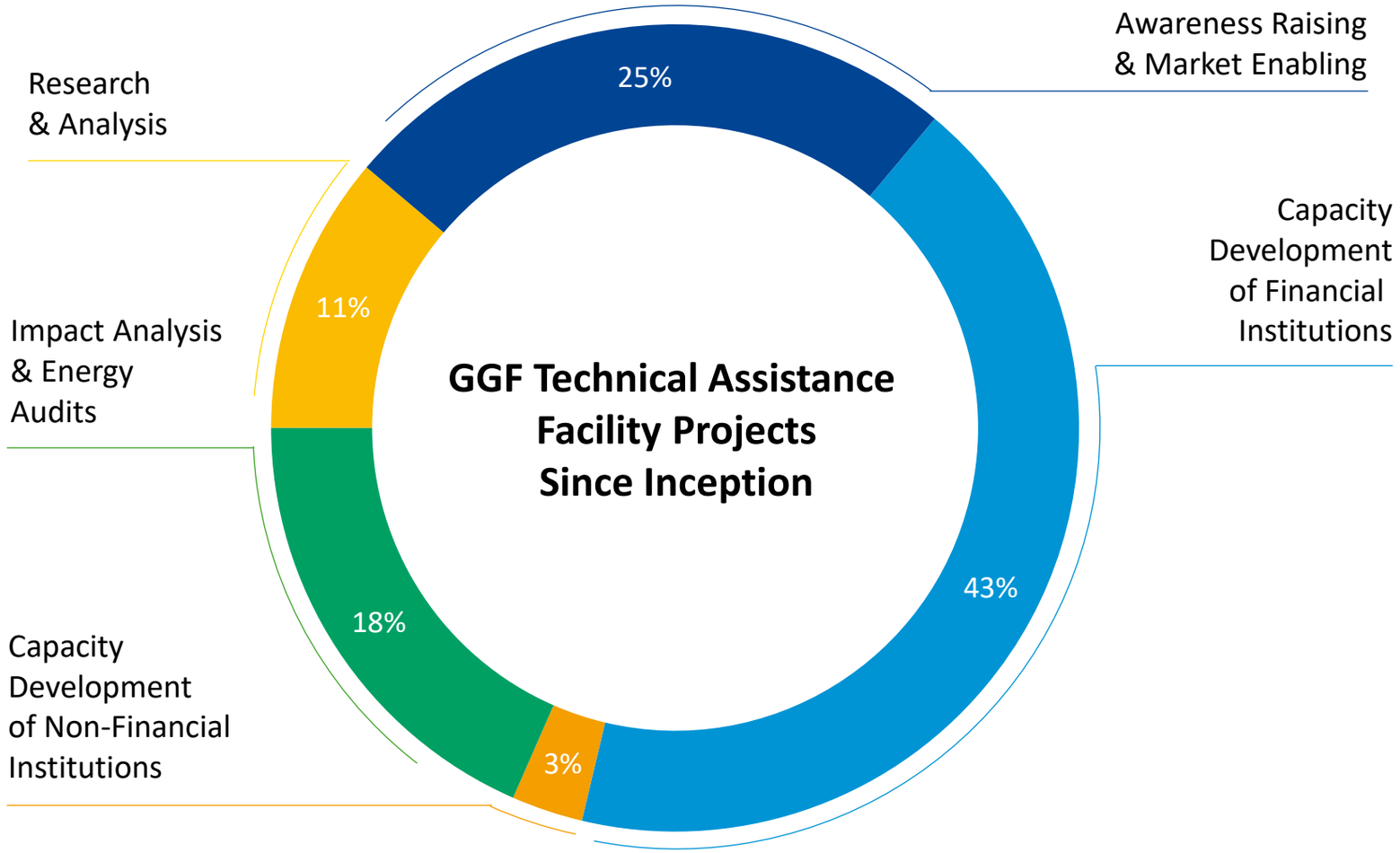
The GGF Technical Assistance Facility

GGF TECHNICAL ASSISTANCE FACILITY KEY FIGURES



Tailored Technical Assistance focused on developing partner capacities

- **385 TA projects** since inception with project volume of **EUR 15.5 million**
- Support to **84 partners** through more than **138 consultants** (local and international)
- **6,861** persons trained
- Committed Technical Assistance Facility funding of **EUR 27.9 million**

As of 31 December 2020

TAILORED TA TO FINANCIAL INSTITUTIONS

GGF offers its partners a wide variety of different TA support

Capacity-building activities supporting sustainable lending operations at partner institution

Typically a combination of TA support across the different categories

Training & Capacity Building

- RE project finance (project DD services and trainings)
- Trainings and conferences
- Environmental and social management system
- Staff Green finance trainings

Green Academy

Business Development

- Product strategy & development
- Sector workshops
- Marketing campaigns
- Green Advisory support for end-clients

Green Advisory

Reporting Support

- Provide and train on monitoring & reporting tool eSave
- Consultant services for eligibility and environmental & social assessments of projects

eSave

DEVELOPING A GREEN HOUSING PRODUCT

Targeted marketing campaigns for green housing

Scope of Work (Examples)

- Support to financial institutions to develop their green finance offerings
  - E.g., structuring a green mortgage product
- Development of marketing and awareness-raising campaigns to promote green products
- Sponsoring cooperation with project developers to develop business ecosystem and strengthen standards (e.g., certifications)

Objective and Benefit

Enhance the PI's visibility and promote investment opportunities

SUPPORTING GREEN BUILDING CERTIFICATION

Green building certification to foster sustainable investments

Objective

- Promote green buildings and scale-up certifications
- Clients and project developers can use certification as part of awareness-raising and marketing efforts
- Support the institution in financing green buildings

Scope of Work

- Assess status of construction standards and recommend eligibility criteria
- Provide expert advisory services to clients, including certification and audits of projects

GREEN FOR GROWTH FUND

THANK YOU FOR YOUR ATTENTION!

Initiated by KFW | European Investment Bank

Green Economy Financing Facilities “GEFF” (EBRD) in Egypt

Mohamed Abdelhameed

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GEFF Green Economy Financing Facility

EBRD Green Financing Products

Overview of Facilities in Egypt

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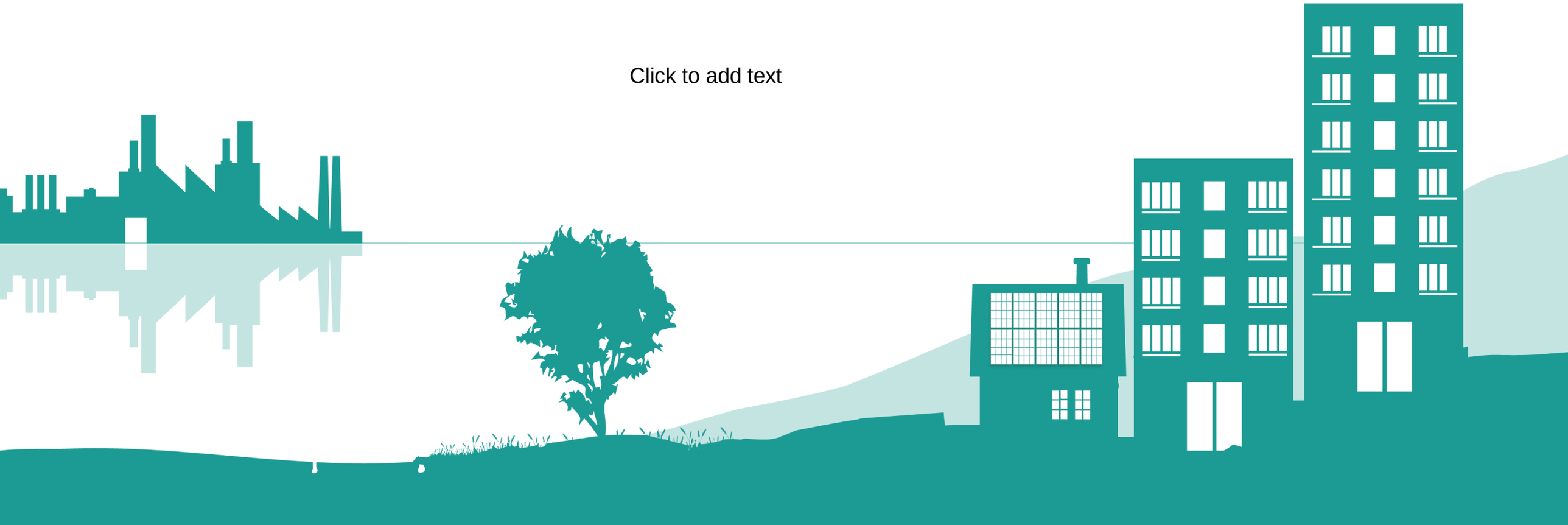
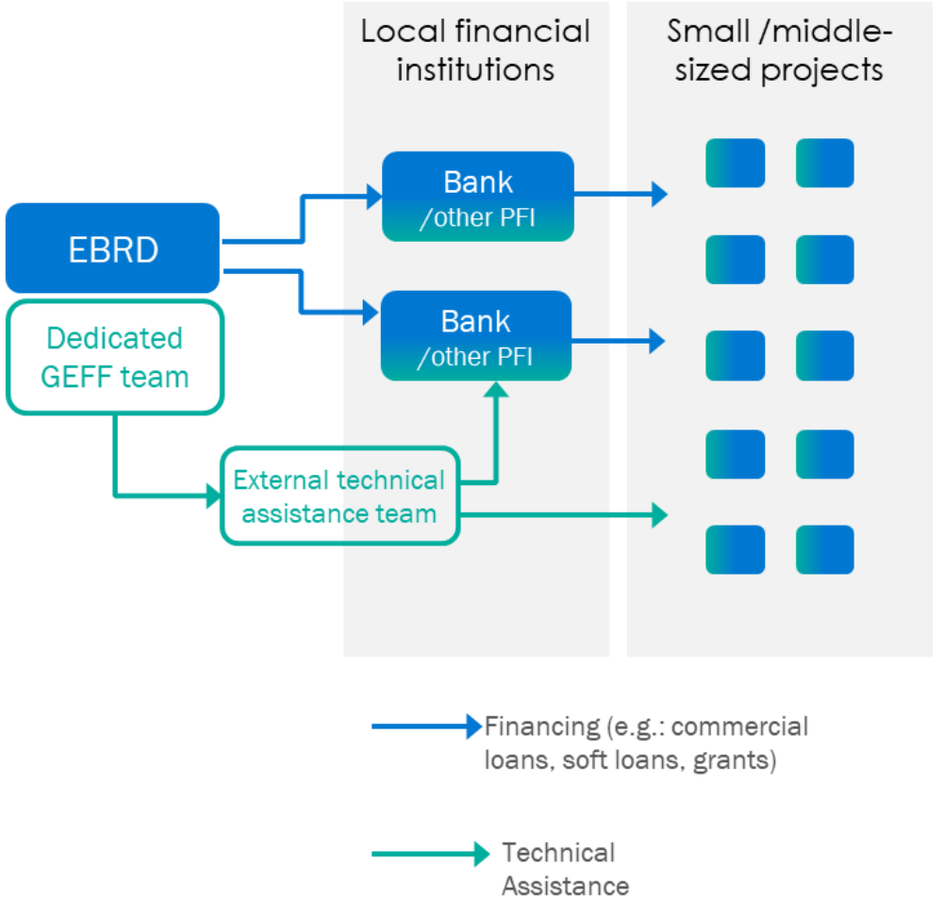


The business model

Through GEFFs, the EBRD offers credit lines to local partner financial institutions (PFIs) to finance small and mid-sized green projects.

GEFFs bring together:

- **Credit lines** to be channelled to end-borrowers with preferential financing conditions
- **Technical assistance**: support PFI to recognise green opportunities, enhanced marketing outreach, targeted green financing products
- **Project development support**: direct assessment of larger-scale opportunities; online databases of pre-approved technologies for small-scale projects



Bringing together development partners

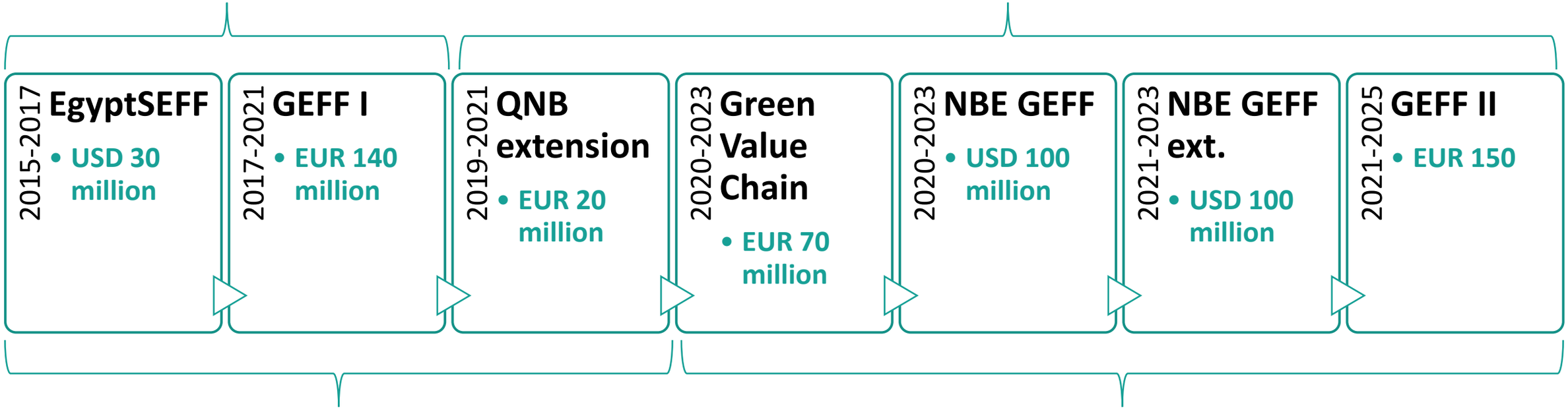
This programme is funded by the European Union

GREEN CLIMATE FUND

From $30 million pilot to >$600 green credit lines supporting the private sector

Renewable energy & energy efficiency investments

Renewable energy, energy efficiency, water efficiency, sustainable land management, irrigation technologies, and other



SMEs and large corporates

SMEs only (EU definition)

EBRD Green Financial Products

Parameter	GEFF Egypt	Egypt Value Chain	NBE GEFF	GEFF II
Beneficiary	SME and Large	SME*	SME*	SME*
Participating Financing Institutions	QNB, AAIB, Alex, NBK (utilized)	QNB, (undisclosed]	NBE	QNB, NBK
Sectors	Private sector	Part of Value Chain	Private sector	Private sector, Retail
Eligible Investments	Mitigation	Mitigation and adaptation +	Mitigation and adaptation	Mitigation and adaptation
Max Sub-Loan Amount	$5 million	€1 million	$5 million	$5 million
Incentive Grant	10%-15%	10%	-	10%-15%
Interest Rate	Commercial	Commercial	Corridor +0	Commercial

* SME definition per EU guidelines: Turnover up to €50 million, Manpower up to 250 (no minimum)

Our partners in success

and more to come

QNB ALAHLI

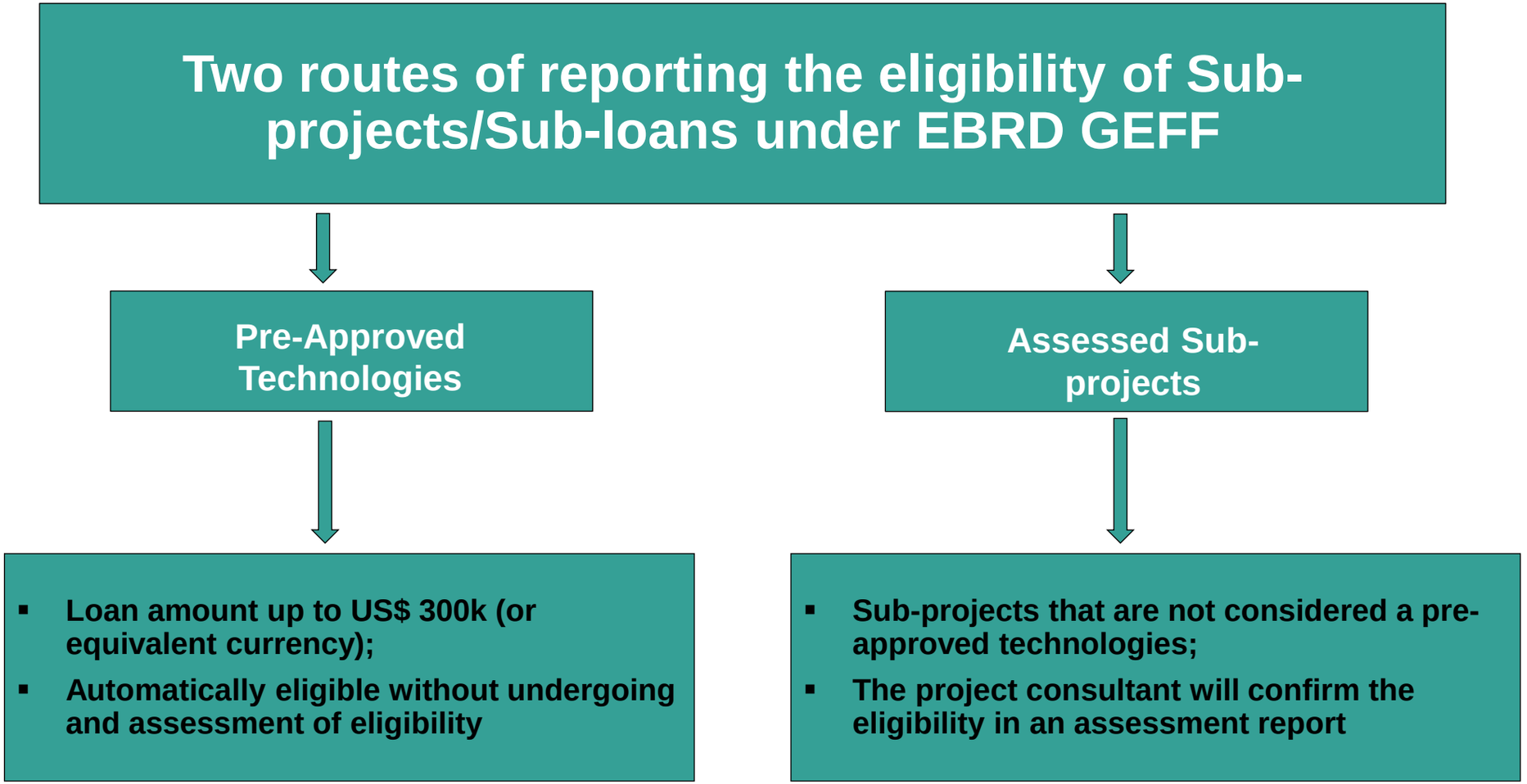
البنك الأهلي المصري
NATIONAL BANK OF EGYPT

ALEXBANK

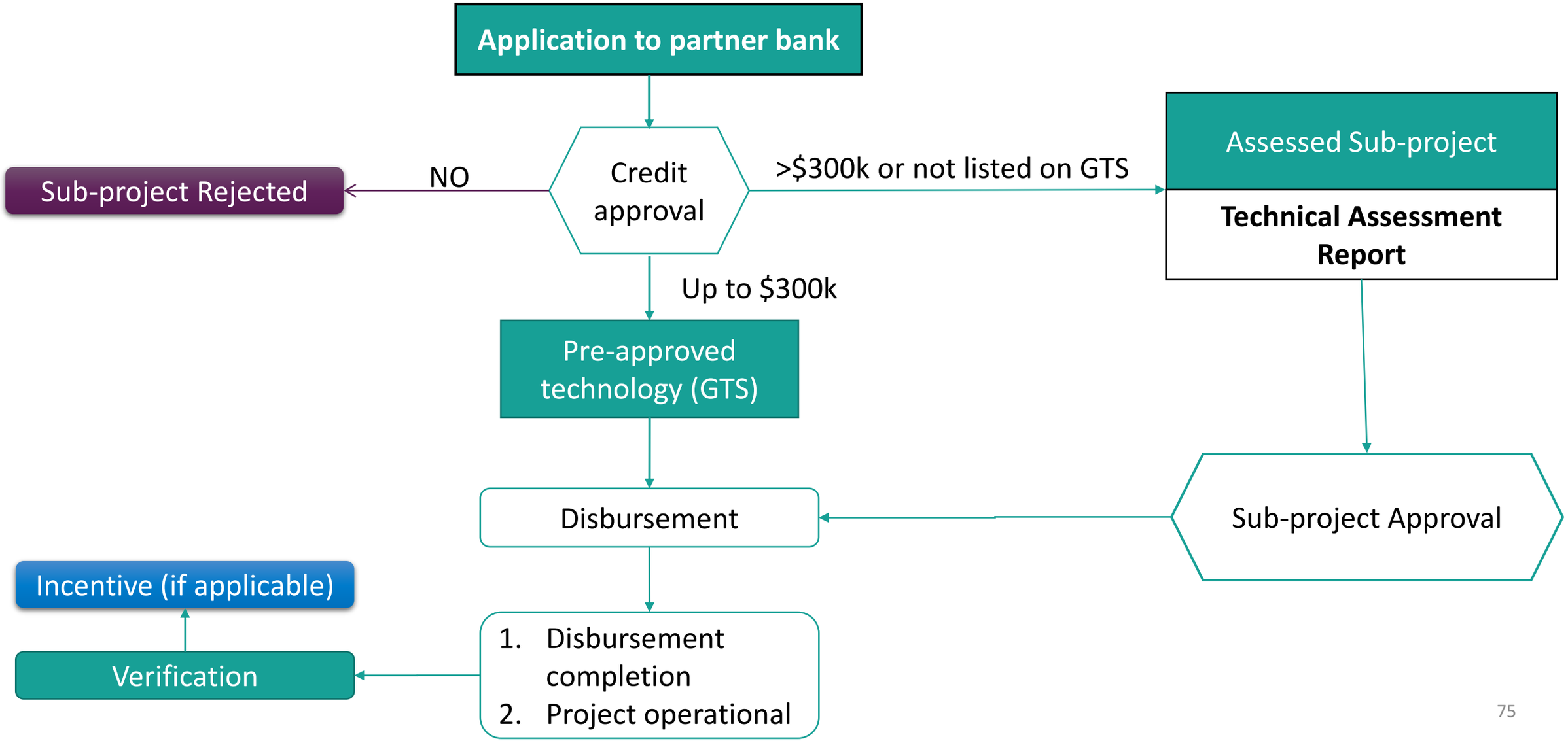
البنك العربي الافريقي الدولي
arab african international bank

الوطني
NBK

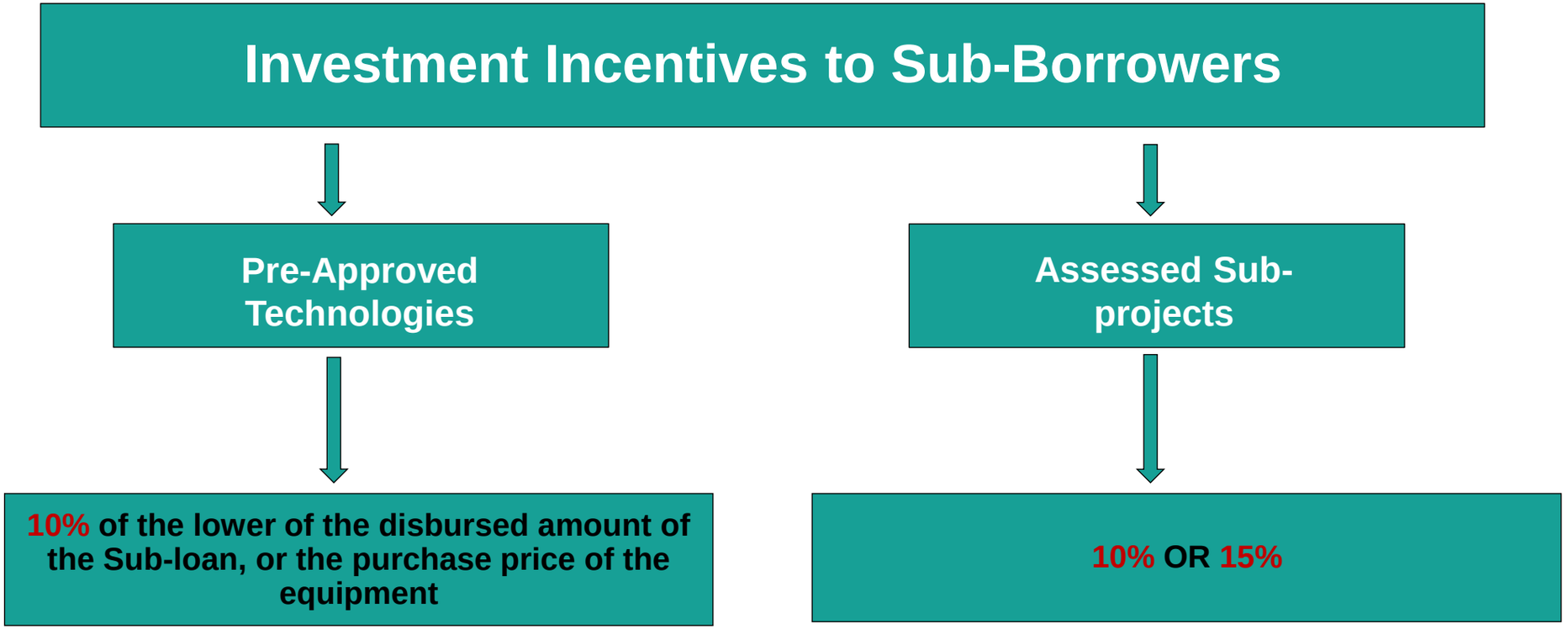
Loan Assessment Routes



Standard loan cycle



Investment Incentives



Sub-borrowers

Different categories of Sub-borrowers are eligible for finance under GEFF Facilities

- **Businesses**
  - Any businesses that undertakes eligible sub-projects
- **Service Providers**
  - Housing management companies
- **Vendors**
  - Suppliers of eligible technologies
- **Producers**
  - Manufacturers of eligible technologies
- **ESCOs**
  - ESCO/end-user/final beneficiary shall be an eligible sub-borrower
  - ESCO shall pass the incentive benefits to the end-user/final beneficiary

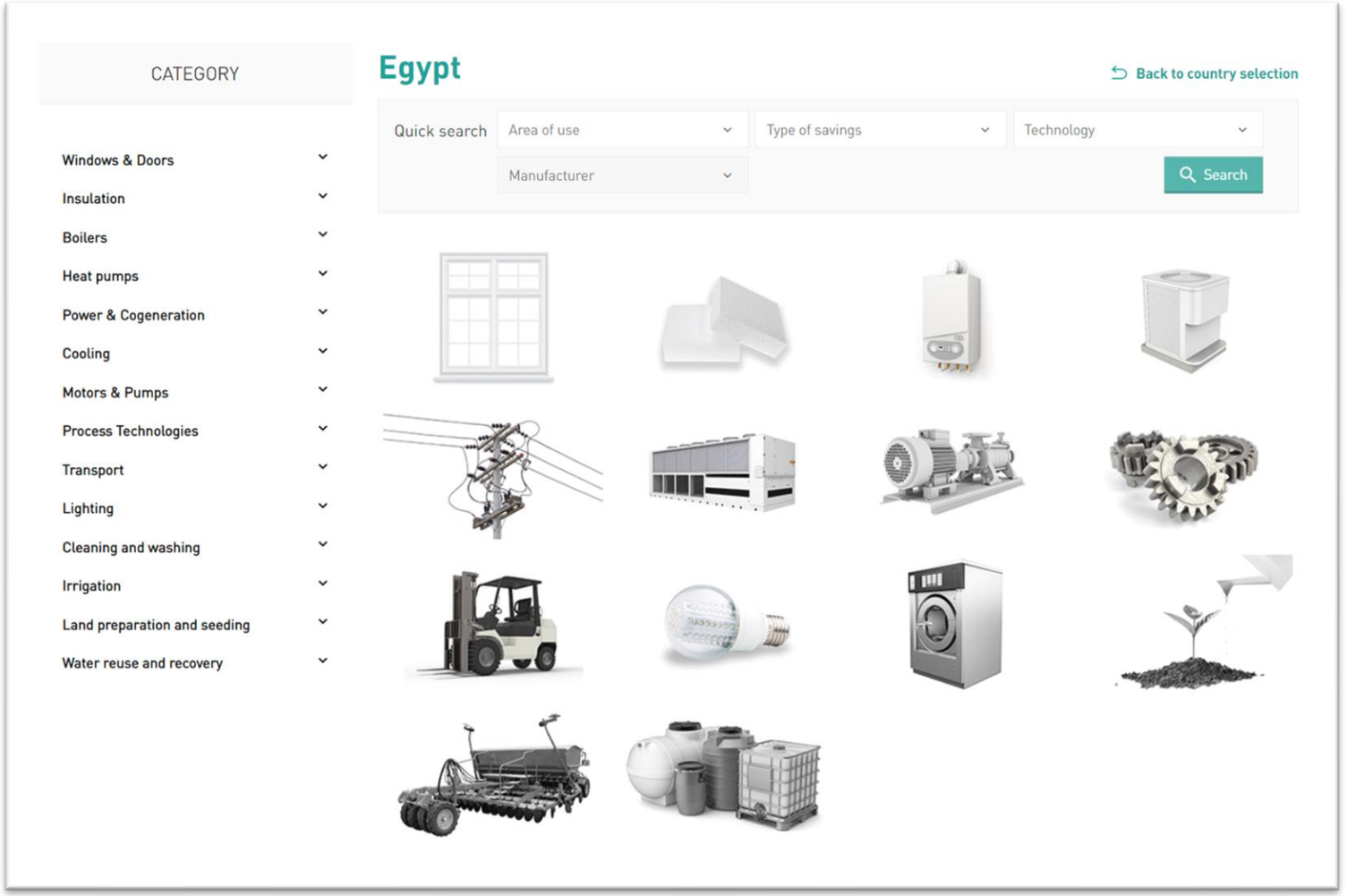
Eligible **Sub-borrowers** shall:

- Not be included in EBRD's Environmental and Social Exclusion List;
- Not be a traders/producers of military equipment, tobacco, hard liquor, speculative investments, casinos, combustion of fossil fuels, working capital, purchase of land;
- Not be a majority-owned by the government

GTS Technology Selector

GREEN TECHNOLOGY SELECTOR

https://techselector.com/egypt-en/



Technical Eligibility

Energy Efficiency

- Investment shall achieve a minimum energy saving or GHG reduction of 20% compared to a baseline.

Existing Buildings

- Minimum certification level (i.e., LEED Silver, BREEAM Good, EDGE Standard, Passive House Standard, DGNB Bronze); or;
- The energy demand of the building is reduced by at least 30% compared to baseline performance.
- Land acquisition costs are excluded

New Buildings

- Minimum certification level (i.e., LEED Silver, BREEAM Good, EDGE Standard, Passive House Standard, DGNB Bronze)
- Land acquisition costs are excluded

New Buildings Components

- Total cost of eligible components does not exceed 30% of the final value of a new building (excluding land acquisition cost), and
- The component have a MEP as “best-class” compared to current market practices (GTS)

Renewable Energy

- PV (EPC, IPP)
- Hydropower, wind turbines, bioenergy, geothermal energy projects are subject to review by EBRD’s E&S Department

Water Use

- Eligible investments that enable reduction in water consumption shall achieve at least 20% water savings compared to the “Reference Water Baseline”, or
- Sustainable water generation installations with capacity equal to or greater than 100m^3/yr
- Demand of desalination projects shall not exceed 5 kWh/m^3 of fresh water generated

Sustainable Land Management

- Investment shall enable reduction in soil erosion
- Investments shall achieve a reduction in soil erosion of at least 20% compared to the “Reference Soil Loss Baseline”.

Thank you

For more details, please visit our website

http://ebrdgeff.com/egypt_facilities

Or get in touch with us through

egypt@ebrdgeff.com

Wrap Up

Dr. Norhan El Dallal, IDG

Conclusion (1)

Several outputs will enable the acceleration of climate-friendly buildings

WP1
Preparatory Steps

- Developed public and free available software tool
- Developed building typology
- Calculated baseline

WP2
Support Pilot Projects

- Supported 13 pilot projects with technical and economic assessments of suitable energy concepts

WP3
Framework Conditions

- Analysed national EEBC
- Conceived voluntary EE classification scheme
- Supported national strategies (NEEAPs)

WP4
Capacity Building and Dissemination

- Developed website
- Performed workshops, trainings, webinars
- Formulated newsletters, brochures, etc
- Developed a database for best practice buildings

Conclusion (2)

Offered a customisable, transparent tool adapted to the MENA region

Performance of energy efficiency measures & RE

Calculation of monetary savings

Free web application

Proven methodology

Conclusion (3)

The benefits of a voluntary classification scheme

Transparency of energy consumptions

Marketing and boosting competition

Reduction of energy bills

Job creation

Facilitating finance

Final discussions

Feedback and ideas

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Contact

Mohamed Salheen
salheen@idg.com.eg

Rana Abouzeid
rana.abouzeid@idg.com.eg

Mai Adel
mai_adel@idg.com.eg

Norhan El Dallal
norhan.eldallal@idg.com.eg

Doha Moharram
doha.moharram@idg.com.eg

Riadh Bhar
riadh.bhar@guidehouse.com

Eslam Mahdy
eslam.mahdy@guidehouse.com

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INTERNATIONAL CLIMATE INITIATIVE (IKI)

Supported by:

Federal Ministry for the Environment, Nature Conservation and Nuclear Safety

based on a decision of the German Bundestag