

# GLOBAL GREEN GROWTH INSTITUTE



**Accelerating Innovative Start-ups  
for Energy Efficiency – AIS4EE**

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**Not for circulation**

*November 2023*



# GGGI Focus, Vision, and Mission



A treaty-based, inter-governmental organization established in **2012** at the **Rio+20** United Nations Conference on Sustainable Development.

Implement Sustainable Development Goals (**SDGs**), Nationally Determined Contribution (**NDC**), and **Net Zero** transition for partner countries.



## Our Vision

A **LOW-CARBON, RESILIENT**  
**WORLD OF STRONG,**  
**INCLUSIVE, AND SUSTAINABLE**  
**GROWTH**



## Our Mission

**GGGI SUPPORTS ITS MEMBERS**  
**IN THE TRANSFORMATION OF**  
**THEIR ECONOMIES TO A GREEN**  
**GROWTH ECONOMIC MODEL.**



## Our Position

A **TRUSTED ADVISOR &**  
**DEVELOPMENT PARTNER**  
EMBEDDED IN MEMBER &  
PARTNER GOVERNMENTS



**H.E Ban Ki-moon**  
President of the Assembly and  
Chair of the Council



**Dr. Frank Rijsberman**  
Director-General

# Global Presence



Headquartered in Seoul, Republic of Korea GGGI currently has **48 Member States** and operations in over **40 countries**.

- MEMBER STATES
- MEMBER STATES & OPERATIONS
- PARTNER STATES & OPERATIONS

# AIS4EE | Viet Nam Context

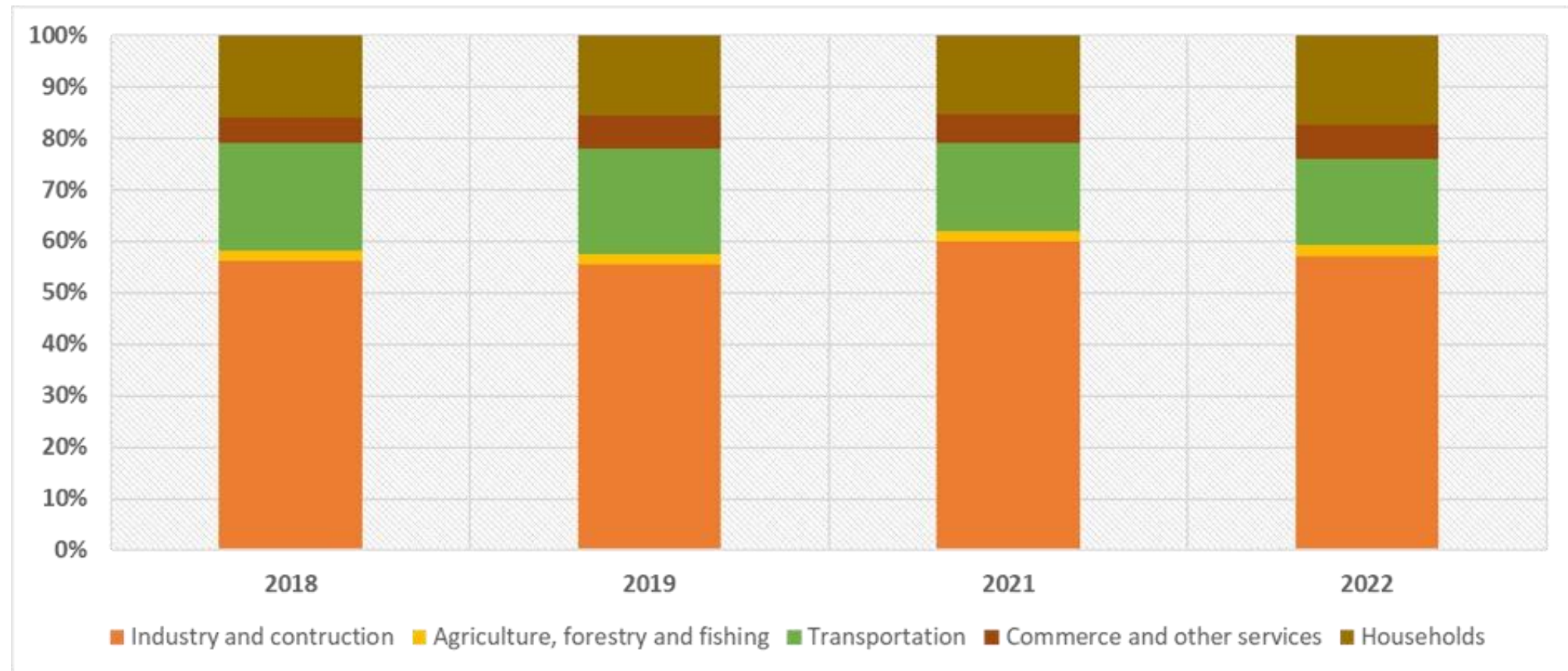
- Energy Efficiency (via VNEEP3) is a core part of efforts towards decarbonization (net-zero by 2050, etc.)
- Building, Industry, and Transport sub-sectors offers strategic opportunities.

5% - 7%	Overall Energy Savings Goal	8% – 10%
< 6.5%	Electricity losses	< 6.0%
N/A	Transport	5%
80	Certified Green Buildings	100
70%	% Industrial Zones applied EE	90%
50%	% Industrial Clusters applied EE	70%
<div style="display: flex; justify-content: space-between; align-items: center;"> <span>03/2019</span> <span>12/2025</span> <span>12/2030</span> </div>		
Reduction of Energy Consumption Rate		
At least 7.0%	Chemical Industry	At least 10%
18.0% - 22.46%	Plastic Industry	21.55% – 24.81%
At least 7.5%	Cement Industry	At least 10.89%
8.0% – 15.8%	Pulp And paper Industry	9.9% - 18.48%
At least 5.0%	Textile Industry	At least 6.80%
3.0% - 6.88%	Beverage Industry	4.6% - 8.44%
<b>1<sup>st</sup> PHASE</b>		<b>2<sup>nd</sup> PHASE</b>

Source: Data from PM Decision No. 280/QĐ-TTg

# AIS4EE | Viet Nam Context

## Total Final Energy Consumption in Viet Nam, 2018-2022



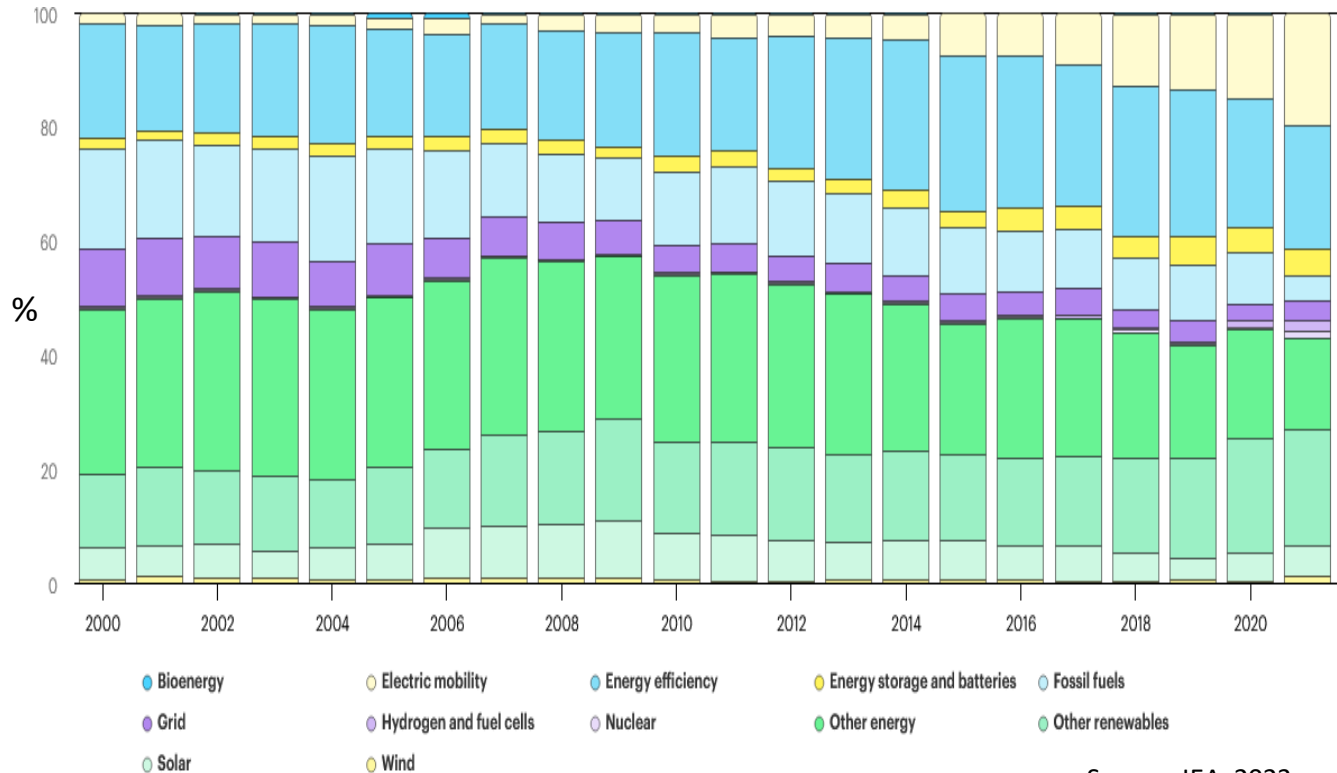
Source: GSO, 2023

Industry and construction represented more than 50% of TFE, followed by transport and household sectors

# AIS4EE | Global context

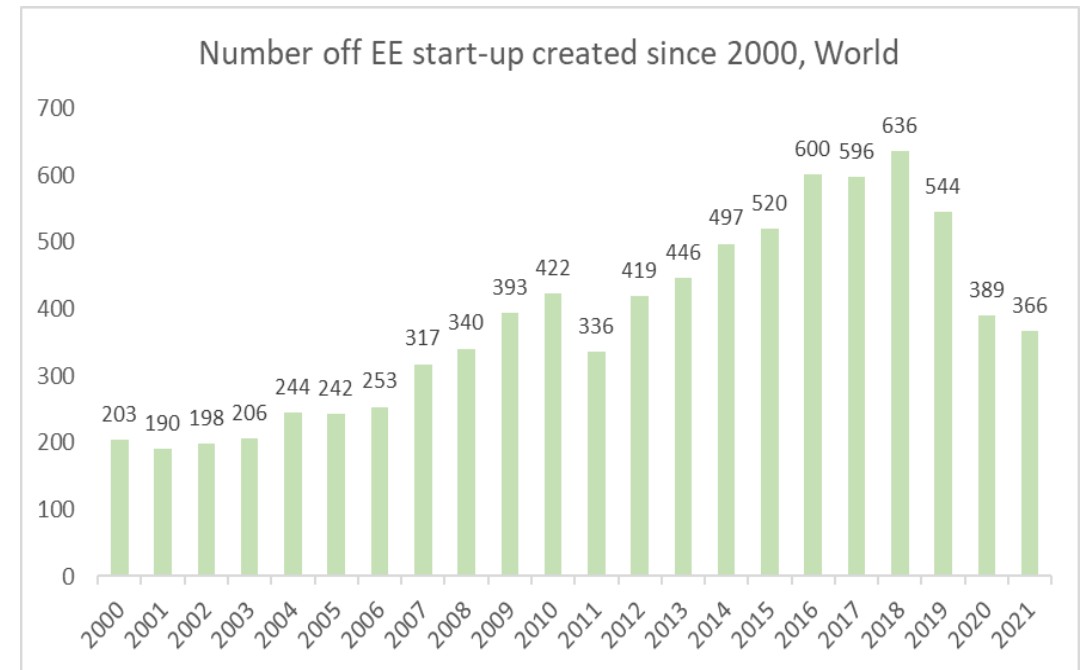
- EE start-ups constitute 17% - 27% of the total start-ups in the energy sector since the year 2000, with a stable incremental increase in the number of EE start-ups from the year 2000 to 2018.
- There has been a drop in the number of EE start-ups since the year 2019.

Energy start-ups by technology, World



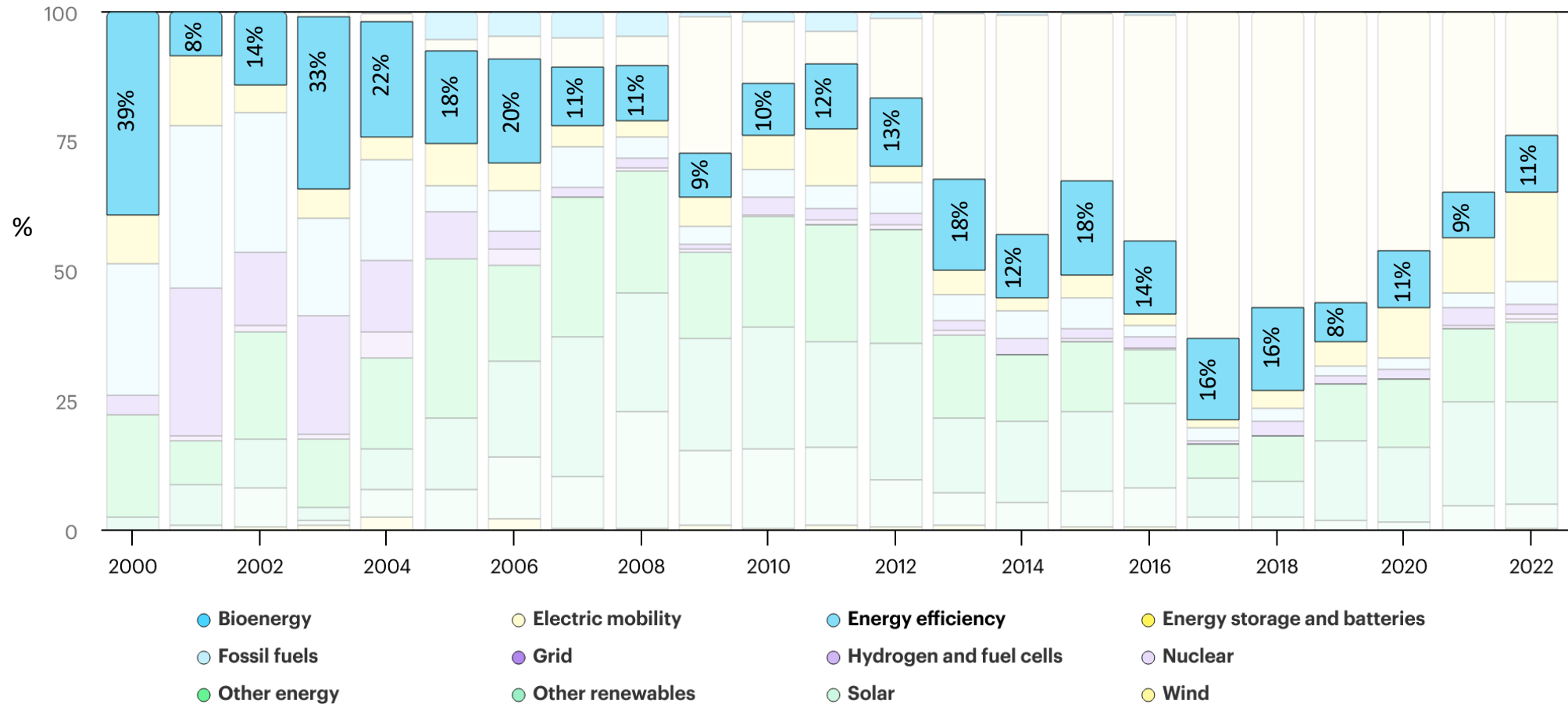
Source: IEA, 2023

Number of EE start-up created since 2000, World



Source: IEA, 2023

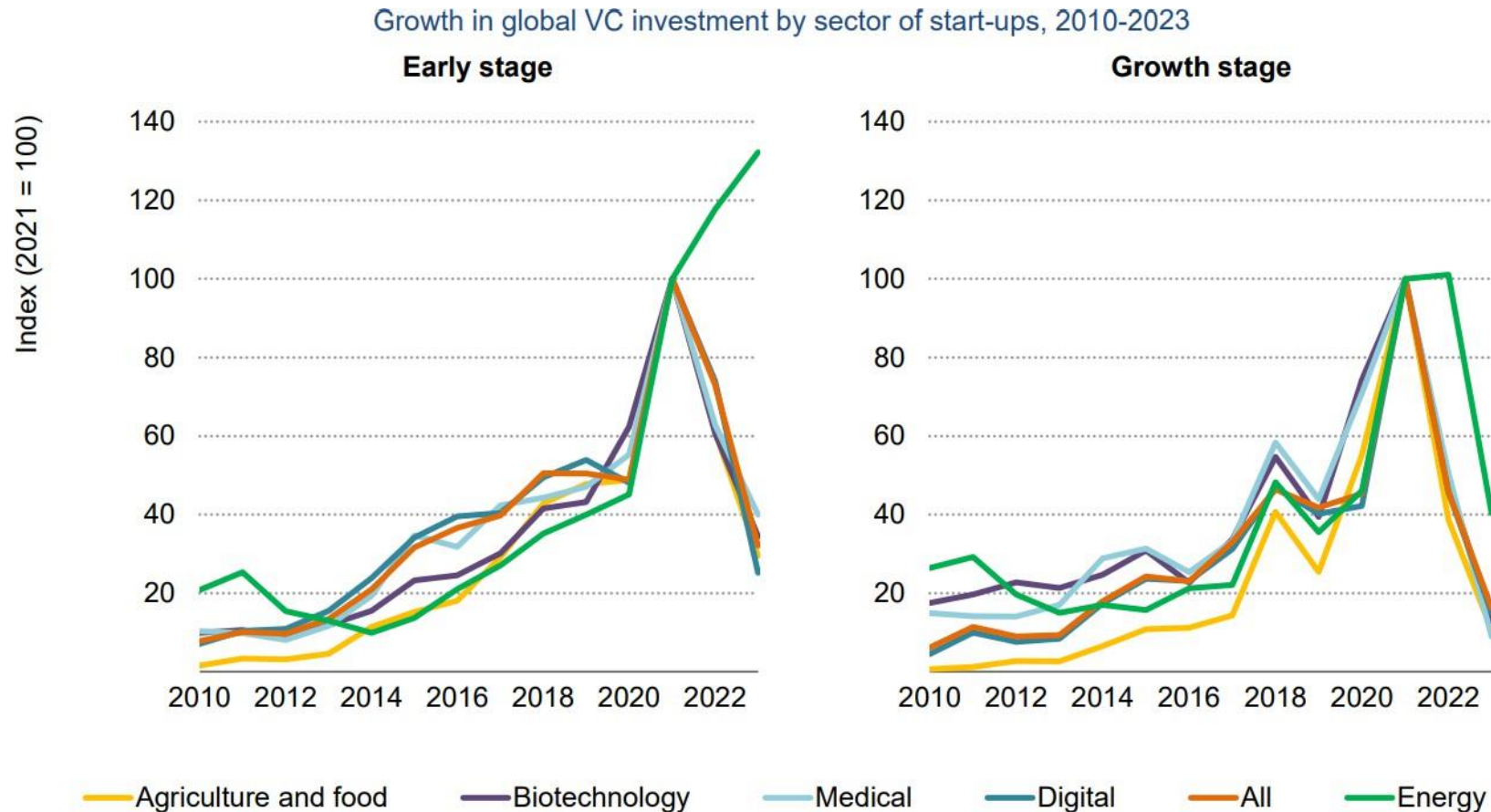
## Proportion of Global Funding Allocated to EE Start-ups Within the Energy Sector





# AIS4EE | Global context

Energy (including EE) has outperformed other venture capital segments since 2021, particularly for early-stage equity funding for start-ups

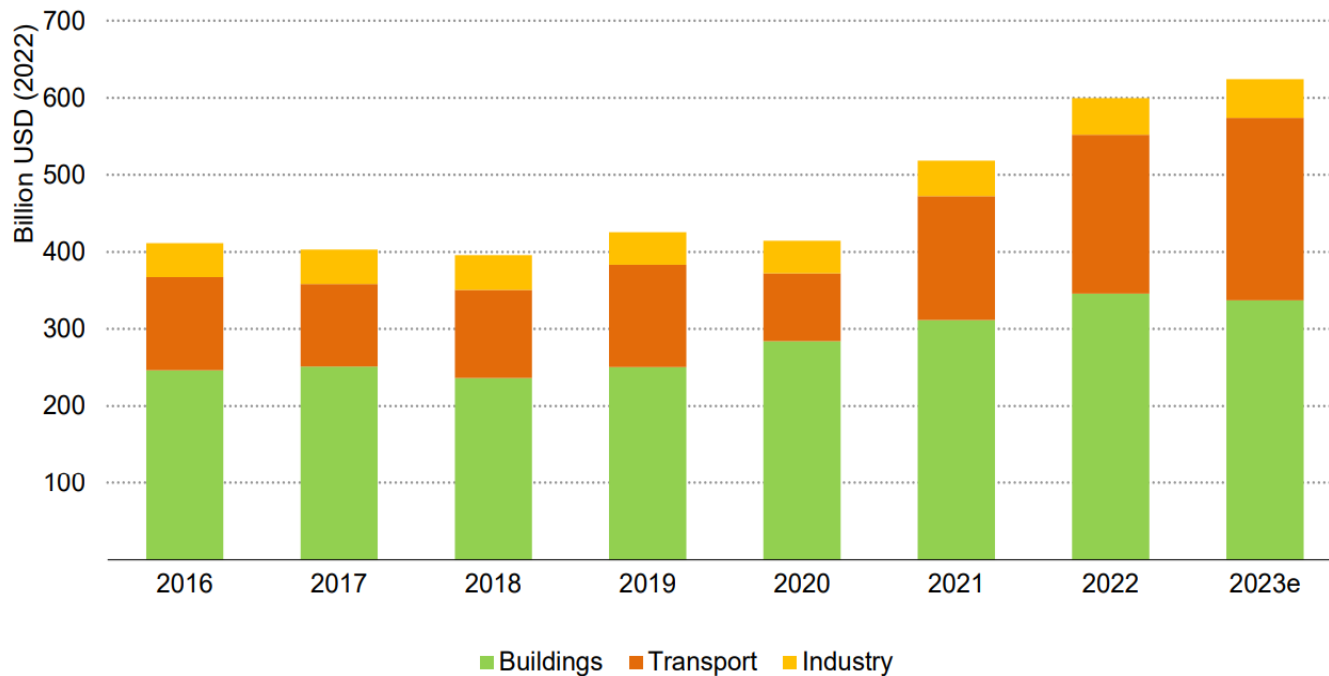




# AIS4EE | Global context

Global investments on EE, electrification, and renewables reached record levels in 2022, owing to buildings and electric vehicles, but the rise in spending could slow in 2023 due to inflation, rise in cost of living, and economic uncertainties.

Global investment in energy efficiency, electrification, and renewables for end uses by sector, 2016-2023e



In 2023, EE investments are expected to grow:

- **Industry:** 3% (reaching USD 42 billion), mainly driven by China and the US.
- **Transport:** 6% (reaching USD 64 billion), mainly driven by the EU and the US
- **Buildings:** 4% (reaching USD 154 billion), mainly driven by China and the US

# Accelerating Innovative Start-ups for Energy Efficiency (2022–2025)

## Challenges

The private sector plays an important role in promoting EE innovative products and solutions, however, the start-up scene in VN is still nascent:

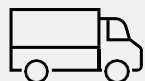
- 1 Limited access to finance
- 2 Lack of adequate policy framework to foster innovation
- 3 Limited technical capability

## Objectives

**Improve energy efficiency** in the following three sectors in Viet Nam:



Industry



Transportation



Green building

## Key Interventions

### Acceleration program



Design and implement two-track start-up acceleration programs in EE



### Policy incentives

Develop policy incentives for innovative start-ups in EE.



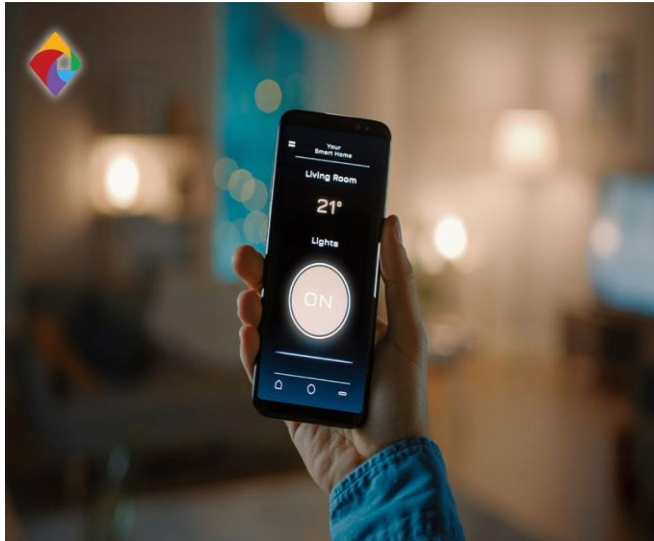
### Start-up ecosystem

Build an innovative ecosystem for networking and knowledge sharing between EE start-ups.

## IMPACT

Supporting the objectives of Vietnam Energy Efficiency Program (VNEEP3) by mobilizing increased investments in innovative business solutions in energy efficiency.

# AIS4EE | Examples of Innovative Solutions



**Buildings**



**Industry**

**Effective investments in economical and efficient use of energy bring benefits equivalent to investing four times as much capital in supply development. (VIR, 2022)**



**Transport**

# Project update

Readiness phase coming to an end with initial assessment and team composition, ready to kick-start core parts of the program Q4 2023 / Q1 2024.

## Component 1

Acceleration Program

- Designed Acceleration Program (ToR for partner firm ready)
  - Track 1: Start-ups reaching to “investment readiness” level
  - Track 2: Youth Start-ups (no capital matching requirement)

## Component 2

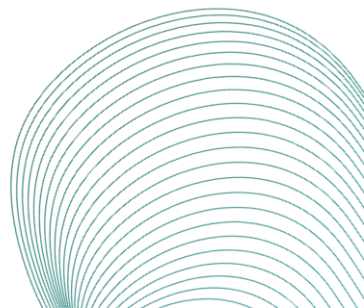
EE Policy Review

- Technical-level stakeholder consultations conducted in 3 provinces
- Policy assessment (draft ready for consultation in November)

## Component 3

Networking in EE Startup  
Ecosystem & Capacity Building

- Prep activities for the set-up and design of a knowledge sharing and networking platform



# Contact

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**Ms. Maria Cecilia Paña**

Deputy Country Representative

[maria.pana@gggi.org](mailto:maria.pana@gggi.org)

