



绿筑美丽华夏

Green Huaxia Wonderful World

Huaxia Bank Contributes to the Development of Energy Storage Industry

November 2022

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Development of Green Finance at Huaxia Bank

Part 2

Introduction to the China Renewable Energy and Battery Storage Promotion Project

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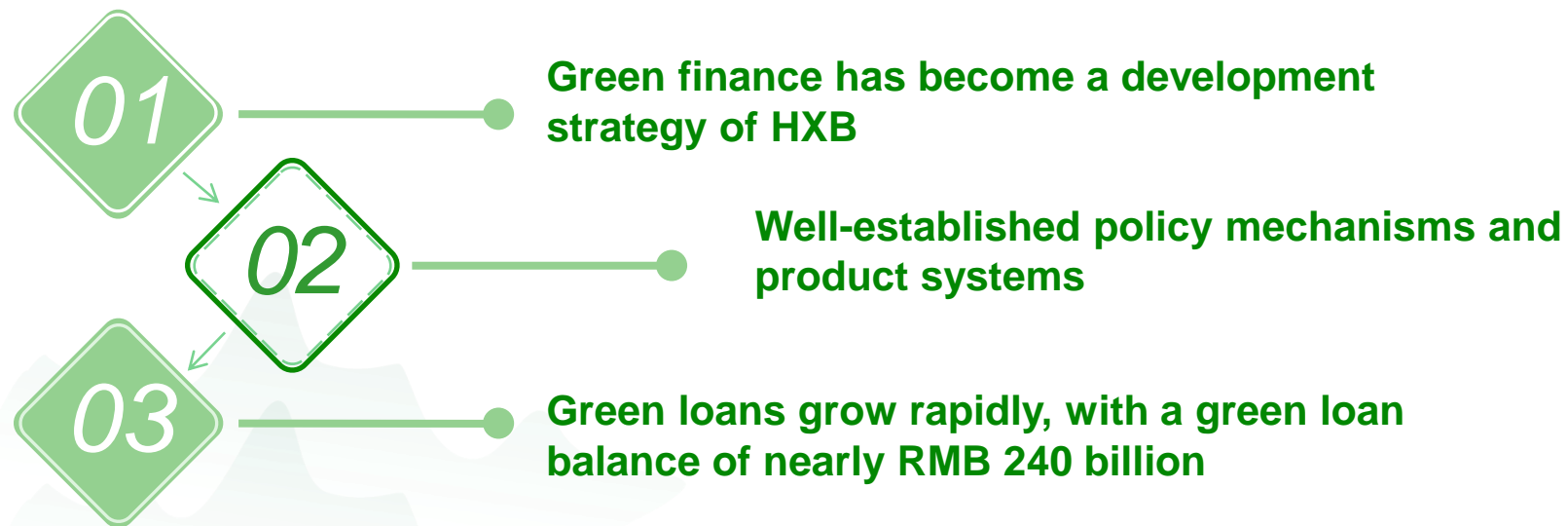
Perceptions and Experiences of International Cooperation



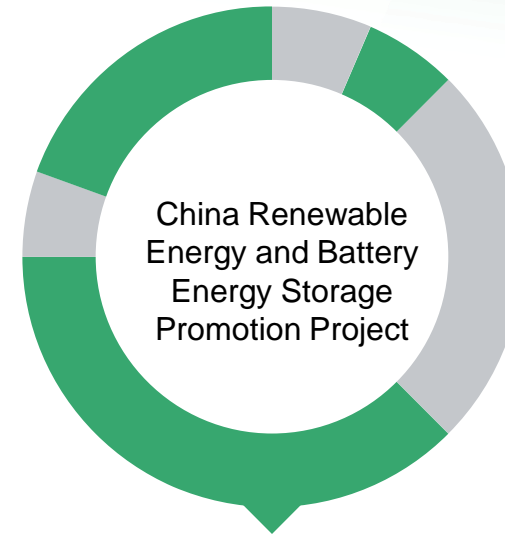
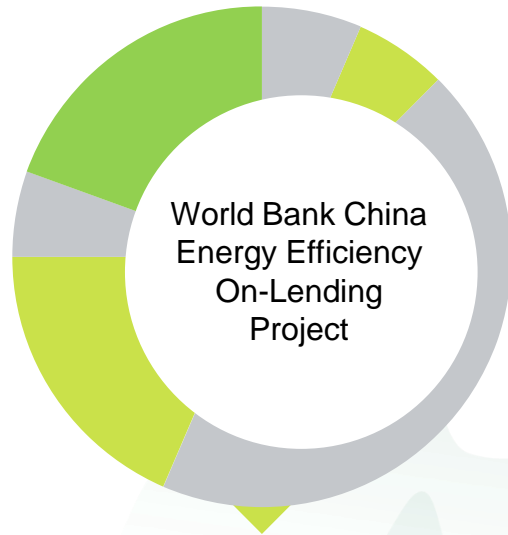
NO.1

**Development of
Green Finance at
Huaxia Bank**

HXB's Green Finance Business



HXB's Green Finance Business



Distinctive feature in international cooperation

NO.2

**China Renewable
Energy and Battery
Storage Promotion
Project**

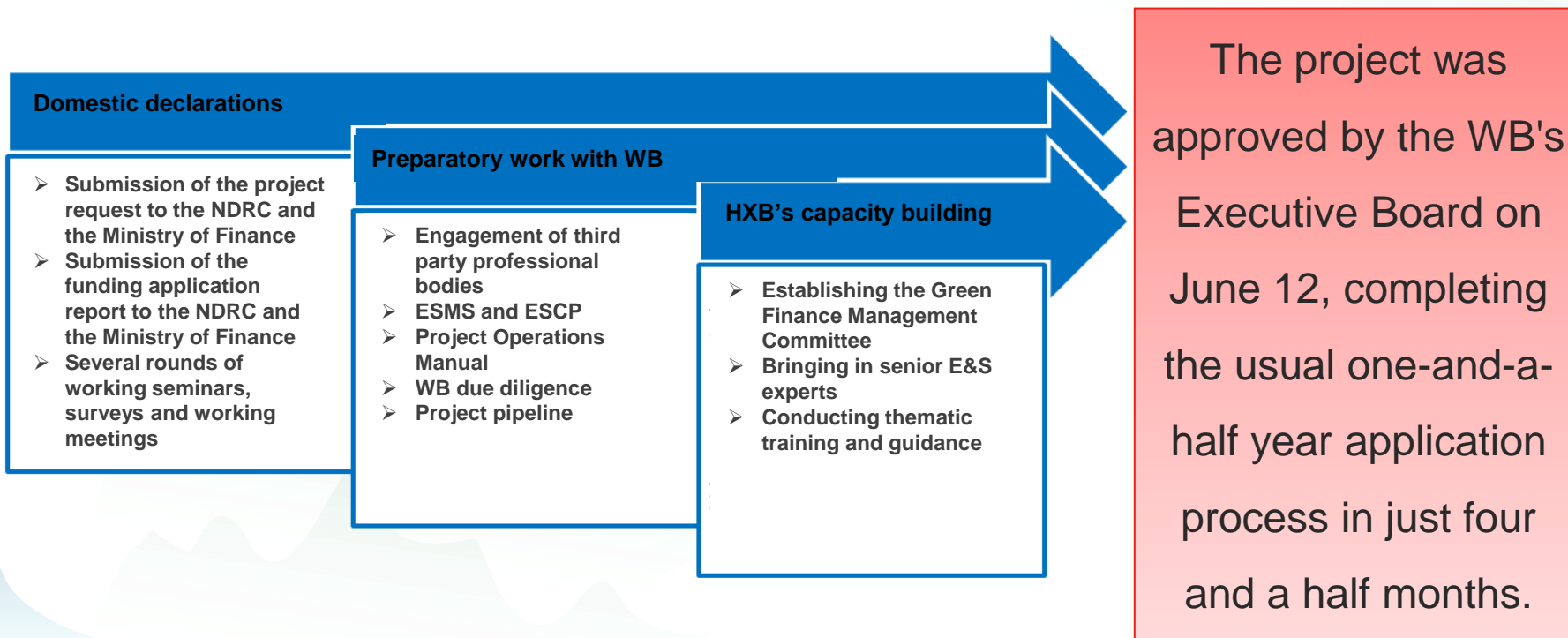
Project Background

Energy Issues and Challenges in China

Achieve the goals of energy supply-side reform

Increase the share of clean energy in domestic energy consumption structure

Preparation Process



By investing in the applications of battery energy storage in the power system and the innovative uses of renewable energy (RE), HXB aimed to promote the large-scale RE application, increase the RE use and reduce global GHG emissions, thereby contributing to the national energy revolution strategy.

Increased grid-connected RE generation capacity

Incremental RE use from innovative RE applications

CO₂ emission reductions

Intermediate project objectives

Installed capacity of battery storage systems, installed capacity of distributed RE, financing leverage, sub-project non-performing ratio



**China Renewable Energy and
Battery Storage Promotion
Project**

**World Bank on-
lending funds: €267.3
million**

**HXB matching
funds: € 401 million**

**Support for nationwide projects in the field of applications of energy storage
(excluding pumped storage) in the power system and RE innovative uses**

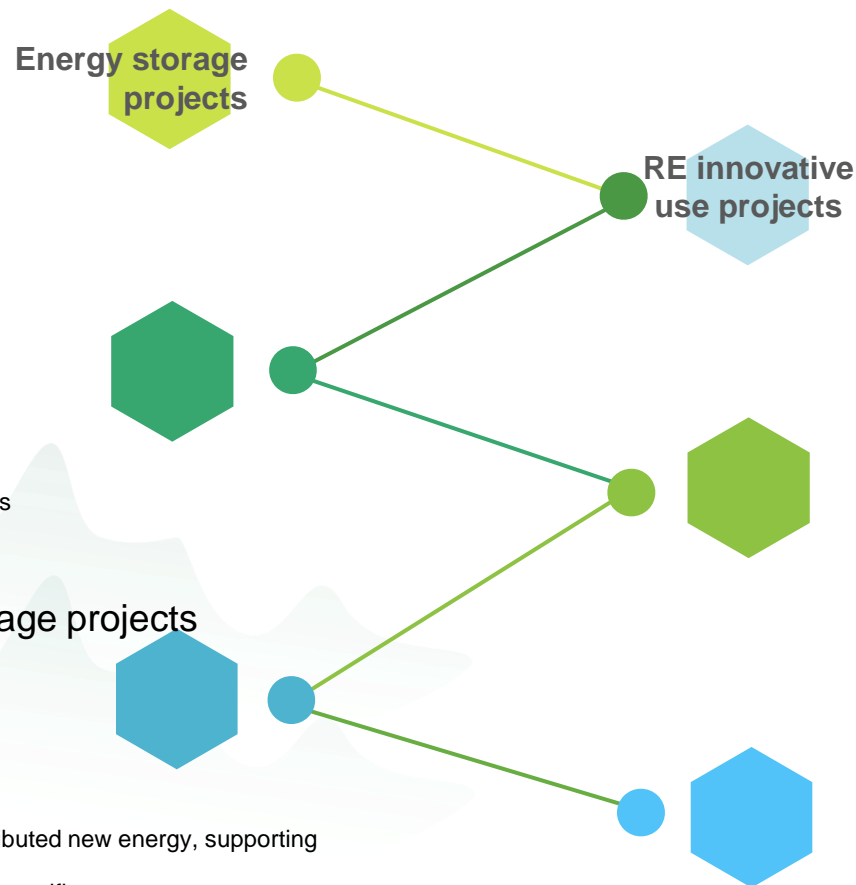
1. Energy storage projects

- a. Energy storage projects on the RE power side
- b. Energy storage projects on the grid side
- c. Energy storage projects on the consumer side
- d. Energy storage lithium battery recycling projects
- e. New energy storage facilities for existing power plants

2. Distributed new energy + energy storage projects

- a. Microgrid projects
- b. Multi-energy complementary projects
- c. PV + energy storage + charging projects
- d. Other projects aimed at developing and utilizing distributed new energy, supporting

energy storage resources and providing integrated services for specific areas



1. RE for heating projects

- a. New or retrofit projects using geothermal energy for heating (cooling)
- b. New or retrofit projects using biomass for heating
- c. New or retrofit projects using RE electricity for heating
- d. Other new or retrofit projects for new RE for heating

2. RE for hydrogen production projects

- a. Wind-to-hydrogen projects
- b. Solar-to-hydrogen projects
- c. Wind-solar coupled hydrogen production projects
- d. Hydro-to-hydrogen projects

3. Biomass gasification projects



By the end of October 2022, HXB had supported a total of 6 sub-projects that met the WB's loan criteria, covering such areas as consumer-side energy storage, grid-side energy storage, distributed PV + energy storage, and biomass for heating. A total of €13.38 million was invested, including RMB 42.83 million from HXB.

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Relevant Policies for China's Energy Storage Industry at the Present Stage

Broad Prospects for Energy Storage

2021

The Guiding Opinions on Accelerating the Development of New Energy Storage

By 2025, the new energy storage will be transitioned from the initial stage of commercialization to scale development, with an installed capacity of over 30 million kW;

By 2030, new energy storage will be fully marketized. The scale of the installed capacity will meet the needs of the new power system and become one of the key supports for carbon peaking and carbon neutrality in the energy sector.

2022

The Implementation Plan for the Development of New Energy Storage during the 14th Five-Year Plan Period,

The Plan stipulates the key tasks for new energy storage in the 14th FYP period in terms of technological innovation, pilot demonstration, scale development, institutional mechanism, policy guarantee and international cooperation, aimed at accelerating the large-scale, industrial and market-oriented development of new energy storage.

2022

The 14th Five-Year Plan for Renewable Energy Development

The Plan for the first time puts forward "RE non-electricity utilization target", that is, by 2025, geothermal energy heating, biomass heating, biomass fuel, solar thermal utilization and other non-electricity utilization scale reaches 60 million tce or above, which will expedite RE non-electricity utilization process in China.

NO.4

**Takeaways and
Challenges in
Implementing Energy
Storage Projects**

- 01 Gaining in-depth knowledge of the energy storage industry
- 02 Establishing a sound framework for E&S risk management
- 03 Green finance becomes a bank-wide strategic priority



At present, the energy storage market is in the incubation period and energy storage companies are in the exploration stage

Market rules not yet clear

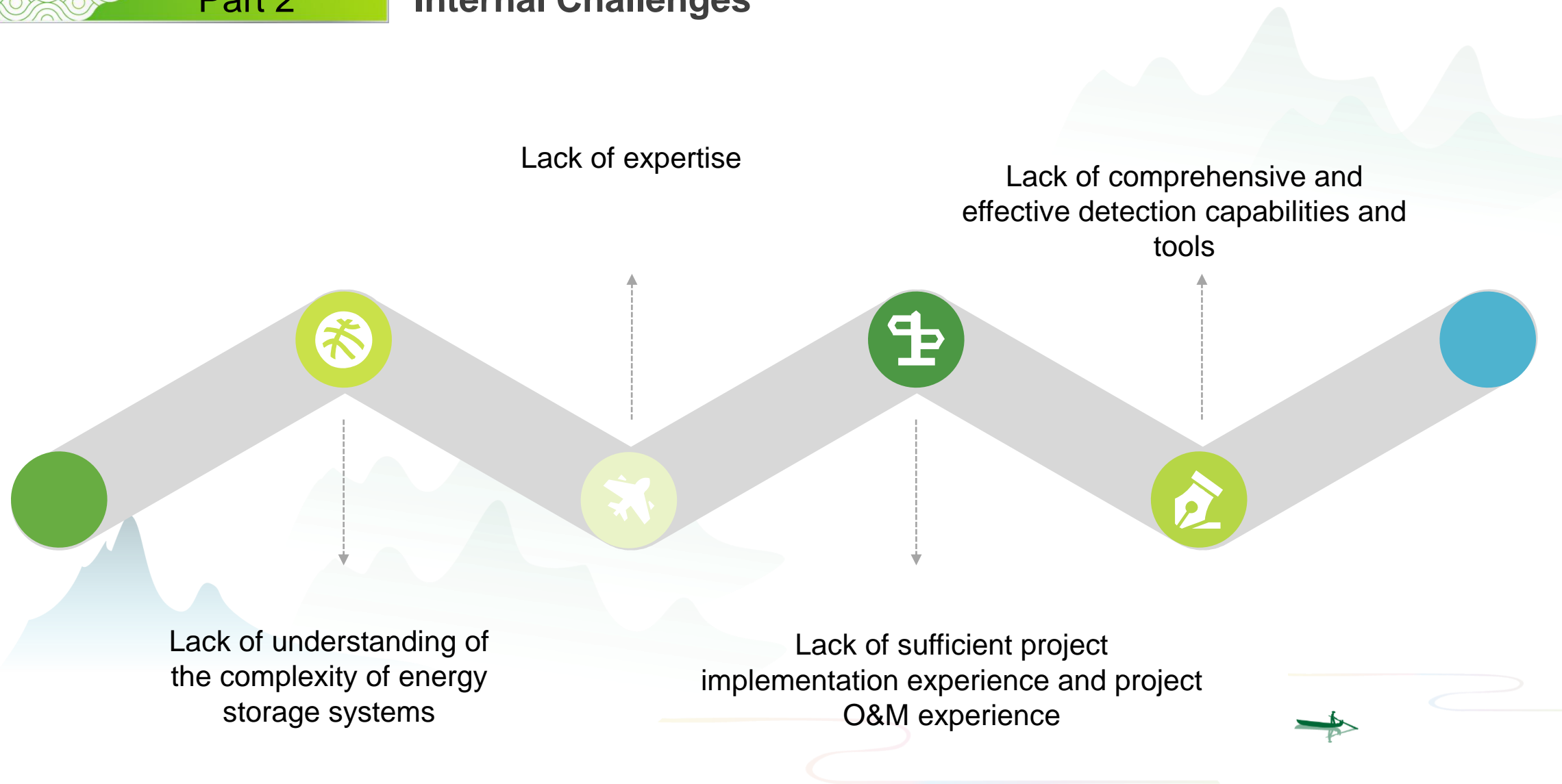
Lack of a sound standard system

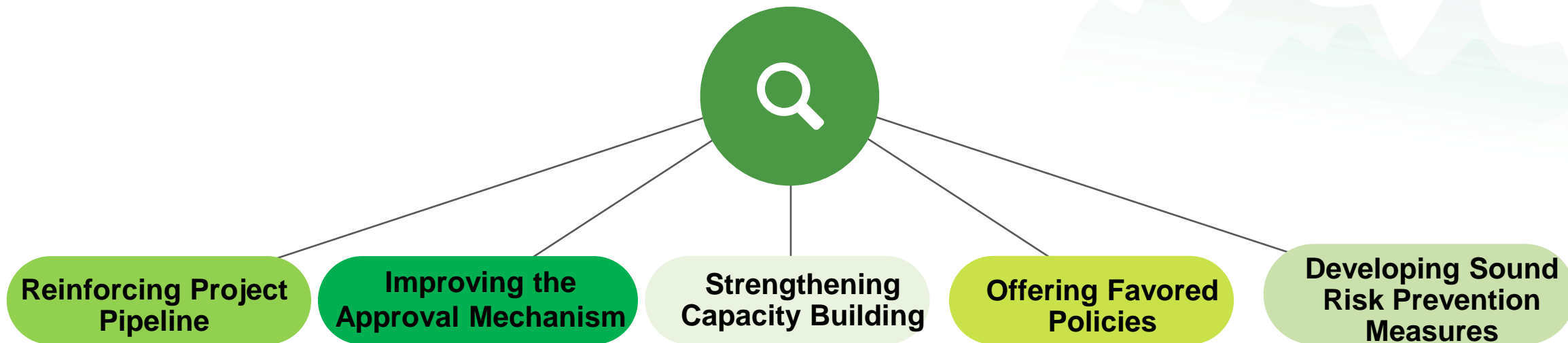
Unstable business models



Further technology breakthroughs needed

Rapid rise in euro funding prices





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**Perceptions and
Experiences of
International
Cooperation**

Perceptions and Experiences of International Cooperation

For implementing agencies

- 1 Entering new sectors and areas
- 2 Introducing new concepts and models
- 3 Promoting institutional & mechanism building
- 4 Accelerating product innovation
- 5 Paying increased attention to E&S risks
- 6 Leveraging the seed and leverage effects

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THANKS

