



KEMENTERIAN ENERGI
& SUMBER DAYA MINERAL

PROMOTING CLEAN AND RENEWABLE ENERGY IN INDONESIA

William Sabandar

Chief of National Task Force on Accelerated Development of Renewable Energy

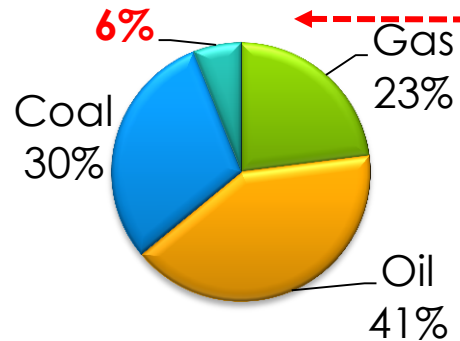
Asia Clean Energy Forum
Manila, 17 June 2015



17% increase of new & renewable energy (NRE) in 11 years

National Energy Mix

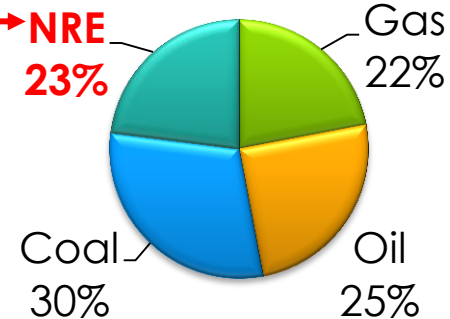
NRE 2014



Indonesia NRE potential could reach more than 200.000 MW.

Today, Indonesia has just use 6.8% of the total NRE Potential.

National Energy Mix Target 2025



NO	NEW & RENEWABLE ENERGY	RESOURCES	INSTALLED CAPACITY (IC)	RATIO OF IC/RESOURCES (%)
1	2	3	4	5 = 4/3
1	Hydro	75,000 MW	7,572 MW	10.1 %
2	Geothermal	28,910 MW	1,403.5 MW	4.9 %
3	Biomass	32,654 MW	1,717.9 MW	5.4 %
4	Solar	4.80 kWh/m ² /day	48.05 MW	-
5	Wind	3 – 6 m/s	1.87 MW	-
6	Ocean	49 GW **)	0.01 MW ****)	-
7	Uranium	3,000 MW *)	30 MW **)	-

*) Only in Kalan – West Borneo

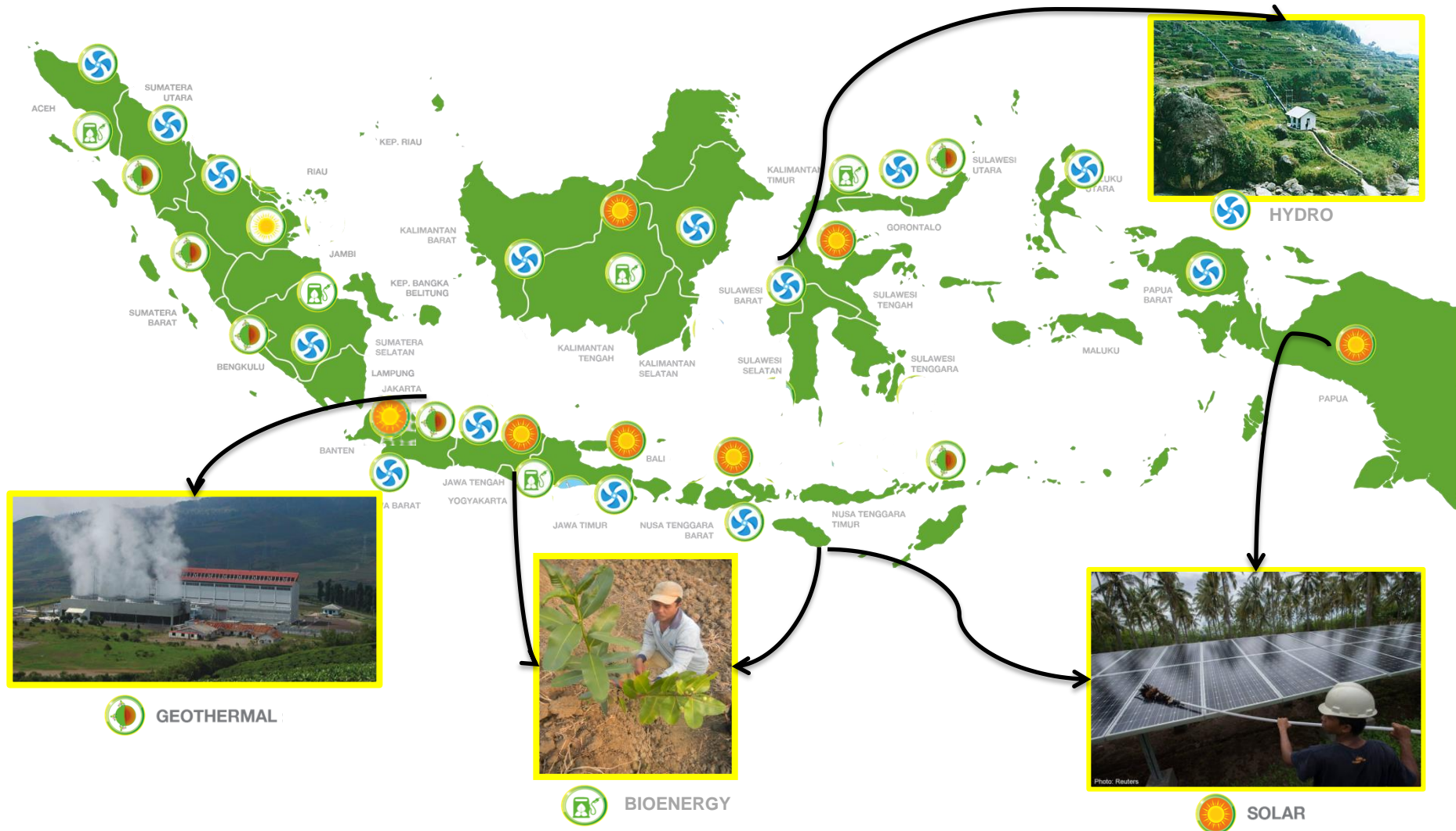
**) As a center of research, non-energy

***) Source: National Energy Council

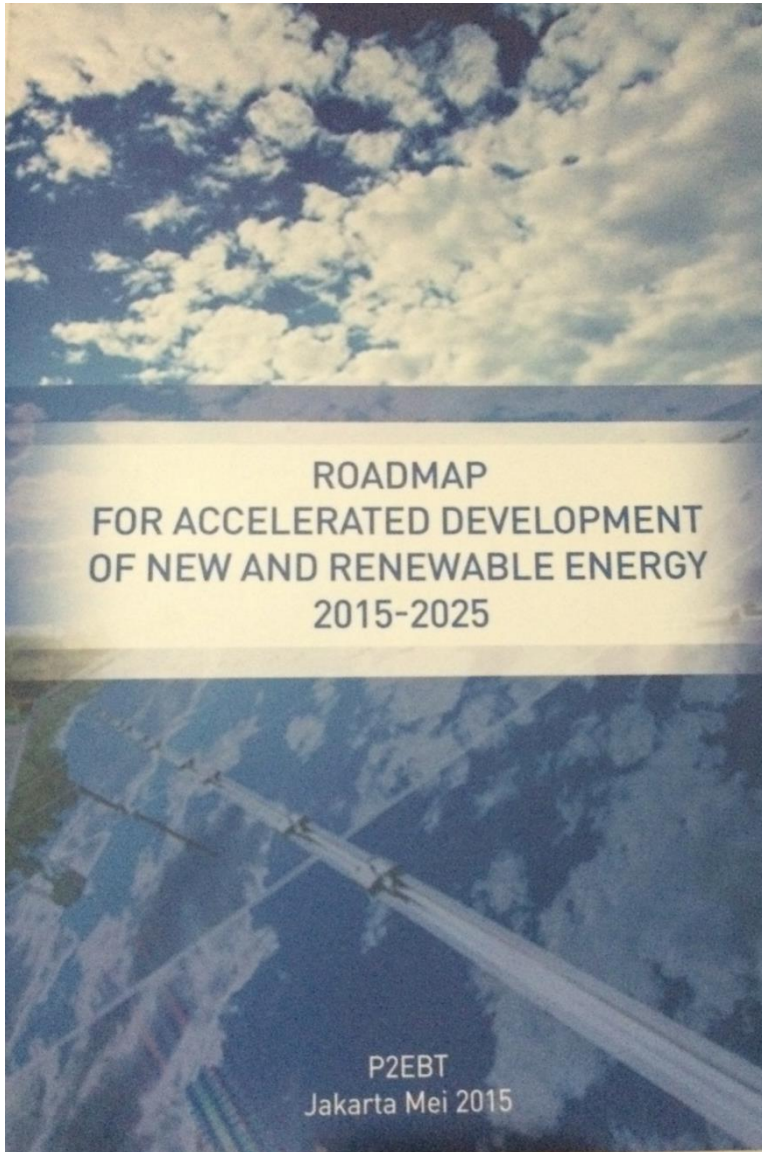
****) BPPT's Prototype



ACCELERATION OF NRE ACROSS INDONESIA



Source: Kuncoro, A.H., (2011) Renewable Energy For Power Generation in Indonesia; Susandi A., (2008) Potential Area For Solar Energy Generator and its Benefits to Clean Development Mechanism (CDM) in Indonesia; PLN, (2011) Wilayah Perairan Indonesia Menyimpan Potensi Energi Listrik Dari Arus Laut



FOUR PILLARS OF BREAKTHROUGH

1

POLICY

Issuing policy package, facilitating good energy industries development for all NRE program and investment.

2

FINANCIAL

Innovative funding mechanism that allows the channeling of various sources of funding to renewable energy initiatives.

3

TECHNOLOGY

Breakthrough of technological advancement in the development of renewable energy.

4

CAPABILITY

Increase in public and industrial capabilities in the supply and use of renewable energy.

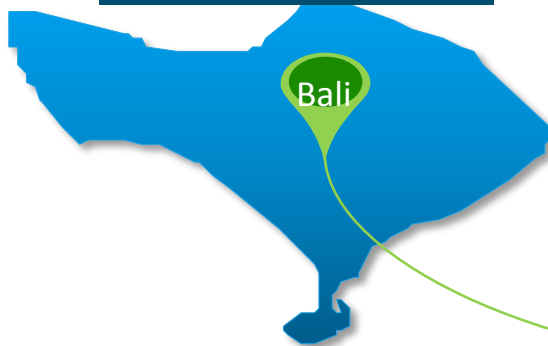
Some clean energy initiatives in place



Tourist destination



Sizeable island



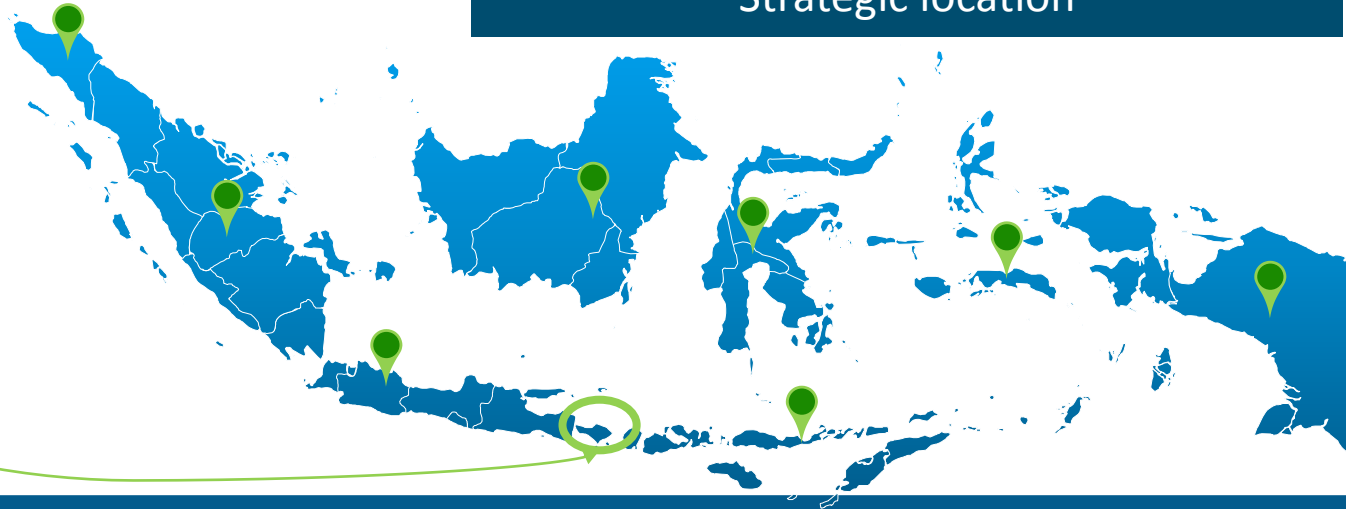
Why BALI?

Strong commitment from local government and community

2013-2018 Governor and Vice Governor Vision and Mission - ***Bali Clean and Green***



Strategic location





○ Districts with electrification ratio of < 80%

● Diesel Fuel Power Plant (PLTD)

● Steam Power Plant (PLTU)

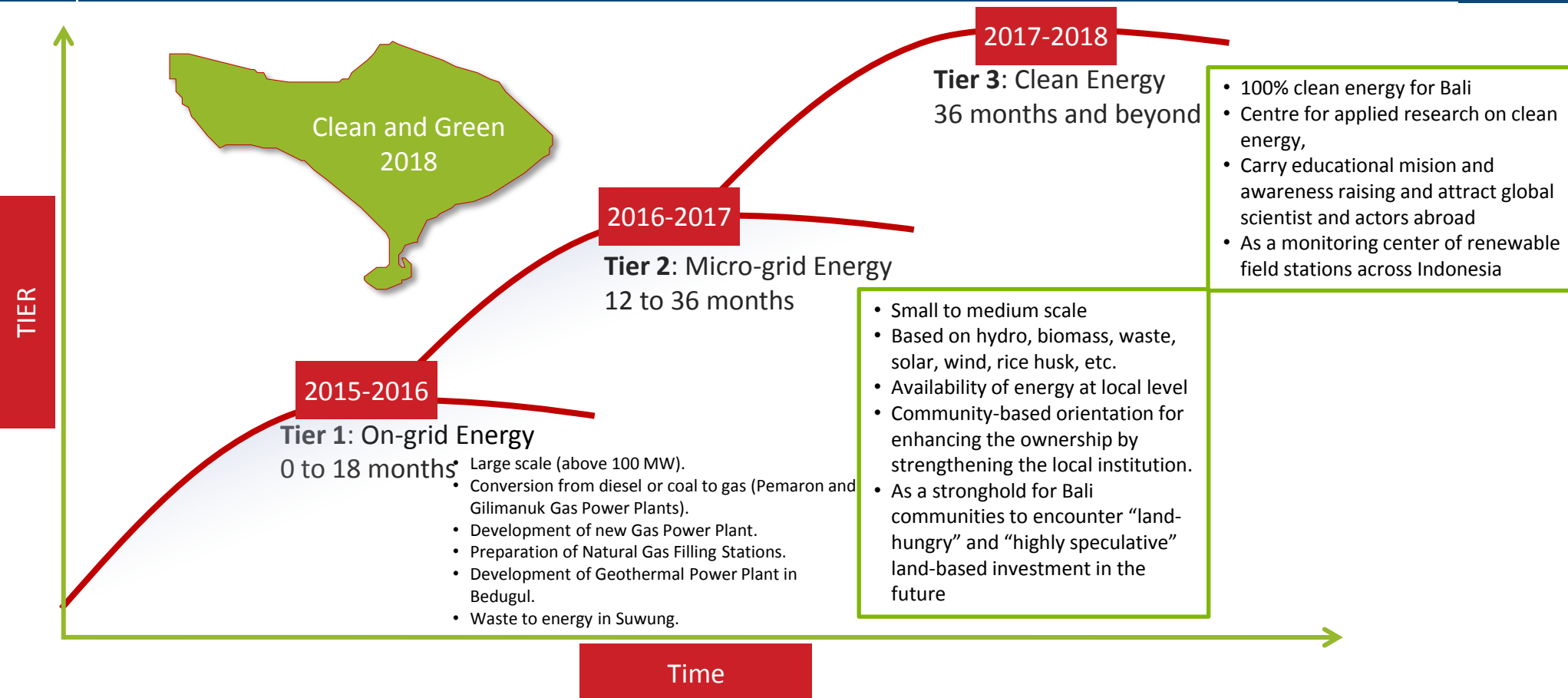
● Gas Power Plant (PLTG)

- **Total Electrification Ratio of Bali Province: 85,12%**
- **Coal-fired and Diesel Power Plant: 71%**
- **Gas Power Plant 29%**

Heavily dependent on brown energy

*not included with Steam Power Plant Celukan Bawang

BALI CLEAN ENERGY DEVELOPMENT FRAMEWORK: THREE-TIER APPROACH



Enabling Conditions:

- Management of data and information.
- Regulatory framework at national level: incentives; subsidies; gas supply; PPP regulations; financing; etc.
- Regulatory framework at local level, Bali Spatial Plan, infrastructure planning, and licensing (LULUCF).
- Communication strategi and campaign at local level.

MINI-GRID RENEWABLE ENERGY IN BALI

SOLAR



MICROHYDRO



WASTE TO ELECTRICITY



BIOGAS



FROM BALI TO ALL REGIONS: SPREADING CLEAN ENERGY KNOW HOW



- Coordination center for the development of NRE technology;
- Facilitation of technology implementation at local and industrial level;
- Enhancing energy efficiency and conservation; and
- Boost knowledge on NRE research and development

Knowledge Support

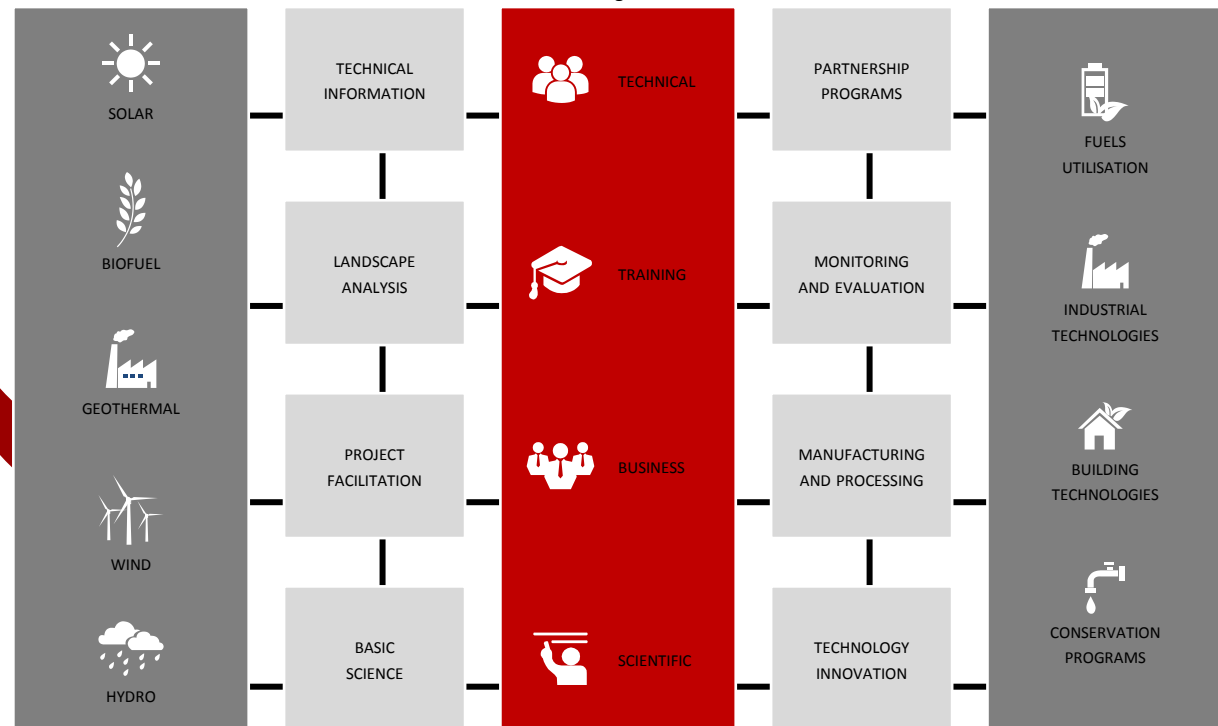
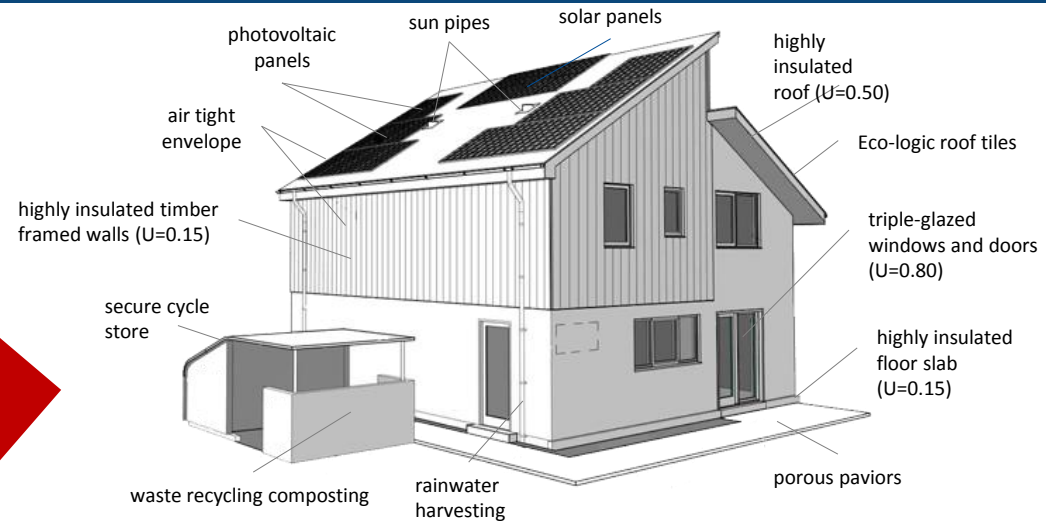
- Technical Information
- Landscape Analysis
- Project Facilitation
- Basic Knowledge

Support Team

- Technical
- Training
- Business
- Knowledge

Implementation Support

- Partnership Program
- Monitoring and Evaluation
- Manufacture and Processing
- Technology Innovation







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