

## IGES-TERI efforts to promote low carbon technologies and best practices in India



### Backdrop

|  | FY2009 ~ FY2013   | FY2014  | FY2015 ~ FY2018   |
|--|---|---|---|
| Major source of funding (Project)            | Japan Science and Technology Agency (JST), Japan International Cooperation Agency (JICA) (SATREPS)  | Ministry of Environment, Japan (MOEJ) (JCM)   | Ministry of Environment, Japan (MOEJ) (Tech. Assessment)  |
| Key Japanese partners from private companies | <ul style="list-style-type: none"> <li>-Yanmar (Gas Heat Pump)</li> <li>-Mayekawa MFG (Electric Heat Pump)</li> <li>-Hitachi IES (Air Compressors)</li> </ul> | <ul style="list-style-type: none"> <li>-Yanmar (Gas Heat Pump)</li> <li>-Mayekawa MFG (Electric Heat Pump)</li> <li>-Hitachi IES (Air Compressors)</li> </ul> | <ul style="list-style-type: none"> <li>-Yanmar (Gas Heat Pump)</li> <li>-Mayekawa MFG (Electric Heat pump)</li> <li>-Hitachi IES (Air Compressors)</li> <li>-Miura (Once Through Boiler)</li> <li>-TLV International (Steam System Optimization)</li> <li>-Kobelco Compressor (Air Compressor)</li> <li>-Bando Chemical (Transmission "V" belts)</li> </ul> |

## Key activities

### Market Assessment



With counterparts in India, conduct market assessment to identify potential matches between Japanese technology suppliers and Indian end-users

### Stakeholders' Matching



### Dissemination



Dissemination events (workshops, seminars, forums, etc.)

## Key findings

- IGES-TERI found that, despite the huge potential, LCTs market in India remains largely untapped by Japanese companies mainly due to the following key constraints:

|                                 |
|---------------------------------|
| Information/knowledge gap       |
| Access to "top" decision makers |
| Higher upfront cost             |
| Maintenance/after sale services |
| Policy/regulations/standards    |

- IGES-TERI found also that various stakeholders from Japan and India are making efforts to address the above mentioned constraints, however, coordination among these stakeholders is another area for improvement.

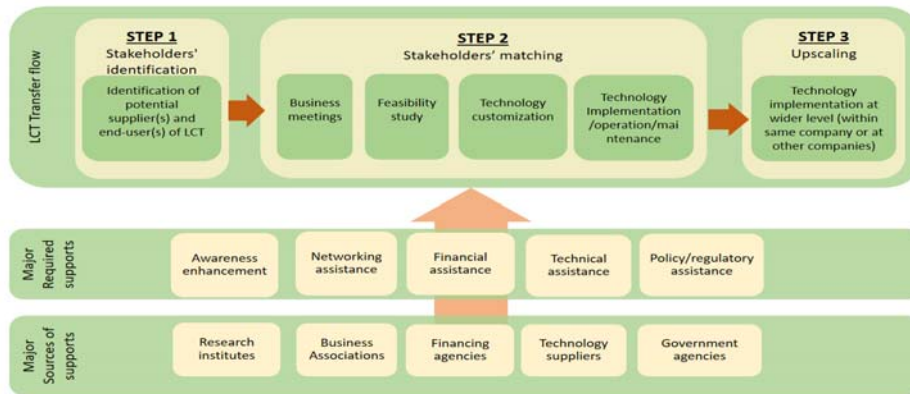
## Aspect of strategy

- IGES-TERI propose to form a working group among selected **research institutes, business associations, financing, and government agencies** who, based on their core competencies, will provide **supports in terms of: awareness enhancement, networking, financial, technical, and policy/regulatory assistances**;
- The level and type of the provided supports should vary according to businesses' needs over the LCT transfer flow, which IGES-TERI decompose it into three steps:

**Step 1:** Stakeholders identification; mainly the LCT suppliers and end users;

**Step 2:** Stakeholder's matching through facilitating business meetings, feasibility studies, technology customisation and implementation;

**Step 3:** Upscaling the technology within and/or outside the company.

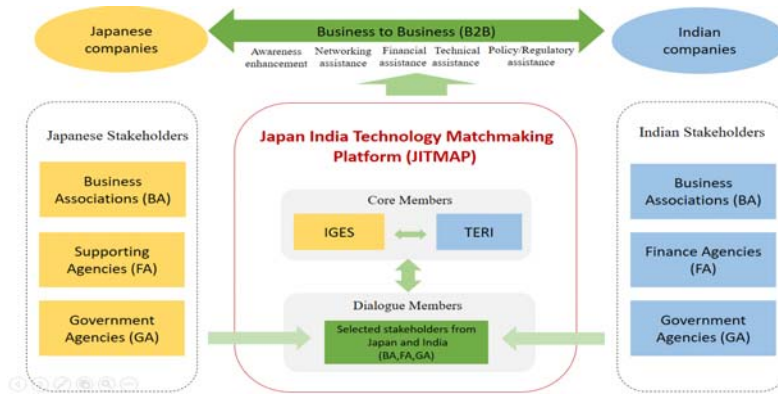


## Implementation of the strategy: Launching Japan-India Technology Matchmaking Platform (JITMAP)

In order to address the previously mentioned constraints and to create synergy among stakeholders, IGES-TERI initiated **Japan-India Technology Matchmaking Platform (JITMAP)**, which includes adequate stakeholders from India and Japan who are eager to co-support the matching of Japanese manufacturers of low carbon technologies with Indian industries that are looking for such technologies in a more strategic and effective manners, for the benefit of everyone involved in the process.

# Launching Japan-India Technology Matchmaking Platform (JITMAP) (continue)

- IGES and TERI Launched JITMAP on Jul. 2016, as part of a project funded by Ministry of the Environment, Japan (MOEJ).
- IGES and TERI are JITMAP's **Core Members**, while selected Business Associations (BA), Funding Agencies (FA) and Government Agencies (GA) from India and Japan are able to join it as **Dialogue Members**.
- JITMAP members collaborate and co-support business to business matching (B2B) in the form of: Awareness creation, networking, financial, technical, and Regulatory assistances.



## Online information/knowledge sharing

JITMAP website (<http://jitmap.org/>) provides comprehensive information for the businesses on available technologies, financing options, policies from India and Japan, and database of over 40 feasibility studies across multiple sectors demonstrating energy savings by LCTs implementation. Companies interested to know more about the content and/or to get in touch with potential counterpart in India or Japan can contact IGES-TERI for further details.



## Key feature of JITMAP

- **Bilateral:** Exclusive platform for Japan and India;
- **Practical/comprehensive:**
  - ✓ “On the ground” support/interventions coupled with “Online” knowledge and information sharing;
  - ✓ Concise information and knowledge sharing about **technologies, policies, and financing options**;
  - ✓ Multi tiered support is provided to businesses to facilitate successful LCT transaction;
  - ✓ Ambits technology matchmaking for SMEs and large scale industries.
- **Complementary**
  - ✓ Complementary to other existing initiatives between India and Japan;
  - ✓ Complementary to ongoing business’s efforts.

## Case study1: Promoting Bando’s belts in Ankleshwar, Gujarat

Bando Chemical (hereafter Bando) showed interest in promoting its belts through JITMAP in India.

### Step 1

- IGES-TERI conducted market assessment and suggested Ankleshwar chemical cluster as an industrial area to target
- In coordination with Bando, IGES-TERI identified four potential end users

### Step 2

- IGES-TERI coordinated with JITMAP dialogue members: Gujarat Energy Development Agency (**GEDA**), Gujarat Industrial and Technical Consultancy Organisation Ltd (**GITCO**) and Ankleshwar Industries Association (**AIA**) and arranged meetings for Bando with “top” decision makers at those potential end-users;
- The “top” decision makers approved the conduct of feasibility studies and the implementation of Bando’s belts on a trial basis.

### Step 3

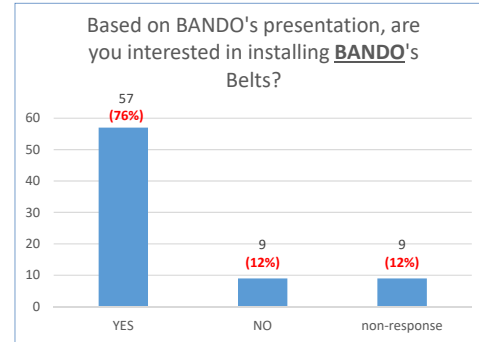
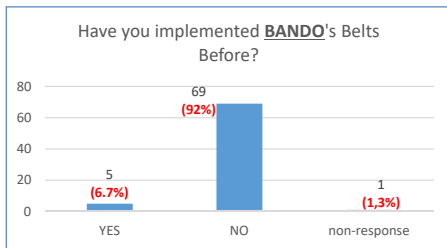
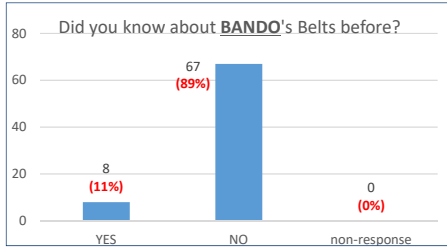
- **IGES-TERI-GEDA-GITCO-AIA** co-organized a technology awareness workshop in Ankleshwar,
- Credits to their wide networks, more than **100** participants attended it
- Substantial opportunities for replication have been generated



## Case study1: Promoting Bando's belts in Ankleshwar, Gujarat (continue)

Based on 75 feed backs received at the workshop:

- 89% were unaware of Bando before;
- 92% did not implement Bando belt before;
- 76% showed interest to implement Bando belts after the workshop.



## Case study2: Promoting Kobelco's compressors in Thangadh, Gujarat

Kobelco compressor (Kobelco) showed interest in promoting its compressors through JITMAP in India.

### Step 1

- Based on market assessment, IGES-TERI recognized the need to train Indian energy auditors about compressed air system
- IGES-TERI-Maharashtra Energy Development Agency (MEDA) and Mahratta Chamber of Commerce, Industries and Agriculture (MCCIA) co-organized training program to energy auditors in Pune, Maharashtra

### Step 2

- The trained energy auditors (from TERI) conducted energy auditing/feasibility study at ceramic plant in Thangadh, Gujarat, and recommended to them Kobelco compressor
- The ceramic plant contacted Kobelco compressor and purchased/implemented the compressor as per the energy auditor's recommendations

### Step 3

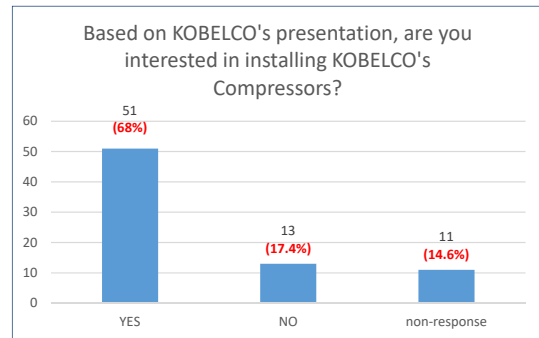
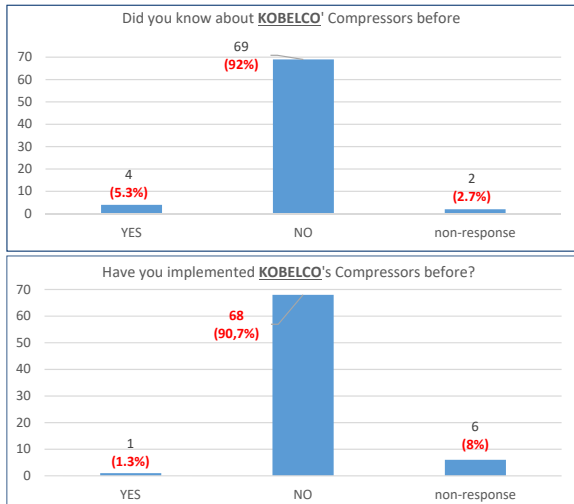
- IGES-TERI-GEDA-GITCO-AIA co-organized a technology awareness workshop in Ankleshwar, Gujarat
- Credits to their wide networks, more than 100 participants attended it
- Substantial opportunities for replicating Kobelco compressor have been generated



## Case study2: Promoting Kobelco compressor in Thangadh, Gujarat (continue)

Based on 75 feed backs received at the workshop:

- **92%** were unaware of Kobelco Compressor before;
- **90,7%** did not implement Kobelco compressor before;
- **68%** showed interest to implement Kobelco compressor after the Workshop.



## Current JITMAP Members and Way Forward

- JITMAP is working in highly industrialized states in India namely **Maharashtra** and **Gujarat**;
- The State Designated Agencies (SDAs) for energy efficiency: **Maharashtra Energy Development Agency (MEDA)** and **Gujarat Energy Development Agency (GEDA)** and experienced organizations like **Mahratta Chamber of Commerce, Industries & Agriculture (MCCIA)** and **Gujarat Industrial and Technical Consultancy Organisation Ltd (GITCO)** are active Dialogue Members of JITMAP;
- From fiscal year 2018, JITMAP's activities expanded in **Andhra Pradesh**;
- More dialogue members from Japan and India are expected to join in future and Japanese businesses are encouraged to approach to JITMAP for any potential collaboration;
- Currently, JITMAP activities are supported by the **Ministry of the Environment, Japan (MOEJ)** and **Hyogo Prefectural Government**; if necessary in the future, contribution from businesses may apply to make JITMAP a self-sustained.