Introduction & Overview

~55 of Largest Companies now actively participate on the India GHG Program.

- 15-25% of India's total GHG emissions
- 20-25% of the country's total market cap

Power Plants improve GHG accounting capabilities.

- **NTPC leads the beta testing of power sector tool developed by the India GHG Program for improved measurement and accounting capabilities, thereby understanding key hot-spots**

Greening the Apparel Industry.

- India GHGP is developing Textile sector GHG management tools, as well as recommended disclosure guidelines, thereby increasing inherent capacity in probably one of the most fragmented industrial segment within the country

Towards Greener Skies.

India GHGP released earlier

- **Aviation Industry Road-map on Low Carbon Pathways**
- **Best Practices Compendium for Airports and Airlines**
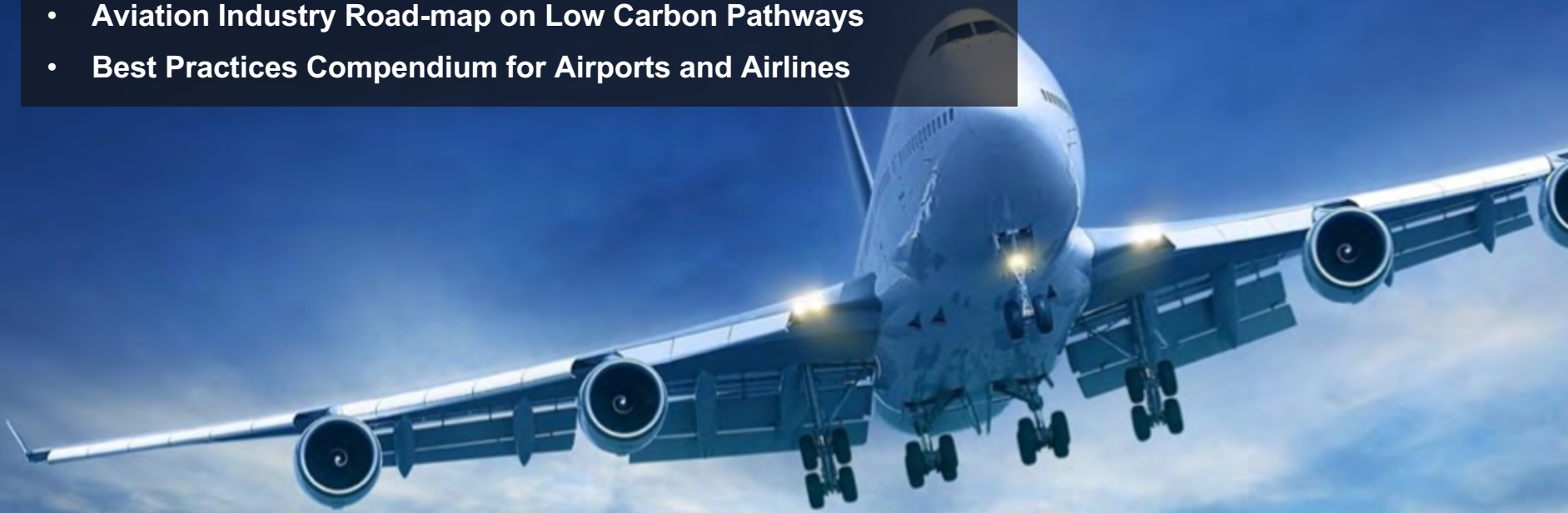
Training & Capacity Building

- **300+ Practitioners trained in-person over two day intensive workshops on latest approaches**

- **100+ across online webinars on Scope 2 and Scope 3**

~Formally recognized in India's commitment at Paris.

- Explicit mention within INDCs
- Looking forward for more sectoral & industry based work

Paris – Highlighting an Important Opportunity

- Big on Coverage
  - 140 INDCs submitted, representing 167 countries, covering 93% of global emissions
  - Clear pathway for future emissions with a focus on long term goal
  - All 17 SDGs are addressed by various INDCs

- Climate Resilience becomes a high priority
  - Clean Energy in 8 of the 10 largest energy consumers set to double by 2030, 17% more than the reference case projections
  - 86.2% INDCs include adaption
  - ~90% INDCs mention forestry as a target or action. More than 50 million ha of forests over the next 15 years, equivalent to 18.2 Gt CO_2 reduction

Key impetus on emissions intensity reductions, mainly via industry, buildings and transport

INDC Elements

| 35% Reduction in GHG Intensity by 2030 over 2005 base levels | Double the current Renewable Energy Target to 350GW | Increase Forest Cover substantially in the next 5 years |

Outlay

| USD 10-15 Billion | USD 250 Billion | USD 16-19 Billion |

Impact

| $\sim$30-60 MTCO$_2$e | $\sim$310-340 MTCO$_2$e | $\sim$70-100 MTCO2e |

| Mitigation | Adaptation |

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and competitive businesses

INDIA: EXPECTED EMISSIONS
(if average GDP growth is 6.5% till 2030)

9000
8000
7000
6000
5000
4000
India emissions*
3000 **1767.28**
2000
1000

31 Dec 2000   31 Dec 2030

25% reduction** **8259.03**
35% reduction** **7157.82**
50% reduction** **5506.02**
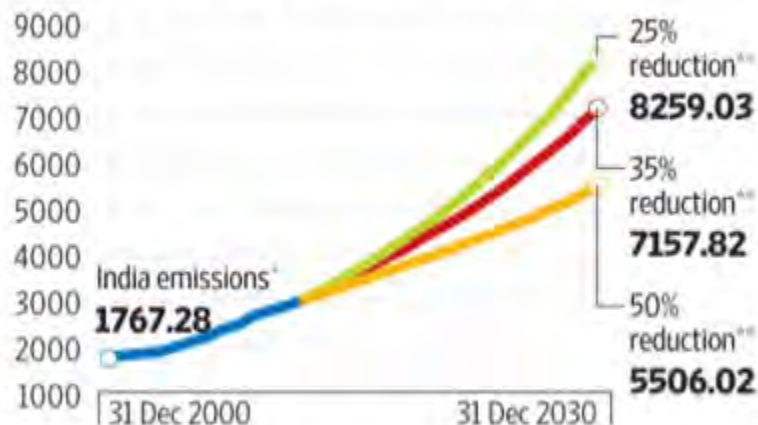
*Total Green House Gas (GHG) emissions excluding land-use change and for-estry (MtCO2e)
**reduction from 2005 emissions intensity
India's GDP growth is expected to average 6.5% year-on-year for 2016-30

Source: IMF, World Resources Institute (WRI) and Mint calculations

INDIA: EXPECTED EMISSIONS
(with 35% reduction in emission intensity by 2030)
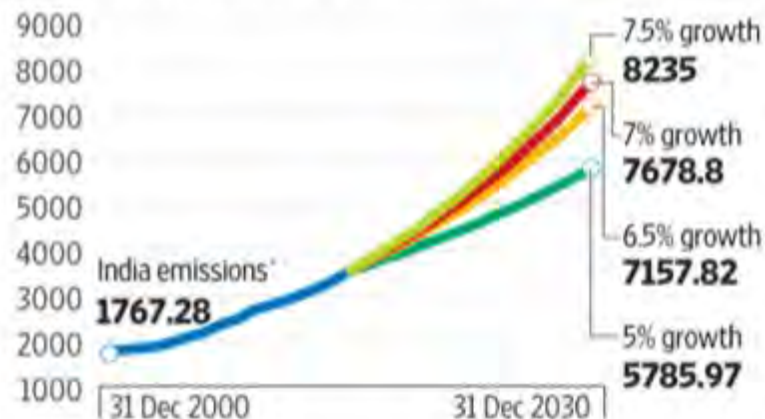
9000
8000
7000
6000
5000
4000
India emissions*
3000 **1767.28**
2000
1000

31 Dec 2000   31 Dec 2030

7.5% growth **8235**
7% growth **7678.8**
6.5% growth **7157.82**
5% growth **5785.97**

*Total Green House Gas (GHG) emissions excluding land-use change and forestry (MtCO2e)
The various GDP growth assumptions are a constant annual average for 2016-30

Source: IMF, World Resources Institute (WRI) and Mint calculations

80% India's total emissions come in from Energy & Industrial sectors – both being key areas of Business.

Corporate Stewardship on Low Carbon Measures

Increasingly Businesses in India have been scaling-up action towards low carbon operations and growth.

120+
Businesses formally measuring their emissions based on GHG Protocol

40+
Large Businesses having emission reduction targets exceeding 35% reductions

33+
Businesses working on an internal carbon price

On an average, the Indian Industry reduces ~ 150-165 million tCO_2e per year compared to business as usual

60+
Businesses formally reporting their annual GHG emissions to CDP

6+
Large Businesses incorporated Science Based Targets to drive ambitious ER

10+
Businesses working increasing >50% RE in the energy mix

non Challenges / Issues..

Training & Capacity

Lack of availability of Benchmarks, Emission Factor data etc.

Lack of access Solutions

st of doing Inventories, ce, Reporting etc.

Engagement during policy development
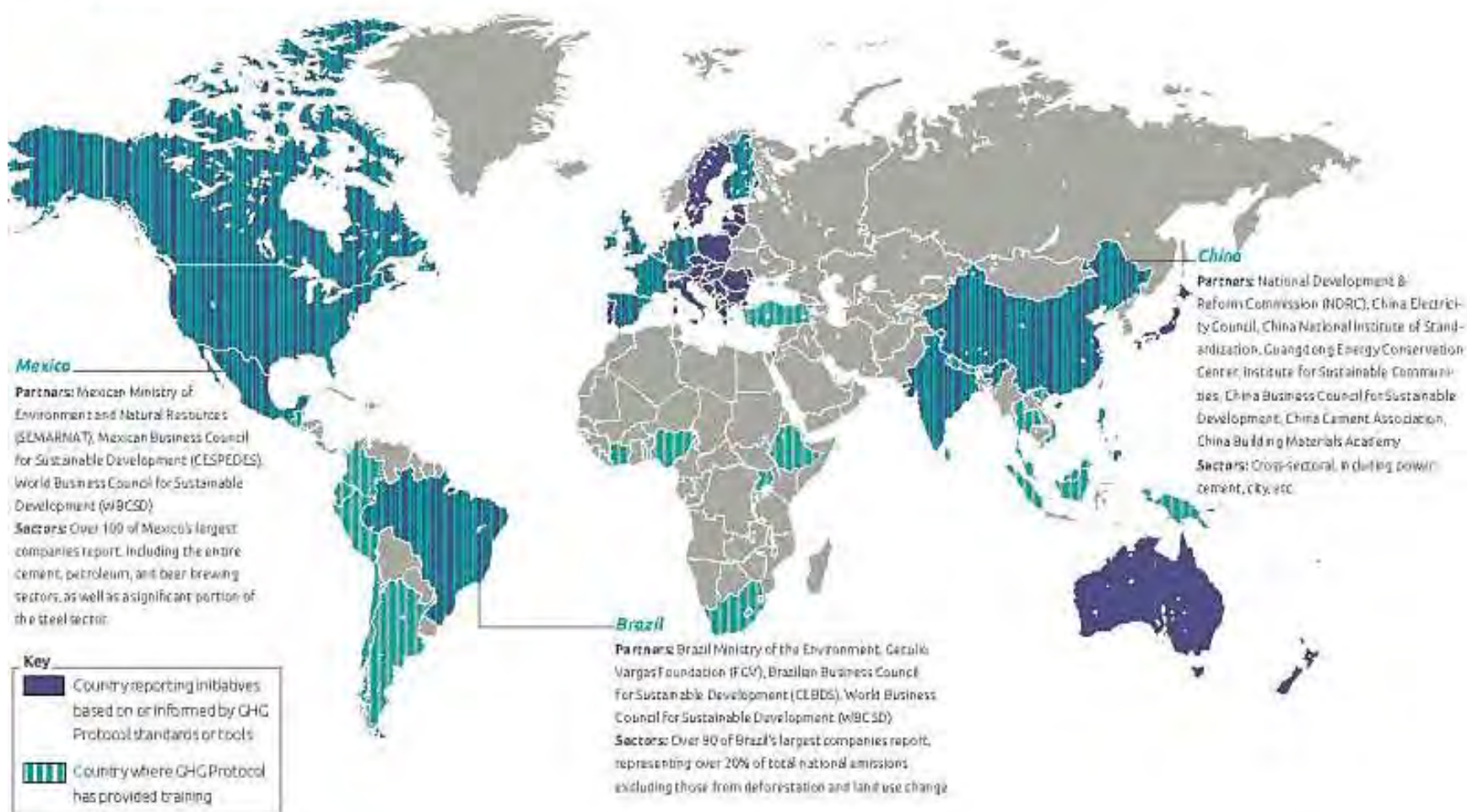
Thereby N Collabora Programs

Regional Programs based on the GHG Protocol

http://www.ghgprotocol.org/training-capacity-building

Figure [3] GHG Protocol International Initiatives

China
Partners: National Development & Reform Commission (NDRC), China Electricity Council, China National Institute of Standardization, Guangdong Energy Conservation Center, Institute for Sustainable Communities, China Business Council for Sustainable Development, China Cement Association, China Building Materials Academy
Sectors: Cross-sectoral, including power, cement, city, etc.

Mexico
Partners: Mexican Ministry of Environment and Natural Resources (SEMARNAT), Mexican Business Council for Sustainable Development (CESPEDES), World Business Council for Sustainable Development (WBCSD)
Sectors: Over 100 of Mexico's largest companies report, including the entire cement, petroleum, and beer brewing sectors, as well as a significant portion of the steel sector.

Brazil
Partners: Brazil Ministry of the Environment, Getulio Vargas Foundation (FGV), Brazilian Business Council for Sustainable Development (CEBDS), World Business Council for Sustainable Development (WBCSD)
Sectors: Over 90 of Brazil's largest companies report, representing over 20% of total national emissions excluding those from deforestation and land use change

Key
- Country reporting initiatives based on or informed by GHG Protocol standards or tools
- Country where GHG Protocol has provided training

Mexico & Brazil

Launched in 2006 with Partners

- Mexican Ministry of Environment & Natural Resources
- Mexican BCSD / WBCSD

More than 120 active members, out of which 15 were founding member companies.

The program therefore accounts for around 80% of the total industrial emissions

Launched in 2008 with Partners

- Brazilian Ministry of Environment
- Getulio Vargas Foundation (FGV)
- Brazilian BCSD / WBCSD

More than 116 active members, including 90 of the largest companies in Brazil

These comprise of 20% of the total GHG Emissions excluding deforestation and land-use change.

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Launched in 2007
- US EPA Climate Leaders Program
- The Climate Registry

The Climate Registry launched in 2007 has about 430 active members and is the largest voluntary program globally

Mainly initiated out of California and regional alliances on a voluntary basis

Launched in Dec 2013 as MYCarbon

- Ministry of Natural Resources & Environment
- UNDP

10 companies as pilot testers, and founding members

Goal to reduce GHG Intensity per GDP by 40% compared to 2005 levels

Objectives of GHG Programmes

Programme Objectives	Australia	California	Canada	European Union	France	Japan	United Kingdom	United States
Support GHG management and mitigation	✓	✓	-	✓	✓	✓	✓	✓
Improve data quality & consistency	✓	✓	✓	✓	-	-	✓	✓
Inform existing policies, market mechanisms and national inventories	✓	✓	✓	✓	✓	✓	✓	✓
Provide information to stakeholders	✓	✓	✓	-	✓	✓	✓	✓

Ford Motor Company
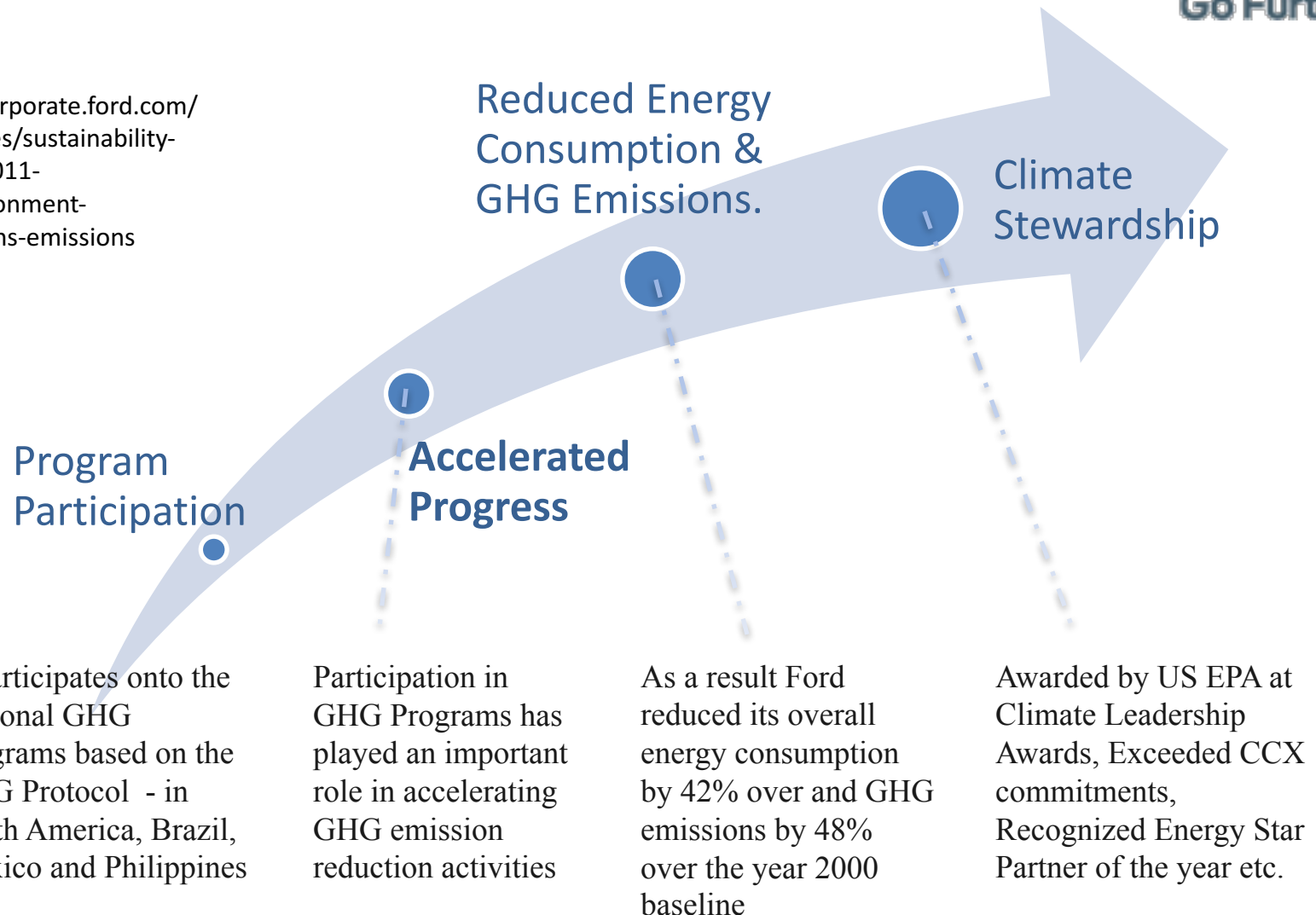## A Case Example

Source:
http://corporate.ford.com/
microsites/sustainability-
report-2011-
12/environment-
operations-emissions

Reduced Energy
Consumption &
GHG Emissions.

Climate
Stewardship

Program
Participation

**Accelerated
Progress**

It participates onto the
National GHG
Programs based on the
GHG Protocol - in
North America, Brazil,
Mexico and Philippines

Participation in
GHG Programs has
played an important
role in accelerating
GHG emission
reduction activities

As a result Ford
reduced its overall
energy consumption
by 42% over and GHG
emissions by 48%
over the year 2000
baseline

Awarded by US EPA at
Climate Leadership
Awards, Exceeded CCX
commitments,
Recognized Energy Star
Partner of the year etc.

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Promon Engineering Brazil
A Case Example

Reduced Energy Consumption & GHG Emissions.

GHG Strategy & Internal Policy

Program Participation

Awareness & Engagement

Promon Engineering joined the Brazil GHG program in 2010 seeking a new way to do engineering

Exchange of tools, methods and peer discussions allowed Promon to build awareness and engage with its employees

The first inventory so prepared under the program allowed identification of scatted initiatives for GHG emissions reduction, as well as a realization that scope 3 emissions were the highest component

To participate in projects having comparatively lower GHG impact, and not otherwise.

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Siemens Brazil
A Case Example

SIEMENS

Group
Sustainability
Platform.

GHG Strategy &
Internal
Recognition

**Awareness &
Engagement**

Program
Participation
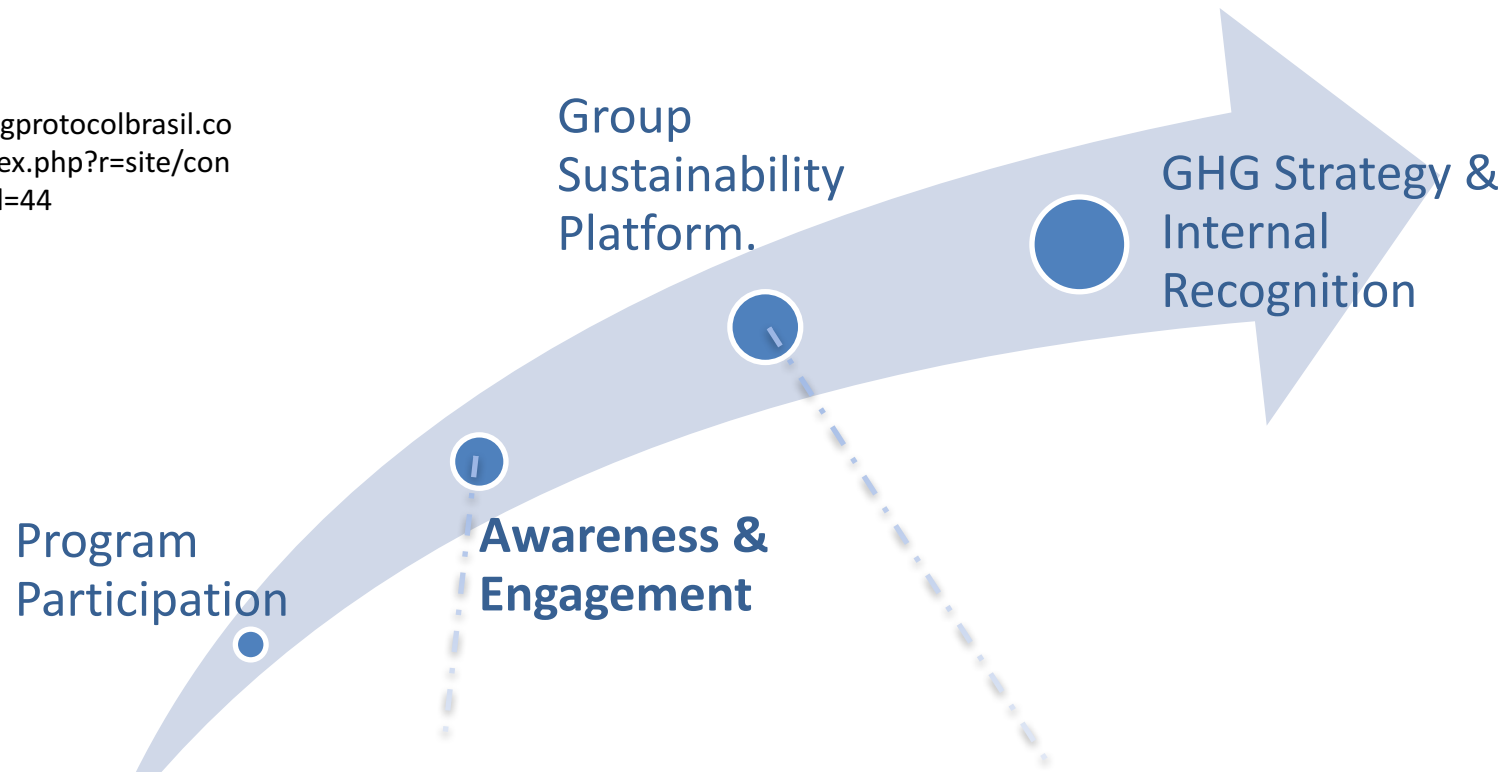
Siemens also joined the Brazil GHG Program in 2010 with a goal of realizing the GHG inventory and create an internal "Green Team"

The first inventory was prepared with the assistance of the GHG Program, as well as the "Green team was created with initially 5 and now 28 active employees
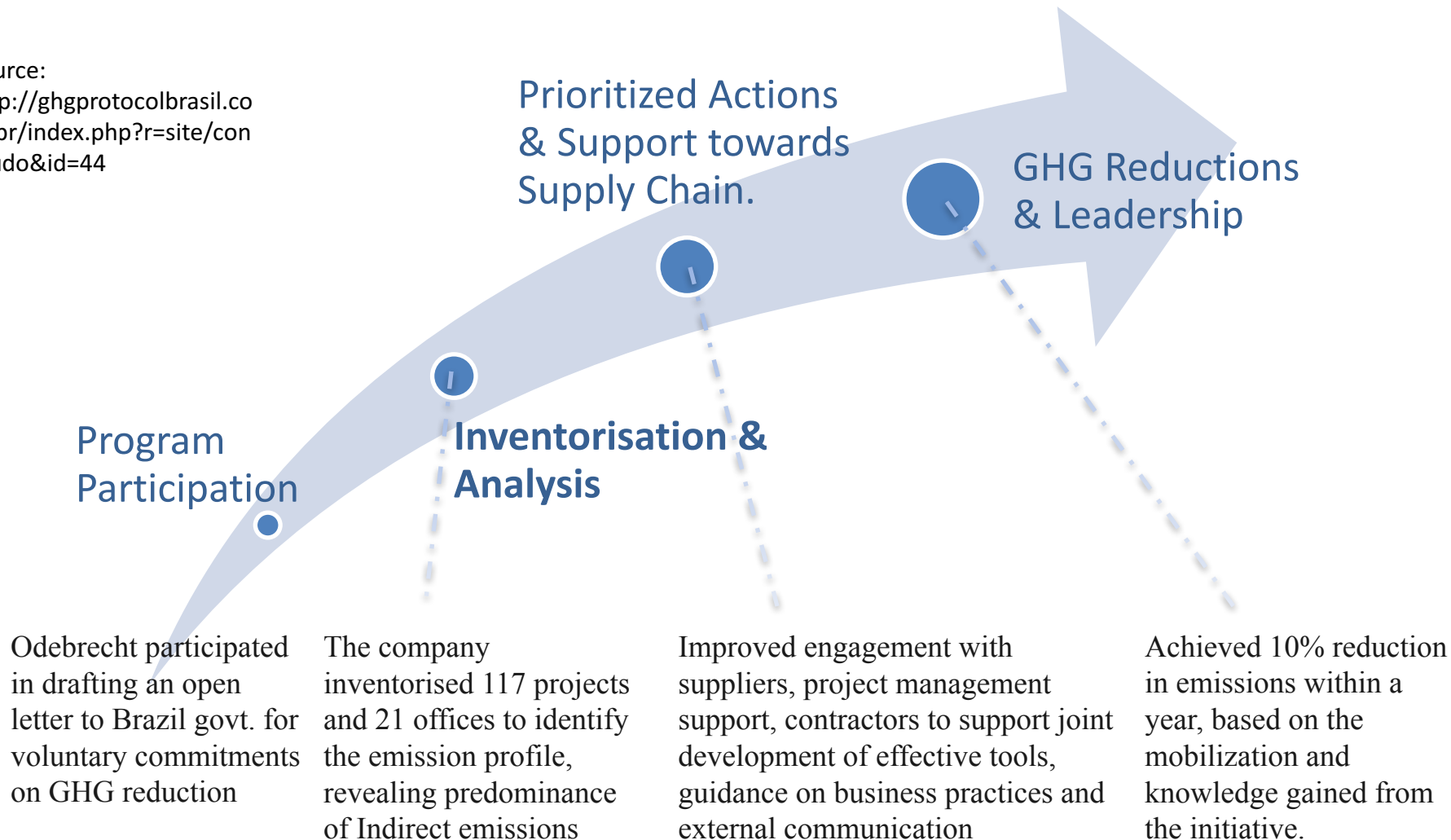
Apart from GHG Inventorisation, the program supported the Green Team, in preparing a Sustainability Program for 800 employees of the company, as well as set up an interactive innovation platform, which has encouraged more than 70 ideas to commercial successes

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Odebrecht Engineering & Construction
A Case Example

ODEBRECHT
Engenharia e Construção

Prioritized Actions
& Support towards
Supply Chain.

GHG Reductions
& Leadership

Program
Participation

**Inventorisation &
Analysis**

Odebrecht participated in drafting an open letter to Brazil govt. for voluntary commitments on GHG reduction

The company inventorised 117 projects and 21 offices to identify the emission profile, revealing predominance of Indirect emissions

Improved engagement with suppliers, project management support, contractors to support joint development of effective tools, guidance on business practices and external communication

Achieved 10% reduction in emissions within a year, based on the mobilization and knowledge gained from the initiative.

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A GHG Program to Scale-up and Build Capabilities in India

Coming together of leading organizations;

**For promoting Business Leadership on Climate change in India
via an Industry-led, Voluntary System to Measure and Manage GHG Emissions**

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India GHGP Founding Member Feedback

~70% of the Founding Members suggest deeper sectoral engagement

- Improved computation guidance via Emission Factors and Tools
- Best Practices on GHG Management via Case Studies
- Identify Barriers & Develop Sectoral Roadmaps
- Benchmarking

~41% of the Founding Members suggest increased policy interactions

- Influence level playing field via supporting computation & disclosure guidelines
- Increased Dialogue, Policy de-brief, understanding of INDCs, Climate Finance, consultations
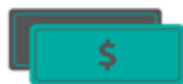- Facilitating better enablers for GHG Management – i.e. RE, EE initiatives

~23% of the Founding Members suggest support on supply chain engagement

- Capacity Building across SMEs, Training on simplified tools
- Webinars, Scope 3 engagement with member companies

~11% suggest support on carbon pricing, goal setting

- High level Industry Coalitions
- Webinars on Science Based Targets, Carbon Pricing

India GHG Program

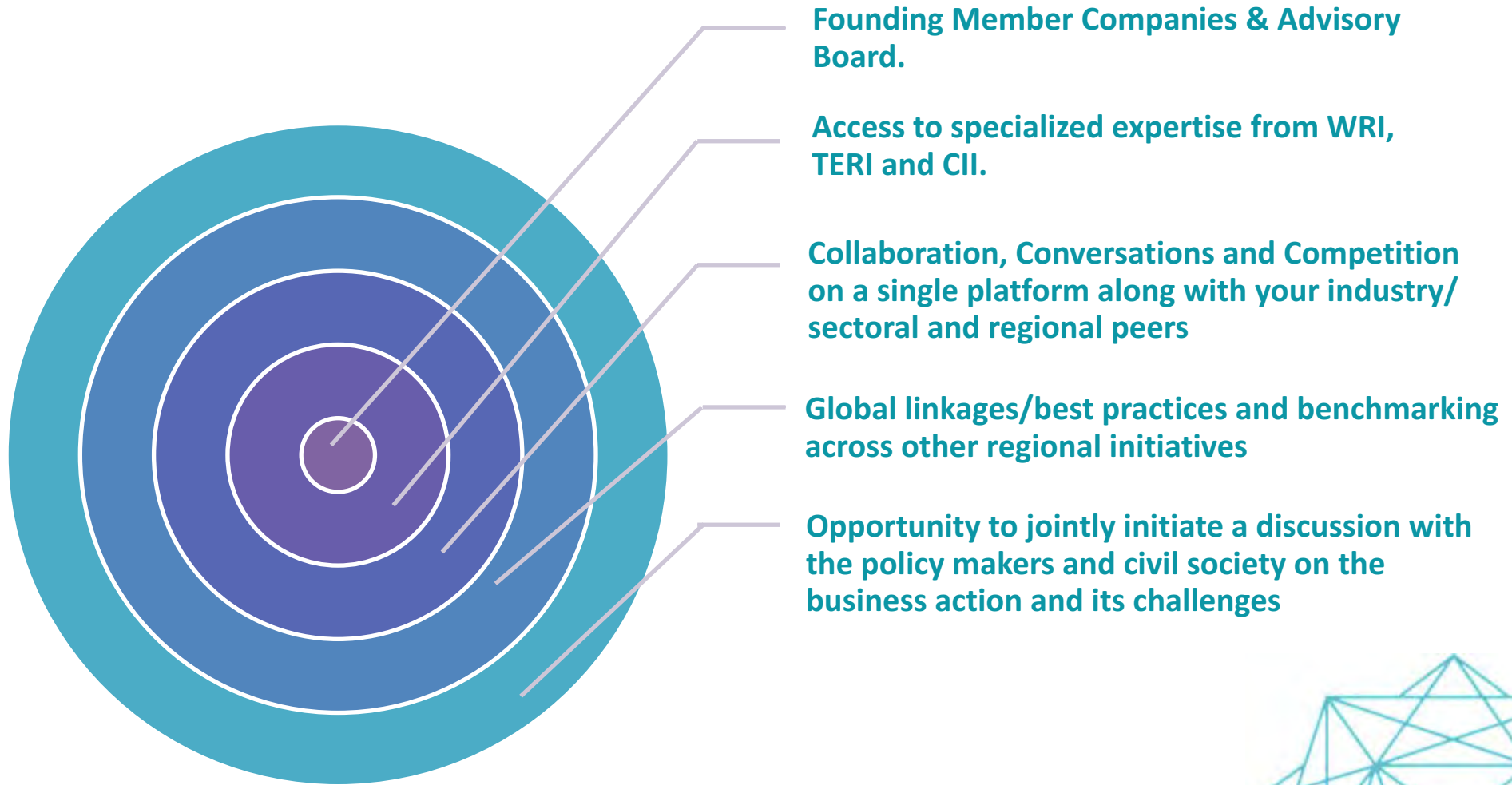## Program Pillars – Working with Non-state actors

Trainings and Capacity Building

Sectoral Tools and Guidance development

Benchmarking
Peer Interactions
Best Practices

Policy Dialogue

India GHG Program – Key Highlights

Founding Member Companies & Advisory Board.

Access to specialized expertise from WRI, TERI and CII.

Collaboration, Conversations and Competition on a single platform along with your industry/ sectoral and regional peers

Global linkages/best practices and benchmarking across other regional initiatives

Opportunity to jointly initiate a discussion with the policy makers and civil society on the business action and its challenges

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Godrej & Boyce

Carbon Neutrality

By 2020-21

Mahindra & Mahindra

$10 / tonne Carbon Price

Achieve 25% reductions in emissions

Indian Railways

50% Reductions

in transport related emissions by 2030

Driving Ambitious Corporate Actions

Tata Chemicals

Internal Carbon Price

Adopted Internal Carbon Price in 2016

Delhi Airport

Achieved Carbon Neutrality

In 2016

Infosys

100% RE

Reduce emissions intensity of operations by 55.4% per employee by 2018

Milestones

INDIA GHG PROGRAM
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SCOPE 2 GUIDANCE launched at **BSE**

POWER TOOL LAUNCHED

WORKING GROUPS LAUNCHED
1. **OIL & GAS**
2. **CHLOR-ALKALI**
3. **POWER**
4. **BUILDINGS**
5. **HEAVY ENGINEERING**

SME TOOL DEVELOPED

250+ TRAINED PROFESSIONALS

400+ TRAINED PROFESSIONALS

Jul-2013   2014

January to December 2015

2016

PROGRAM LAUNCHED WITH 25 FOUNDING MEMBERS

SCOPE 3 TOOL FOR BUILDINGS

INDIAN RAILWAYS JOINS IGHGP

ANNUAL EVENT PUBLICATIONS
1. **AVIATION BEST PRACTICE MANUAL**
2. **TRANSPORT EMISSION FACTORS**

FORMAL RECOGNITION IN INDIA'S INDC

POLICY DIALOGUES
- **MOBILIZING CLIMATE FINANCE**
- **PRE-COP22 ROUNDTABLE**
- **INDUSTRY ROUNDTABLE ON CLIMATE FINANCE**