Climate Innovation Centres: role & expectations of business

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Agenda

- About Alstom
- Technology transfer: drivers for technology cooperation & investment
- Role of CICs
- What we can do
Alstom Group

N°1 in high & very high speed
N°2 worldwide

in urban transport
(metros & trams)

N°1 worldwide

integrated power plants
hydro power*
air quality control systems
services for electricity utilities

* through Alstom Hydro, a 50/50 joint venture between Alstom and Bouygues set up in 2006
Alstom in India

- 4000 people

- One R&D Centre – a software technology facility in Bengalaru

- One Global Technology Centre in Vadodara, Gujarat

- 4 Manufacturing Units:
  - Hydro Equipment in Vadodara
  - Boilers in Durgapur; Shahabad
  - Transport in Coimbatore

- Alstom India is listed on Bombay Stock Exchange (BSE) and National Stock Exchange (NSE)
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Scale of funds

• IEA (Blue Map scenario 2010) estimates additional global investment of $46 trillion will be needed by 2050 in order to keep within 450 ppm scenario.

• EU has estimated developing countries’ needs at €100bn per year by 2020.

Massive levels of funding will be needed
Conditions for investment

- Understanding of what technologies might be needed in individual country/regional circumstances
- Absorptive capacity in the country/region
- Existence of free markets (e.g. no imposition of perverse subsidies or trade tariffs)
- Protection for intellectual property
Commercial models for collaboration (examples from Alstom in India)

• **Partnership with Bharat Heavy Electricals Ltd (BHEL)** - The partnership is based on a license and business co-operation agreement to provide BHEL with super-critical boiler technology, engineering expertise and components.

• **Joint Venture with Bharat Forge Ltd (BFL)** - The JV involves setting up two companies to design, engineer, manufacture and deliver turbine and generator islands and their auxiliary equipment.

• **Alstom Global Technology Centre for hydroelectricity, Vadodara** – The Technology centre established in 2008 at an existing Alstom manufacturing site, this centre will develop highly innovative hydro products and technologies, focused on the Indian market
Other examples from Alstom

• Alstom’s investments in education and skills in South Africa

- Investing in local manufacturer: ELCA-Malitech
- Funding training activities
- Investing in education: ZAR 12.5m ($1.6m/€1.3m) over the period 2008-2012.
- Funding for the expansion of the Engineering Faculty of Wits University, within a partnership developed to promote excellence in engineering studies in South Africa.
Drivers for collaboration (e.g. R&D)

For Alstom:
• To perform world-class R&D
• To drive innovation
• To identify and secure the recruitment pipeline

For universities:
• perform real, industrially relevant research
• Easier access to government funding.
• Route to secure employment for their graduates.
• Income
Policy options for enabling Tech transfer & investments

- Exchange of regulatory best practise
- Assistance with needs assessments
- Carbon markets
- Blended financing vehicles
- Loan guarantees funding pool
- Fast-track adjudication of disputes
- Public-Private Partnership initiatives like Centers of Excellence (CoEs)

Need for coordination to create zones of investment-national & regional
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What CICs can do

- Assessment of needs
- Link regional govts to business & research community
- Provide access to experience eg exchange of regulatory best practise
- Help policy makers & planners to plan for clean infrastructure
- A role in facilitating public and/or private funding for projects (subject to whatever is agreed in UNFCCC on funding)
What CICs can do

- Explore use of public funds to leverage private capital
- Explore how funding allocations are more output driven & develop performance indicators for that
- Carry out risk assessment
- Research on new & innovative finance
- Facilitate PPPs
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What we can do

• Bring tech expertise (to help with needs assessments)
• International business and management experience in 70 countries worldwide
• Experience of building presence in new markets and developing regional manufacturing and export hubs
• Bring an expert policy team well-versed in policy-making as well as business
• Give feedback to governments on what works for business and what doesn't
• Help to link up with research community