CTI PRIVATE FINANCING ADVISORY NETWORK

The Climate Technology Initiative's Private Financing Advisory Network -CTI PFAN –

Presents

Identification of financial support necessary to realize the development and transfer of technologies in the Asia-Pacific

Nagaraja Rao

Tokyo, 27th July 2012

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Agenda

- Overview of CTI PFAN
  - Introduction to CTI PFAN
  - What it is and how it works
  - Activity Highlights of CTI Pfan
  - CTI-PAN Services
- Funding Technology Transfers
  - Introduction
  - Technology Funding – An entreprenuers perspective
  - Technology Funding – An Investors Perspective
  - Suggetions
- Conclusion

Introduction to CTI PFAN

- CTI PFAN is a Multi-Lateral Initiative:
  - Climate Technology Initiative Countries / International Center for Environment and Technology Transfer / Renewal Energy and Energy Efficiency Partnership / United States Assistance for International Development
- Network of Private Sector Professionals
  - Investors / Consultants
  - Exclusive focus on developing countries
- CTI PFAN goals:
  - to accelerate technology transfer and diffusion under the UNFCCC (United Nations Framework Convention for Climate Change)
  - to promote low-carbon, sustainable economic development
  - to increase financing opportunities for promising clean energy projects
- Connects Clean Energy projects with Investors / Financing
- Triple bottom line approach

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Rationale for CTI PFAN

- Lack of sufficient Public Funds to make an impact on Technology Transfer for Climate Change
  - Need for the Private Sector
- Workshops in Montreal (2004) & Bonn (2005)
  - To develop an innovative solution to finance Transfer of Technology
  - Inclusion of Private Sector
- Missing Middle
  - Lots of Projects / Lots of Investment
  - Little & insufficient interaction & communication between the 2 sides
- PFAN seeks to bridge that Investment Gap
  - Acts as a broker between the money and the projects
  - Strengthens the capacity of the project developers to present their projects in a way that investors and financiers can readily understand

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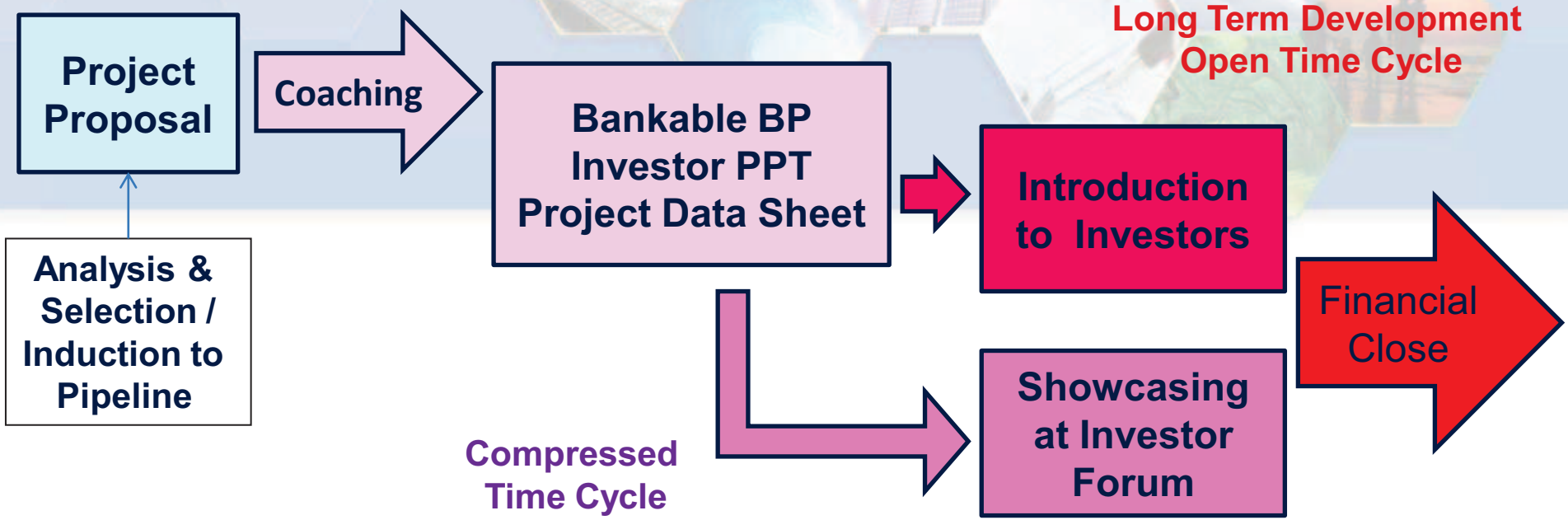
PFAN Services

- Free Coaching on Project Development & Financing
- Matchmaking – Sourcing of Equity & Debt
- 2 Entry Points
  - Unsolicited Proposal Submission for Development Pipeline from any Source
  - Regional & Country based RFPs / (CE Financing Fora)



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CTI PFAN & Adaptation

- Launched Adaptation Stream of Activity in 2011
  - To see if successful PFAN methodology can be applied to adaptation
  - Same approach as for initial development of PFAN
- Background Paper just published
  - http://www.cti-pfan.net/events_detail.php?eventsid=39
  - Focus on Sub-Saharan Africa
  - Opportunities in Agriculture & Agribusiness / Energy & Access to Energy / Water & Sanitation / Tourism / Micro-finance & Micro-insurance / Urban Development / Adaptation Products
  - Investors will have same risk approach but will need to build familiarity with specific risks attaching to adaptation activities
- Exploratory Workshop in Nairobi later this year
- Pilot Programme / Case Studies
  - Possible launch of full scale adaptation activity

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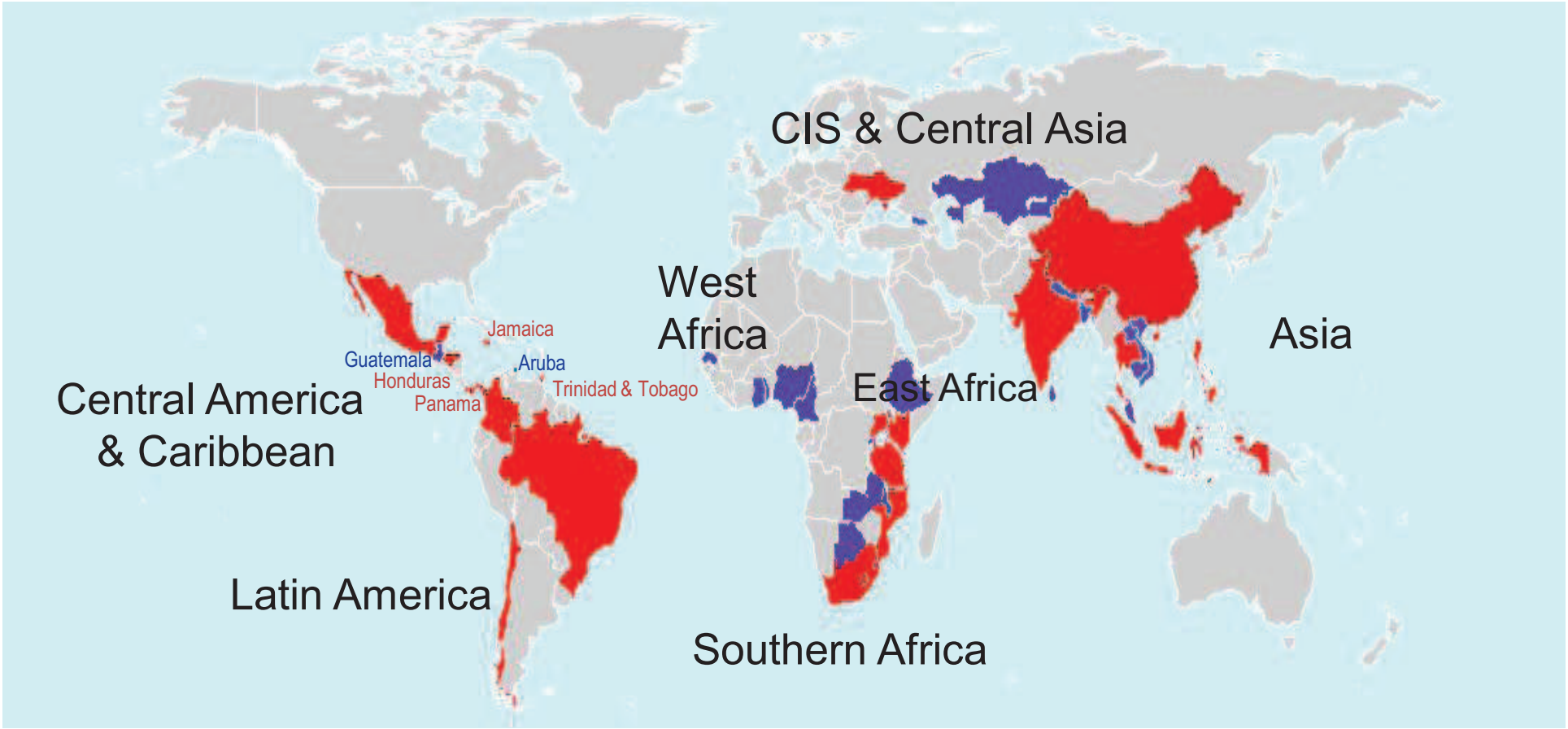
Global Snapshot of CTI PFAN



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Pipeline Overview

160 Projects in the Development Pipeline

- USD 4,9 billion of Investment
- 7 million tonnes pa CO2 e GHG reduction potential
- > 2.041 MW of clean capacity

❑ 32 Projects Closed / USD 404 million raised

- 319 MW of Installed Clean Capacity
- 1,83 million tonnes CO2 e reduction pa
- 94,5 GWhrs pa Energy Savings (EE projects)

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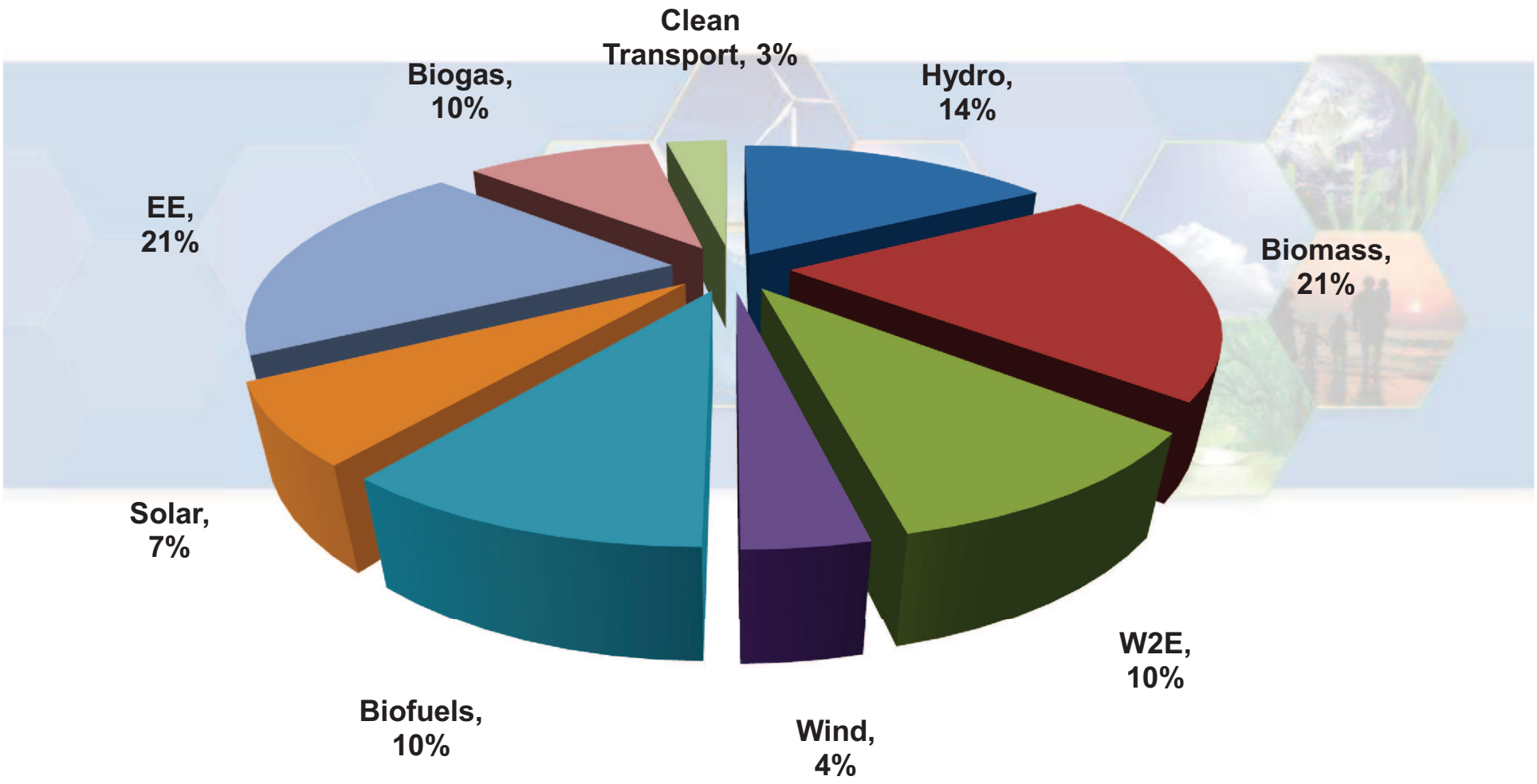
Closed Projects by Technology



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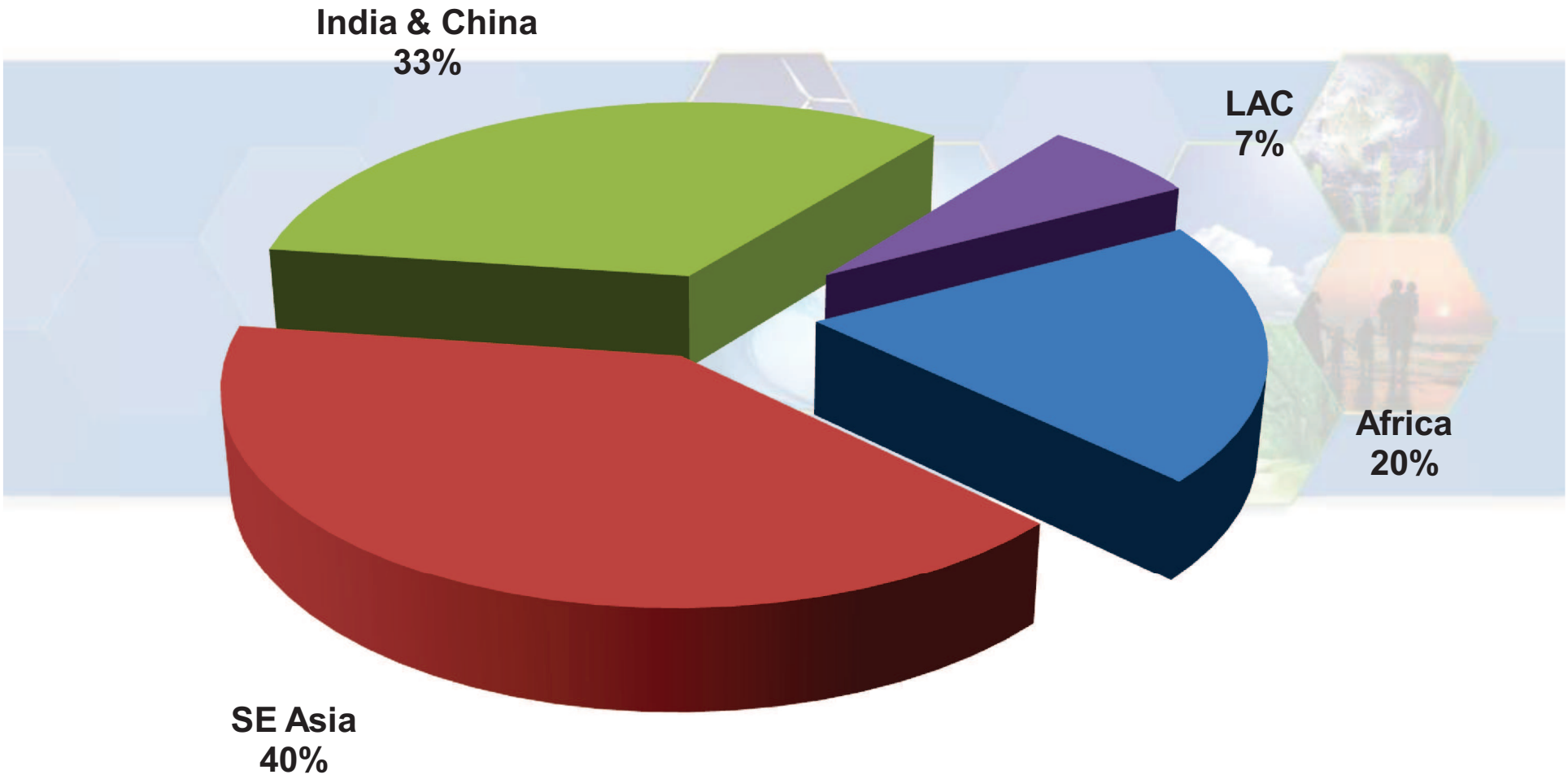
Closed Projects by Region



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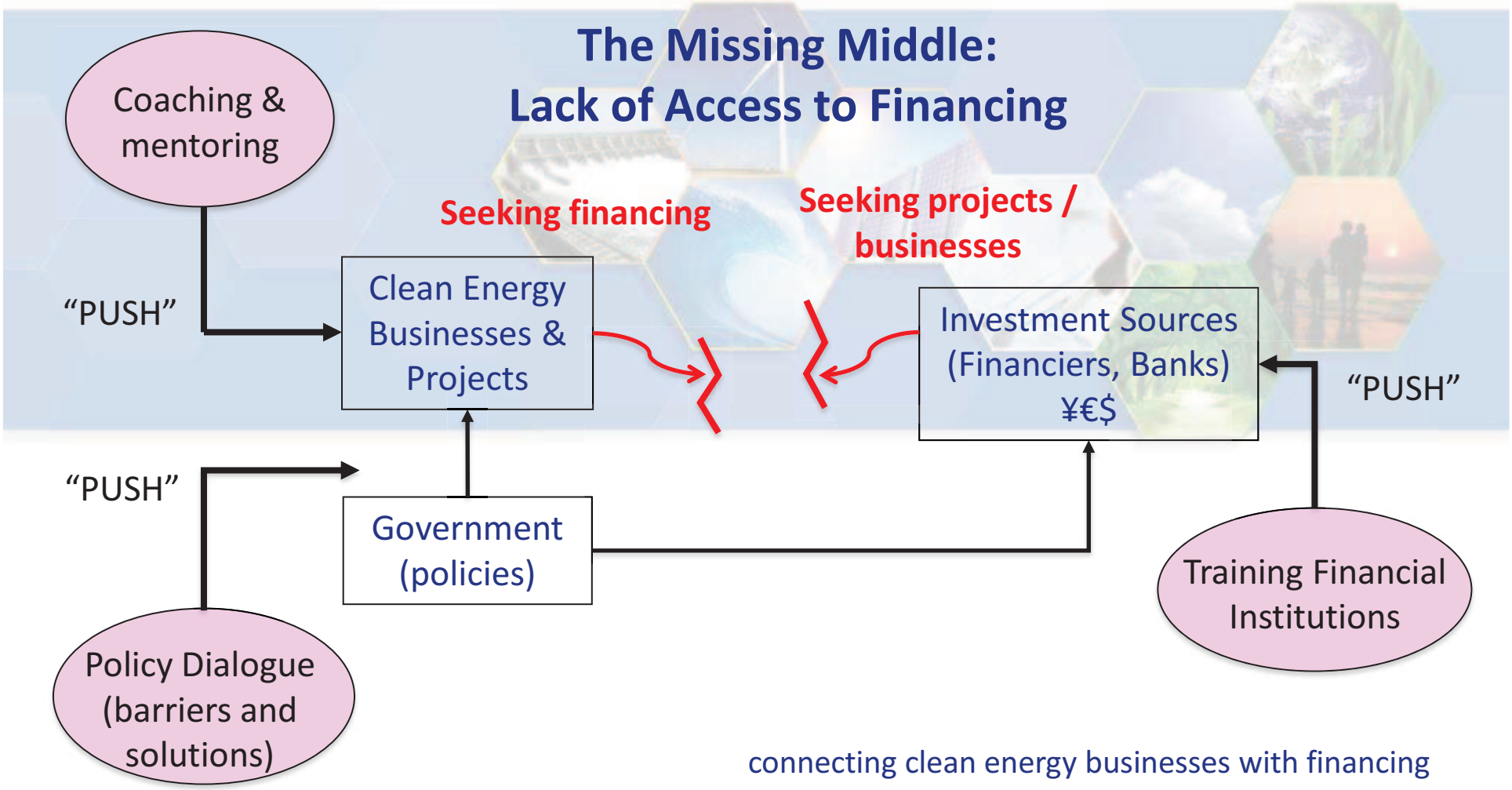
CTI PFAN – Objectives

How a multi-pronged approach can scale up clean energy deployment



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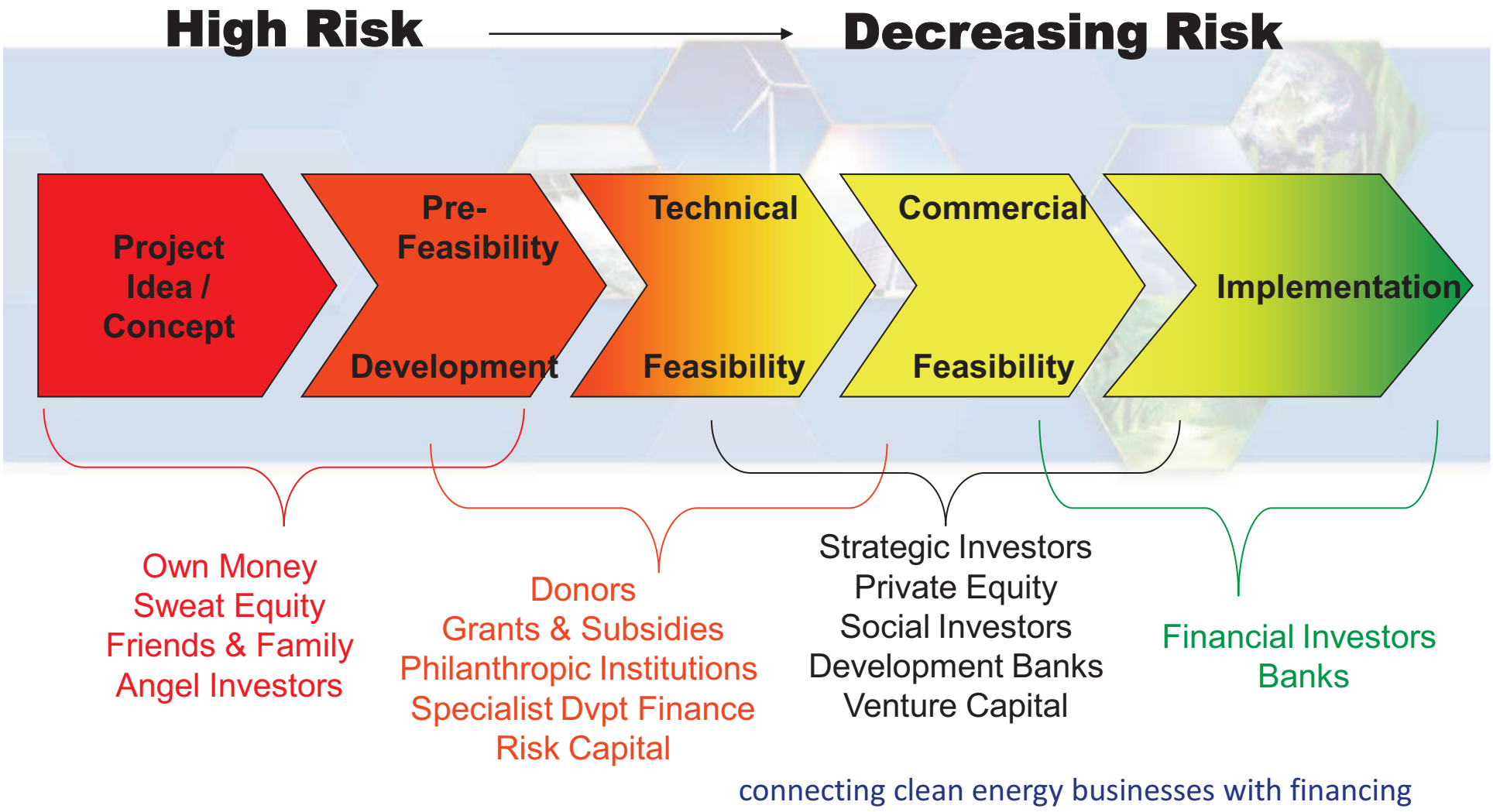
Project Development Stages



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Investor Profiling for Expected Returns

Expected IRR	Type of Funding	Type of Investor
Negative - 0 %	Grants & Subsidies	Donors
0 – 5/7 %	Development Funding	Donors / Philanthropic Investors
5/7 - 10 %	Development Funding	Specialised Investors / Lenders looking for blended value. TBL
10 - 18 %	Growth Capital	Hedge Funds / Private Investors / Strategic & Industrial Investors
18 – 25 %	Growth Capital	Private Equity Funds
> 25 %	Development / Risk Capital	Venture Capital
> 35 %	Seed Capital	Angel Investors

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Technology & Development

- Description of Technology
  - Is it proven?
  - Is it suitable for the specific environment?
- Summary of Technology Options
  - Respective pros & cons
  - Reasons for a technology choice
- Method of Technology selection / Technology Provider selection
  - Tender / limited tender
  - Negotiation
- Terms & Conditions of Technology Deployment
  - Licence / Franchise
  - Outright purchase
  - In house development etc.

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Technology Funding – An Entrepreneur's Perspective

- Stage of Maturity of Technology
  - Incubation stage
  - Proof of Concept / lab tests
  - Pilot run /test run
  - Demonstration, development and up scaling
  - Commercialization

- Go to Market Strategy - Impact on the market
  - Disruptive technology
  - Process or Product improvement
  - Substitute for existing product in the market

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Technology Funding – An Entrepreneur's Perspective

- Technology Positioning
  - Technology with IP (Patented)
  - Technology without IP (Not patented)
  - Commercial Valuation
  - Transaction Structuring
- Revenue Model
  - Product sale
  - Royalty
  - License fee
  - AMC
  - Sale of Spares
  - Carbon credit

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Investment Structure

- Detailed Investment / Financing Proposal
  - Amount of Investment / Financing Requested
  - Form of Investment (equity / debt / mezzanine / convertible equity etc)
  - % Shareholding / Participation being offered
  - Investment returns
  - What else is being offered to / required from the Investor
- Financing Ratio
  - Debt : Equity
  - Expected sources of debt & status of ongoing negotiations
- How has project been funded to date?
  - Demonstrate commitment & contribution of the existing shareholders / project developers (valuation of sweat equity)
- What will the funds be used for?
  - Source & Application of Funds

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Business Model

- What is the value add of the project?
  - Why? - Project Rationale (Why?) - what market are you responding to?
  - For whom? Who are the Beneficiaries - shareholders / clients / others?
  - For how much? - Size of Market & Returns
- Why should the Investor invest in this Project?
  - Captive Market?
  - First Entrant (early mover advantage)?
  - Growth Potential?
  - Long term, stable cash flows / revenue streams?
- Identify 3 things which are unique to the project
  - Delivery Method or Service
  - Technology
  - Organisation
  - Location

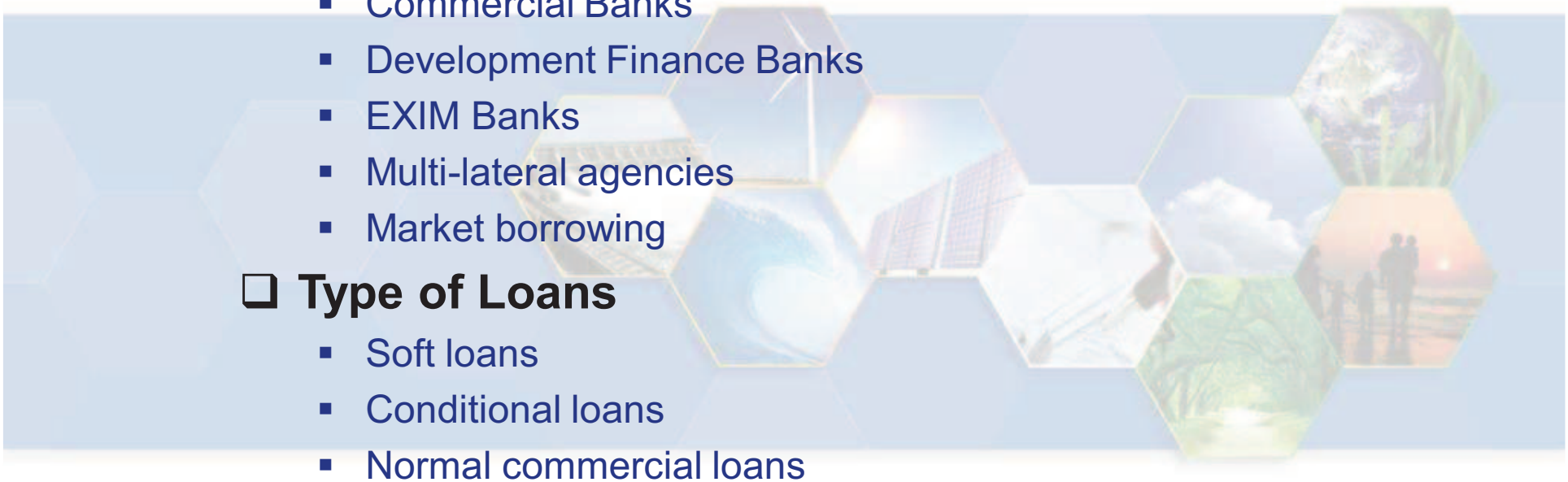
Funding – An Investor's Perspective

- **Type of Equity**
  - Seed Capital
  - Angle Investment
  - Venture Capital
  - Private Equity
  - Small Cap Exchanges
  - Main Stock Exchanges

- **Equity Investor's Requirements**
  - Business plan (techno economic feasibility)
  - Financial model
  - Valuation
  - IP Protection if patented

Funding – An Investor's Perspective

- **Debt funding**
  - Commercial Banks
  - Development Finance Banks
  - EXIM Banks
  - Multi-lateral agencies
  - Market borrowing
- **Type of Loans**
  - Soft loans
  - Conditional loans
  - Normal commercial loans
  - Foreign currency loans
  - Credit guarantee
  - Sovereign guarantees
  - Supplier Credit



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Funding – An Investor's Perspective

- Composition of Promoter Team
- Valuation - Performance based funding
- Amount of funding required
- Method of funding sought
- Costs that qualify for funding
- Ability to Scale and Time required
- Ability to replicate
- Adaptability of the technology to local conditions
- Raw material composition - Local and imported components

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Funding – An Investor's Perspective

- Maturity of technology and risk of obsolescence
- Technology Certification and ratings
- Regulatory aspect especially in renewable energy
- Reference sites
- Collateral – hard and soft
- Location of the Project
- Triple bottom-line criteria

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Funding Suggestions

- Setting up of Technical Cell for certifying technology in the renewable space
- Setting up of Financial Cell for Valuation of the technology
- Technology incubation centre for start up assistance
- Setting up central Data bank on Renewable Energy Capacity, utilization, success stories and failures as a reference point for the Investors
- Technology Demonstration Fund for enabling entrepreneurs to take the product to the market

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www.cti-pfan.net
www.climatetech.net

Thank You

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