



Accessing Private Capital For Clean Energy Investments in Developing Countries

An Introduction to CTI PFAN

Elmer Holt / Peter Storey / Taiki Kuroda
19th November 2012

- Introduction
 - Introduction to CTI
 - Background & Evolution of CTI PFAN
- Overview of CTI PFAN
 - CTI PFAN Services
 - Project Criteria
 - Network
 - Sample Projects
- CTI PFAN & Adaptation
- Lessons Learned & Benefits
- Other Linkages
- CE Financing Fora / AFCEF3
- Summary



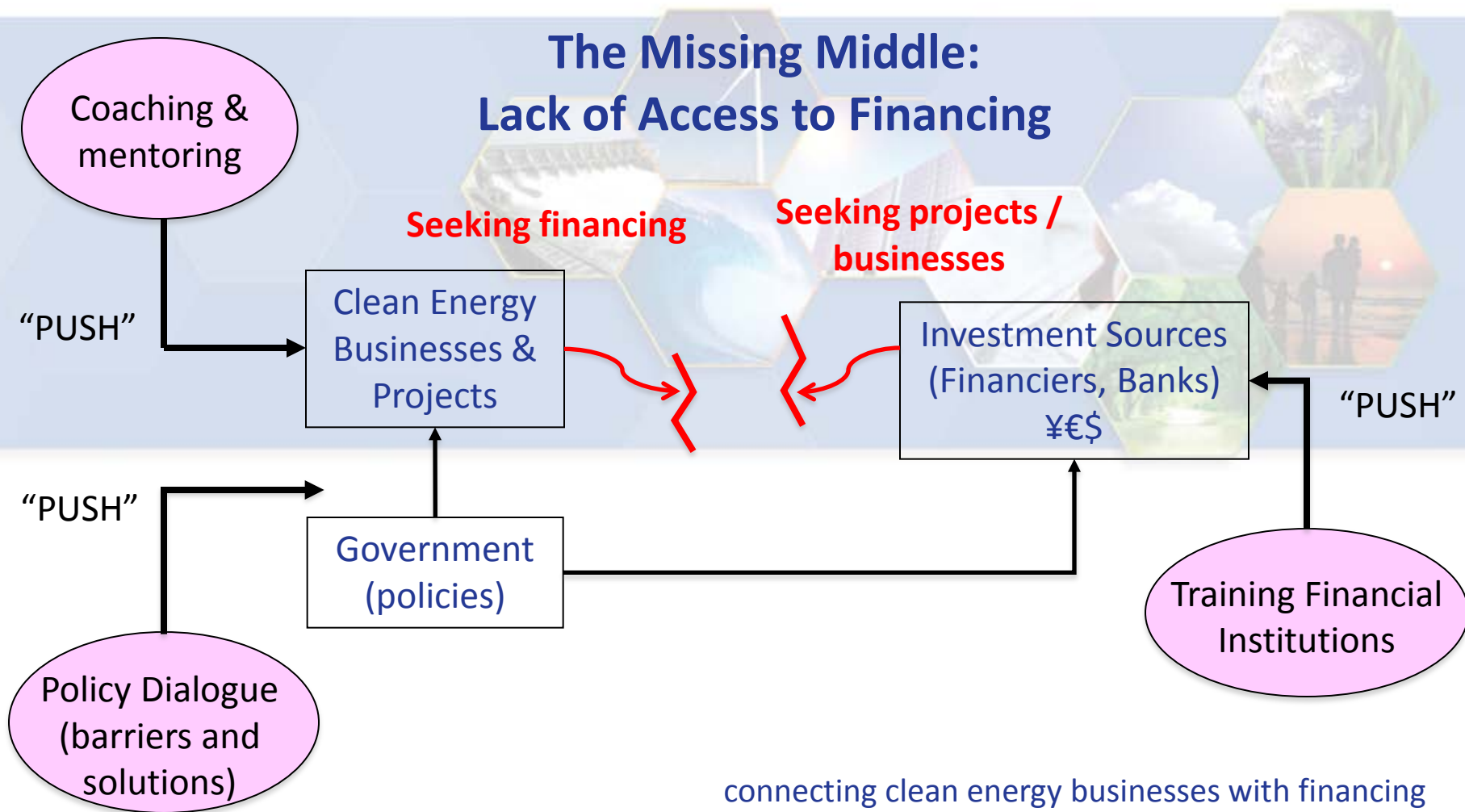
- ❑ Implementing Agreement under the IEA in support of UNFCCC objectives. Currently 11 Member Countries:
 - Austria, Australia, Canada (Vice-Chair), Finland, Germany, Japan (Vice-Chair), Norway, South Korea, Sweden, UK & US (Chair)
- ❑ To promote more rapid development and diffusion of climate friendly and environmentally sound technologies through multilateral and international cooperation between the public and private sectors and between OECD Countries and Non-OECD Countries
- ❑ Private Sector Focus – working extensively with business and financial sectors
- ❑ CTI works with
 - Governments
 - IEA & UNFCCC Secretariats
 - International Organizations (WB / UNDP / UNEP / UNIDO)

Evolution of CTI PFAN

- ❑ Lack of sufficient public funds to make an impact on the technology needs of developing countries to address climate change
 - Need for Private Sector to play an expanded role.
- ❑ Workshops in Montreal (2004) & Bonn (2005)
 - To develop an innovative solution to finance technology transfer
 - Brought together government, non-government, private sector business and finance representatives
- ❑ 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
 - connecting clean energy businesses with financing

CTI PFAN – Objectives

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



Introduction to CTI PFAN

- ❑ CTI PFAN is a Multi-Lateral Initiative:
 - CTI Countries / ICETT / REEEP / USAID
- ❑ Network of Private Sector Professionals
 - Investors / Consultants
 - Exclusive focus on developing countries
- ❑ CTI PFAN goals:
 - to accelerate technology transfer and diffusion under the UNFCCC
 - to promote low-carbon, sustainable economic development
 - to increase financing opportunities for promising clean energy projects
- ❑ Connects CE projects with Investors / Financing
- ❑ Triple bottom line approach

CTI PFAN FUNDING MEMBERS



CTI PFAN MEMBERS



CTI PFAN RESOURCE PARTNERS



Successful Track Record

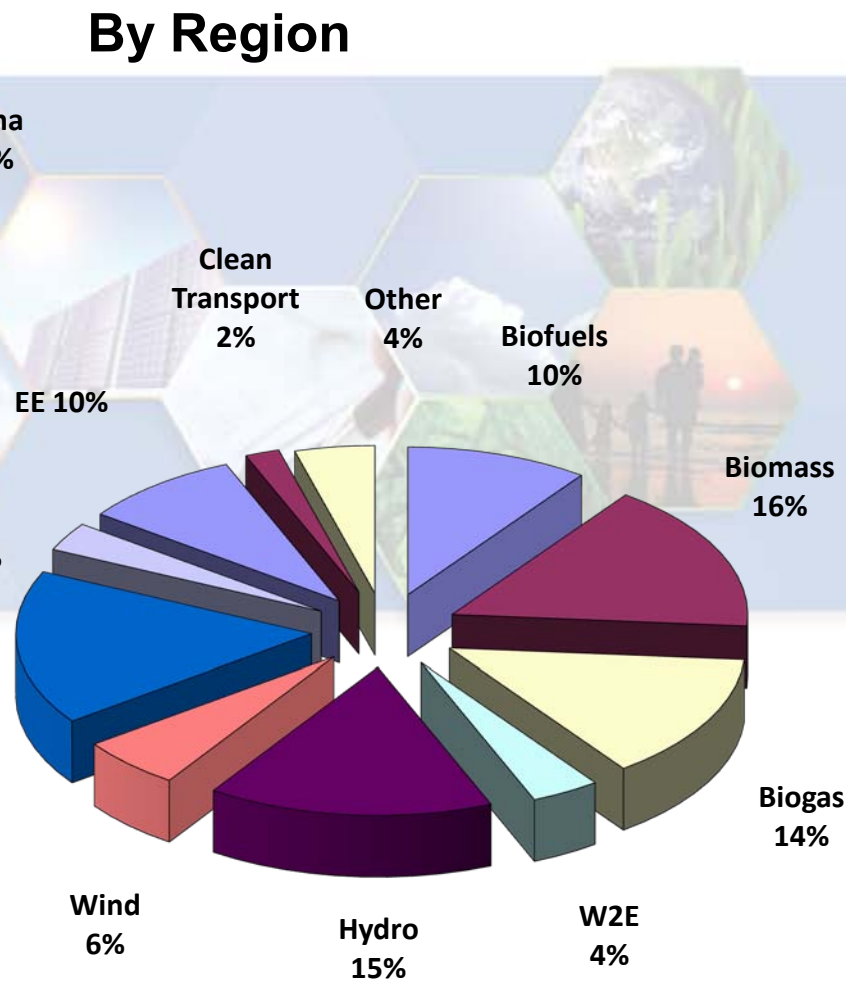
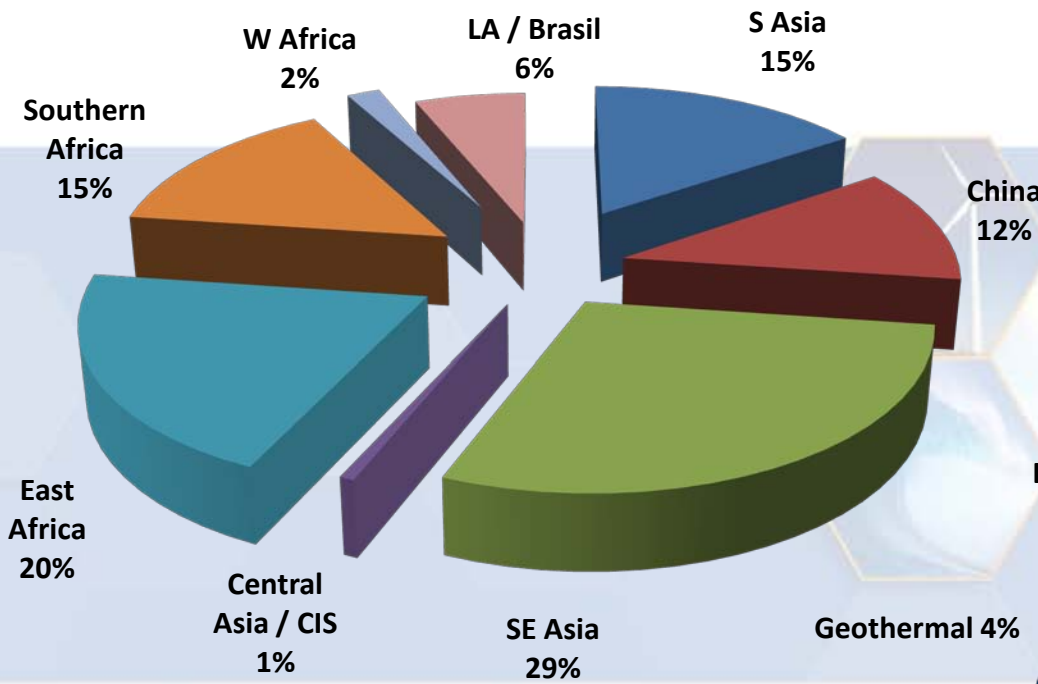
□ 164 Projects in the Development Pipeline

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

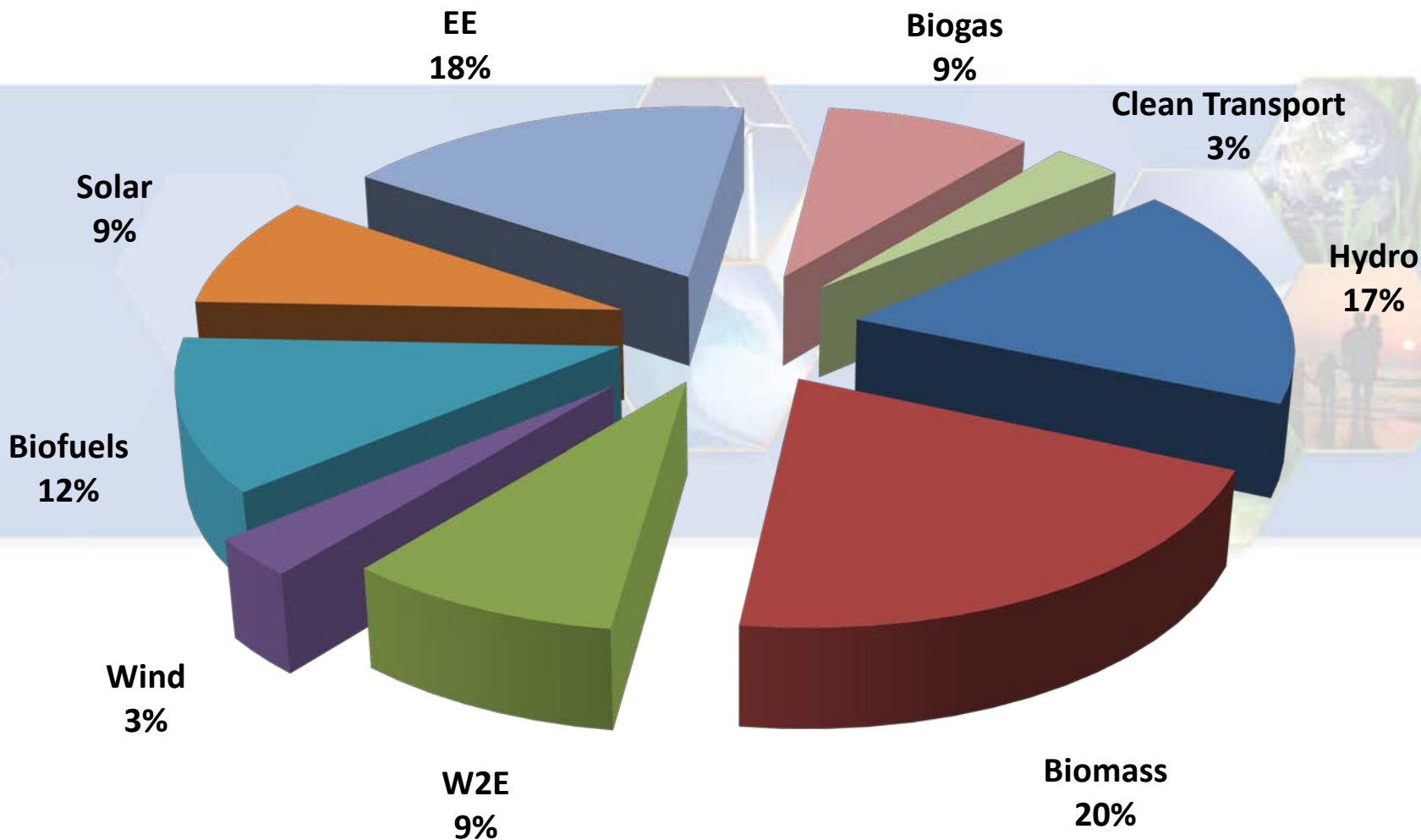
□ 34 Projects Closed / USD 412 million raised

- 310 MW of Installed Clean Capacity
- 1,8 million tonnes CO2 e reduction pa
- 94,5 GWhrs pa Energy Savings (EE projects)

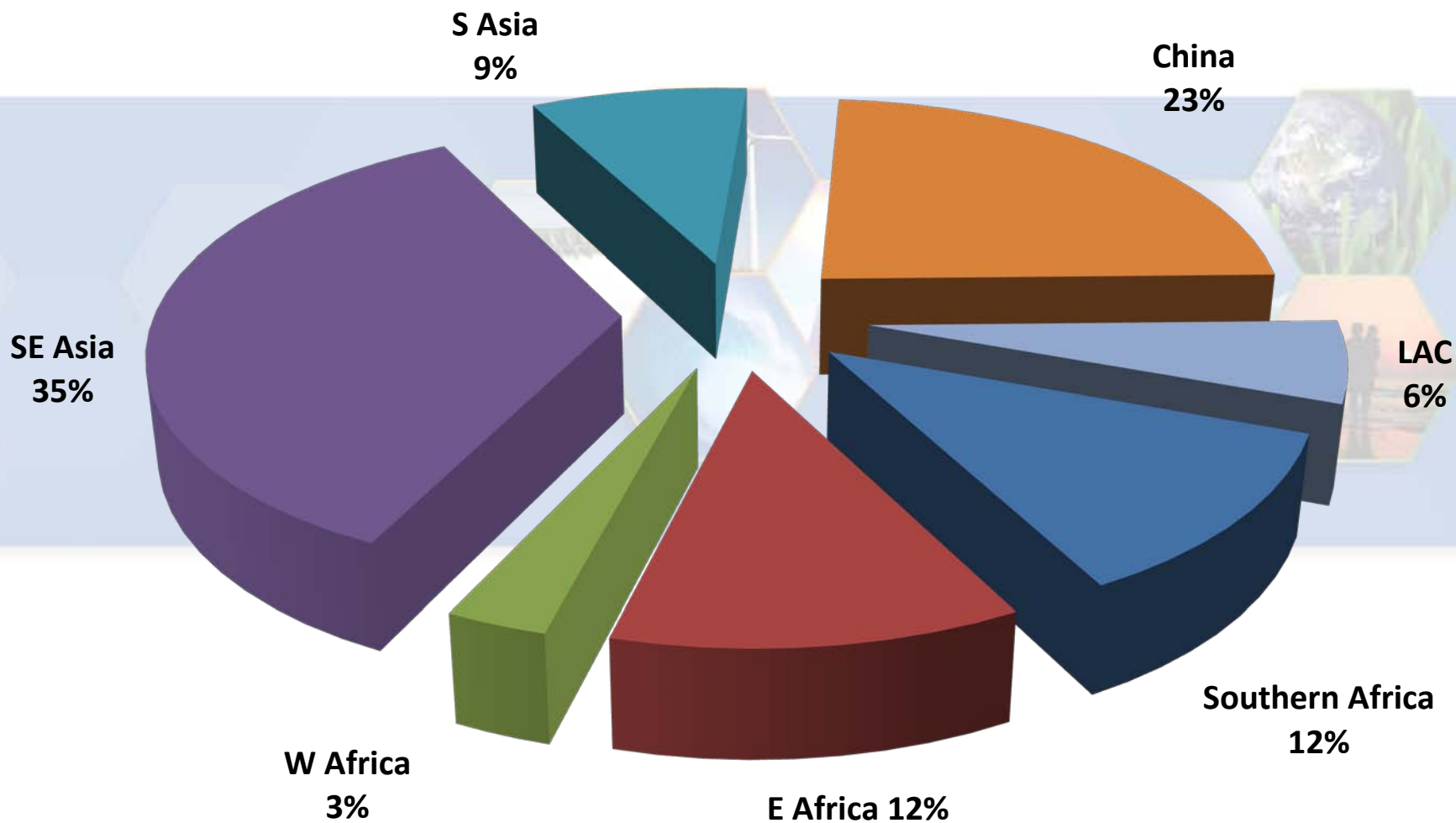
Pipeline Analysis



Closed Projects by Technology



Closed Projects by Region



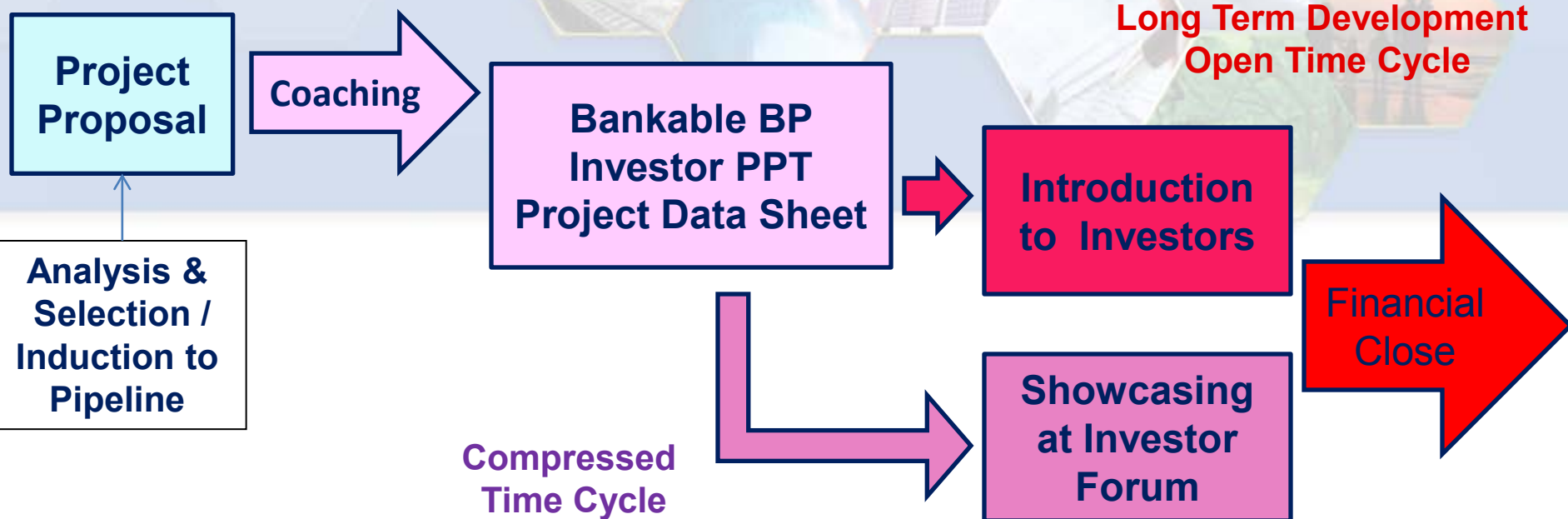
Expanding the Scope

- ❑ Prior to 2012, Principal Focus on Mitigation Related Projects
 - Since 2006 we have tested and refined the CTI PFAN paradigm
 - CTI PFAN has established itself as a credible vehicle for accessing private capital to implement clean energy projects in developing countries
 - Continuing to scale up our operations and conduct financing forums

- ❑ Beginning in 2012, Exploring the Application of CTI PFAN Methodology to Adaptation Related Projects
 - Growing importance of Adaptation Related Projects
 - During June 2012 organized workshop in cooperation with UNEP to explore whether this success approach could be applied to adaptation related projects.
 - Results Encouraging

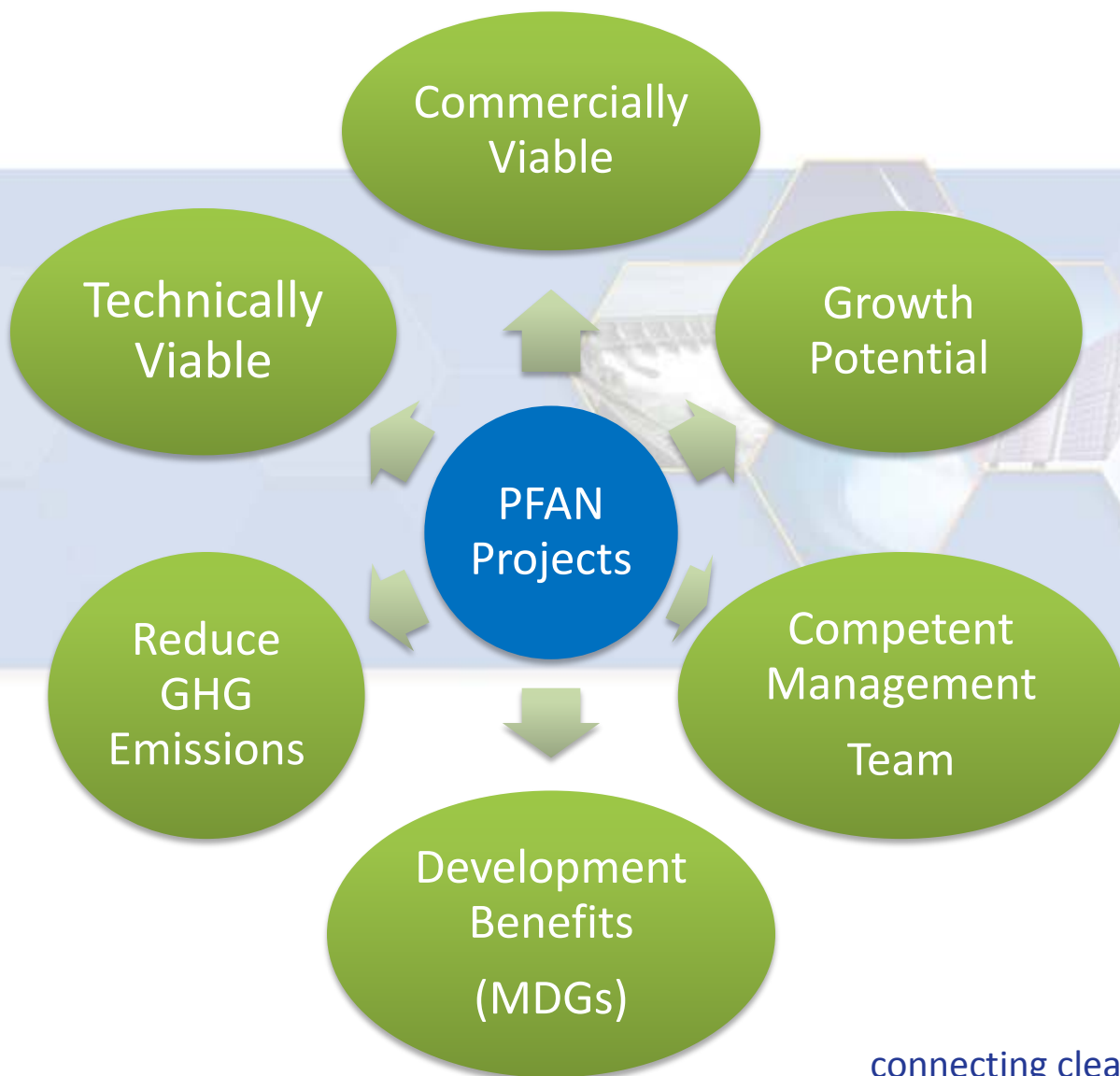
PFAN Services

- ❑ 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)



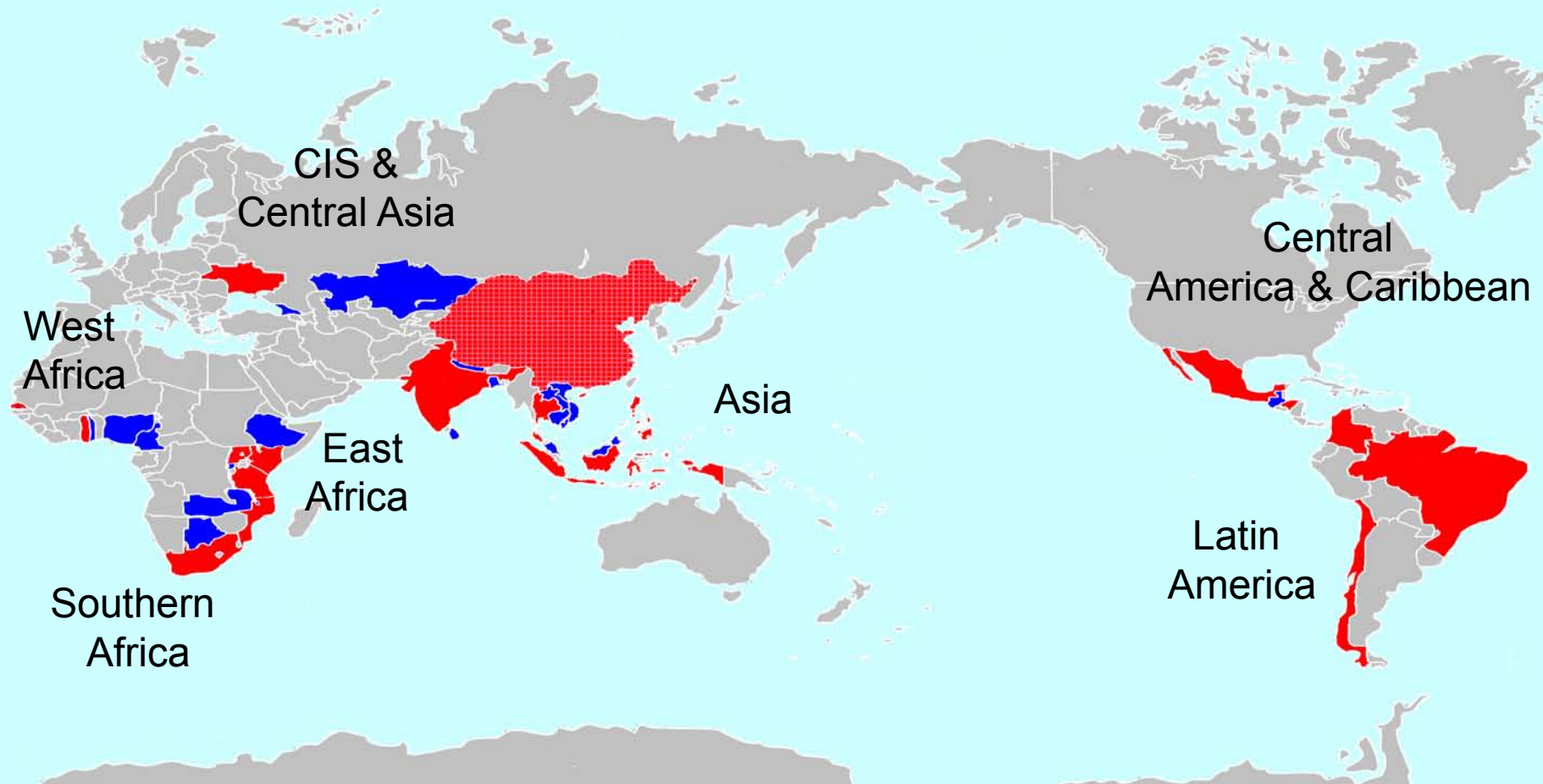
connecting clean energy businesses with financing

Project Criteria



- USD 1 – 50 million Total Investment
- Micro Projects (< USD 1 million)
- Wind / Solar / W2E
Biogas / Hydro / EE / Biomass / Biofuels / Geothermal / Rural Electrification / Clean Transport / Mitigation / Adaptation
- Technology Neutral

Global Snapshot of CTI PFAN



Network Structure

- ❑ 5 Regional Networks
 - Dedicated Country Networks
 - In Africa: 3 Sub-regional networks - SADC / EAC / West Africa
- ❑ Network Coordinator for each Network
 - Business Development – Project Identification & Network Build Out
 - Implementation of SoW
- ❑ > 60 Network Members
 - Signed into PFAN MoU
 - Affiliate Members
 - Resource Partners: ADB / E4A / CII / / InWEA / DBP
- ❑ Areas of Expansion
 - Southern Africa & West Africa
 - Central America & Caribbean
 - SE Asia / South Asia

Expansion in Asia

- ❑ Expansion of dedicated Philippines Network (from Sep 12)
 - Expansion of project development capacity
 - Dedicated country events – Financing Forum / CB & TT Workshops
- ❑ Major Scale-Up of Regional Network (from Q1 2013)
 - Reinforce existing networks in India, Indonesia, Thailand
- ❑ Establishment of Additional Country Networks
 - Cambodia, Laos, Malaysia, Vietnam
 - Bangladesh, Nepal, Sri Lanka (from 2014)
- ❑ Leverage ca. USD 1 billion of investment over a 5 year period

Asian Success Stories

- ❑ ASEA 1 / 12 MW Biomass Power Plant in the Philippines / USD 30 Million
 - Rice Husk / 1st of 4 Phases (\$ 236 million total)
 - Innovative Project Structure to secure feedstock
 - CTI PFAN helped develop the BP & Financing Structure

- ❑ W2E Project in Thailand / USD 5 million
 - 80 tonnes MSW / day anaerobic digestion to biogas / 1 MW
 - Scale up to 300 tonnes / day - ca 3,5 MW
 - Introduction of gasification for solid waste / non organic component
 - 4 Revenue Streams: Gate Fee / PPA / Sale of Fertiliser / CDMs
 - Replication across Thailand & Laos

Other Project Samples

- ❑ Rural Electrification & Lighting Models
 - Barefoot Power / Tough Stuff / Prakruthi Power
 - BoP / Innovative Distribution Models / Utility Model / Market Size Driver
 - Commercial Models supported by Donor activity in Training & CB
- ❑ Productive Use of Energy for Agriculture
 - Particularly in Africa
- ❑ Clean Transport
 - E-trikes / Urban transport systems (Philippines / Indonesia / Nepal)
- ❑ RiverGen
 - Innovative Model for bundling SHPs in Indonesia
- ❑ Technology Developments
 - Wave Energy (Finland / Singapore)
 - Roadway Power Generation Systems
 - Biomass Pelletisation

Lessons Learned

- ❑ Importance of the Business Model
 - Integration of a technology to deliver a product or service which is needed and affordable by its targeted customers
 - Investors don't finance technologies per se
- ❑ Need for Capacity Building with Investors
 - To help them understand and price the risk of new models & technologies which drive them
- ❑ Emergence of Specialist Impact Investors
 - Looking for Social & Development Impacts (as well as financial return)
 - Challenge of quantifying & validating the accruing impacts
 - Specialist Exchanges & Intermediaries (IIX / NEXII)
 - Role of PFAN & PFAN Consultants
- ❑ Importance of Enabling Environment & Regulation
 - Correlation with Closed Projects

CTI PFAN & Adaptation

- ❑ Launched Adaptation Stream of Activity in late 2011
 - To see if successful PFAN methodology for mitigation can be adapted and applied to adaptation related projects
- ❑ Background Paper
 - http://www.cti-pfan.net/events_detail.php?eventsid=39
- ❑ Exploratory Workshop in June 2012 in Nairobi
 - To frame the issues & map out work plan
 - Project identification
- ❑ Pilot Programme / Case Studies
 - 5 projects inducted into pilot programme
 - Capacity for more projects

Adaptation Stream – Initial Observations

- ❑ Poor understanding of what adaptation is and the opportunities it holds in both Public & Private Sectors
 - Difficulty of Project Identification
- ❑ Irrelevance of definition between Adaptation & Mitigation for Investors
 - Risk Return Criteria (Importance of understanding risks)
 - Accruing benefits are the key Investment Drivers
- ❑ Important Role for Impact Investors
 - Difficulty in quantifying & validating accruing impacts
- ❑ Lack of seed capital / Lack of collateral & guarantees
- ❑ Challenge of Passive Investment Structures
- ❑ Need for Innovative PPP models and blended investment / finance

Adaptation Stream – Target Sectors

- Access to Energy
- Agriculture & Agri-business
- Water & Sanitation
- Forestry & Eco-System Services

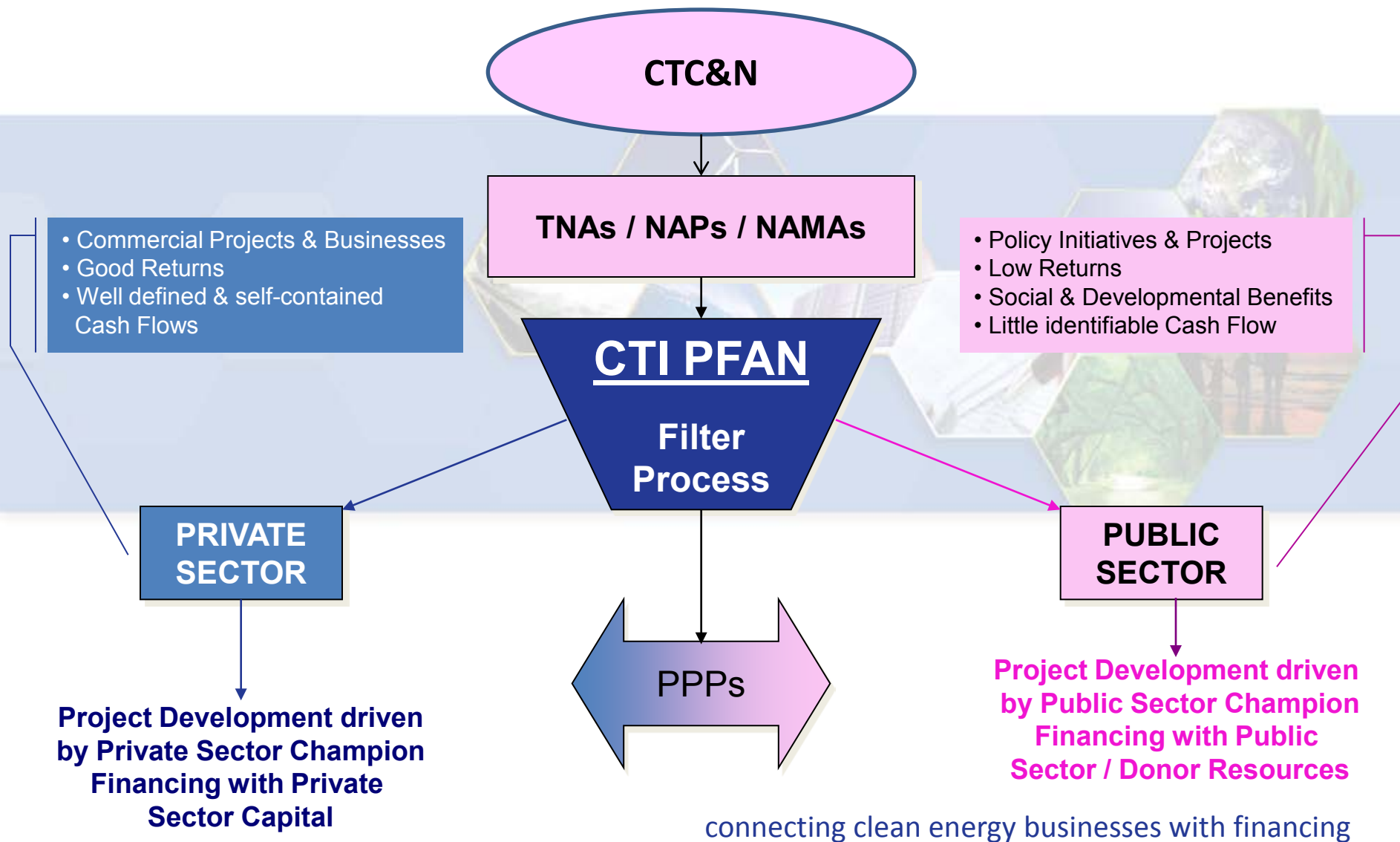
Cross-Cutting Sectors & Coping Mechanisms

- Urban Development
- Adaptation Products & Services
- Micro Finance & Micro-Insurance

Other Linkages

- ❑ Cooperation with UNEP on TNAs
 - TNAs / NAPs / NAMAs feed into CTI PFAN
- ❑ Cooperation with SS Gate (UNDP) as project source
- ❑ Link with SANAICTT (UNEP)
- ❑ Link with Climate Innovation Centres
 - InfoDev / Worldbank / GEF Initiative
- ❑ Cooperation with IEA Technology Platform
- ❑ Cooperation with EEP
- ❑ Possible link with UNFCCC Climate Technology Centre & Networks
 - Endorsed by COP as a useful mechanism for financing TT

Broader CTI PFAN Role



Benefits for Business

- ❑ CTI PFAN is open to Business
 - Business Development & Support Tool
 - Project developers with Projects in Developing Countries
 - Consultants working in PFAN Network Regions & Countries
 - Investors as a source of Deal Pipeline

- ❑ Access to existing networks of professionals in country locations
 - Network Effect
 - Local Knowledge & Know-how / Global Leverage

- ❑ Provides Stamp of Credibility for Entrants in New Markets
 - Commercial / Technical / Environmental / Sustainability

- ❑ Services are Free

Leverage & Donor Benefits

- ❑ High Financial Leverage achieved
 - Average over whole activity ca 1 : 100
 - REEEP1: USD 140.000 Funding led to USD 18,15 million of Investment
- ❑ *Automatic* 1:1 leverage built into the PFAN Business Model
 - PFAN consultants contribute their services at fee levels of about 50% discount to market
- ❑ Successful PPP Model
- ❑ Tangible Impacts on the Ground (not process)
- ❑ High Visibility (esp. the CE Financing Fora)
- ❑ Popularity (Project Developers / Investors & LDC Governments)
- ❑ Feedback Loop / Reality Check for Policy Development

Added Value of CTI PFAN

- ❑ Early stage development tools like PFAN are important
- ❑ Resource Optimisation
- ❑ Access to Deal Pipeline for Investors
- ❑ Direct Access to Investors for Developers
- ❑ Network Effect
- ❑ Risk Reduction through targeting of key risk points
- ❑ Reduction of Transaction Costs for all parties
- ❑ Accelerated Development Progress

Clean Energy Financing Forums

□ Typical CE Financing Forum Format

- Call for Proposals – project selection & shortlisting
- Intensive 1-on-1 coaching
- Project Development & Financing Workshops
- Investor Workshop to target projects at investors
- Showcasing of projects thru an “Investor Pitch”
- Business Plan Competition
- CTI PFAN CE Financing Awards for best projects

□ Successful Tool for Project Identification & Network Expansion

AFCEF-3 Initial Selection

- ❑ RFP - 40 Project Submissions from 12 countries
- ❑ 18 Shortlisted Projects
 - Scored > 50
 - Mature projects ready for intensive coaching and able to be presented to investors within a short period
- ❑ 12 Projects for Possible Induction to Development Pipeline
 - Scored 40 - 50
 - Less mature require longer term development & support

Selection / Scoring

	Criteria	Weighting
1	Value Proposition & Business Model	15 %
2	Market Understanding & Analysis	10 %
3	Management Team	10 %
4	Implementation & Operations Plan	10 %
5	Financials	15 %
6	Risk Mitigation	10 %
7	Environmental & Development Benefits	10 %
8	Project Maturity	5 %
9	Technology / Service Innovation	5 %
10	Growth / Replication Potential	5 %
11	Professionalism / Presentation	5 %

Objectives of the PD&F Workshop

- ❑ Kick-off of Intensive Coaching Process
 - Opportunity to meet coaches
- ❑ Provision of general / global inputs into coaching process in group situation
- ❑ Exposure to Investors & Banks in a “safe” environment
- ❑ Building of Capacity & Confidence of Project Developers
 - Group Interaction - Comparison & Orientation
 - Sharing of Experience
 - Learning Effect of Network
- ❑ Provision of Interactive Forum for all Participants
 - To demonstrate & disseminate best practices for project development & financing
- ❑ Further Direct Feedback to CTI PFAN & Coaches on the Projects

AFCEF-3

Selection of Finalists

No.	Assessment Criteria	Weighting
1	Value Proposition & Business Plan	10%
2	Readiness for Implementation	10%
3	Market Analysis and Competitive Advantage	10%
4	Management Capability	15%
5	Technical & Operational Feasibility	15%
6	Economic Attractiveness	15%
7	Risk Mitigation	15%
8	Industry Expert Feedback	10%
	Total	100%

- Draft Business Plan is reviewed by multiple experts
- Selection of 10 Finalist projects from the Shortlist of 18

AFCEF-3 Forum

□ Preparatory Workshop

- 2 days before the Forum
- Mock Presentations and Expert Feedback / Input
- Final preparations of the investor Pitch

□ The Forum – 22 February 2013 in Singapore (Concorde Hotel)

- 15 minute Investor Pitch by the Finalists to Investors and Financiers
- Expert panel of judges use 10 parameters to award points (100%)
- 3 -4 Award Winners selected at the end of the Forum

Coaching Outputs

- Investor Ready Business Plan
- Executive Summary of the BP as a separate document
- Completed & Adapted Project Data Sheet
- Investor Pitch PPT summarising the BP

Projects for Pipeline Induction

- ❑ Projects invited to participate in the Project Induction Workshop
- ❑ Orientation & Comparison of where they stand in relation to the shortlisted Projects
- ❑ Allocation of Coaches
 - Same support & development process
 - Outputs: BP & PDS (Investor PPT)
 - Not competitive or time constrained
- ❑ Introduction to Investors on an Individual Basis when ready

Summary

- ❑ Strong Development Pipeline Growth & Activity levels
 - Dedicated Regional & Country Coverage is growing
- ❑ Facilitating Technology Transfer and transition to a Low Carbon Economy both inside & outside the UNFCCC Mechanism
 - Potential for further Scale-Up and Positioning post 2012
- ❑ Value Provided to Investors & Developers
 - Accelerating Success Rates / Getting More Projects to Financial Close
- ❑ Value provided to Donors
 - High Financial Leverage > 100 : 1
 - Impacts on the ground with real projects financed with private capital
 - High visibility
- ❑ We look forward to questions and to working with you soon!

Contacts

- ❑ Elmer Holt, Vice Chair of CTI / PFAN Manager (elmer.holt@hq.doe.gov)
- ❑ Taiki Kuroda, Programme Secretariat (kuroda@icett.or.jp)
- ❑ Peter Storey, Global Co-ordinator (peter.storey@ppl-int.com)

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

Thank You