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Blending local and global knowledge:
A Case Study of HIDECOR Project in India

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Criteria of success of development projects

- **Adaptation to local needs**
- **Sustainability**
- **Replicability**
- **Upscalability**
- **Transferability of relevant knowledge to new projects**

Knowledge in Development Projects
(Ref.: Ferreira & Neto, 2005)

- **Knowledge Management (KM) is being increasingly recognised as a critical component in development projects**
- **Development is a social learning experience in which knowledge plays a crucial role**
- **Knowledge in the development sector is a community-owned asset**
- **KM in this sector is concerned with acquiring, sharing and utilizing knowledge for public good**

Ownership of Knowledge in Development Projects
(Ref.: Ferreira & Neto, 2005)

- **Ownership of knowledge tends to become ambiguous as new knowledge starts building up**

- **Knowledge "leaks", i.e., slowly disseminates among target group through a natural & informal process of exchange**

Two types of stakeholders in development projects

- **Local:**
  - **Target Group (direct beneficiaries)**
  - **Local service providers and implementing agencies**
  - **Local associations & interest groups**
- **Global:**
  - **Donor agencies**
  - **International implementing agencies**
  - **International experts and consultants**

Knowledge assets of local stakeholders

- **Knowledge of the local context**
  - **Social**
  - **Political**
  - **Legal**
  - **Cultural**
- **Traditional/ Indigenous knowledge**
- **Local expertise and skills**
- **Local knowledge is context-dependent**
- **'Imprisoned' into local environments; external entities need to plug into local networks to access it**

Characteristics of Local Knowledge

- **Most (but not all) local knowledge is tacit, and exists in the form of practical experiences and rules of thumb**

- **Most local knowledge has a spatial limited validity; and exists in a micro-level context**

- **Local stakeholders are often unaware of the big, global picture**

- **Local knowledge is bound by culture, language, tradition and values to a particular community**

- **Any knowledge production or use is local at the outset before it is globalised**
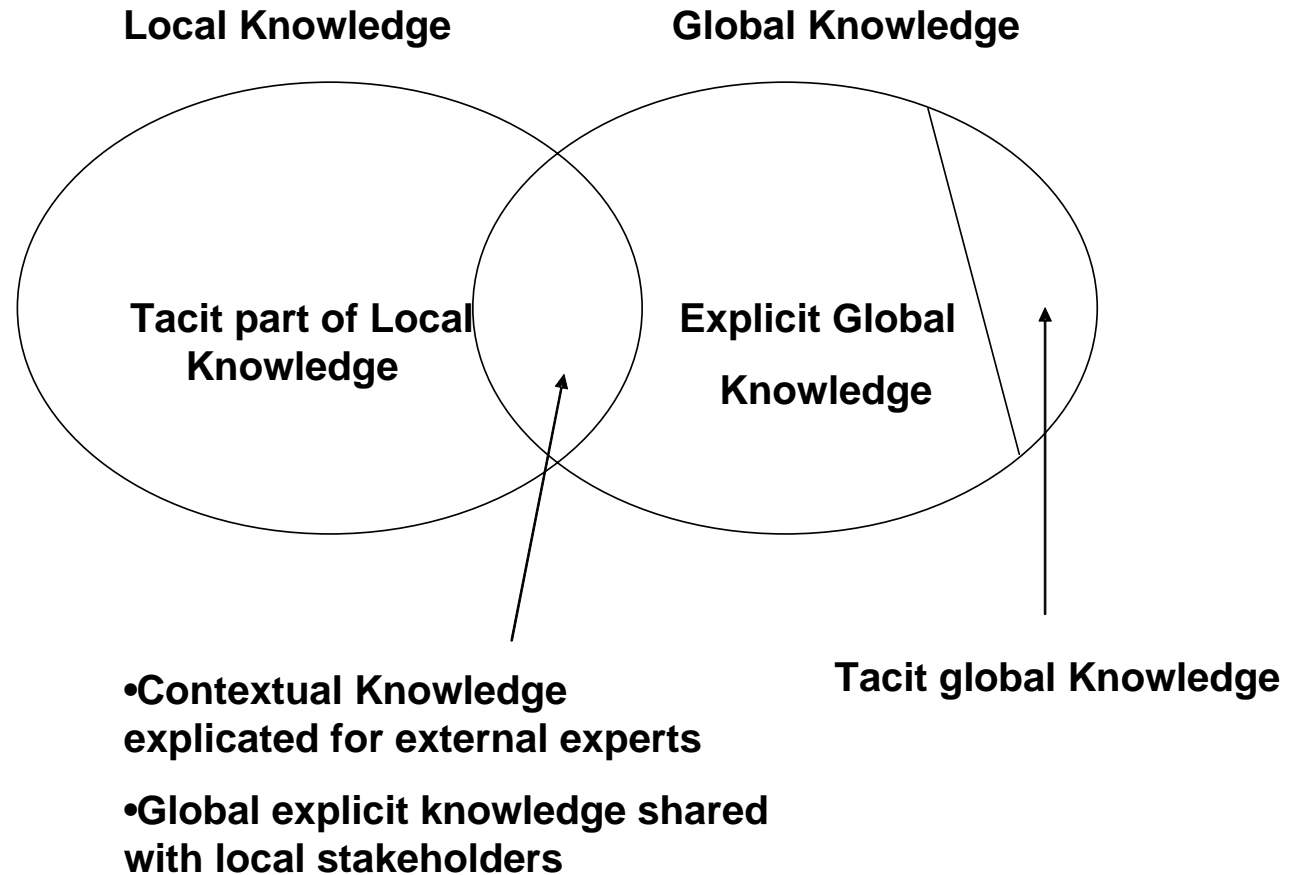
Knowledge assets of global stakeholders

- **Global knowledge is derived from**
  - **Aggregation and synthesis of multiple local knowledge through processes & technology**
  - **Sharing and fusion of individual knowledge through group processes**
  - **Technological/ other innovations**
  - **Aggregation of decision rules applicable in majority situations**
  - **Envisioning different contexts**
- **Global knowledge is often context-neutral and prescriptive**

Characteristics of Global Knowledge

- **Most global knowledge is explicit**
- **Considered universally applicable and scientific**
- **Available in the form of standards, best practices, legal frameworks etc.**
- **Owned by global expert networks, such as academic communities and practicing practitioners**
- **Local stakeholders often have intellectual dependence on global knowledge**

KNOWLEDGE IN DEVELOPMENT CONTEXT

Local Knowledge　　　　　**Global Knowledge**

Tacit part of Local Knowledge

Explicit Global Knowledge

•Contextual Knowledge explicated for external experts

•Global explicit knowledge shared with local stakeholders

Tacit global Knowledge

Contextualisation of global knowledge is a source of new local knowledge

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Tension between local and global knowledge

- **Often, it is too easy to discount local knowledge as 'un-scientific' and local perceptions on development as 'un-informed'**

- **Holders of global knowledge often act as gatekeepers by being selective**

- **Holders of local knowledge are either ignorant of global knowledge, or discount it as non-applicable to their specific situation**

- **Conversely, they may become increasingly dependent on global knowledge due to its perceived superiority**

Harnessing local & global knowledge

- **Three distinct knowledge capacities required in leveraging unique local knowledge:**
  - **Sensing**
  - **Mobilising**
  - **Operationalising**
- **Need to localize global knowledge and globalize local knowledge simultaneously**
- **Need to engage local and global knowledge on an equal basis**
- **Need for two-way sharing between global and local knowledge**

Barriers in blending of local and global knowledge

- **Perception of superiority of either global or local knowledge**
- **Perception of inadequate relevance of global knowledge to local context**
- **Linguistic barriers**
- **Social barriers**
- **Cognitive barriers**

Approaches for capturing contextual knowledge

- **Structured Dialogue Approach**
  - **Dialogue: Capacity to create meaning through social interaction**
- **Action learning/ research approach**
  - **Learning by doing/ through experience**
  - **Helps in identifying strengths and weaknesses of stakeholders**

Structured Dialogue

- **Moderation**
  - **Understanding the complexity of a situation through shared visualized communications**

- **Interactive Management**
  - **Eliciting group shared knowledge from individual knowledge through idea generation and computer-assisted idea structuring**

The HIDECOR Project

- **<u>HIDECOR</u>: Human & Institutional Development in Ecological Refrigeration**

- **A bilateral project of Govt. of Switzerland, represented by Swiss Agency for Development & Cooperation (SDC) and Ministry of Environment & Forests, Govt. of India**

- **To enable micro- and small enterprises in the refrigeration and air-conditioning (RAC) service sector and relevant training institutes cope with the demand resulting from phase-out of CFC refrigerants under Montreal Protocol**

SDC Philosophy

- **Projects should be rooted in the reality of the partners and complexity on the ground.**
- **Find out potentials, partners, implementation pathways etc. through action research studies**
- **Support actors who are ready for a change, even if they are not the best in terms of know-how and position/ status.**
- **Build on local knowledge & initiatives**
- **Focus on Knowledge consolidation, customization and dissemination**
- **Best Practice Documentation**
- **Capacity building for local action**
- **Promoting collaborative action**

Relevance of HIDECOR Project

- **HIDECOR addressed 50% of Ozone Depleting Substances (ODS) used in the RAC servicing sector in India; and 5% of total ODS used in India**

- **The project was guided by Swiss development philosophy to strengthen disadvantaged groups such as the informal sector**

Key Project accomplishments

- **Training of over 10,000 of the estimated 77,000 refrigeration service technicians in the country, mostly in the informal sector**

- **Creation of Knowledge Assets, which could be transferred to future projects**

- **Blending local with global knowledge**

- **Eliciting contextual knowledge through action learning and structured dialogue**
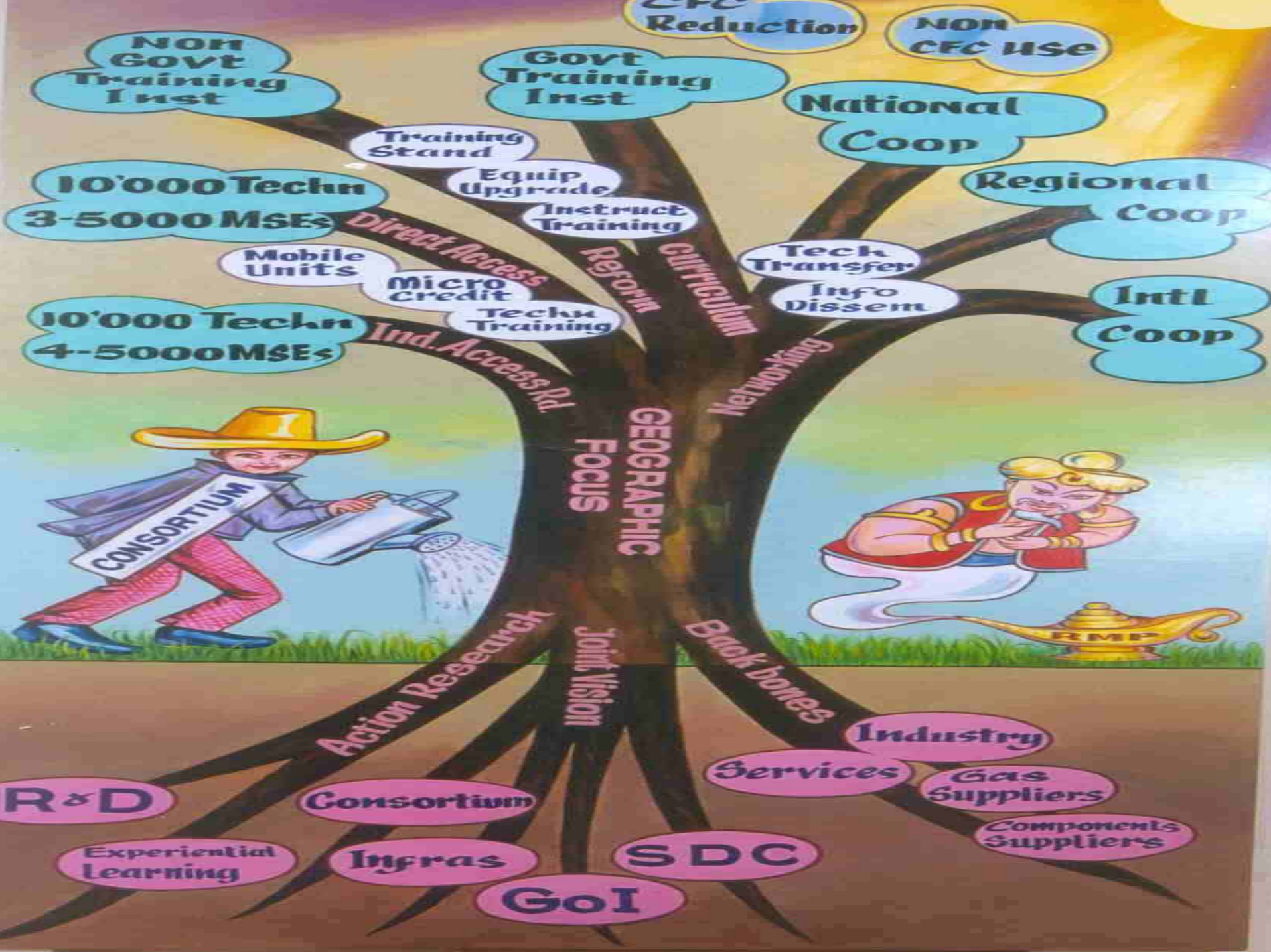
Project Evolution

Period	Project
1992-1997	ECOFRIG Project for refrigerator manufacturing sector
Dec. 1997 to June 1998	Pre-pilot phase HIDECOR Project
July 1998 to January 2001	Pilot Phase HIDECOR Project
2000	HIDECOR Project Document Development
2001-2004	Main Phase HIDECOR Project
2004	Hand over to NCCOPP (National CFC Consumption Phase-out Plan) – a follow-on project
2004-2009	NCCOPP

Partner organization and beneficiaries

Macro:

- **Ministry of Environment and Forestry / Ozone Cell**
- **Swiss Development and Co-operation (SDC)**
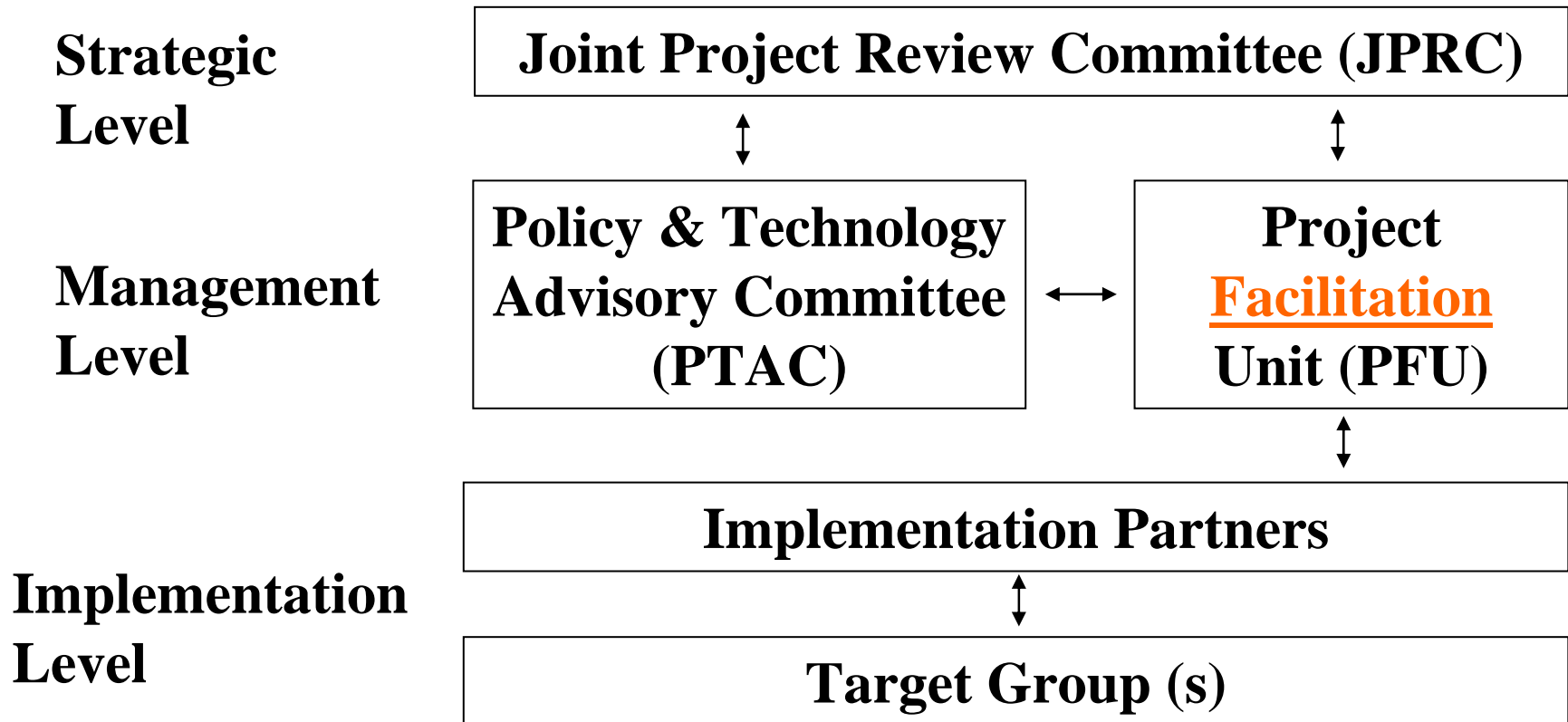- **Directorate General of Employment and Training**

Meso:

- **Training providers (institutions and industry)**
- **Spare parts and refrigerant dealers**
- **Consultants**

Micro:

- **MSEs and their technicians <u>not affiliated with industry,</u>**
- **Instructors and training institutions**

Project Organisation

Strategic Level

Joint Project Review Committee (JPRC)

Management Level

Policy & Technology Advisory Committee (PTAC)	↔	Project **Facilitation** Unit (PFU)

Implementation Level

Implementation Partners

Target Group (s)

Project Components

Component 1
Facilitation of Training for MSE technicians in RAC

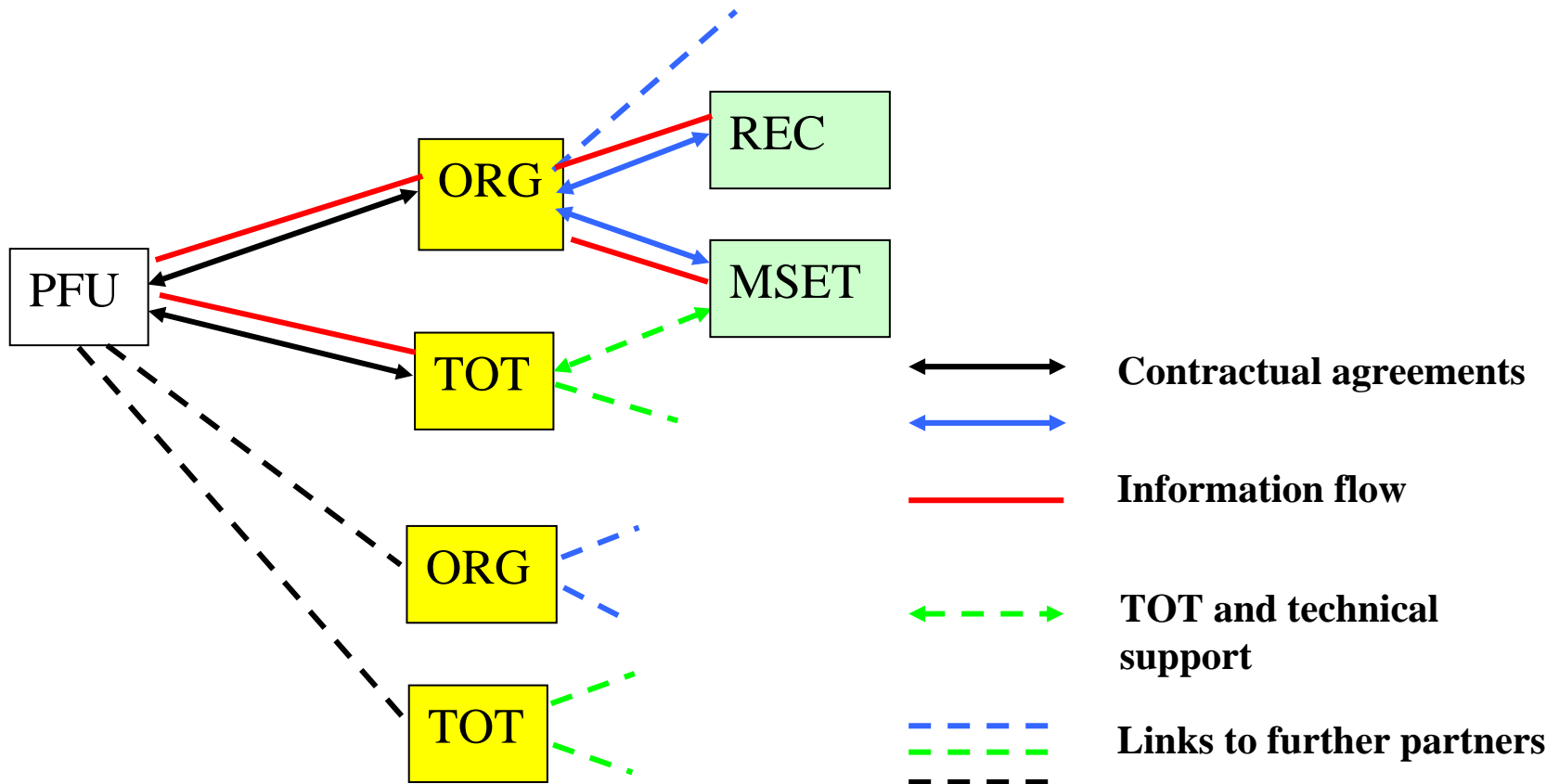**Component 2**
Support of formal vocational training sector in RAC

Component 3
Facilitation of R&D, national & international networking

Training Cell Set Up

Action Radius

○ Limited operation as from 2003 onwards

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Project Phases and their accomplishments

Pre-pilot phase

- **Action research to gain better understanding of desirable approaches to training of informal sector technicians**

- **Appraisal of stakeholders to assess their strengths and weaknesses for implementation**

- **Identify the likely prime-movers or drivers of the project**

- **Realization that the project has to be "technology-neutral"**

Pilot Phase

- **Aimed at testing methods and approaches; and identifying institutional set-up**
- **Two types of activities**
  - **Conduct of pilot training programs with different local actors and at different locations**
  - **Carrying out participatory strategy and planning workshops**

Main Phase

- **Adaptation and refinement of training cell approach**
- **Local language adaptation of training content to make training material relevant to local conditions of the target group**
- **Institution of quality assurance mechanisms**
- **Setting up participatory bodies akin to communities of practice**
- **Two structured dialogue workshops**
  - **Mid-term**
  - **End-term**

Challenges

94% of the technicians retained knowledge of crucial concepts with a rating of 'average and above'. However, only 17%, of technicians made some practical improvements in their operations after training.

(From the Final Report of the Project)

Main Impediments

- **Domination by external technical experts, often sacrificing the insights of local knowledge**
- **Plenty of inexpensive CFC still available in the market**
- **Low market penetration of HC refrigerant**
- **Issue of access to affordable service equipment**
- **Socio-economic constraints of the target group**

Knowledge transfer to future projects: NCCoPP

- **NCCOPP: National CFC Consumption Phase-out Plan, led by German Agency for Technical Cooperation (GTZ)**
- **Has adopted many of the HIDECOR's approaches:**
  - **Retaining the concept of TC (ORG, REC, MSET);**
  - **Access to and training of technicians through TC as well as through industry;**
  - **Making use of 'assets' created under HIDECOR:**
    - **Training partners**
    - **Technician and TOT training Material**
    - **Indigenous equipment**
    - **HC supply**
    - **MIS tools**

Some positives

"Rather than choosing the easy path of importing equipment with the available funds to a specification, the project initiated the excruciating task of developing local resources for manufacture, supply, service and testing of equipment"

(From the Final Report of the Project)

Some negatives

- **"There was no unified perception of a realistically possible level of skill advancement of the target group technicians among the members of PTAC. More optimistic view resulted in some technically feasible but of lesser practical value items…being included in the program design in favour of more practical approaches".**

- **"Effective involvement of the target group (only industry was represented) in PTAC decision making might have helped to clarify".**

    (From the Final Report of the Project)

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