

PanIIT Alumni Association



“ITians for ITI”

Driving Excellence in Technical Training

A PanIIT Program for improving technical training quality in India's Industrial Training Institutes (ITI's)

Harsh Arora

Program Launch Team

PanIIT Pacific Northwest Chapter

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IITians for ITI program



IITians for ITI program is inspired by a recommendation by PanIIT executive board for India *“to create institutes similar to IITs that train highly skilled technicians”*.

The program was initiated at the PanIIT Pacific Northwest chapter.

Program launch team has been seeded with a diverse group of IITians

The program owes its momentum to Mr. Ray Mehra and Dr. Hiten Ghosh’s support.

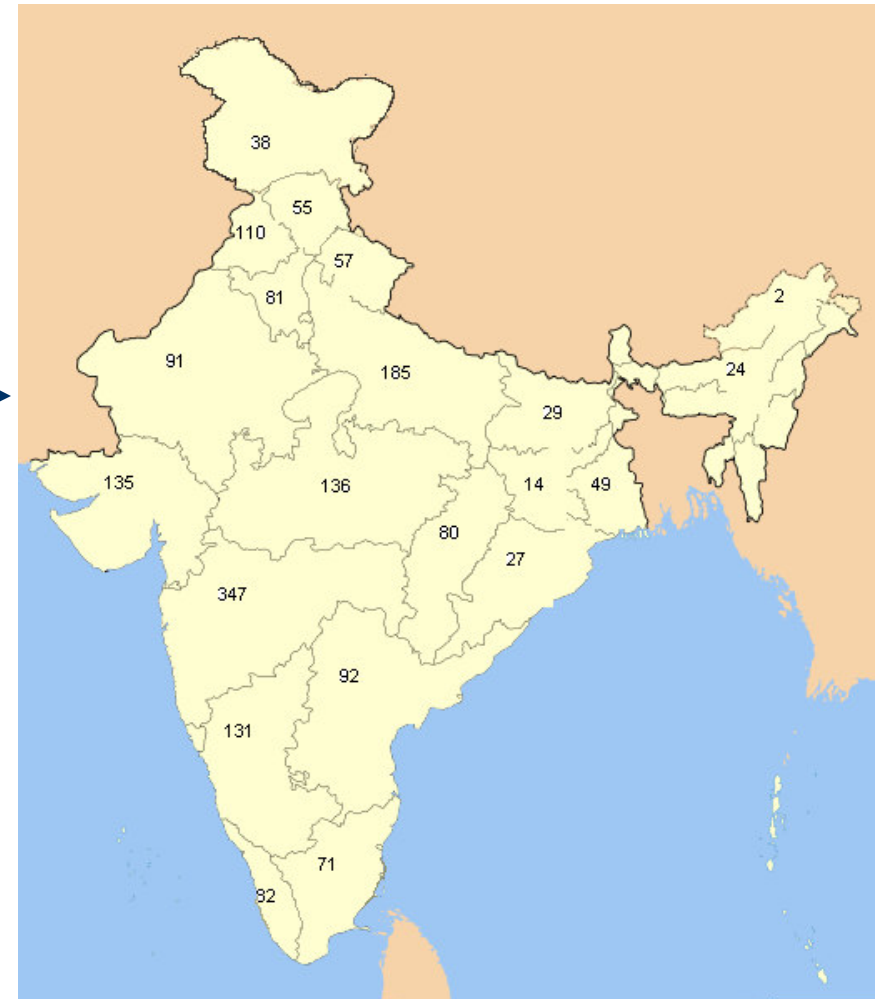
Why is India unable to compete against China in manufacturing world class products?

- Excellent IIT education and low labor cost has not helped
- Small and Medium sized enterprises are unable to compete in world market
- A shortage of highly skilled technicians has been repeatedly identified by many studies as the core problem
- ITIs that train these technicians have quality issues:
 - Poor Infrastructure
 - Outdated curriculum
 - Infrequent training of instructors
 - Limited autonomy
 - Lack of on-going interaction with the industry

Solving the quality problems of ITIs will contribute to making India's manufacturing sector globally competitive

India's Technical Training Institutes

- **ITIs (Industrial Training Institutes)**
 - Over 5000 ITIs
 - Capacity ~ 750,000 seats
 - Most in southern & western region
 - Uneven quality
- **Government ITIs** ● — — — — — ➔
 - Run by the state governments
 - About 150-250 students
- **Privately owned institutes**
 - Most fairly small (< 100 students)
 - Few very good e.g. NTTF
- **Large organizations have their own in-house training divisions**



Current efforts at improving ITI quality

Upgrading ITIs into “the centers of excellence”



➤ Central government's CoE plan

▪ Centrally sponsored plan

- Currently 100 ITIs, to be extended to 500.
- Central Government and World bank funding

▪ Institute Management Committees (IMC)

- have industry participation
- already set up in about 500 ITIs in 28 States

▪ **Advanced Training Institutes** for Instructors' training (six institutes around the country)

➤ Other recommendations

- FICCI recommendation to create a new institutional framework for private participation with greater autonomy
- PanIIT executive board recommendation to *“create institutions similar to the IITs but focused on vocational education and highly skilled workers”*

What the Program launch team feels ITIs need



- Focus on Quality process
- Technical guidance
- Faculty quality improvement
- Suitable equipment, Instruments and teaching aids for imparting practical training
- Close interaction with the industry, including introduction of new courses in response to industry needs
- Reputation as premier institutions to attract better quality students and faculty

Role of IITians



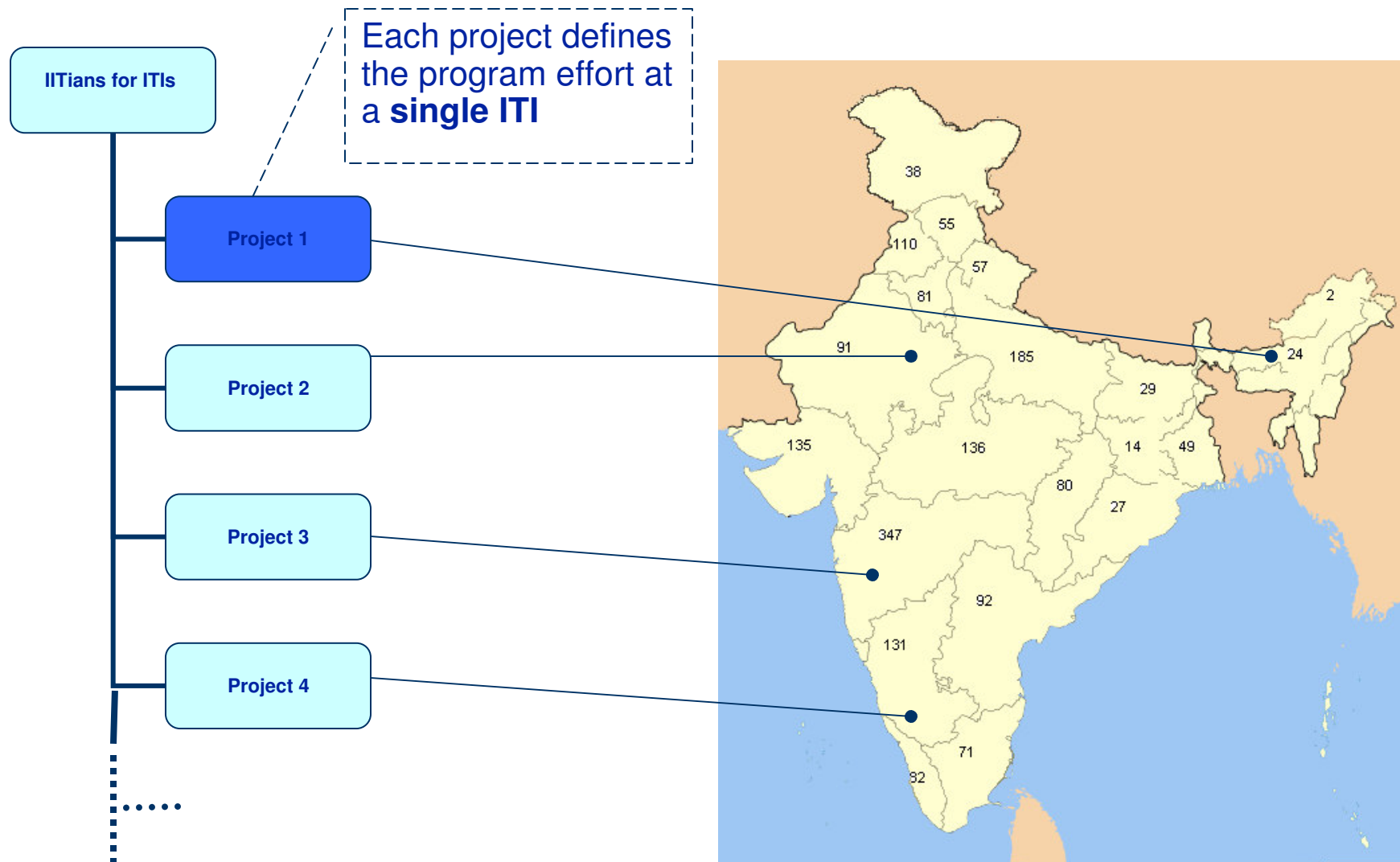
- Program launch team represents IITians who wish to contribute to the success of Indian manufacturing industry
 - Fulfillment of personal vision of making a difference
 - Opportunity to collaborate with other IITians towards a long-term shared goal
 - Satisfaction of improving a technical institution in their hometown
- These IITians can give many tangible and intangible inputs to ITIs
 - Global perspective, management advice and technical know-how
 - Mentoring the Principal and Faculty
 - Funding scholarships and instructor training etc.
 - Industry and international collaboration
 - Reputation by association

What is “IITians for ITI” Program?

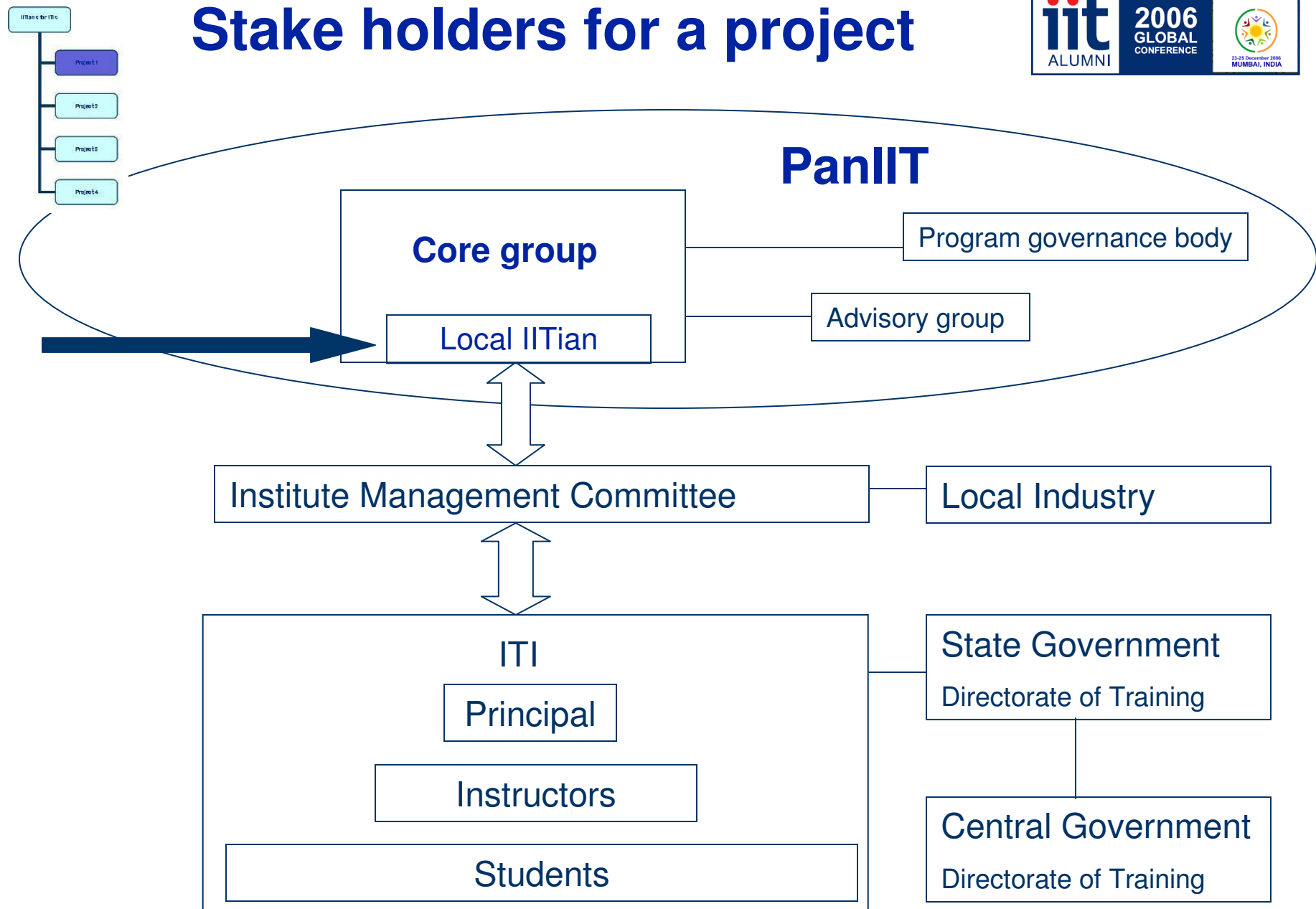


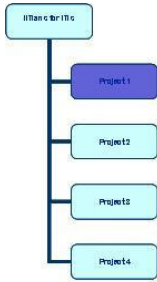
- To elevate the quality of ITIs by supporting their management and instructors, and by promoting excellence among their students
- Phased approach with initial focus on CoE ITIs
- Long term program envisioned to cover 100s of ITIs nation wide
- At maturity, the program will involve 500 to 3000 Alumni volunteers
- IITians involved with different ITIs to collaborate and share best practices
- Long term goal is to achieve sustainable institutional excellence in ITIs

Program will consist of many simultaneous projects at different ITIs around India



Stake holders for a project





Project objectives at an ITI

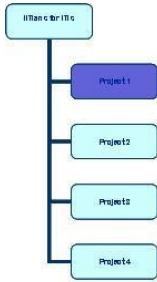
Excellence in training of technicians



- Improve overall quality of technical training
- Support the management and instructors
- Promote excellence among the students

Technicians trained at the ITI...

- ☑ acquire trade certificates with international recognition
- ☑ compete successfully in international skill competitions
- ☑ command a well-paying job anywhere in the world
- ☑ get social recognition as being from a premier institute



Project objectives at an ITI

Institutional excellence



- Improve overall quality of technical training
- Support the management and instructors
- Promote excellence among the students

Institute under the project ...

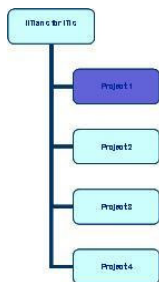
- ☑ Gains accreditation with internationally recognized bodies
- ☑ Trains Master craftsmen
- ☑ Retrains industrial employees and runs advanced courses for industry
- ☑ Becomes financially self-sustaining
- ☑ Gains social recognition as a premier institute



Model example

ITI Aundh in Pune conducts evening courses in CNC and PLC Programming for industry

Project Components



Quality improvement

- IIT Alumni to support the Principal of the ITI
- Help align the syllabus with the industry requirements
- Raise funds for equipment and teaching aids

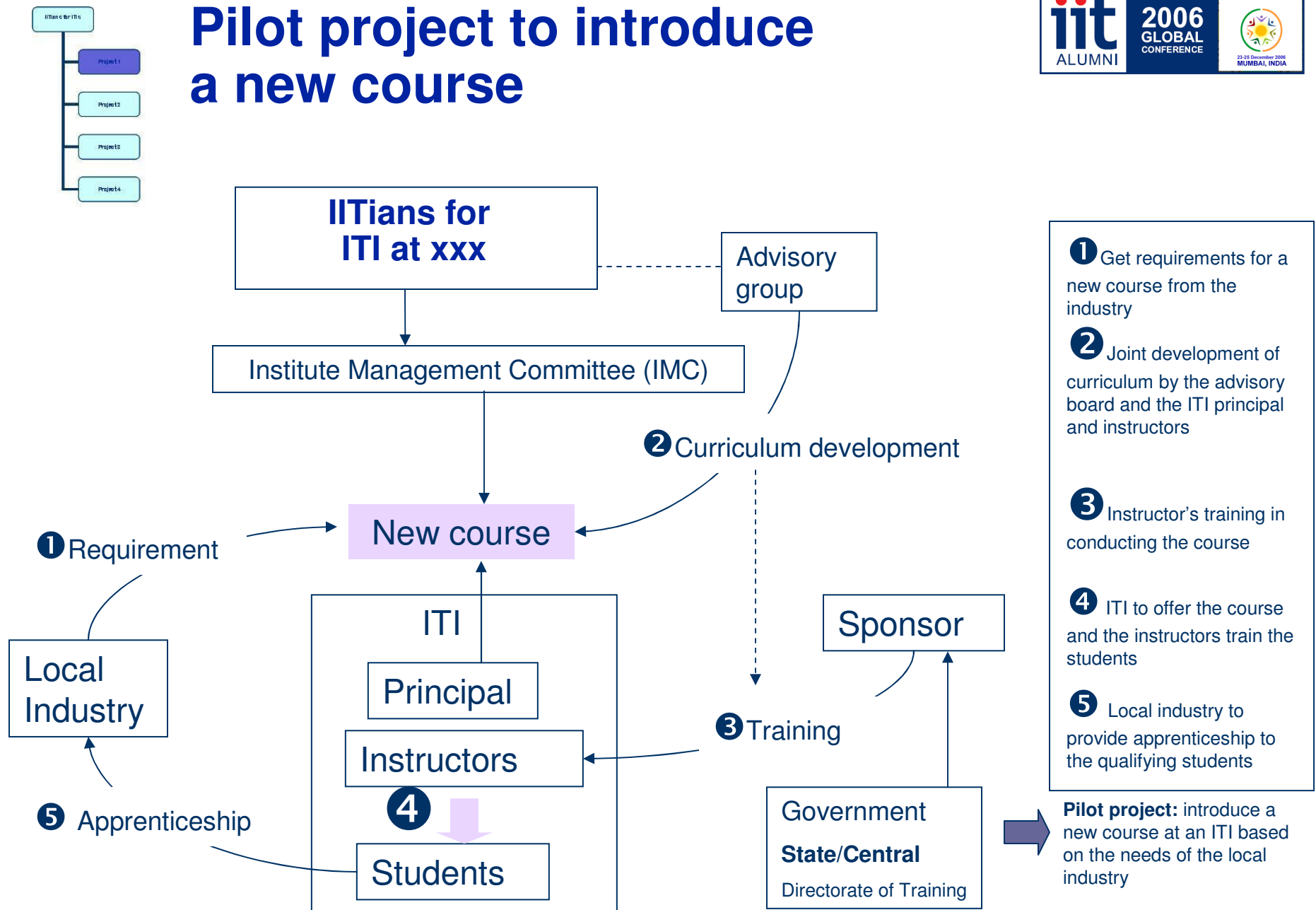
Mentoring

- IIT Alumni to personally and *remotely* mentor the ITI instructors
- **Scholarships/sponsorships** for ITI instructors

Excellence promotion

- IIT Alumni to sponsor ITI students to participate in the national/international competitions for skill standards and performance benchmarks e.g. WorldSkills Competitions
- Support for acquiring certificates with international recognition

Pilot project to introduce a new course



Next steps for the program



- Get endorsement of other PanIIT chapters in India and abroad
- Involve key beneficiaries – Local industry
- Involve key stake holders – central and state governments
- Multiple teams to execute pilot projects in different regions of India
 - Develop a project plan with concrete details for the initial phase
 - Execute pilot projects

Program Launch Team



USA

- Task force
 - Atul Mathur (PNW)
 - Sesh Rao (Dallas)
 - Salil Dave (PNW)
 - Abhijit Bhattacharya (Florida)
 - Sameer Sahay (PNW)
 - Harsh Arora (PNW)
- Steering Committee
 - Hitendra Ghosh
 - Ray Mehra (Midwest)
 - Alok Tandon (Southern CA)
 - Rassoul Dastmozd (VP, instruction, Community College, Washington state)

India

- Task force
 - Prashant Shukla (Hyderabad)
 - Atul Nigam (Mumbai)
 - TBD
- Steering Committee
 - TBD
- Project Management office
 - TBD
- Advisors
 - Krishan Khanna (Mumbai)
 - Prakash Kumar (Delhi)
 - Yatish Mathur (Gurgaon)
 - N.T.Nathan (Chennai)

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"IITians for ITI" Program website:

[http:// iitpnw.org/ForITI](http://iitpnw.org/ForITI)

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