Introduction

- Established to conduct research and development activities in the areas of IT and Telecom
- In collaboration with local industries and international research and academic organizations.

Mission

Take a fast track in becoming premier research and advanced technology organization.

A centre recognized for technology innovation and industrial collaboration

Become a leading resource of research and development in critical areas of National interest.

Our Vision

- KICS is envisioned to play a key role in taking the country towards knowledge-based economy and competitive industrialization.
- Provide the country with trained resources for development of high tech products and services
- Exercise commercialization through Incubation of high tech companies
  - A unique activity that will help the institute attain self sufficiency.

Research Labs

- Software Systems Development Lab
- High Performance Computing and Networking Lab
- Embedded Systems & Enterprise Software
- Bioinformatics Research Lab
- DSP and Broadband Wireless Technologies
- Wireless Sensor Networks Lab
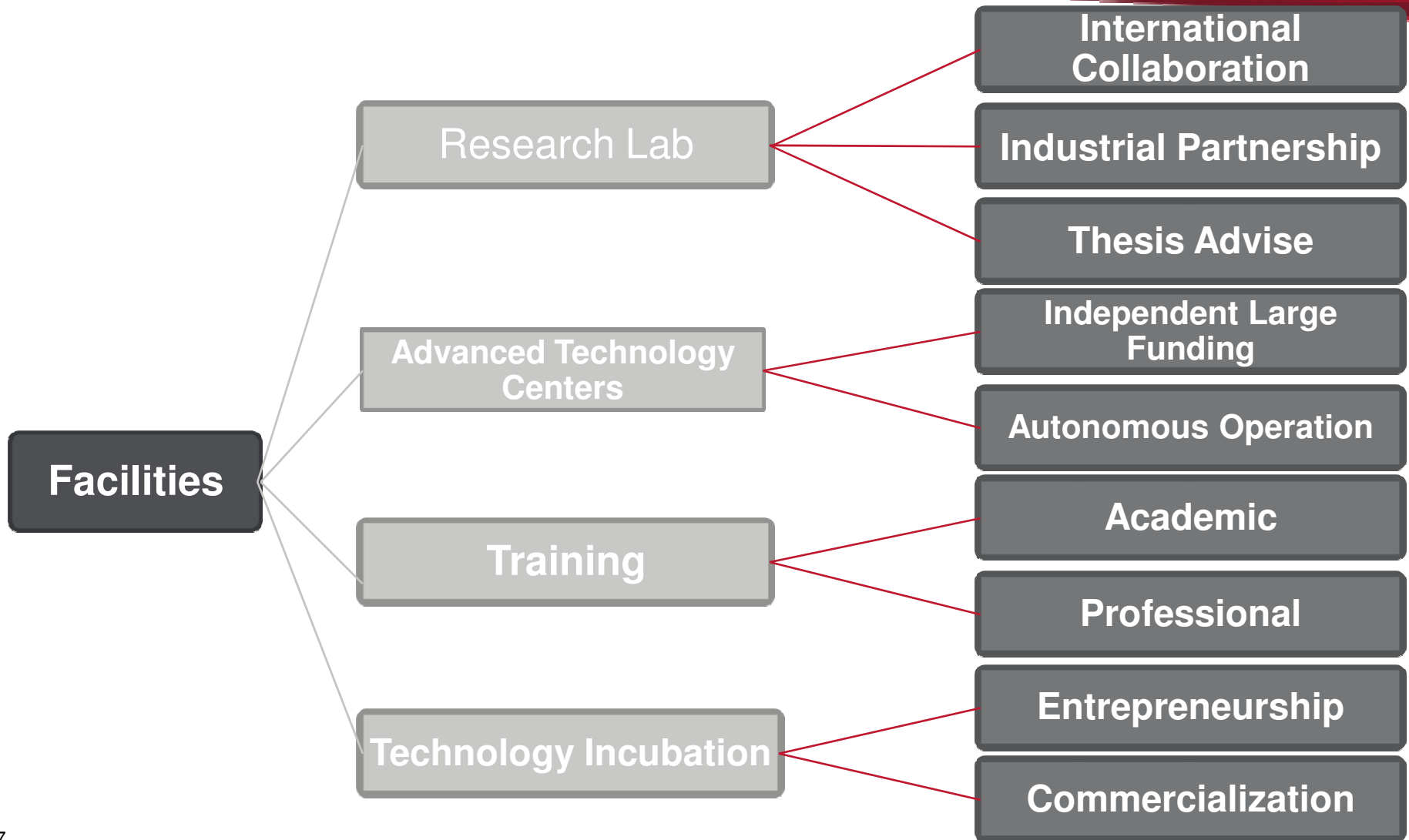- Photonic Networks Research Lab

Advanced Centers of Technology

- **Huawei-UET Joint Telecom and IT Center (HUTIC)**
  - **8.2M USD investment from Huawei, China**

- **Center for Language Engineering (CLE)**
  - **1.0 M USD research funding from International and national sources**

Facilities

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Facilities
  ├── Research Lab
  │     ├── International Collaboration
  │     ├── Industrial Partnership
  │     └── Thesis Advise
  ├── Advanced Technology Centers
  │     ├── Independent Large Funding
  │     └── Autonomous Operation
  ├── Training
  │     ├── Academic
  │     └── Professional
  └── Technology Incubation
        ├── Entrepreneurship
        └── Commercialization
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High Performance Computing and Networking Lab

- The purpose of this lab is:
  - To solve advanced computation problems using computer clusters and multi-core processors

Bioinformatics Research Lab

- The Lab aims:
  - › To provide a national bioinformatics information network designed to cater for the inter-disciplinary and collaborative research needs of the research/scientific community and the industry
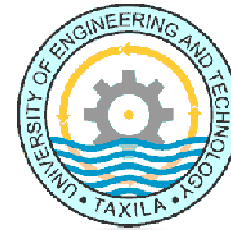
DSP and Broadband Wireless Technologies Lab

- ## This lab focuses on:

  – Signal processing algorithm development for Digital and wireless communication.

  – To develop a flexible trainer for the digital and analog communication experiments

Software System Research LAB

- ## The group is focused On:
  - Open source software development
  - Enterprise level systems and web based solutions
  - The development of web based applications to improve the interaction with clients, suppliers' and business partners.
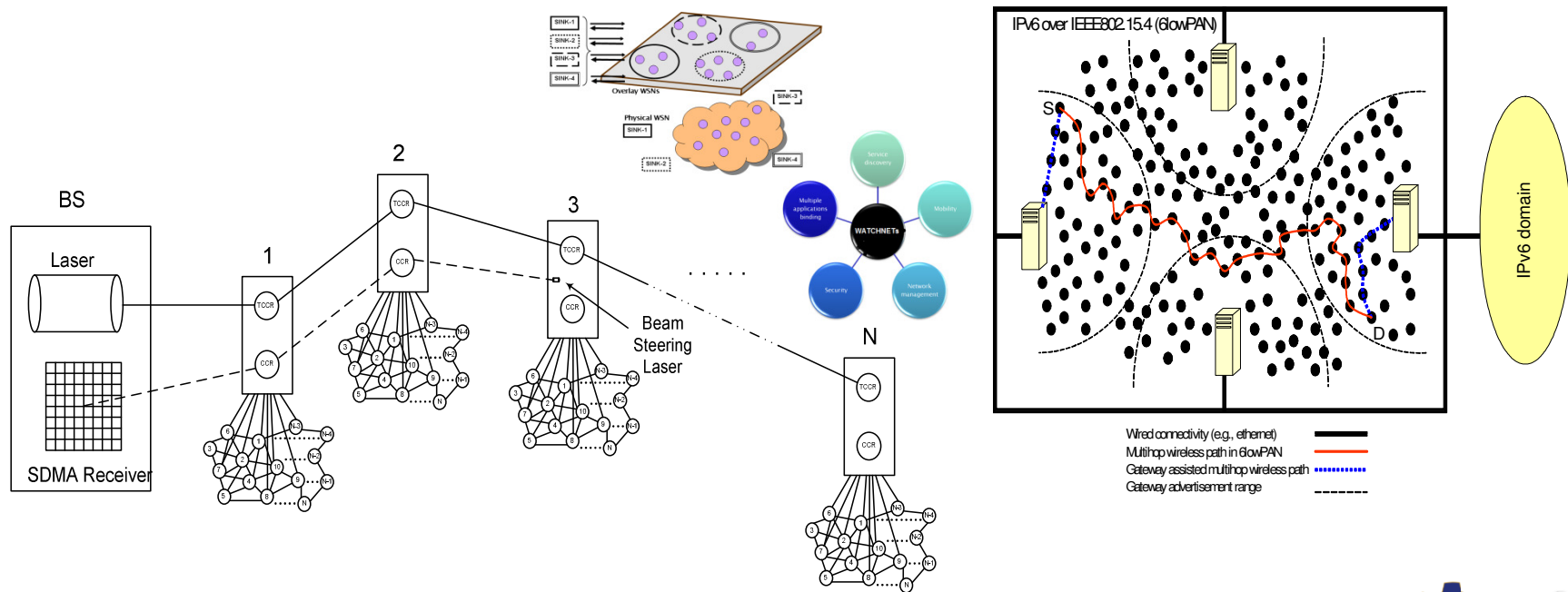
Embedded Systems & Enterprise Software Solutions Lab

- • This group focuses on:
    - – Developing model-based design methodologies for real-time fault tolerant software.
   - – Automation of power industry in Pakistan

Wireless Sensor Network Lab

- ## The focus of this lab is on:
  - Networking protocol and algorithm development for wireless and sensors networks.

Huawei-UET Joint Telecom IT Center

- This centre is a training facility for students and professionals in GSM Technologies
- A perfect place to gain hands on experience
- Huawei recently awarded HALP status to HUTIC for Datacom training and certification
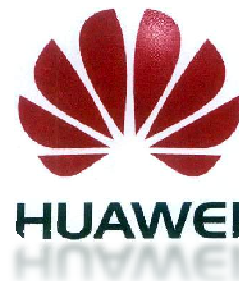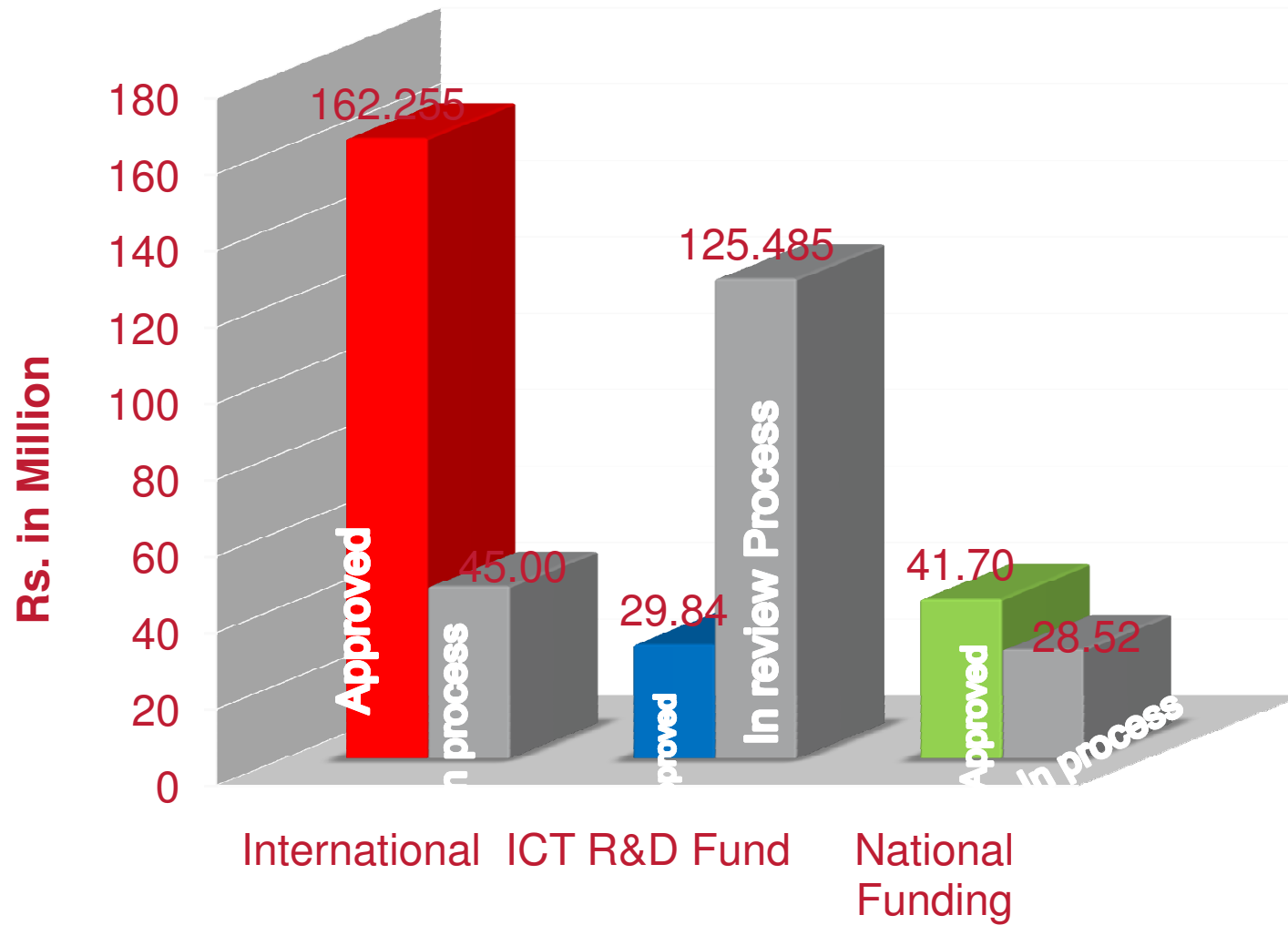
Center of Language Engineering (CLE)

- Research and Development in linguistic
- Covering all computational aspects of languages in Pakistan and in the region
- Facilitate natives to access information and communicate in their local languages.

Funding through Project Proposals

Bar chart titled "Rs. in Million" showing funding through project proposals across three categories:

- **International**: Approved 162.255, In process 45.00
- **ICT R&D Fund**: Approved 29.84, In review Process 125.485
- **National Funding**: Approved 41.70, In process 28.52

Publications

Year	Local	International	Total
2004	4	6	10
2005	4	1	5
2006	3	10	13
2007	2	3	5
2008	4	16	20
2009	3	14	17
2010	3	29	20
2011	6	13	19
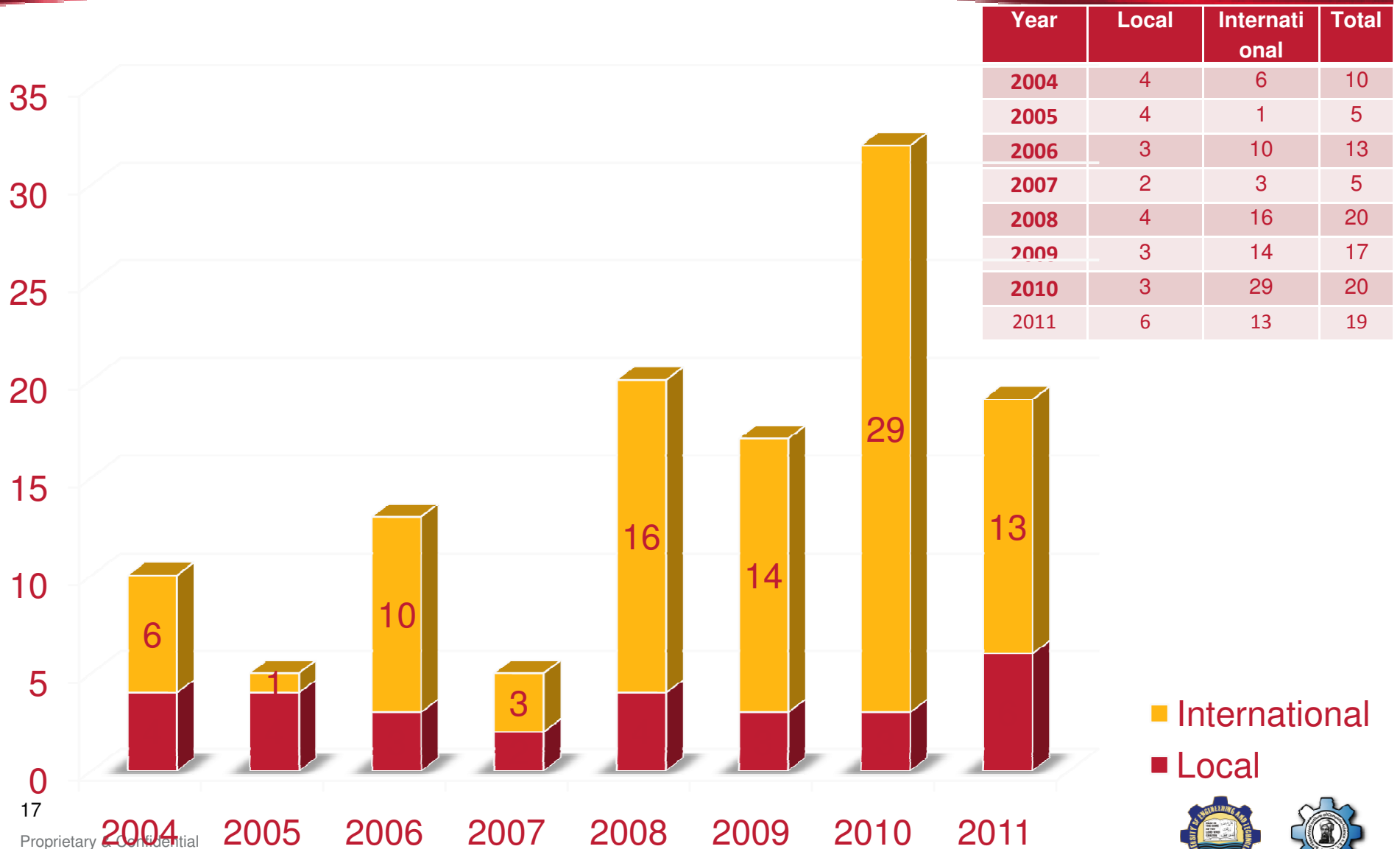
■ International
■ Local

KICS – Leading Open Source Drive

Researchers at KICS are keen on using Open Source
- Reduced cost of deployment
- Unique expertise

KICS completed and deployed following OSS based projects :
- University Management System
- MPAC – Multicore processor benchmarking library
- IPAS – Enterprise billing management for IPPS
- Mico-Kernel development for multicore architectures
- Web Portals
- Entry Test Grading System
- RFID based Library Management System
- Hospital Management System
- WiMax Transceivers designs based on Software Defined Radio

KICS and Open Source

Conferences Organized

- [ ] 1st International Conference on Open Source Technologies (ICOST-06), 28-29 Dec, 2006
- [ ] 2nd International Conference on Open Source Systems Technologies (ICOSST-07) with open source series workshops, 18-19 Dec, 2007
- [ ] 3rd International Conference on Open Source Systems Technologies (ICOSST-09) with open source series workshops, 19-22 Dec, 2
- [ ] 4th International Conference on Open Source Systems Technologies (ICOSST-10) with open source series workshops, 21-24 Dec, 2010
- [ ] 5th International Conference on Open Source Systems Technologies (ICOSST-11) with open source series workshops, 21-24 Dec, 2011

KICS Leading Mobile Application and Technology Development and Training

- KICS-UET won grant competition for mLab South Asia
  - Nokia, World Bank, InfoDev funding partners
  - PSEB, IVS and NCA implementation partners
  - Deliverables
    - Mobile Application Development Companies – Incubation
    - Mobile application development training and certification

- Huawei UET Telecom and IT Center
  - Training on GSM 2.75 G equipment (BSS/MSC/HLR/RNO)
  - 3G upgrade on the horizon
  - Huawei Authorized Learning Partner (HALP) for Datacom certification

- 4G Broad Band Research Lab
  - Wimax and WiFi standard implementation
  - Broad Band radio design on SDR platform
  - LTE implementation
  - Cognitive radio design for broad band application

Proprietary & Con

KICS Leading Local Language Computational Capability Development

- Local language computational capability and capacity development in developing Asia
- PAN Localization project
  - 12 partnering countries, IDRC Canada funding
  - A number of trainings and conferences arranged
- Contribution in ICANN policy on local domain names
- OCR development in local languages
- IVR development in local languages
- Collaboration with Microsoft, Nokia, ELRA etc..
- Advanced Technology Center in Language Computing to be funded by ICT R&D Fund Pakistan

- Thank You