

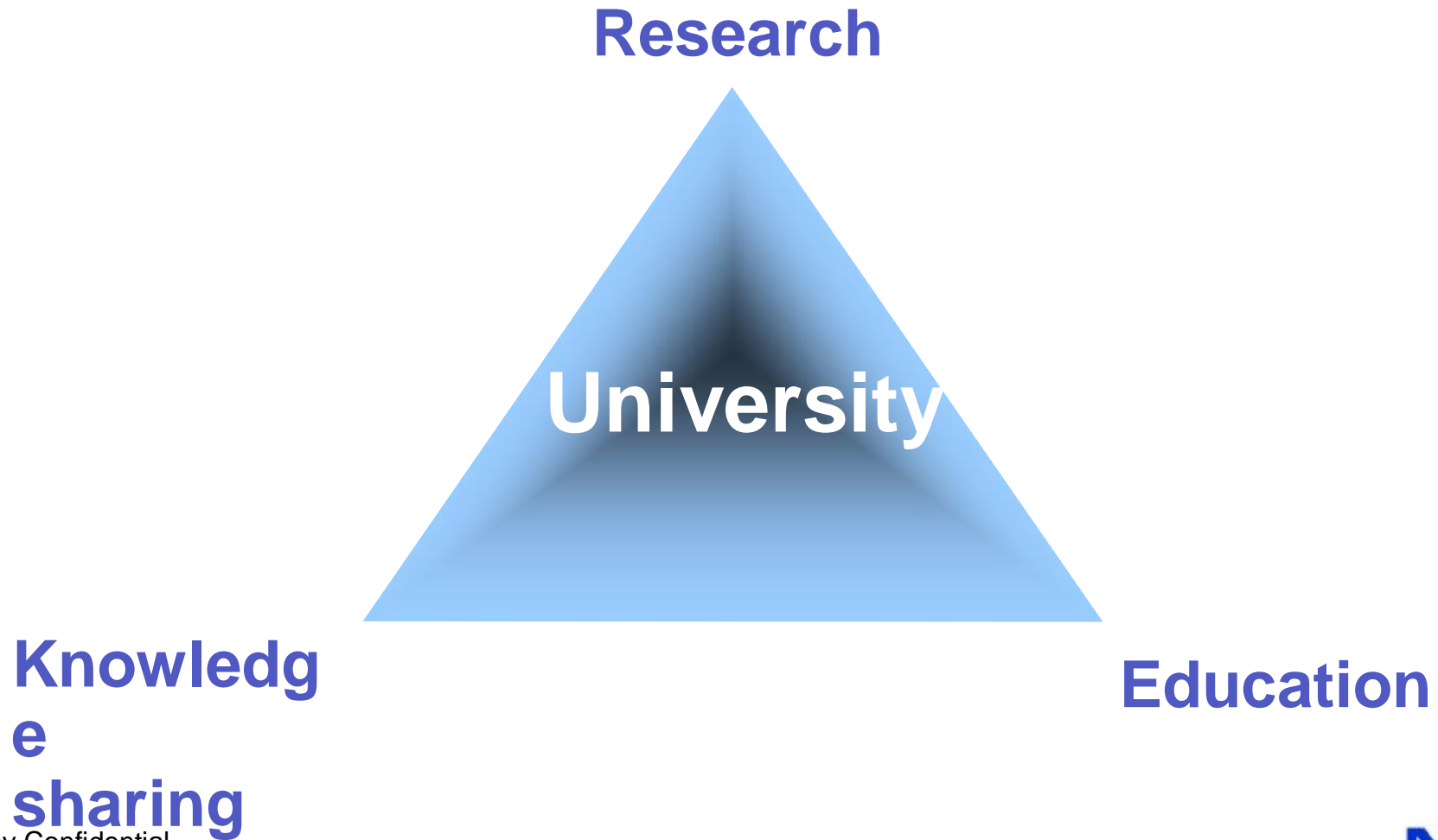
# Nokia Research Center University Cooperation in China

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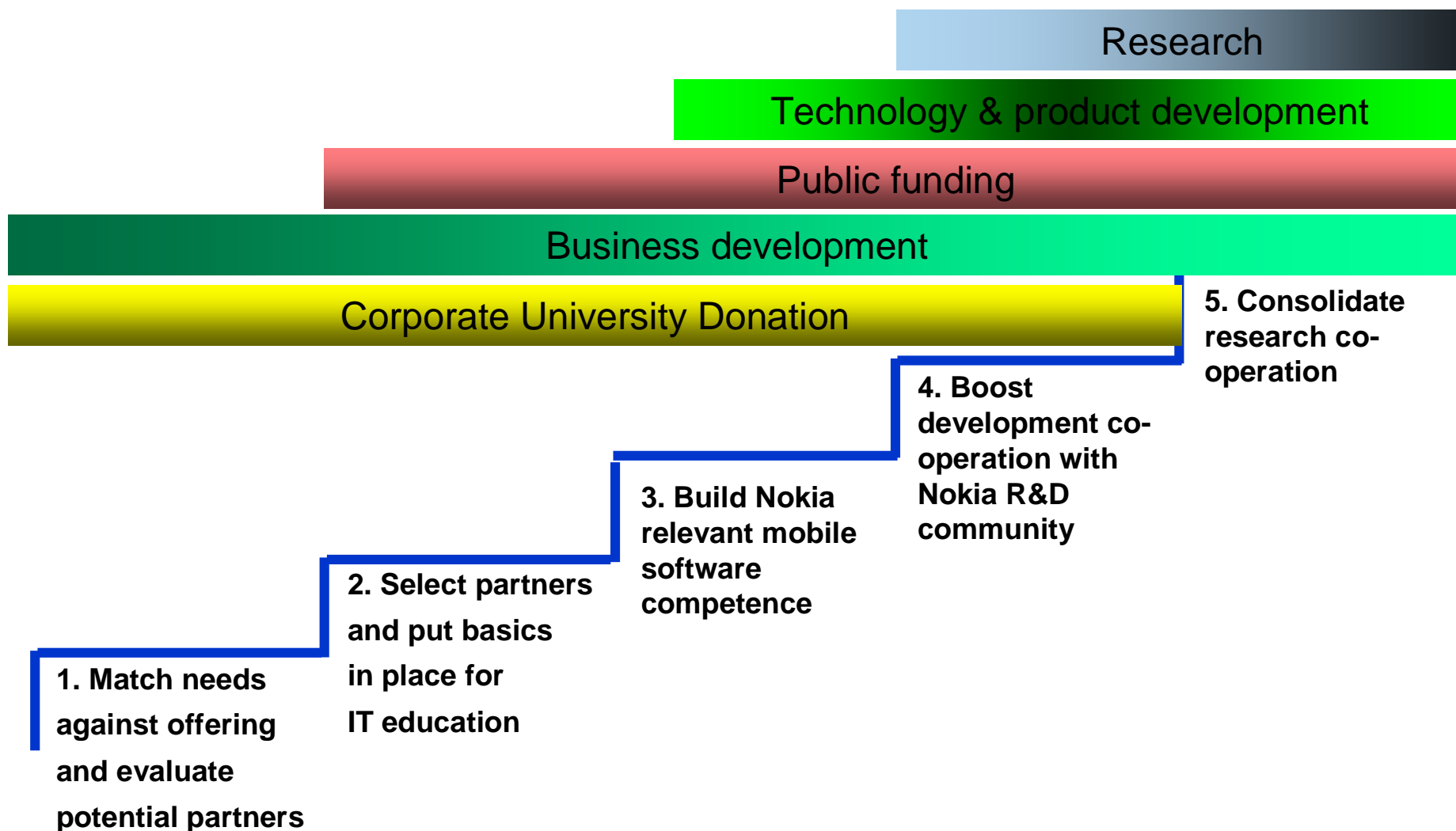


# Three basic missions of universities



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# Diversified level of university co-operation activities



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# University cooperation models

- Research
  - Long-term research: Scanning, exploration and knowledge build-up
    - Nokia-University joint research project
    - Nokia sponsored research
    - Public funding projects (e.g., EU FW7, NSFC, 973)
    - Nokia postdoctoral working station
  - Middle-term research: Develop enablers and solutions for forthcoming products
    - Research subcontracting
    - Joint government funding projects (e.g., 863, CNGI, etc.);
    - Nokia postdoctoral working station, Internship or fellowship, researcher exchanges
  - Knowledge sharing/open research exchange: share visions and research agenda
    - University summits and seminars in universities
    - <http://research.nokia.com/>

# University cooperation models (con't)

- Technology and product development
  - Short & middle terms R&D: Develop specific technologies for forthcoming products
    - R&D subcontracting
    - Internship, and R&D services (resource or competence pools for Nokia R&D community)
  - Innovative mobile applications and services: new business opportunities for innovative ideas and fast transfer to the market
    - Develop academic smart phone development and competence center network to strengthen R&D and business development cooperation with Nokia and Nokia's key developer partners
    - Provide needed terminals and software tools, lab equipments
    - Sponsor university clubs
  - Knowledge sharing:
    - Competence and technology transfer to university staff in order to create open mobile software competence and curriculum, Training for professors on Nokia platforms and tools (e.g. Symbian & S60)

# University cooperation models (con't)

- Future business growth for complementary and potential competence and excellence
  - Education: support university education, innovation, ...
    - Scholarship, thesis work support, Nokia Innovation foundation, Nokia Bridging the World, curriculums, etc
    - Nokia representative in the curriculum/industry advisory board;
    - Nokia expert as professor (or PhD supervisor) in universities
  - knowledge sharing :
    - IT training, seminar, ...
    - Nokia presentations and events at the university campus (recruitment, technology events,...)

# Nokia University Cooperation now and past in China

## Research

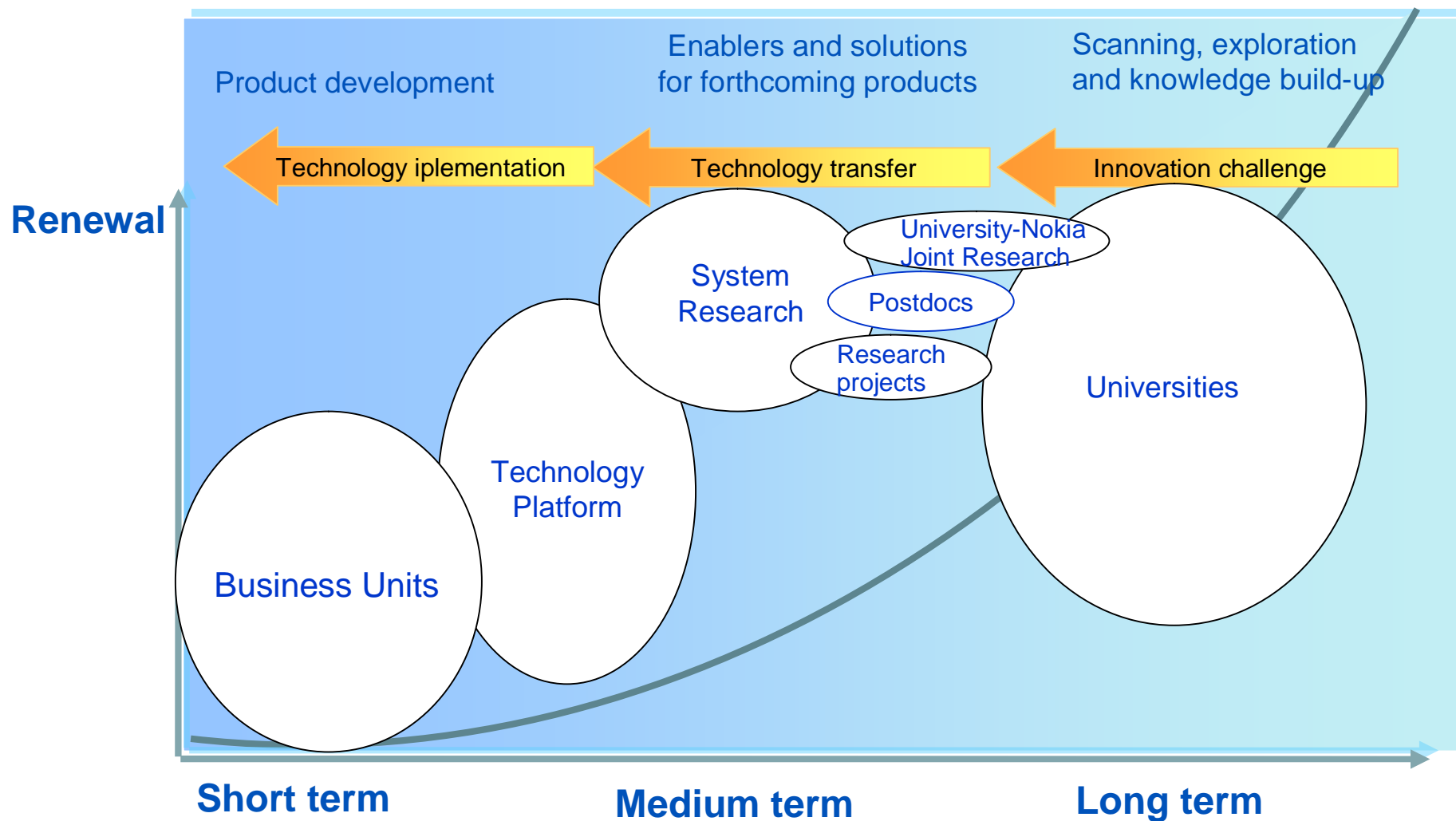
- Transferring Symbian/S60 knowledge through training, seminars and coursework in over 20 universities in China, Hong Kong, Taiwan and S-Korea. *Trained 100 professors and teachers, and more than 5 university courses in university curriculums, thousand students took the courses and seminars*
- Follow-up Chinese B3G R&D standardization activities, e.g. *Chinese B3G Wireless FuTURE Program*  
*Chinese Broadband Wireless Multimedia Program, etc.*
- Cooperated with CERNET to establish first nation-wide CERNET IPv6 testbed in 2000, together with own IPv6 research capacity approved as front runner in IPv6 in China

• Other in (MAGNET, CCCE, IoS, etc. in CAS)

- *Postdoctoral Work in Nokia/Beijing*
- *Research collaboration provided funding for over 200 researchers, and scholarships for about 100 graduate students.*
- *Participated with Universities and companies in international projects such as European Union projects e.g. WWI programs (MAGNET, WINNER, VAS China)*
- *Participated with universities in national projects such as 863, NSFC projects*

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# The next: System Research Cooperation



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# Key Areas for Co-operation

- Wireless and Internet:
  - Work together with universities to develop Future-proof mobile wireless systems adapted to regional needs, especially on areas of B3G research in TDD and cognitive radio domain.
  - Focus on key technologies, applications and services relevant for China's next generation internet (CNGI) research.
  - Develop the next generation digital broadcasting technologies in line with Mobile device goals.
- Interaction solutions:
  - Create interaction solutions utilizing mobile device's modalities, e.g., camera , pen, and other sensors and provide world-class systems for mobile devices
  - Focus on Asian language Speech and image interaction technologies through leading research
  - Provide delighted UI experience in mobile devices through innovative solutions
- Mechanics & HW:
  - Create technology solutions for miniaturized, proactive and comfortable terminal concepts
  - Collaborate with best in class research institutions by introducing market first solutions
  - Biomimicry oriented human interface, product design issues for emerging markets
- Mobile Services through Internet evolution:
  - Develop unique applications and services based on e.g. Mobile sensor network for emerging markets
  - Collaborate with communities and open innovation effective manner to create wow applications and services
  - Provide mobile access and services to ensure leading edge solutions for education, small business and communication

# Open innovation:

<http://research.nokia.com/>

**This website provides an expanding information portal for the Center's research scientists and engineers. This window enables us to share some of our more recent ideas and experiences with other researchers who might want to discuss topics of mutual interest. We invite you to browse and email anyone of us for further discussion.**