

International Otaniemi (INTO)

developing TKK International Strategy

Steering Group November 2006 TKK Strategy Goals and Issues

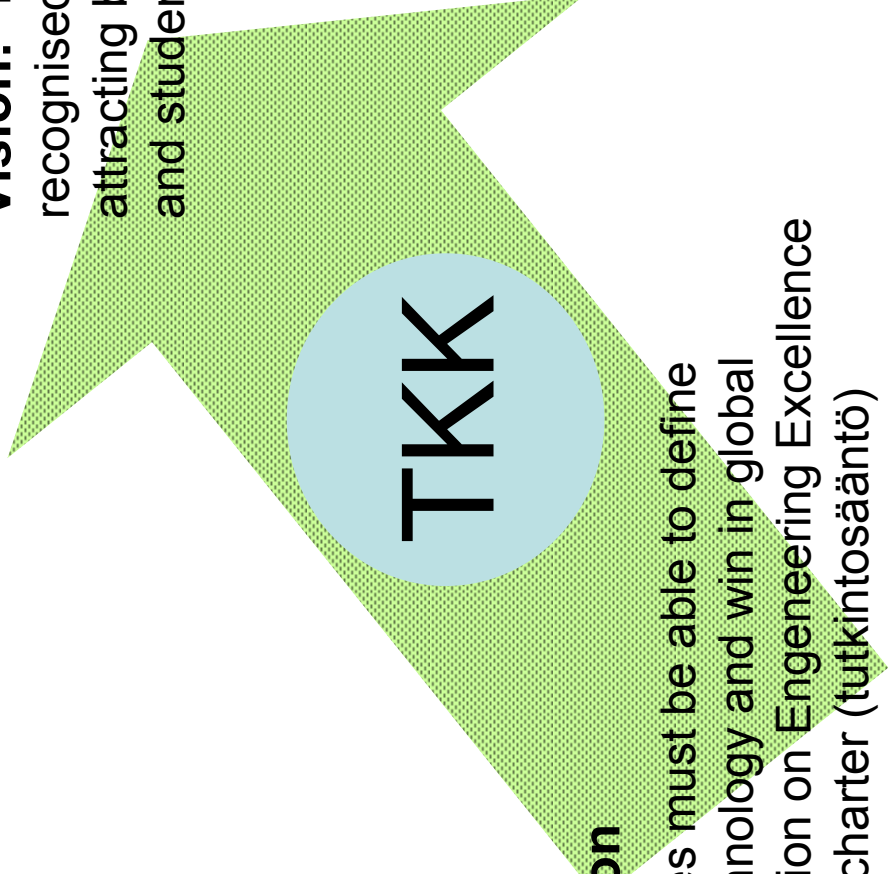
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Agenda

- TKK International Strategy 2002
 - Motivation, modes of operation, implementation
- TKK current work on International Strategy
 - Preparatory Group of Profs Seppälä, Nevanlinna and Varsta
- Issues in International Strategy

Motivation of Internationalization

Vision: TKK is an Internationally recognised Technology Univ attracting best teachers, researchers and students



Globalisation

- Graduates must be able to define new technology and win in global competition on Engineering Excellence (degree charter (tutkintosääntö))
- TKK competes as a Research partner globally

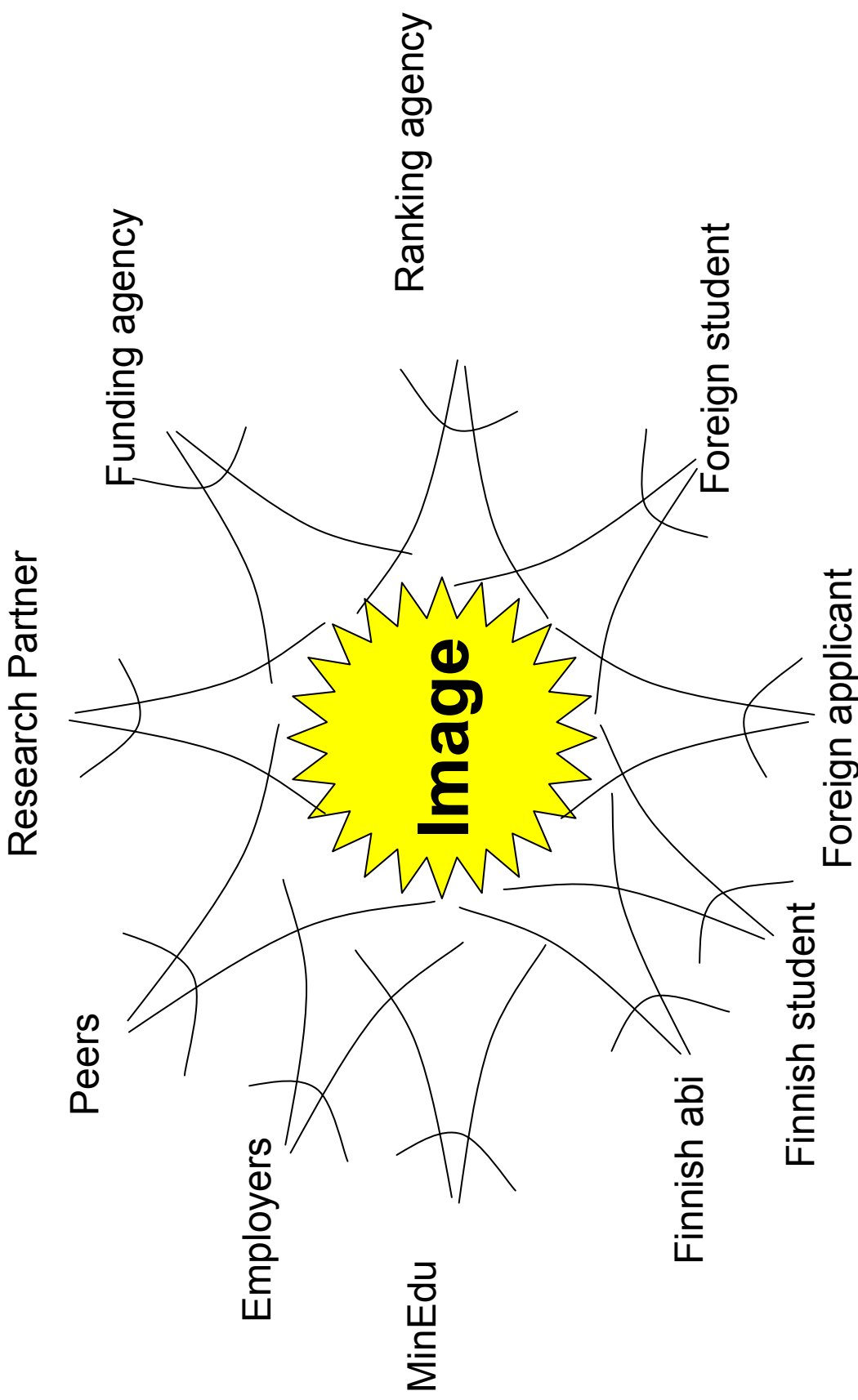
Background: MBO at TKK

- Based on Agreements:
 - MinEdu – TKK
 - TKK Rector – Departments
- Core activity of TKK
 - Results that bring money: M.Sc degrees, Doctoral Degrees
 - Efficiency: low cost operation
 - High impact research: Academy, TEKES, EU, etc
- Non-core activities at TKK
 - All other admin directions agreed with MinEdu

Strategy directions 2002

- Focus on significant collaboration actions in terms of science and technology
- Focus on collaboration with the Best Universities
- International Exchange focused on Quality (teachers, researchers, students)
- Multi-cultural ideals
- Increase number of study modules in English and Intake into Masters Programs

TKK Image is multi-faceted



TKK International Strategy of 2002

Planned Action

- Increase International Recruitment to Masters Programs (10% by 2005)
- More Programs in English based on HE demand and competence
- Student Exchange (75%)
 - Agreed with MinEdu: 500/year
- Evaluation of Univ. Collaboration Agreements and Networks → student exchange, collab with the best, TKK International visibility
- International Campus

Implementation

- 6...7%
- Done: now 9 Master's progs + 6 PD progs
- Level: ca 20...25%
- Yes.
 - ERASMUS, Cluster, EAIE, TIME, Nordtek...
 - Do we have enough partners to achieve exchange goals
- Not done.

Implementation: Organisation of International Activities

- The 2002 International Strategy was a separate area strategy → now Internationalization seen as an integral part of TKK strategy
- Common Services
 - International Office: mobility, exchange, collaboration agreements and networks, campus international profile
 - Innovation Center: International Research projects
- Departments: Masters Programs, PD Programs, Student recruitment

International Master's Programs

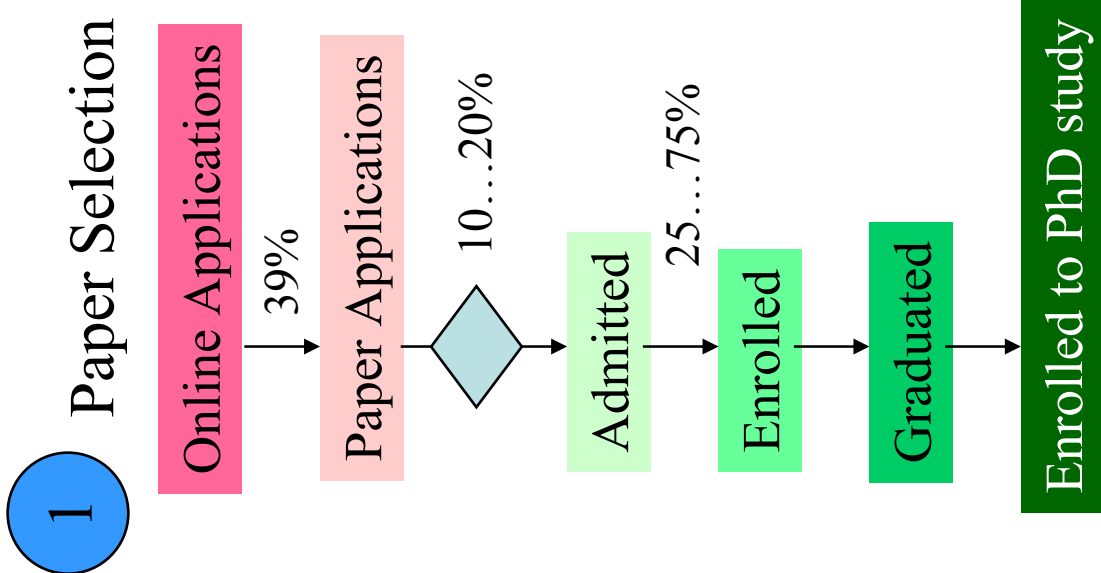
- MP in Communications Engineering (ECE)
- MP in Mobile Computing – Services and Security (CS)
- MP in Electrical Engineering (ECE)
- MP in Forest Products Technology
- MP in Micro- and Nanotechnology (ECE)
- MP in Process Systems Engineering
- MP in Data mining etc are being planned

ERASMUS MUNDUS

- SpaceMaster – Joint European Master in Space Science and Technology (Aut)
- NordSecMob – MP in Security and Mobile Computing(CS)

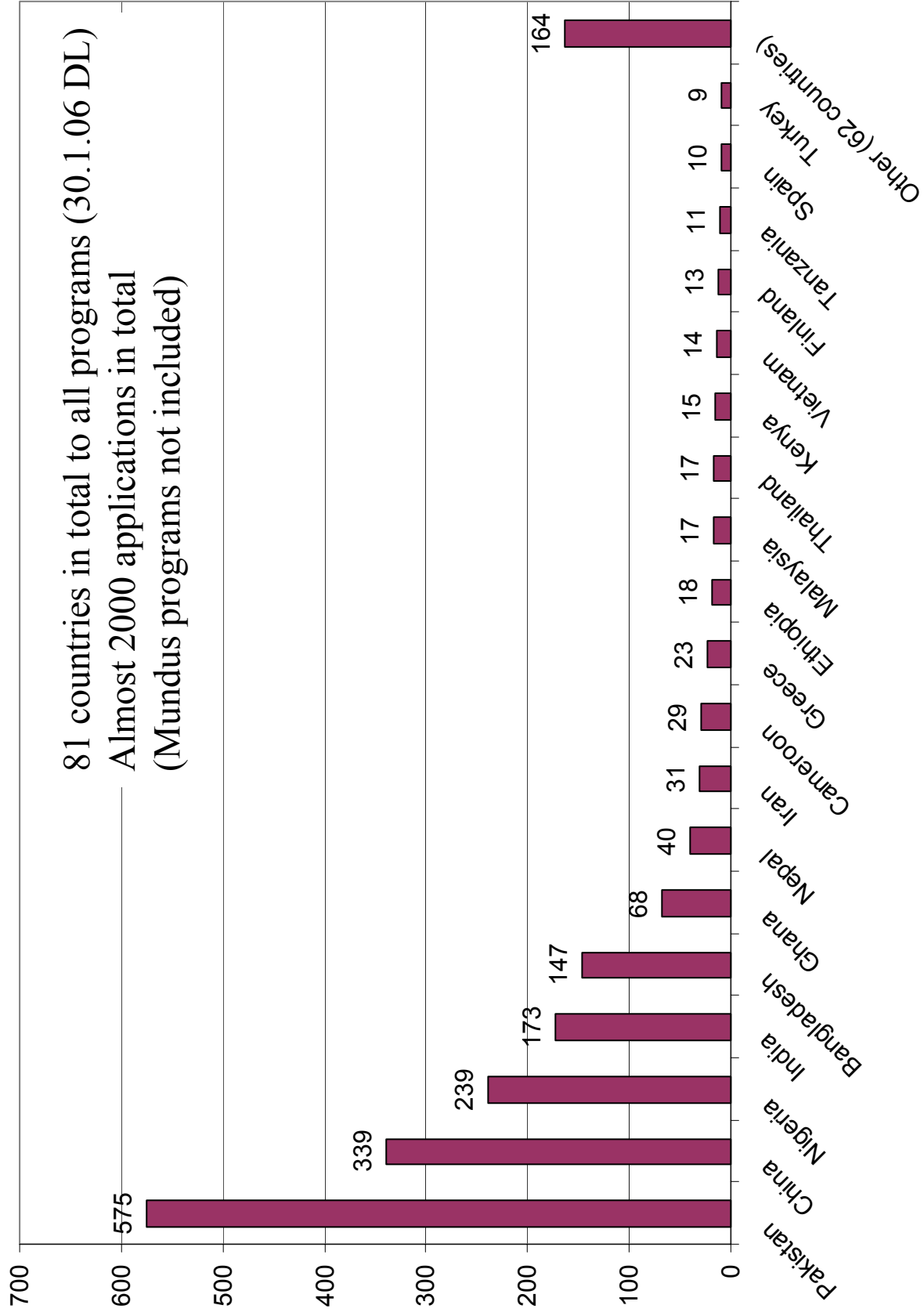
In addition: 6 separate “Professional Development” Programs (less than 120 ects)

Admissions – Three tracks

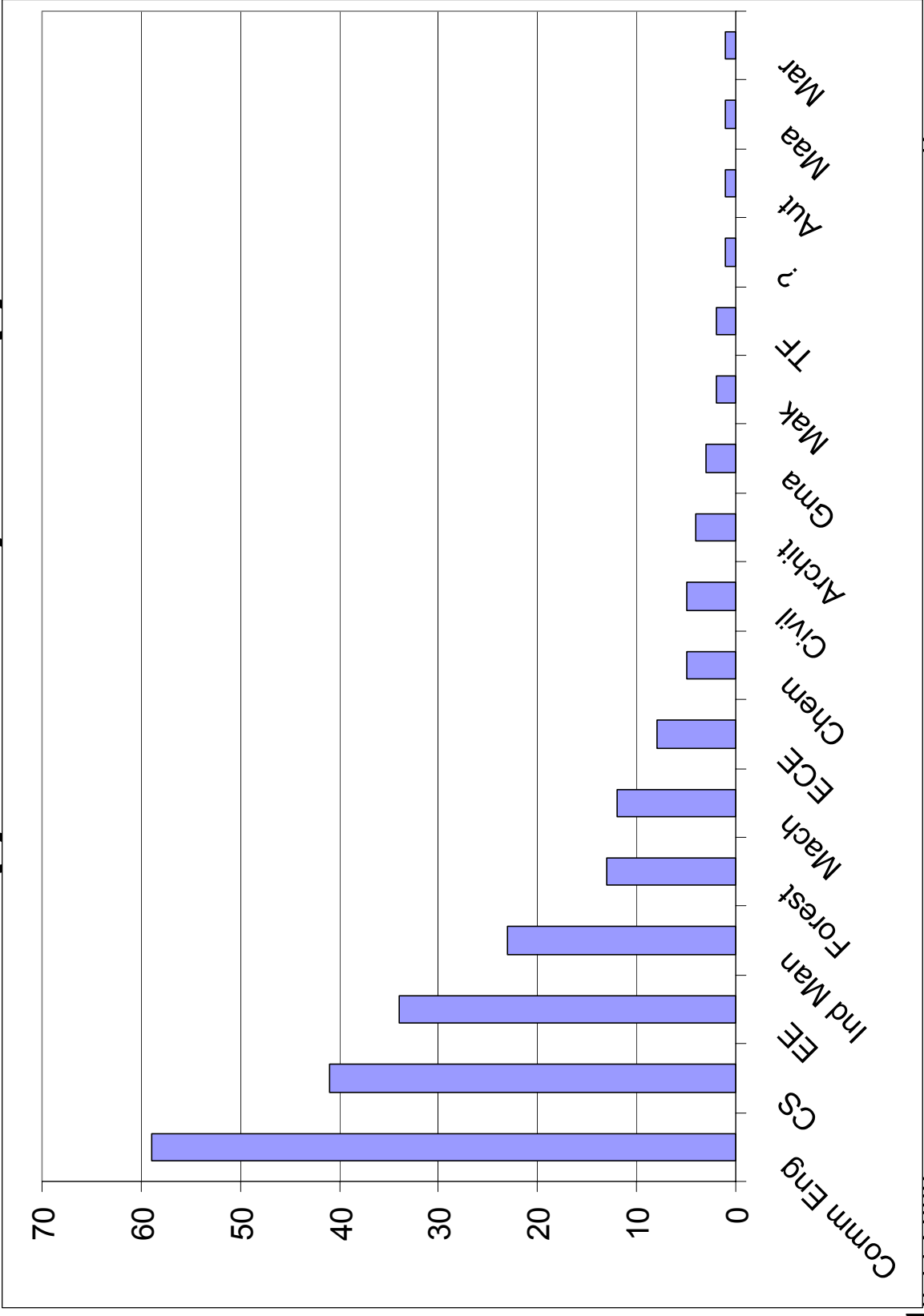


- 2 Selection through Entrance Exam onto Master's Programs
- With a B.Sc from a foreign Uni pre-selection at Departments to ensure appropriate prior knowledge
- 3 Admission in joint entrance process to Technical Universities and Deps
- with IB, EB etc High School Certificates to Full 3+2 progr's
 - a Finnish proficiency req under discussion

Online Applications by Country



M.Sc Degrees by Program



Marketing: Information sources for Applicants

| | |
|------------------|------|
| Internet | 69 % |
| Personal Contact | 16 % |
| Brochure | <1 % |
| Fair | <1 % |
| Press | <1 % |
| Other | 13 % |

This is based on all online applications in Jan 2006 to TKK.

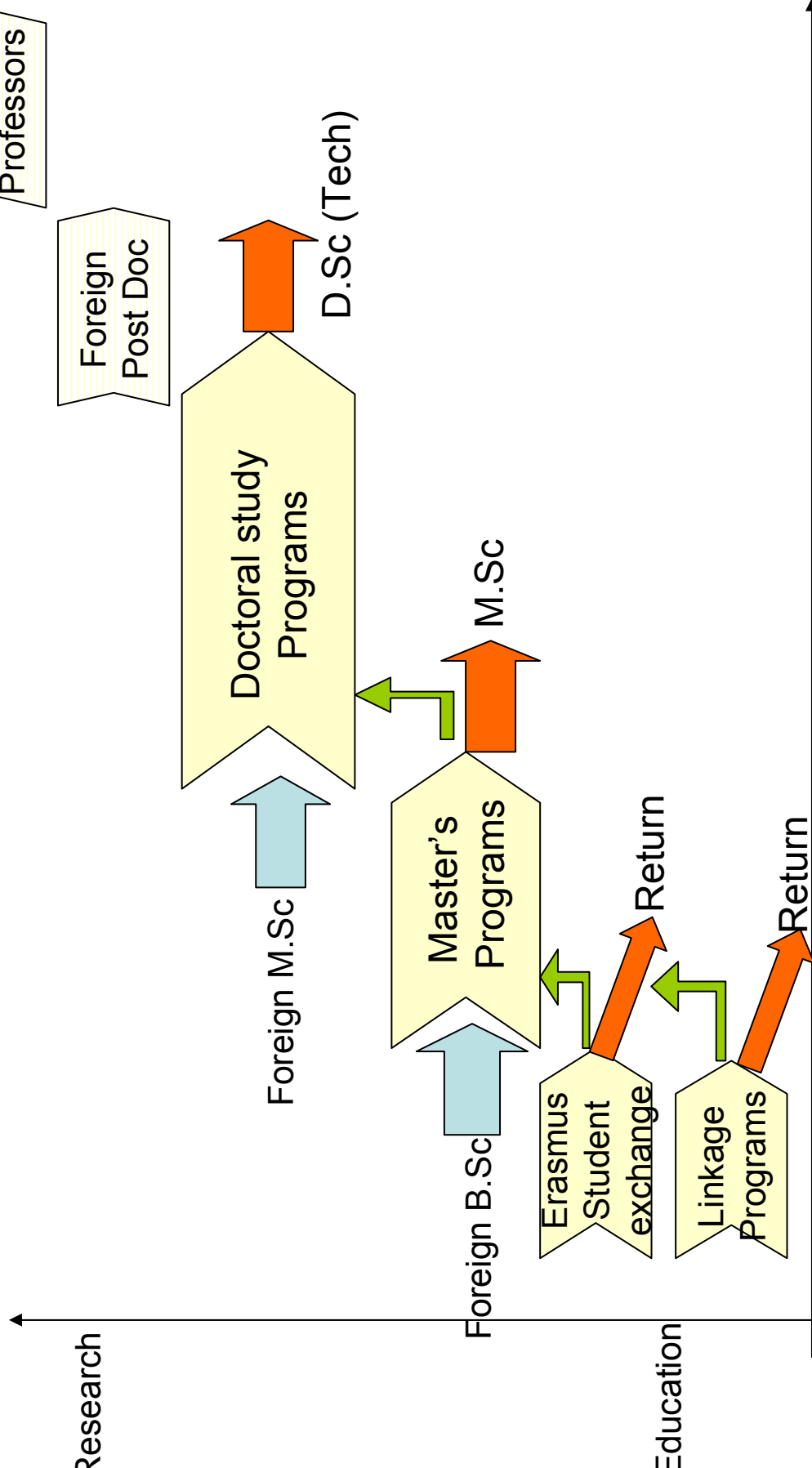
One can interpret this in two ways

+ two channels are important: Internet and the Grapevine.

+ TKK does not do much other kind of marketing except [www](http://www.tkk.fi).

Models for International Education & Research

People's view



Notes on models

- International Student Exchange is in balance (even positive) – 300...400 per year
 - Master's programs have attracted also exchange students
- Master's Programs (7...9 programs) about 6% of graduates
- Doctoral study – a well working model for research centric labs
- Very few post docs and profs

Ongelmat

- Suomen koulutus- ja maahanmuuttopolitiikat ovat epäsovussa keskenään
 - Viisumikäytännöt, sosiaalieläkkeet (ulkomainen opiskelija voi maksaa veroja ilman että hän on sosiaalisetujen piirissä)
 - Kotouttamiskoulutukseen ja suomen kielen opetukseen ulkomaalaisille ei panosteta riittävästi
- Yhteiskunta ja elinkeinoelämä laajasti eivät ole valmiita hyödyntämään meiltä valmistuneita ulkomaalaisia diplomi-insinöörejä
 - Jopa suomalaisten kansainvälistä harjoittelua voidaan työhönotossa vierastaa
 - Julkisella sektorilla ei ole ulkolaisten työllistämiseen mitään laajempaa ohjelmaa
 - Onko TKK:lla valmius käyttää ulkomaalaisia opettajia?
 - Suomen kielen taidon ja paikallisten toimintatapojen tuntemuksen puuttuminen rajoittaa merkittävästi työpaikkavaikoimaa
 - Kansainväliset suuryritykset ovat poikkeus. Monet niistä käyttävät ulkolaisia osaajia täysin sujuvasti.
- Pääkaupunkiseutu on edelleen aika suomalainen paikka eikä sitä voi pitää monikulttuurisena metropolina



Suomi maana ei ole houkutteleva kohde ulkomaalaisille opiskeilijoille

Kulttuuri ja diversiteetistä hyötyminen

- Meidän tulee tiedostaa kansallisuuksiin liittyvät kulttuurierot ja oppia hyötymään kulttuurisesta diversiteetistä.
 - Auttaa saavuttamaan kaikkia muita kv tavoitteita
 - Toimii mallina muille kansallisille organisaatioille
 - Tietotalouden menestyjiä ovat ne, jotka osaavat tämän.
- Ratkaisut: Cultural learning, Alumnit voimavarana sijaintimaasta riippumatta:
 - Globaali verkosto, Kansainvälinen kampus ja Rekrytointi
- Nykytila: on teekkareita ja ulkkareita

Some lessons learned in running

Master's Programs

- Paper evaluation is an art in itself
 - Lots of faked papers around
 - Lots of different Universities
- Must continuously build up knowledge of what works and what does not
- Best students are admitted to many programs in many countries – competitiveness of the country and city are important
 - Finland and Helsinki could do much better in this regard
 - If one is too selective in paper evaluation, no one or too few will enroll
 - Fast processing of applications improves gain
- Online applications process helps to make the selection process professional
- Even with poor marketing – the demand is there.
- In Marketing we need Country level → Helsinki area level → University level → Program level.
- Must Integrate International Programs with regular Degree structure
- Predicting Enrollment percent is hard – makes planning difficult!
- After 7 years, Communications Engineering has more International Applicants to Master's Programs than Domestic Undergrad applicants to BSc+Msc programs. Still selection of foreign applicants must be much stricter.

TKK International Master's Programs

Target state

- TKK activity
- At least 1 Int'l MP/Department
- Quality Marketing(Applications >5000)
- Predictable gain >60%
- Graduates 15% of all
- Well trodden path to Dr study
- Graduates attractive applicants on Finnish Labor markets

Actions

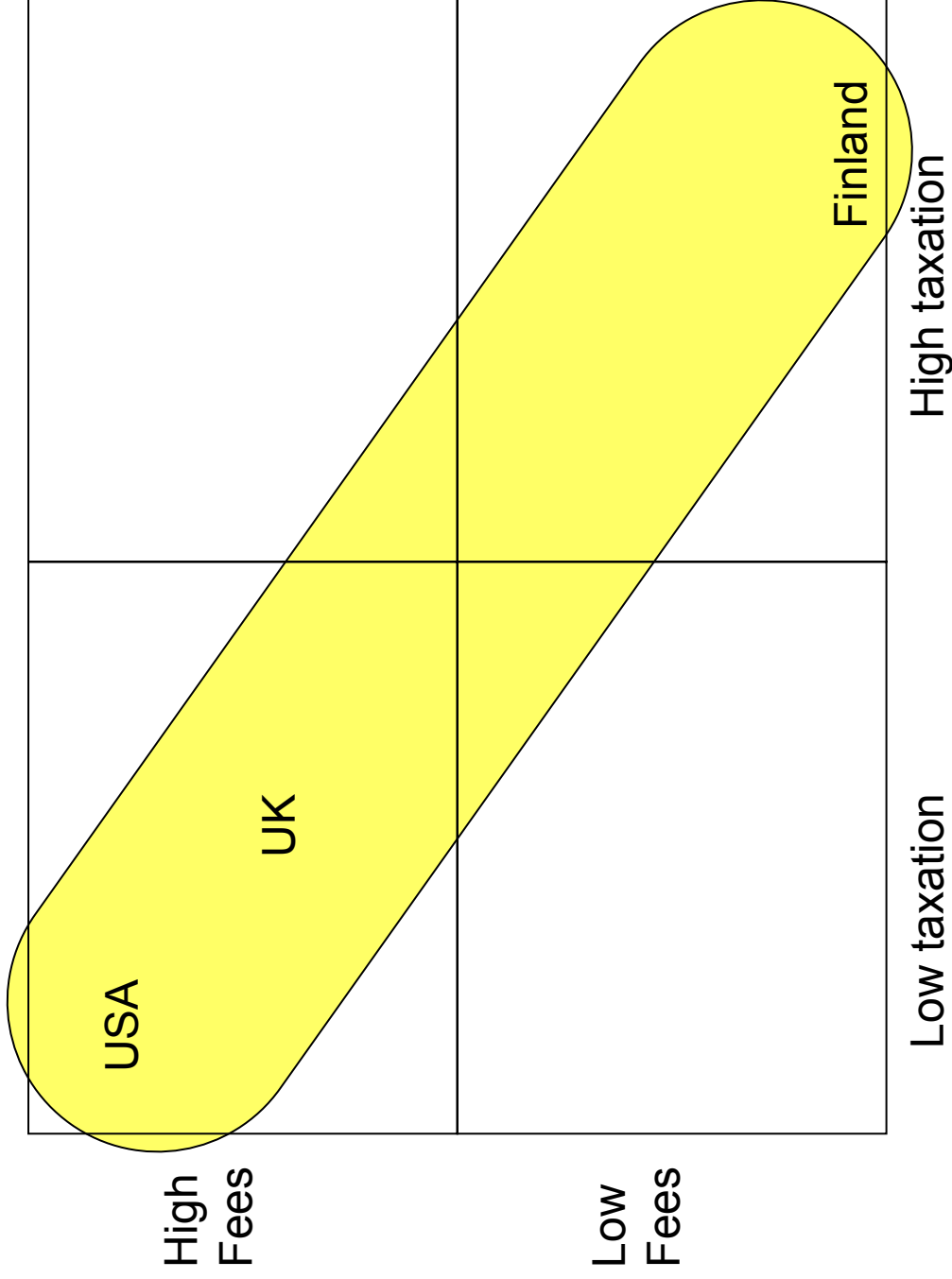
- Coordination Committee of Int'l Educ
- Marketing – collaboration within HERA
- Teaching development (quality criteria)
- Link to Graduate Schools
- Cultural competence building for native and Int'l students
- Efficient admissions (fast response)

Current state

- Department effort
- ca 10 MP's/ICT focus
- Low key marketing(applications > 2000)
- Gain from admitted 25...75%
- Graduates ca 7% of all
- Rarely a path to Dr study (most graduates stay to work in Finland or return home)

Feasible Fees policies – stand on

the snowboard!



Potential Challenge: GATS

- GATS = General Agreement on Trade in Services – by WTO
 - Defines Education as one service among others
 - Concerns primarily tertiary education i.e. Universities
- Governments define their commitments but GATS is not neutral – the goal is further liberalization of trade
 - Modes: Crossborder supply, consumption abroad, commercial presence, presence of natural persons.
- Issues: accreditation, national commitment, Education may be a bargaining chip in agenda that concerns other service sectors e.g. transportation services, research funding under GATS regime, etc.

TKK Goals – Share of Foreign Students

- 600 graduate students (some 13000 total)
- 360 post graduate students
- 15% of Graduate School students in 2009
- 15% of Doctoral graduates

Goal: TKK wants to be one of the best technical Universities in the world.

- + to gain higher international visibility, one needs to be international in Research and Education
- + Recruiting the best students internationally helps.