NTU Data

- **Student: 33,200**
  - 24,300 undergrad
  - 8,900 grad students

- **International students:**
  - 15% undergrads
  - 53% Masters
  - 76% PhDs

- **Staff strength: ≈ 7,310**
  - 1700 faculty
  - 2,900 research staff
  - 70% international faculty & research staff
Pushing BOTH Basic & Applied Research

Options / Licences (w. med schools)

- Univ. of California System: 261
- Univ. of Washington: 260
- NTU: 191
- Cornell University: 162
- Univ. of Pittsburgh: 155
- Univ. of Georgia: 151
- University of Texas System: 146
- Univ. of Florida: 140
- Duke Univ.: 132
- Univ. of Pennsylvania: 130
- Stanford Univ.: 123
- Johns Hopkins Univ.: 115
- North Carolina State Univ.: 111
- Univ. of Michigan: 108
- MIT: 103
- UIUC: 96

Source: Association of Technology Managers USA
NTU – A FAST RISING UNIVERSITY

- 13th QS World Rankg: ↑161 places/5 yrs
- World’s fastest rising young Uni (THE)
- 1st in QS Top-50 under 50

GLOBAL Mater Sci Rank:

US News: NTU 2nd; QS: NTU 8th
NTU’s Industrial Partners

Sports Masters Russia
New & Ambitious Learning Methods

Top Programs with top scholarships & overseas attachments
NTU 1991 – 2000: A teaching University

- Set up 1991 to graduate Engineers/Accountants for economy
- Faculty hired mainly to teach

What catalysed rapid climb?

Not many models to follow.....
Research & Innovation: major Government strategy

Source: A*STAR

2016 - 2020
S$19B +15%

BASIC UNIVERSITY FUNDING NOT INCLUDED

1991-1995
S$2 billion

2X

1996-2000
S$4 billion

1.5X

2001-2005
S$6 billion

2.3X

2006-2010
S$13.6 billion

1.2X

2011-2015
S$16.4 billion

Source: A*STAR
<table>
<thead>
<tr>
<th>Year</th>
<th>Field</th>
</tr>
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<tbody>
<tr>
<td>2000</td>
<td>• Materials Sci &amp; Eng</td>
</tr>
<tr>
<td>2002</td>
<td>• Life Science</td>
</tr>
<tr>
<td>2005</td>
<td>• Humanities/Social</td>
</tr>
<tr>
<td></td>
<td>• Physical Sci &amp; Mathematics</td>
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<tr>
<td></td>
<td>• Arts, Design &amp; Media School</td>
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<tr>
<td>2009</td>
<td>• Joint Labs with MIT, Zurich, Cambridge,</td>
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<tr>
<td></td>
<td>Berkeley, Northwestern, Cambridge,</td>
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<tr>
<td></td>
<td>Technion, Hebrew, UCSB</td>
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<tr>
<td></td>
<td>• Medicine (with Imperial College)</td>
</tr>
<tr>
<td>2014</td>
<td>• Environmental &amp; Earth Sciences</td>
</tr>
</tbody>
</table>

Promote Int Research with strong strategic resources
Resistance to setting overseas education colleges
QUALITY FACULTY

- New Tenure System from 2007
- 750 faculty reviewed: 250 failed tenure (65 yr)
- New tough hire process for replacements
- Hiring Elephants, Gazelles & Research Culture

<table>
<thead>
<tr>
<th>UC Berkeley</th>
<th>Zurich ETH</th>
<th>MIT</th>
<th>Cambridge</th>
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<tbody>
<tr>
<td>Stanford</td>
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<td>HKUST</td>
<td>ANU</td>
<td>Tokyo U</td>
<td>Max Planck</td>
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</tbody>
</table>
Top Down Strategy

- President/Provost team: *top down, with big ears*

- Budget Process: Provost retains big faculty hire fund to drive top hires & resource new areas
Promotion Criteria

• Impacting research and/or innovation

• Research/Industry grants: “hunting in packs”

• Less teaching for new & better research faculty

• Matrix: Research Center vs Colleges
Infrastructure Investment

US$1.2B new infrastructure

- Ambitious increase in Labs, Residencies, Learning Hub
- Vibrant campus with good transportation & amenities
Yunnan Garden Residential Campus
World’s 15 beautiful campuses (Amex Travel + Leisure magazine)

Thank You