



THE 21st CENTURY UNIVERSITY

Dr. Tracey Wilen-Daugenti

Cisco Systems, Global Education

The 21st Century University



The 21st Century University



Week	Mon	Tu	Wed	Thrs	Fri
1	Jan. 30 Semester starts	Questionnaire Personal memo		Frame basics	
2	17	Frame tags		Frame tables	
3	24	Frame templates		Frame master pages	
4	31	Page-design quiz Anchored frames		Frame graphics Screen captures	
5	Feb. 7	Frame cross-ref		Frame TOC Frame indexing	
6	14	Book-design quiz Frame book building		Frame cross-ref Frame ref. pages	
7	21				
8	28				



Five Trends Impacting Higher Education

- **Demographics**
- **Globalization**
- **Pervasive technology**
- **New generation of students**
- **University reform**



Worldwide Demographic Forces

- **Global mix changing**
Over 50% Multicultural
- **West-Population aging**
50% students in US over 21
- **Faculty retiring**
20% this decade
- **East-New Education Demand**
China+ India 2010~ 30 M



Globalization

- **Business is global.**
GDP Walmart > 12 countries combined
- **The Knowledge Economy**
Universities driver of economic growth
- **Education increases employment and productivity**
Ex: Hungary – salary double
- **Mobile student**
Significant increase of cross border education



Evergreen students

- **Nintendo Generation**
- **xBox Generation**
- **iPod Generation**



Information Technology Is Pervasive

5 years.....

Police



**95% workforce IT
75% retrained**

Construction



Doctor



Teacher



Business

Sources: Rand, 2004; U.S. Department of Labor

Higher Education needs to prepare



**Technology
literate
workers**

**Next
generation
students**



**Lifelong
students**

**Demand
exceed
Supply**

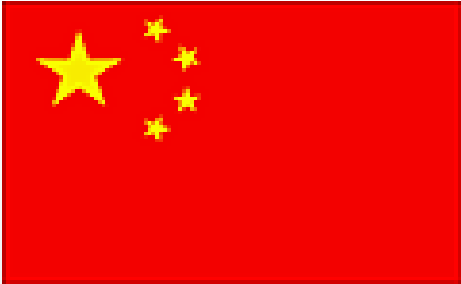


**Prepared
professors**

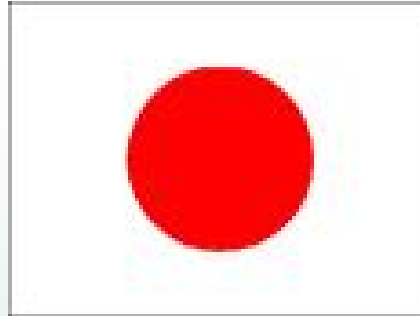
**Culturally
diverse**



Asia



**Video
Centers**



東京大学基金 WEB SITE
「世界の知の頂点をめざして」

「知の創造」は、大学・日本という国のためだけではなく
世界の未来、地球の未来のための活動でもあります。
みなさんのご支援を賜れば幸いです。



**Invigorate
Innovation**



Knowledge Island

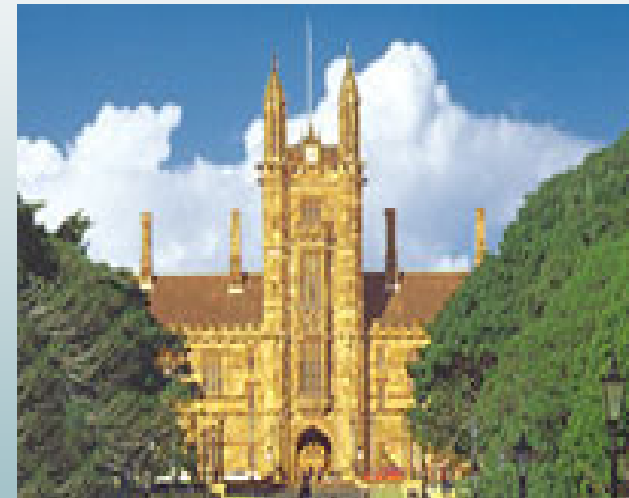
Europe & Australia



Fees



Innovation



Expansion

Middle East



**Education
City**



**Wireless
Jerusalem**



**Knowledge
Village**

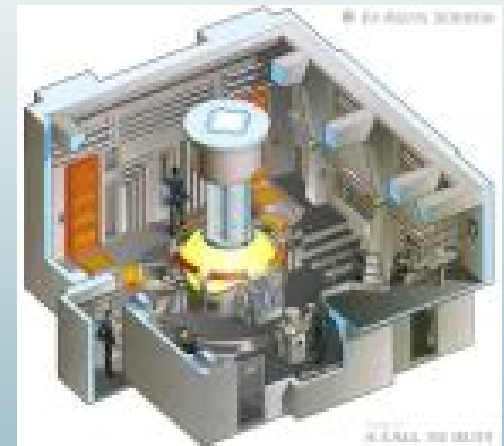
University Marketing



Wall Street expertise



Degree in Spanish



Silicon Valley Engineering

Industry and University Alliances



Oil Industry R&D



Audi R&D



**Developing
Applications for
VoIP phones**

Administration



Apply on Demand



**Automated lab
and class
information**



**Web-Based Financial
Aid**

Mobility

“SMS Me!”



Classrooms

- New construction must be technology enabled and “smart”
- Repurpose existing facilities
- Flexible facilities provide classroom reuse
- Network is a building utility with used to cut costs, enable, future buildings.



Dorms



Café/Retail



Classroom



Helpdesk



Fitness



Suite



Lounge

Libraries



**RFID
Video to the desktop**



**Gaming, Video
Simulation Rooms**



MONASH University



Librarian/Call Centers

Teaching: Collaborate, Inquire, Create, Innovate

Teacher-Centric



Student-Centric



+



+

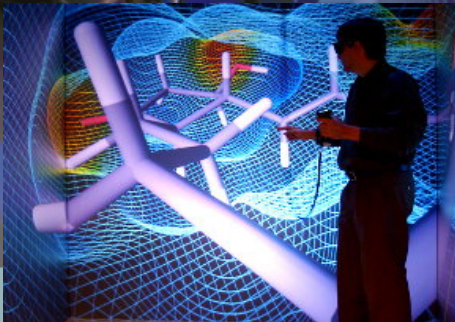


= Engaged

Teaching: Video, Simulations, Applied



UNIVERSITY OF
CALGARY



Simulation cave

BENTLEY
COLLEGE



**Real-Time
Stock Trading**

**NORTHWESTERN
UNIVERSITY**



**Library Video
Class to the
Dorm TV**

Teaching: Visual, Active, Engaging



Massachusetts
Institute of
Technology

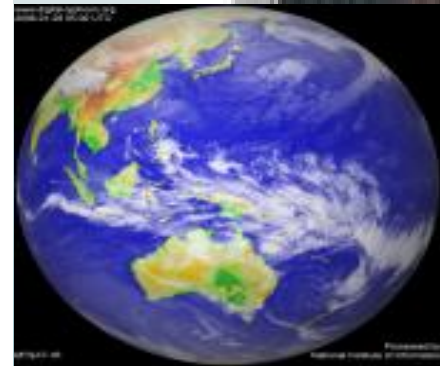
Revolution



Santa Clara
University



Gazillionaire



**International
Assignments**

Distance Learning



Anywhere, Anytime



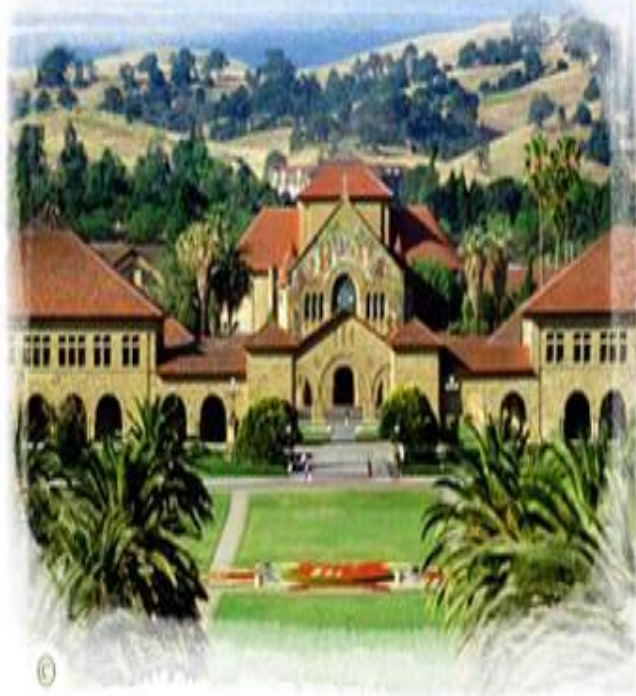
No Cost Loans



Borderless Education

Teaching: Student Retention

STANFORD



Class VOD's

THE UNIVERSITY OF
ARIZONA.
TUCSON ARIZONA



Polling

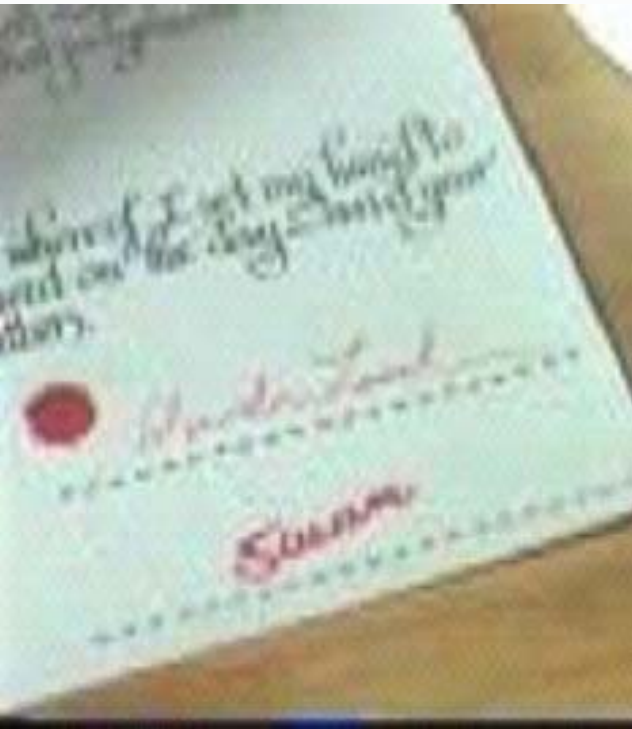
Duke University



IPOD

Faculty: Support and incentive

Bowdoin



**Service Level
Agreements**

BENTLEY



Pagers

STANFORD



Mini Grants

National Research Networks



**Remote Teacher,
Local Student**

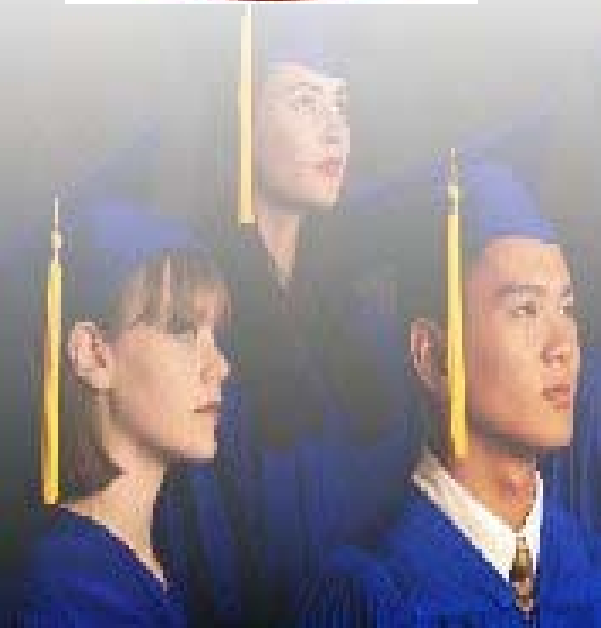


**Educational Roaming
Infrastructure**



**Disaster
Recovery
Back up**

Student Communities



Connect Alumni

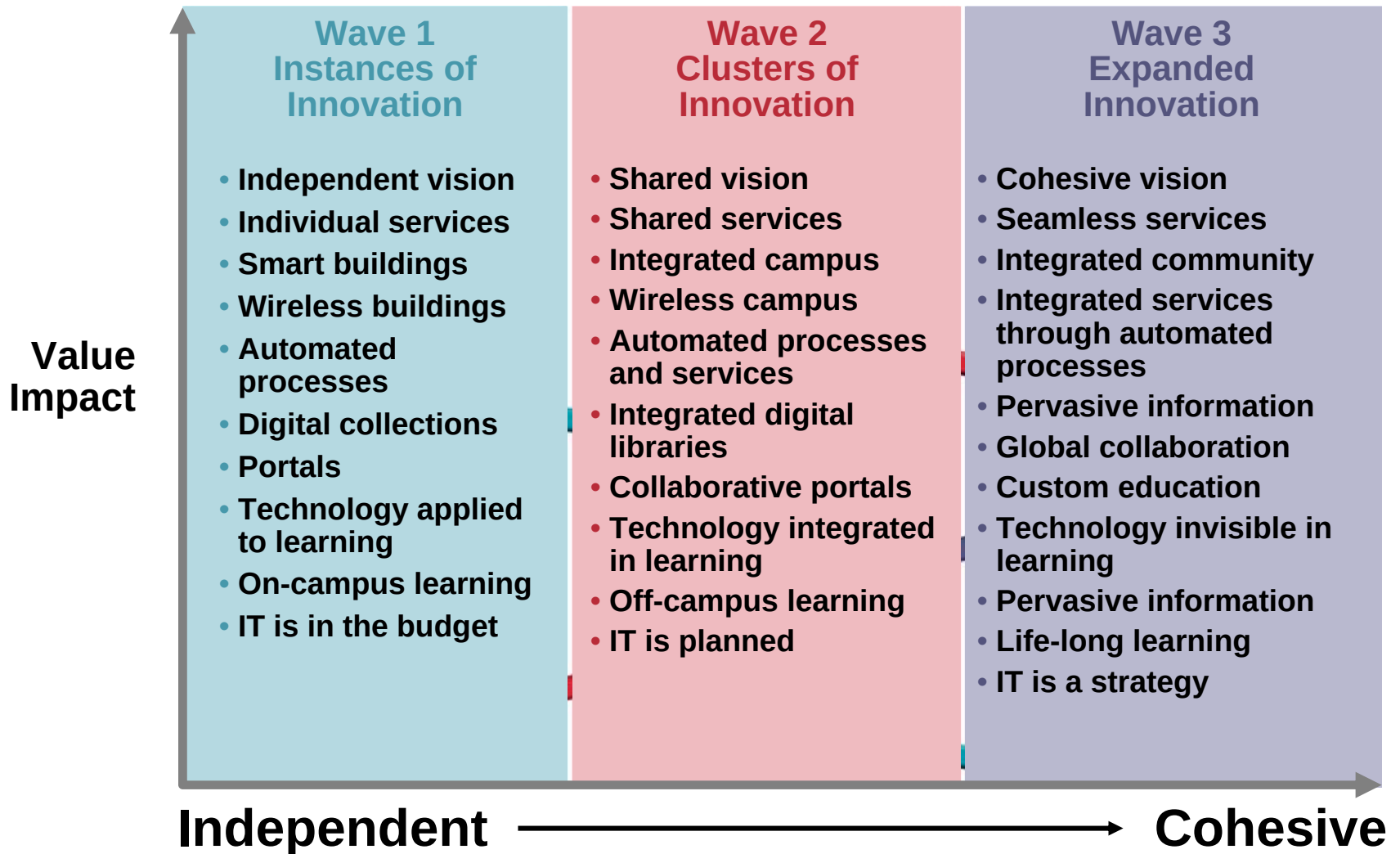


International programs

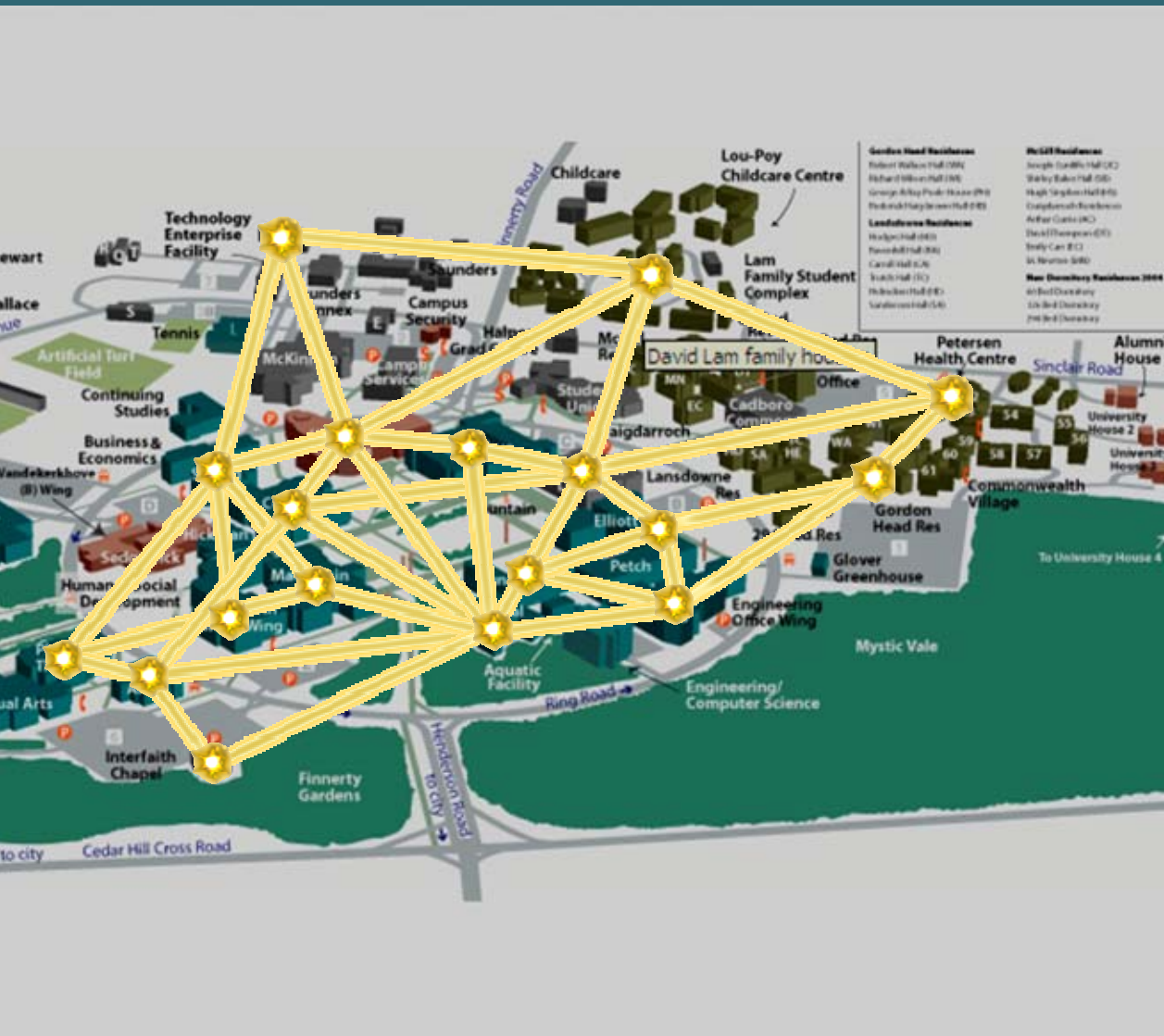


Student Portfolios

Governance Model and Evolution



Connecting the Campus

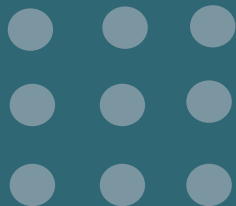


- ~~Where~~ services
- ~~Data~~ center buildings
- ~~Where~~ converged networks
- Security
- Security
- Data centers

Expanding the Campus

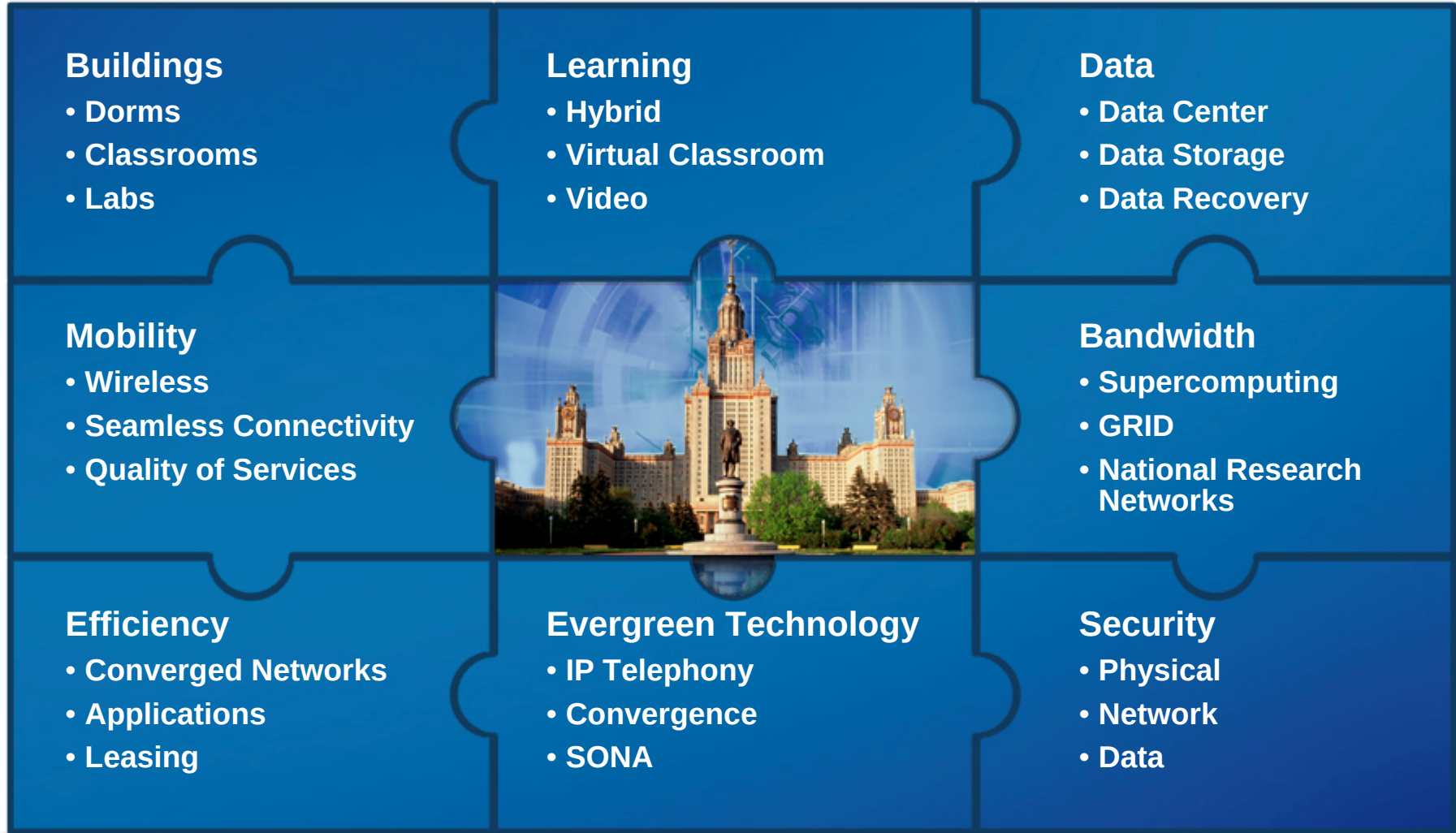


- **Seamless**
- **Connected**
- **Efficient**
- **Full integration**
- **IT strategy**



Q and A

Cisco Supports Universities





CASE

CASE WESTERN RESERVE UNIVERSITY



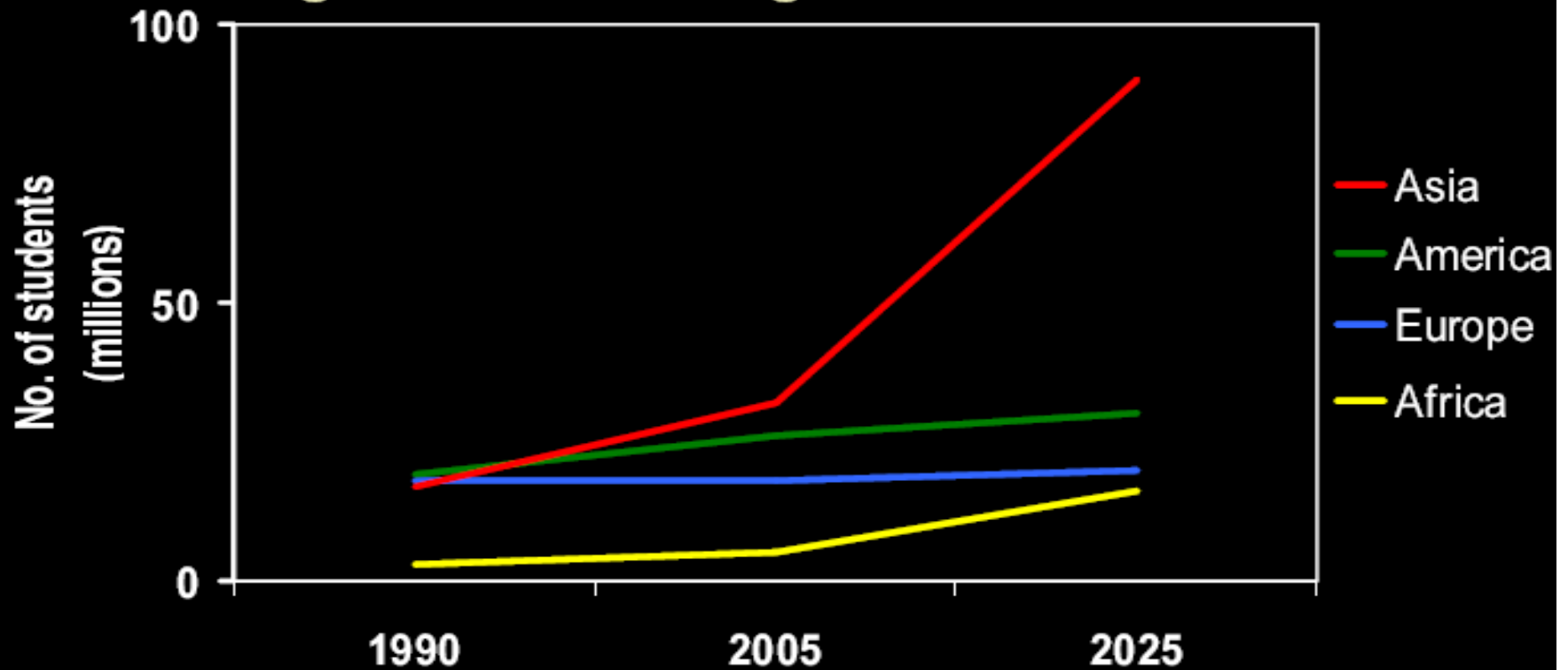
- **Living learning laboratory on campus and within the community.**
- **Home to one of the fastest metropolitan area networks in existence**
- **Converged campus: continual exploration and student interaction.**

CISCO SYSTEMS



Demand for Higher Education

Rising Demand for Higher Education in Asia

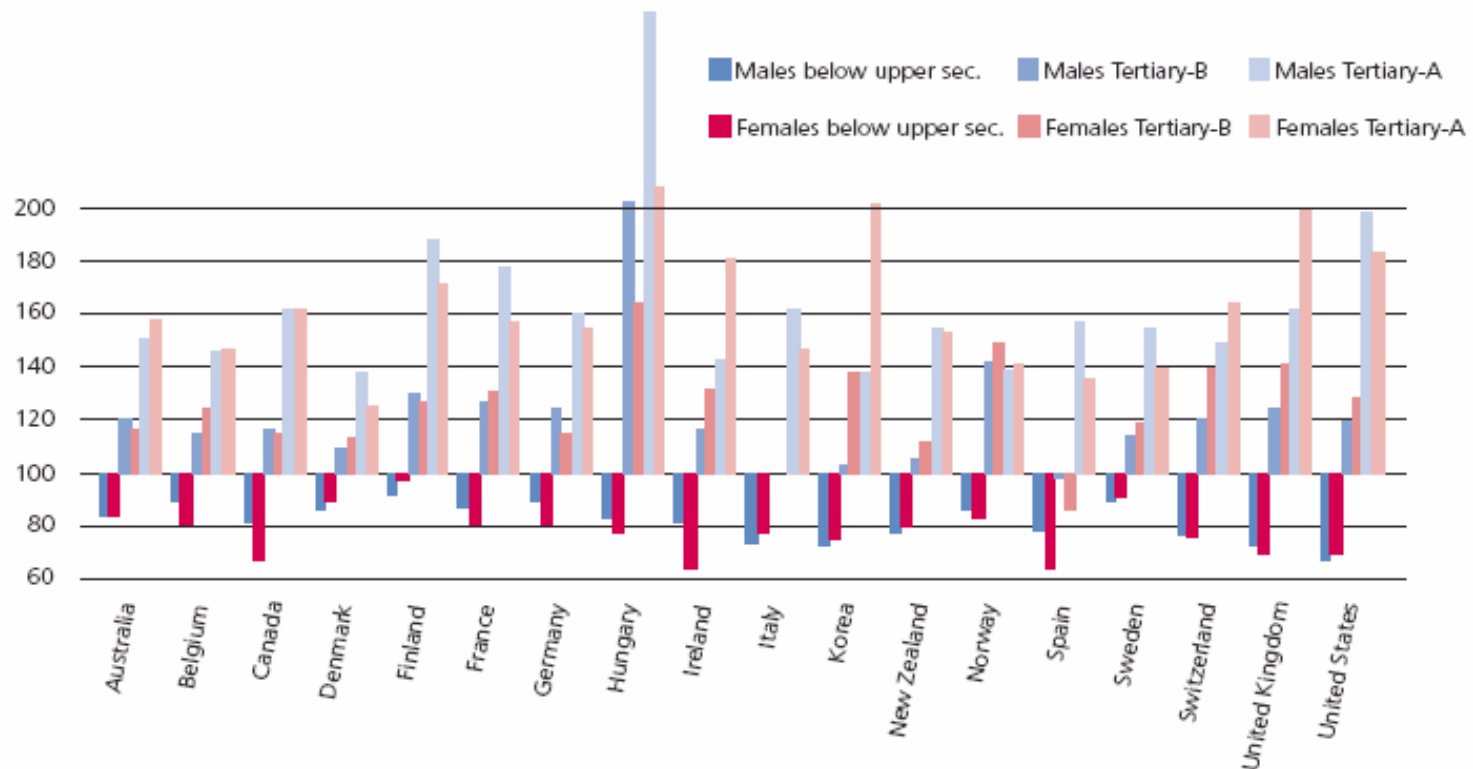


Data extracted from: The Observatory on Borderless Higher Education, 2002

Higher Education Increases Incomes

Table 2: Workers with high-level qualifications earn higher wages

Relative earnings of 25- to 64-year-olds with income from employment
(upper secondary education=100)

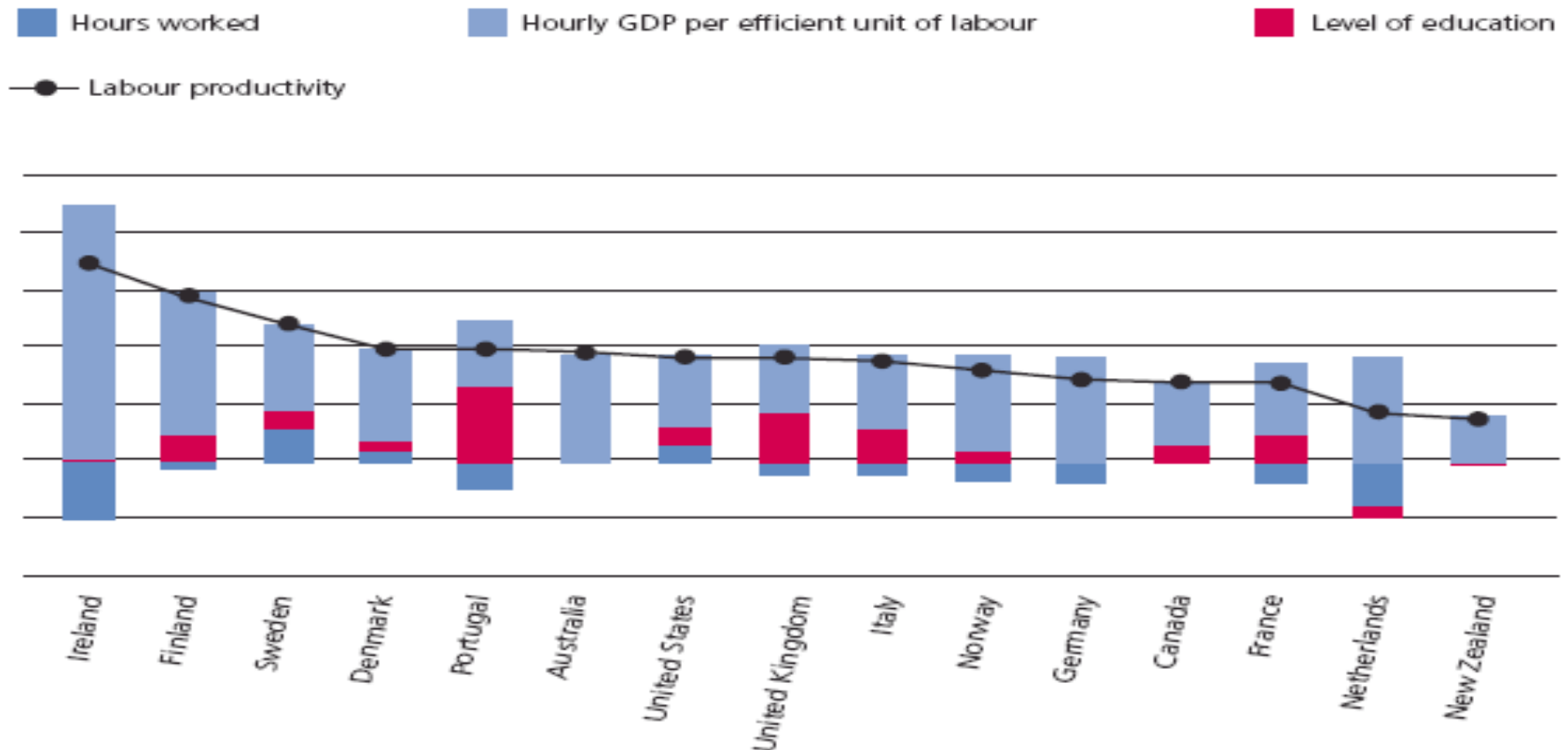


Source: OECD, 3/06

Higher Education Increases Productivity

Table 4: ...and education drives labour productivity

Average annual percentage change (1990-2000)



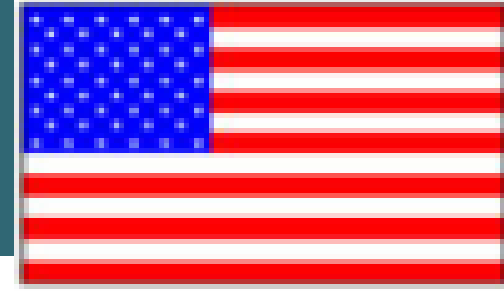
Source: OECD, 3/06

Table 3: Labour productivity and employment levels drive GDP per capita growth...

Average annual percentage change (1990-2000)



USA Higher Education



- Highest spend
- 17 of top 20 Global Institutions are USA
- Employ 70% of the world Nobel Laureates
- Produce 30% of the articles on science and engineering
- 1/3 of college student pursue advanced degrees
- 14,000,000 students in Higher Education
- 3% 400,000 attend elite schools (Ivy+)
- 50% attend community colleges
- 1 in 4 freshmen in Public Universities drop out
- ½ leave 4 year schools without graduating
- 20% drift through college

Faculty: Multi-disciplinary Research

Architecture



History



Law

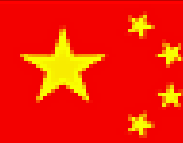


Physics



Grants
BioTech
High
Performance
Computing
Students
curriculum revisions

China



**Video
Centers**



**Current
Technology**



清华大学
Tsinghua University



**Industrial
Research**

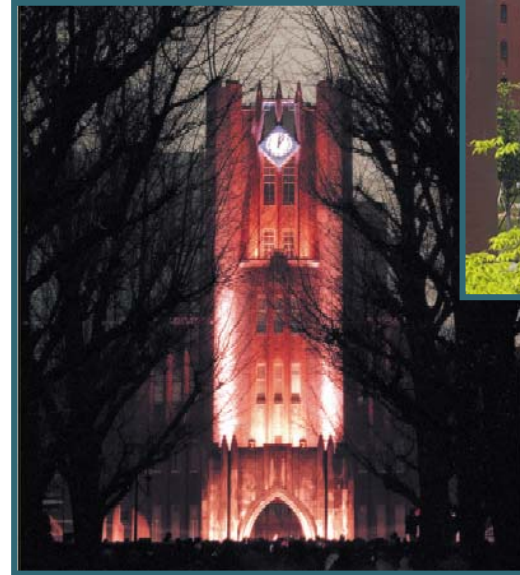
Singapore

- **Singapore's plan: "Knowledge Island"**
- **Expansion: More places for students**
- **Foreign universities establishing foothold**



Japan

- **Company training**
- **Japanese way**
- **New CEO expectations**
- **Need innovative workforce**



Germany



- **Employment**
- **Private Sector partnerships-jobs**
- **University alliances shared services**
- **Aging population**
- **Shift to learner centric and competencies**
- **University reform—free/fee**