



Jacek Murawski

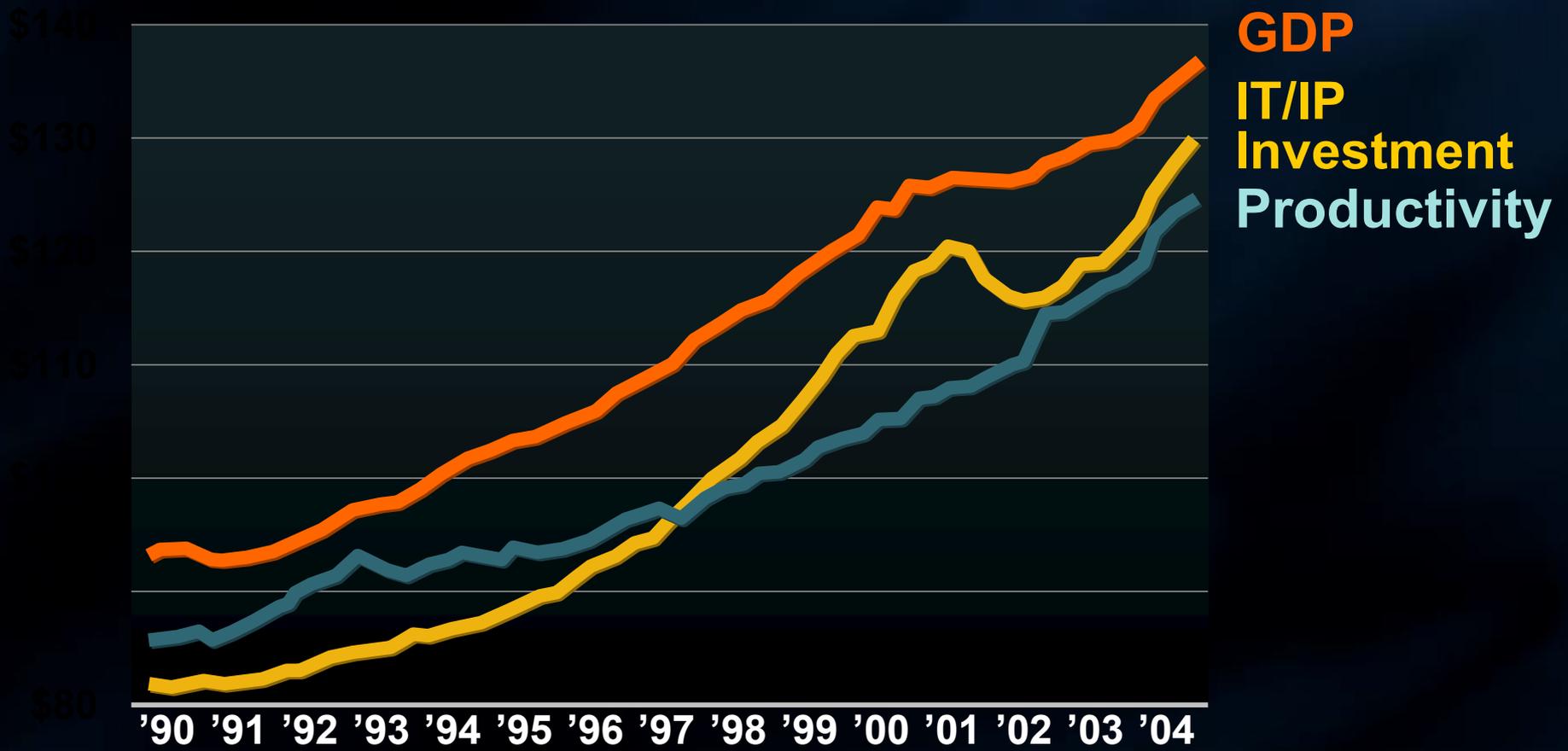
Director, Public Sector

Cisco Systems

Bratislava

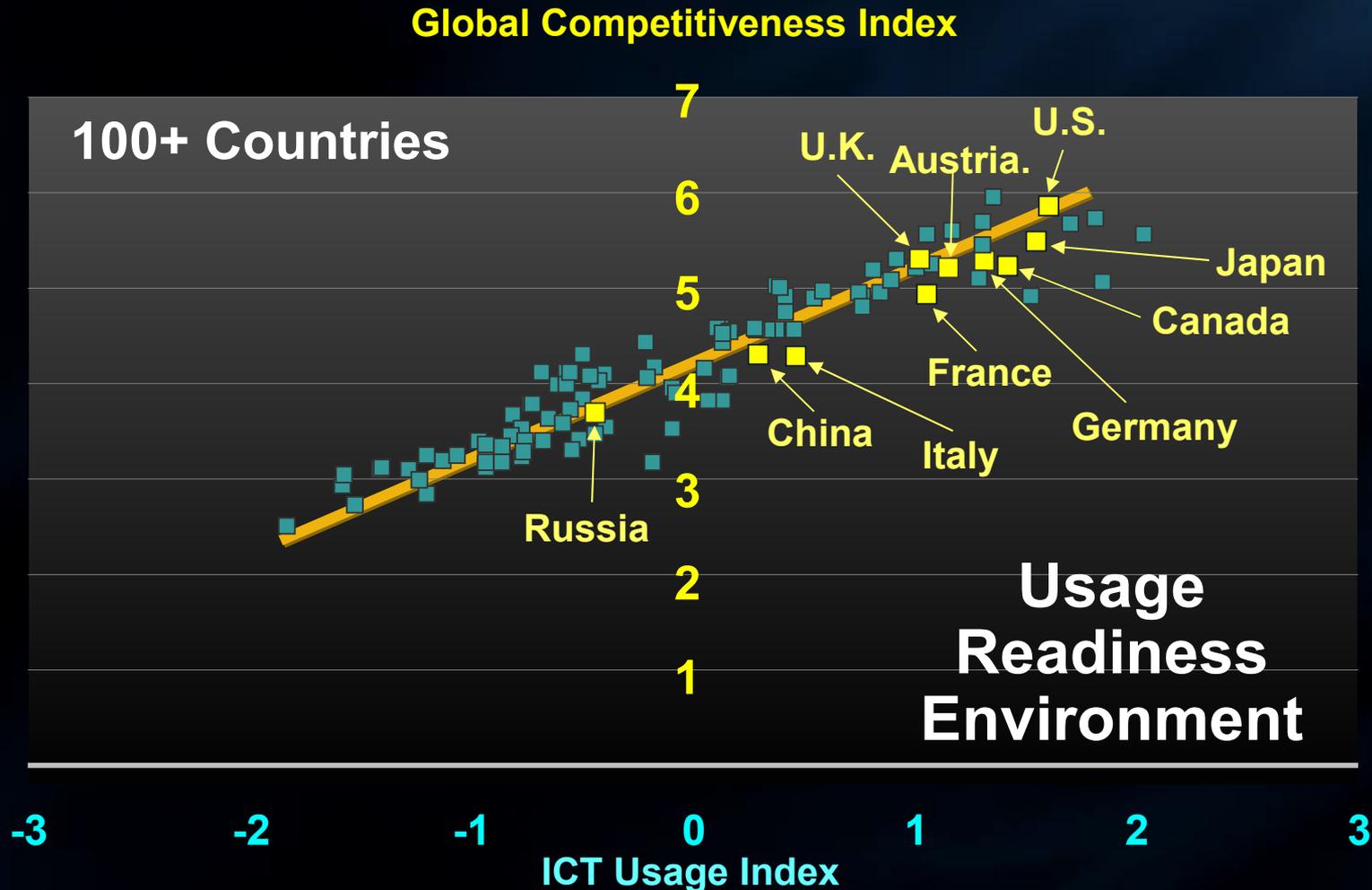
21 November 2005

GDP, Productivity, and IT Investment... 1990–2004



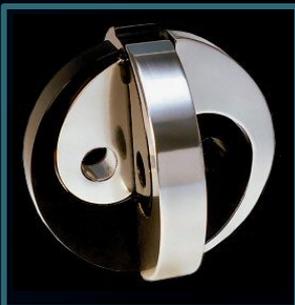
ICT Usage and Global Competitiveness

89% Correlation



Source: The Global Information Technology Report 2003-2004, World Economic Forum

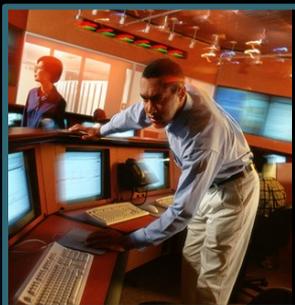
Three Key Enablers of Change



Process Transformation



Broadband



Skills

Three Key Enablers of Change



Process Transformation

Net Impact 2004: Six Years of Research

Productivity Impact of the Internet

- **1400+ European Public Sector Participants**
- **57% Government, 43% Healthcare**
- **8 Countries: France, Germany, Netherlands, Italy, Poland, Spain, Sweden, UK**
- **Local, Regional and National Government Offices**

Net Impact 2005 In Progress
Middle East and Eastern Europe Public Sector

Net Impact 2004:
European Public Sector

Net Impact 2003:
Sales & Customer Service

Net Impact 2002:
France, Germany, Italy, UK

The Internet Economy
Indicators 2001

The Internet Economy
Indicators 2000

The Internet Economy
Indicators 1999

2004

Public Sector
Impact

Impact

Macroeconomic Impact

1999

Internet Expert... Internet Company Net Impact Study: Key Findings

COORDINATE INVESTMENTS



**BUSINESS
PROCESSES**



**INTERNET
BUSINESS
APPLICATIONS**

MEASUREMENT AND METRICS



**INTELLIGENT NETWORK
INFRASTRUCTURE**

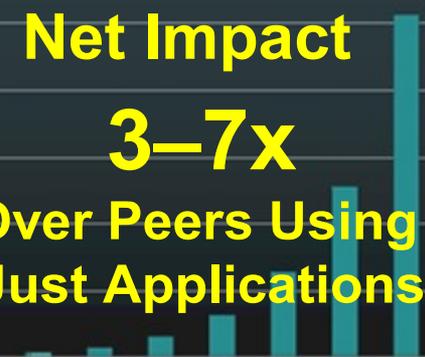
ORGANIZATIONAL CULTURE



Net Impact

3-7x

**Over Peers Using
Just Applications**



Source: Momentum Research Group—Net Impact 2003 and Net Impact 2004

City of Westminster... WLAN in the Streets

The Project

CCTV + 802.11b/g for crime control and dynamic resource allocation

Noise monitoring

Wireless access for PDAs and laptops... street worker web access

3200 Mobile Access Router

The Partners

Cisco Systems, Cap Gemini, Telindus, Intel, Vertex, SkyNet

The Benefits

Improved control; crime, traffic, parking + cleaner streets

Reduced Infrastructure and OPEX costs

Increased employee productivity

The Future

"Project will pay for itself in 2-3 years"

Application expansion; policing, schools & residences

Public WiFi through partnership with a Telco

Expansion across all City of Westminster



Medical Grade Network at St. Olavs Hospital, Norway

Healthcare

- Need for interconnecting medical devices ... not just PC's
- Everything is converging on IP
- Medical Grade Networks

St. Olavs Opportunity

- Better quality of care, new treatment methods and reduced cost
- Integrate University employees into the network
- Re-build hospital due to rising cost and inefficient operations

The Facts

- IPC foundation for all comm's within hospital
- MPLS/VPN network with 99.999% uptime
- Wireless coverage inside and outside 11 centres



CISCO MEDICAL -GRADE NETWORK

 **ST. OLAVS HOSPITAL**
UNIVERSITETSSYKEHUSET I TRONDHEIM

Net Impact: Best Practices

- **Invest** in network sophistication
- **Re-engineer** business processes prior to application deployment
- **Automate** and integrate business processes
- **Re-orient** the organisational culture
- **Deploy** formal measurement systems

Public Sector must provide leadership

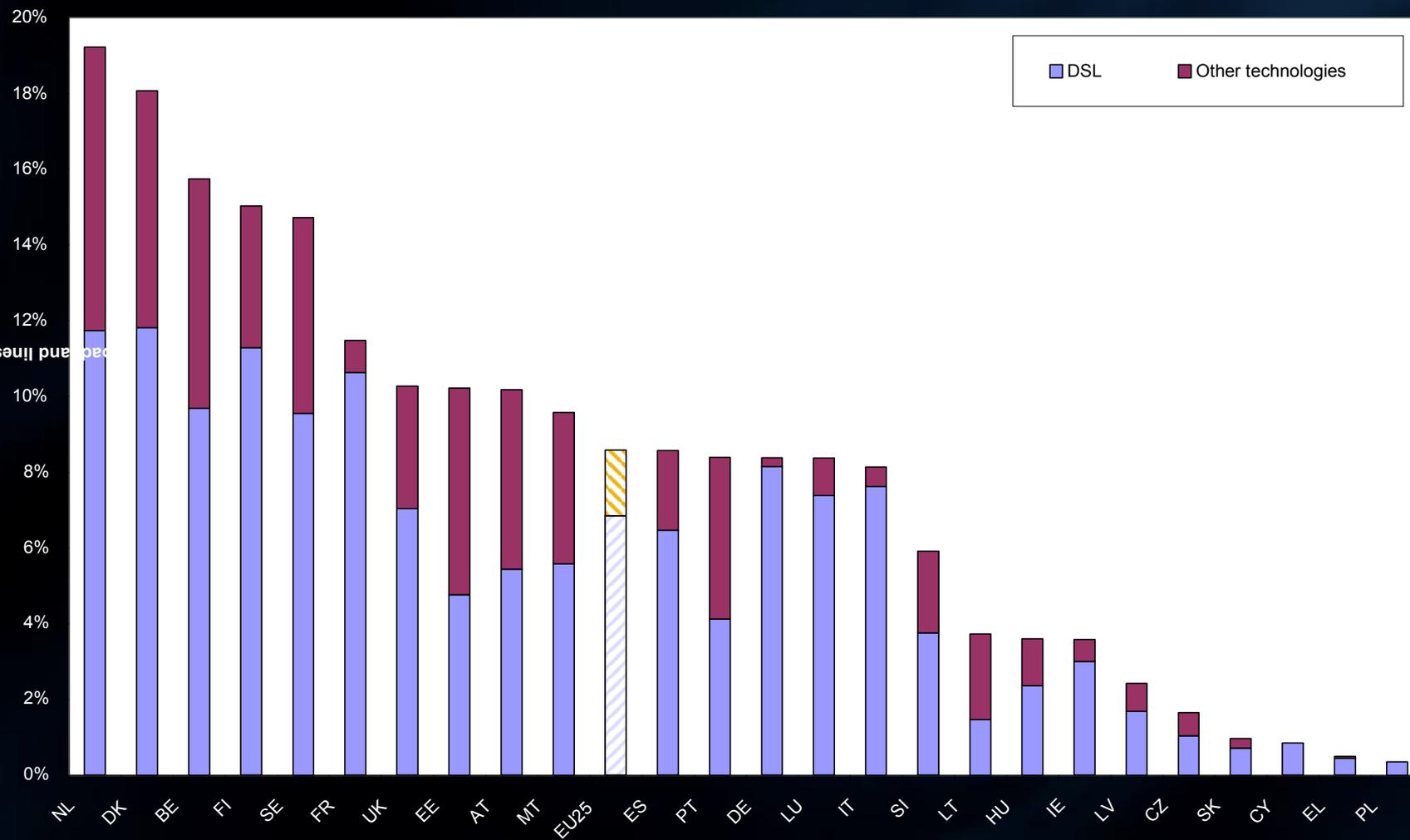
www.netimpactstudy.com

Three Key Enablers of Change

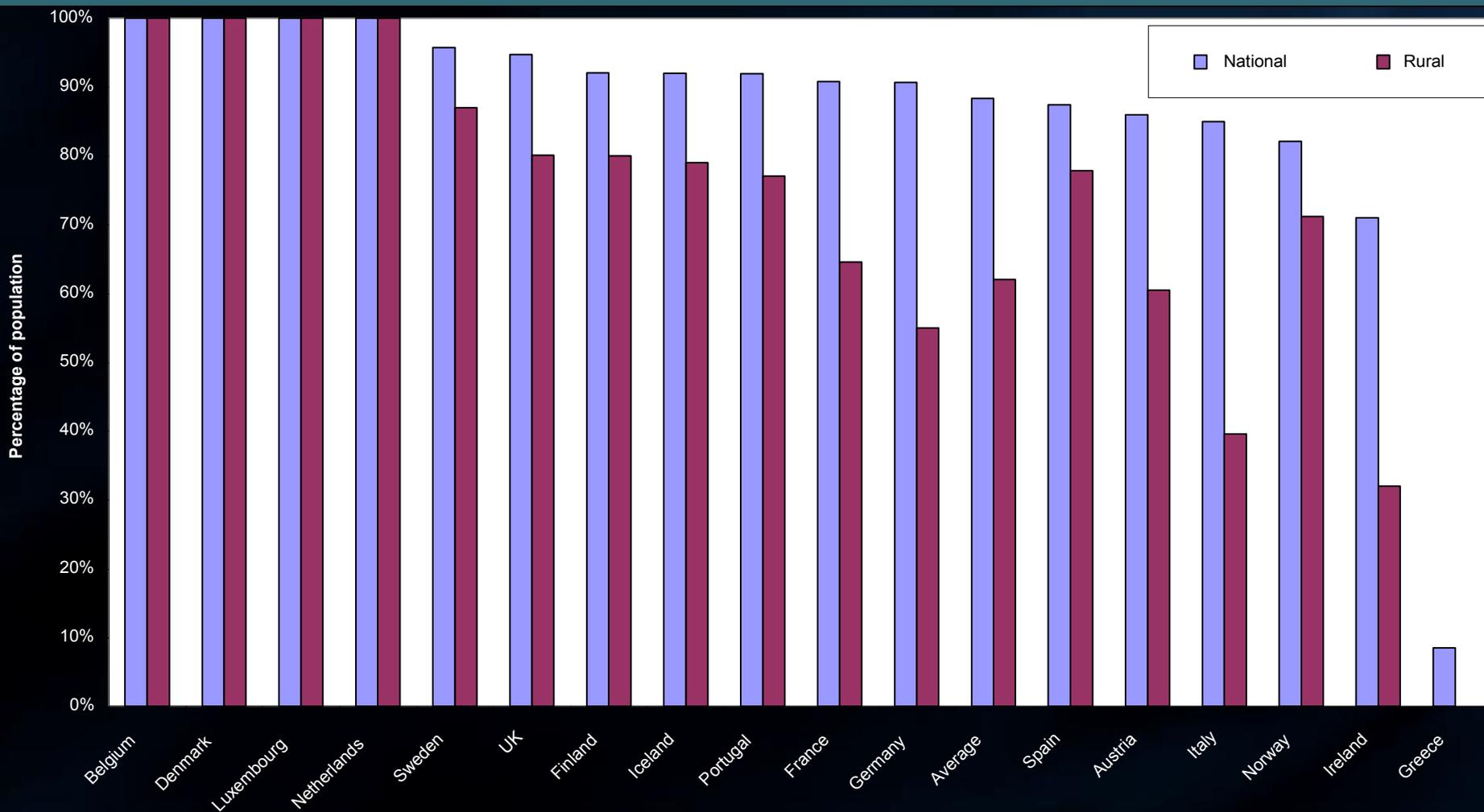


Broadband

Broadband Penetration Rates in EU25



The Digital Divide in 15 Member States



Re-Focus On Broadband ... Accelerate Adoption



Citizen

- Needs are changing from basic connectivity to value-added services
- Seeking enhanced user experience and on-demand services

Government

- Re-focus on broadband... **i2010 (metrics)**
- Create the right regulatory environment
- Policies to encourage network deployment and service adoption
- Invest Public Funds where the market does not provide right level of coverage

Cisco assists in Government Broadband Investment

City of Milano/Italy – FASTWEB

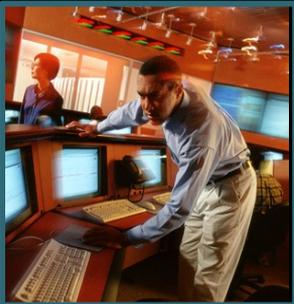
City of Almere/Netherlands – ETTX

City of Wroclaw/Poland – e-WRO

...

Three Key Enablers of Change

Skills



Future Depends on The Skills of Our People

“The future of Europe depends on the quality of its human resources. Nowadays, this means a population that is well educated and highly skilled, capable of leading the change of the knowledge economy and society.”

Ján Figel, July 5, 2005

European Commissioner for Education, Training, Culture and Multilingualism

“The challenge is how to empower everyone to travel the global information highway – through access, tools, and knowledge.”

Mohamed Muhsin, March 16, 2005

Vice President & Chief Information Officer World Bank



Technology Skills Gap Hampers Service Delivery and Productivity

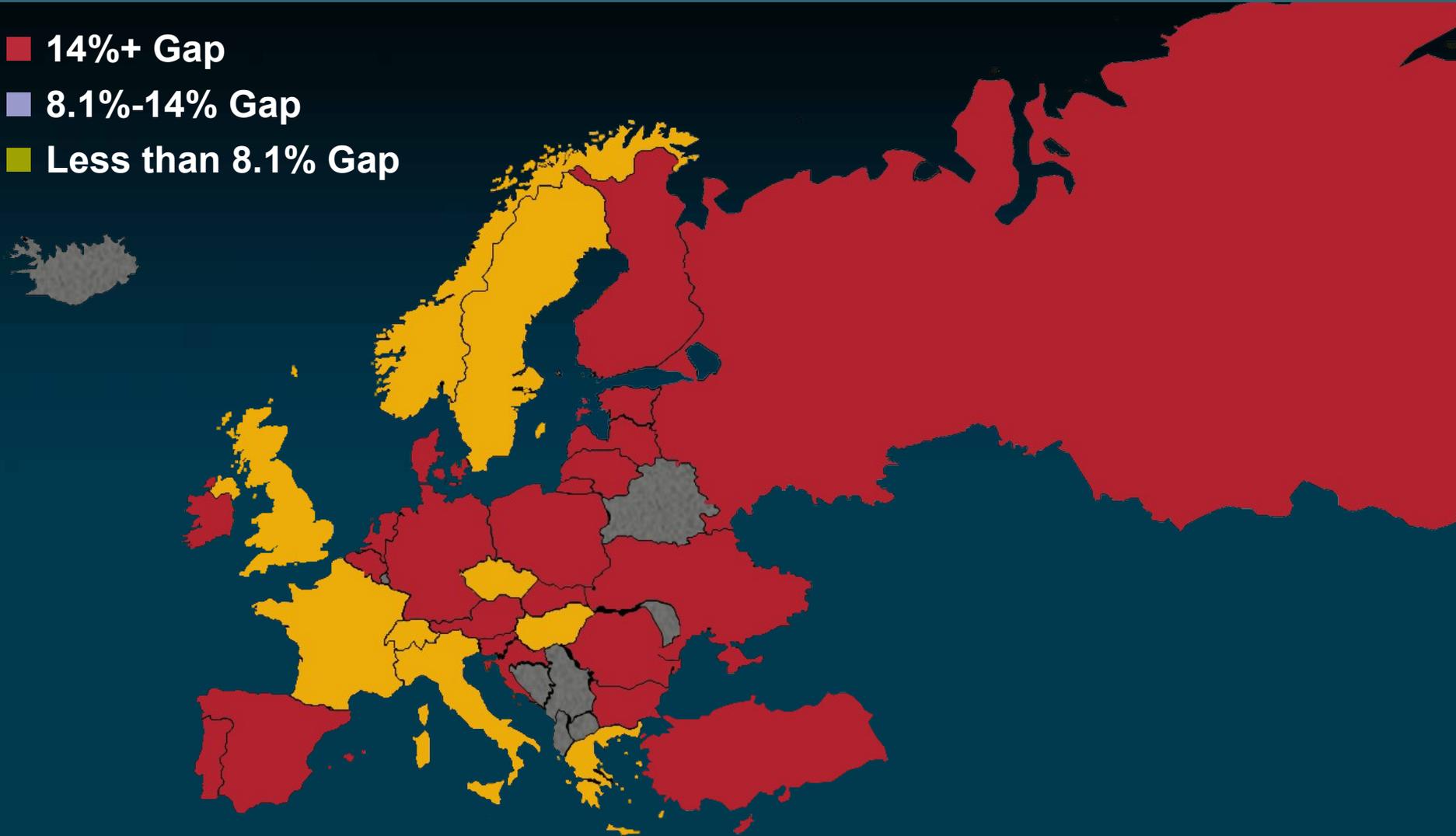
IDC Survey on Networking Skills

- **Innovation and creativity need good people**
+900 Interviews
Business and government CIOs
31 countries in Western and Eastern Europe
- **Skills are the bedrock of any eStrategy**
Recruitment needs vs the market supply of skills
- **People need to understand technology to deploy and use it**
Gaps - advanced tech., business skills, multi-skills

The Advanced Technology Skills Gap

Geographic Picture in 2008

- 14%+ Gap
- 8.1%-14% Gap
- Less than 8.1% Gap



Source: IDC; Networking Skills in Europe, September 2005

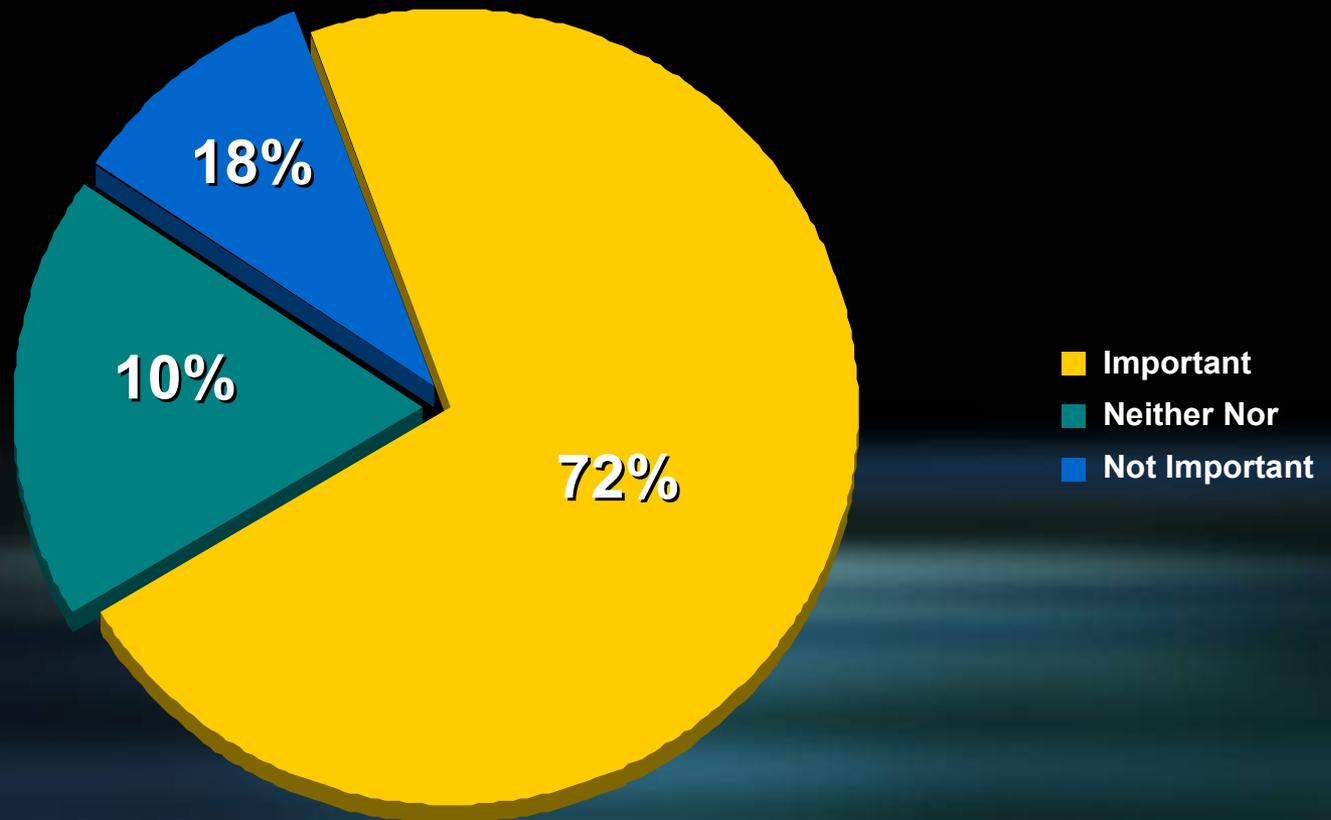
Top Line Results for Slovakia



- Advanced networking skills* gap rises from **14% in 2005 to 18% in 2008**
- Gap for **security skills is 20% in 2008**
- **~5000 skilled people required by 2008 to fill total skills gap**
- In 2005 **Slovakia ranks number 23 out of all 31 countries covered by the study.**

*Note for the purpose of this study advanced technology networking skills are those relating to wireless, security and IP telephony

Importance of Certification – All Regions



Similar Findings by Vertical and Company Size

Industry and Public Sector have to work together



- **Encourage Public Private Partnerships**
- **Recognize and integrate industry curricula and certifications**
- **Provide Public Funding for life long learning**
- **Leverage Internet technologies**

Partnership between Cisco and educational institutions



Cisco provides

Curriculum

Training

Equipment

Virtual Community

Schools Provide

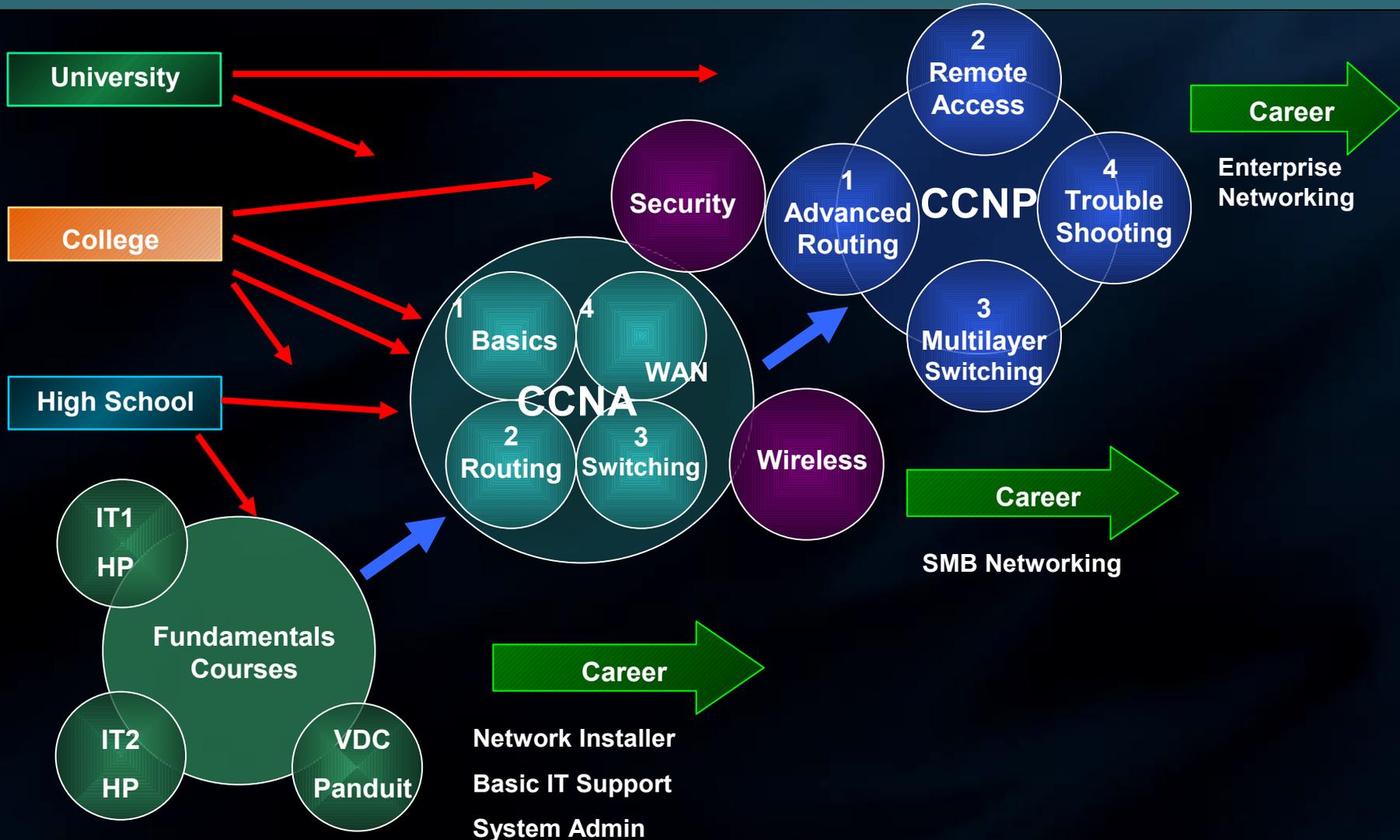
Space

Teachers

Students

Curriculum Integration

1220 hours of teaching and laboratory exercises



Cisco Networking Academy Program: **Global** - Impact Since 1997

As of November 2005

COUNTRIES WORLDWIDE

155 +

STUDENTS WORLDWIDE

1.8 Million +

ACADEMIES WORLDWIDE

11,000 +



INSTRUCTORS WORLDWIDE

32,000 +

TOTAL EXAMS TAKEN

46 Million +

LANGUAGES

9

Networking Academy Program in Slovakia

A world map is shown in a dark green color against a dark blue background. A bright sunburst effect emanates from the center of the map, with rays extending outwards. The text is overlaid on this sunburst.

50 Academies

2840 Students Today

158 Instructors

Partnerships Worldwide



MoU with Government of Slovakia since 2001

Implementation of the Program in Slovak Republic
National Education System



Partnership with Slovak Savings Bank ...
Sponsored purchase of 16 computer labs in 2002



Skills equal productivity

- **ICT Skills... bedrock for productivity and competitiveness**
- **Skills gaps persists**
- **Advanced networking skills ... more courses, more students**
- **Market positive about vendor certification**
- **18% demand and supply gap in 2008 for skills in wireless, security and IPT in Slovakia**
- **Training in networking is about careers, job creation, providing a base for productivity improvement**

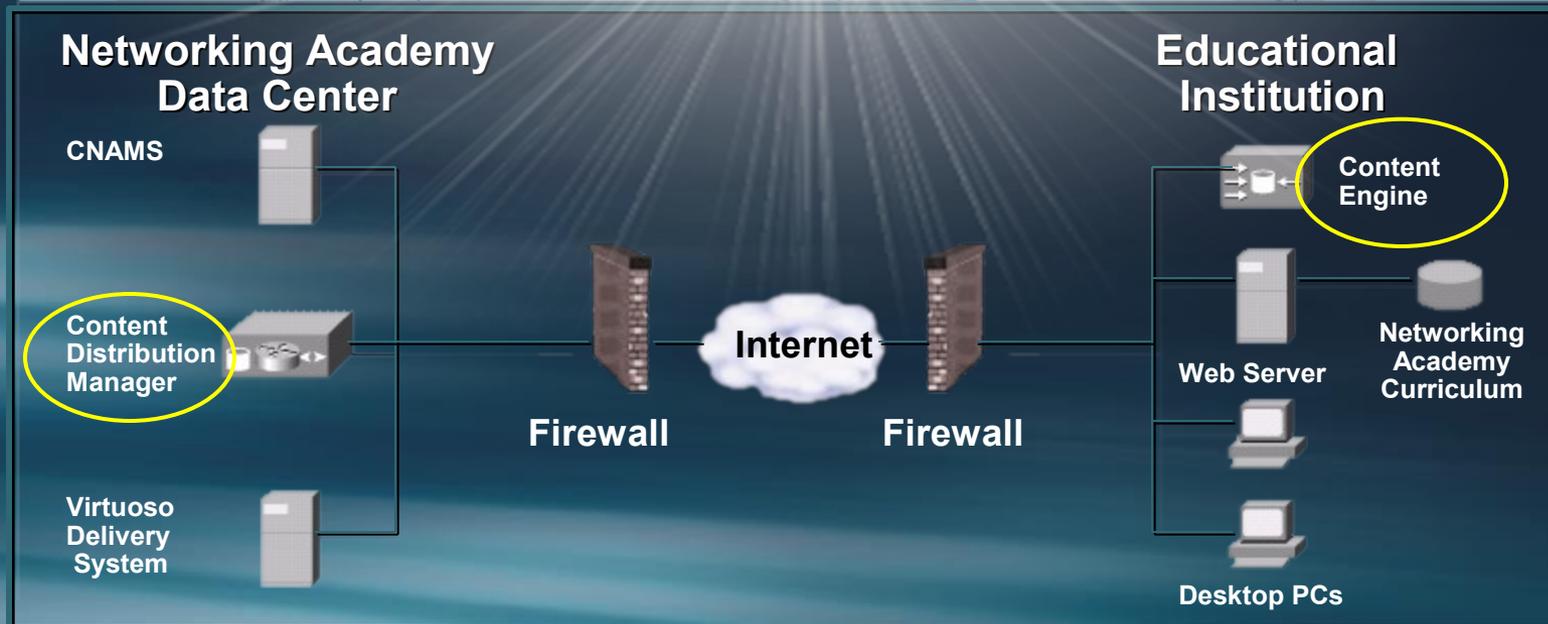


One of the Most Powerful e-Learning Platforms in the World

Academies Worldwide: 10,000+

Total Successful Course Completion: 2.5M+

Countries Worldwide: 150+



A Global Model for Educational Content Delivery



Hungary

5,400 Schools Networked + 1,900 Local Government Sites Connected



Spain

E-Learning for 3,500 schools in Catalunya to improve teaching + use of video



Scotland

Every pre-school, primary and secondary school in Scotland connected (+ 3000 schools).



Jordan

Blended learning for primary teachers and students in Arabic and English. 100 schools piloting the initiative

Enabling Transformation Increasing Citizen Satisfaction

European Governments understand impact of ICT ... Lisbon, i2010

Net Impact: Process change and technology implementation together

Access to all ... **world-class broadband infrastructure** should be a corner stone of our ICT policies

Skills are the bedrock of any eStrategy

Sharing best practice... we have **much to teach each other**

Cisco Systems aspires to be your partner and advisor



CISCO SYSTEMS

