



Internetizácia Spoločnosti Mestá a Metropolitné Siete



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Key Cisco Solutions Making The Vision Possible

CONNECTED COMMUNITIES



IP COMMUNICATIONS



INTEGRATED SECURITY



WIRELESS



ROUTERS



SWITCHES



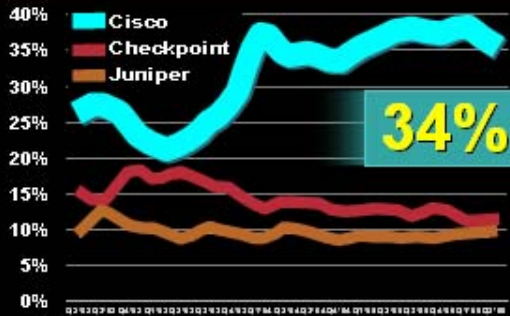
OPTICAL



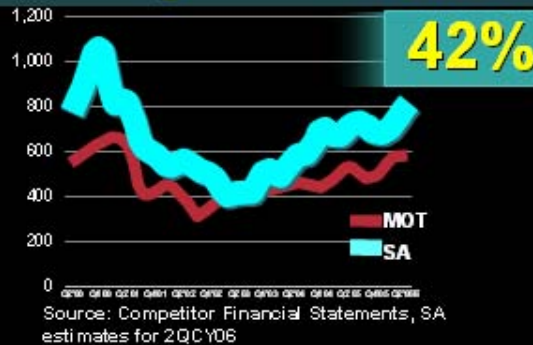
STORAGE/SAN

FOUNDATION INFRASTRUCTURE

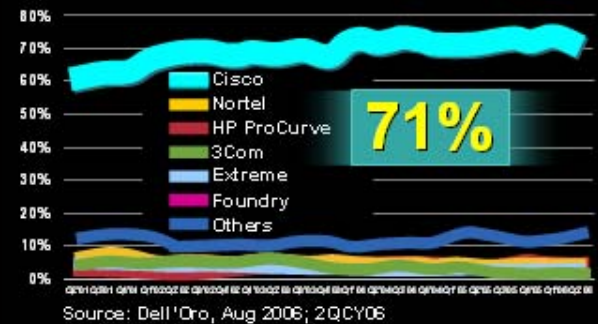
Security



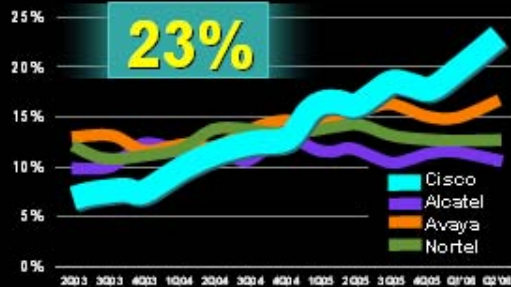
Digital Video



Switching... Modular / Fixed



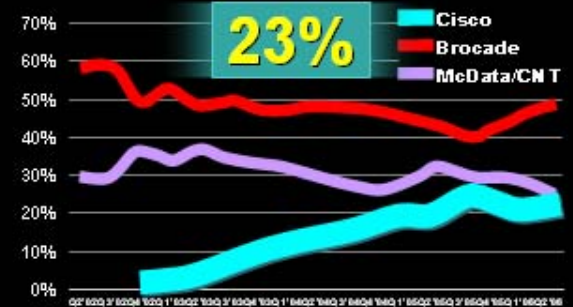
Enterprise Voice



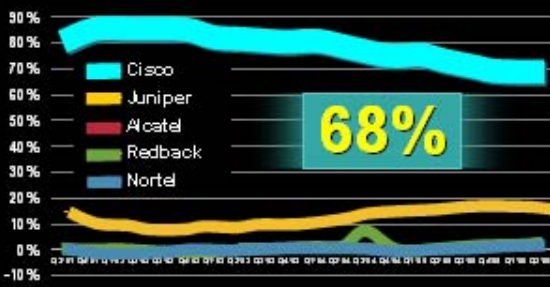
Wireless... Local Area Networks



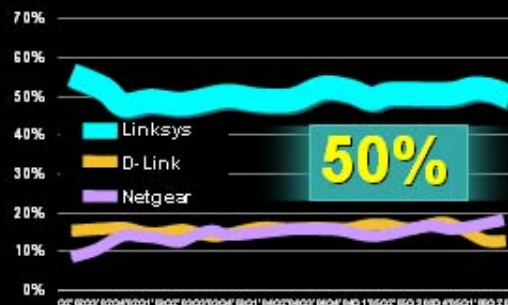
Storage... Area Networks



Routing... Edge / Core / Access



Networked Home



Market Share

“And”

Share of Wallet

Cisco—The Technology Innovator

- \$4 billion R&D investment, annually
- Over 16,000 engineers working in more than 1110 labs worldwide
- 110+ acquisitions to quickly enter new markets and add talent
- More than 2000 patents have been issued to Cisco inventors

Recent Innovations

- AON—Application-Oriented Networking
- CRS-1 Carrier Routing System
- IOS XR—self-defending, self-healing operating system software

Development



Acquisitions



Broadband Scenarios: Urban, Regional, and Rural

Greater Choice in Deployment Network to Different Population Areas



**Metropolitan/Urban
Areas: Metro Ethernet
and Wireless**



**Regional Areas: Fibre in
Backhaul and Wireless/
DSL Access**

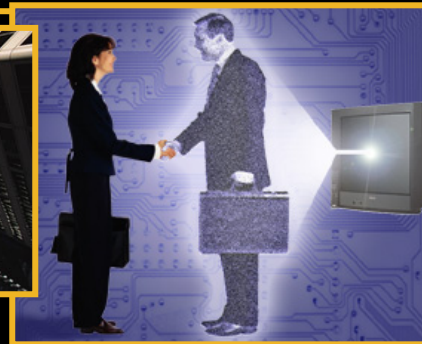


**Rural Areas: Wireless
Wi-Fi, Wi-MAX and
Satellite Access**

METRO ETHERNET



- Ethernet je univerzálny sieťový štandard pokrývajúci 100 mil. portov v rámci EU
- Metro Ethernet predstavuje plošné symetrické pripojenie užívateľov v šírke pásma až do 1000 Mbps (500 násobok ADSL), 10GB
- Ethernet predstavuje jednoduché a efektívne riešenie sieťovej štruktúry pre výmenu dát, hlasu a obrazu



Dopad BB na oblasť vzdelávania

Vysoké školstvo



- Pripojenie univerzít na **Video-prednášky na národnej aj medzinárodnej úrovni (napr. SuNet vo Švédsku)**
- Dostupnosť k výuke z **internátov, kampusu a domácností (napr. Universität Lund)**

Základné školy



- **Obohatenie výuky pomocou videokonferencií v rámci i mimo regiónu (napr. Kennis-Net, Holandsko)**

Rozvoj regiónu

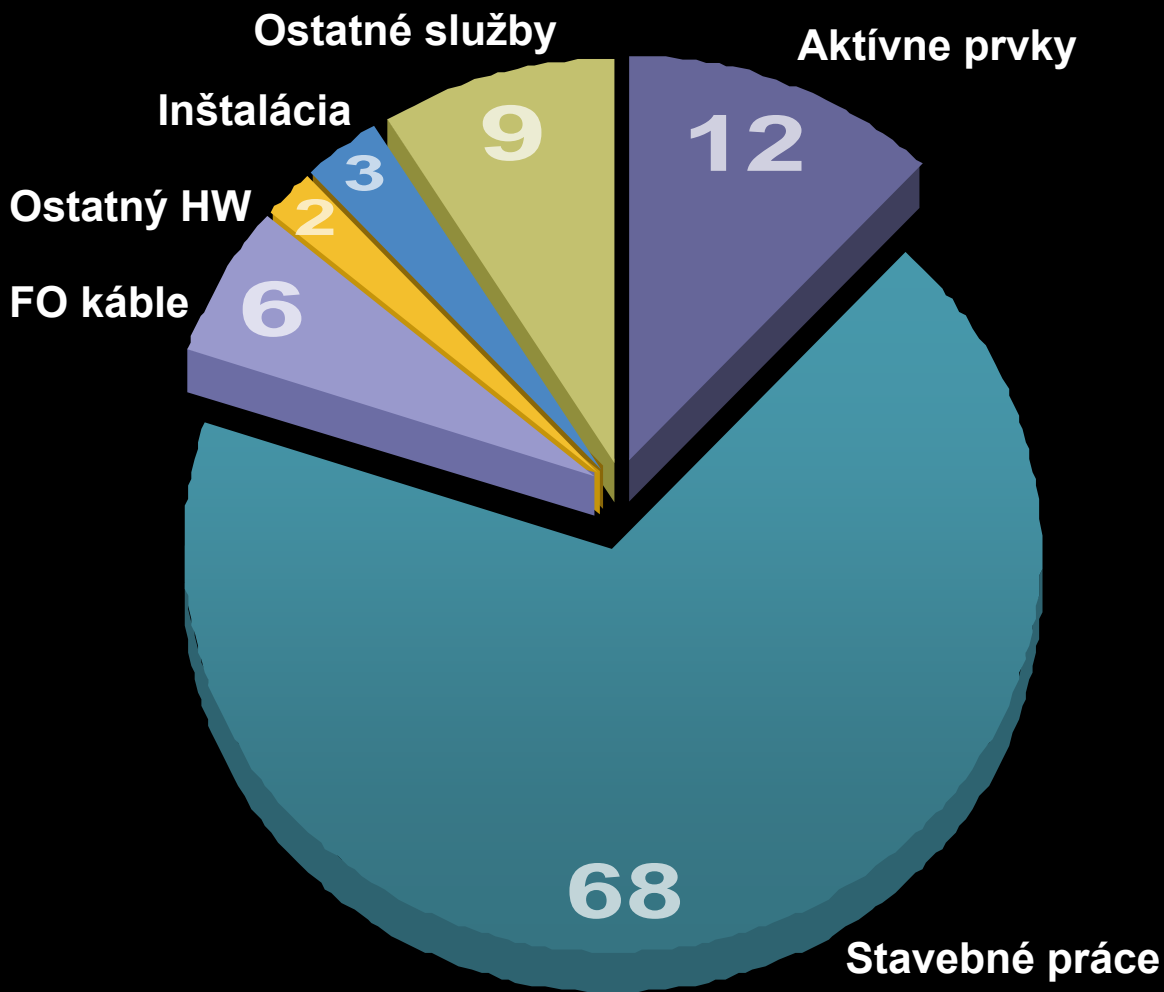


- **Riešenie otázky nezamestnanosti a rekvalifikácie a rozvoja regiónu pomocou dištančného vzdelávania**

Priemyselné parky, zóny

- Prístup k vzdelávaniu **všetkým záujemcom bez limitov**, vyrovnávanie úroveň vysokého školstva v rámci republiky, **vyrovnávanie na medzinárodnom poli**
- **offline prístup k výuk. programom , efektívne využitie času**
- **Zvýšené povedomie mládeže o technológiach**
- **Multiplikačný efekt na domov a priateľov**
- **Vytváranie kvalifikovanej pracovnej sily, znižovanie výdajov na podporu v nezam.**
- **Udržanie špičkových odborníkov v regióne**

Štruktúra Nákladov Metropolitných Optických Sietí



Implementácia optických sietí s návratnosťou 20 rokov je pre súkromný sektor neatraktívna

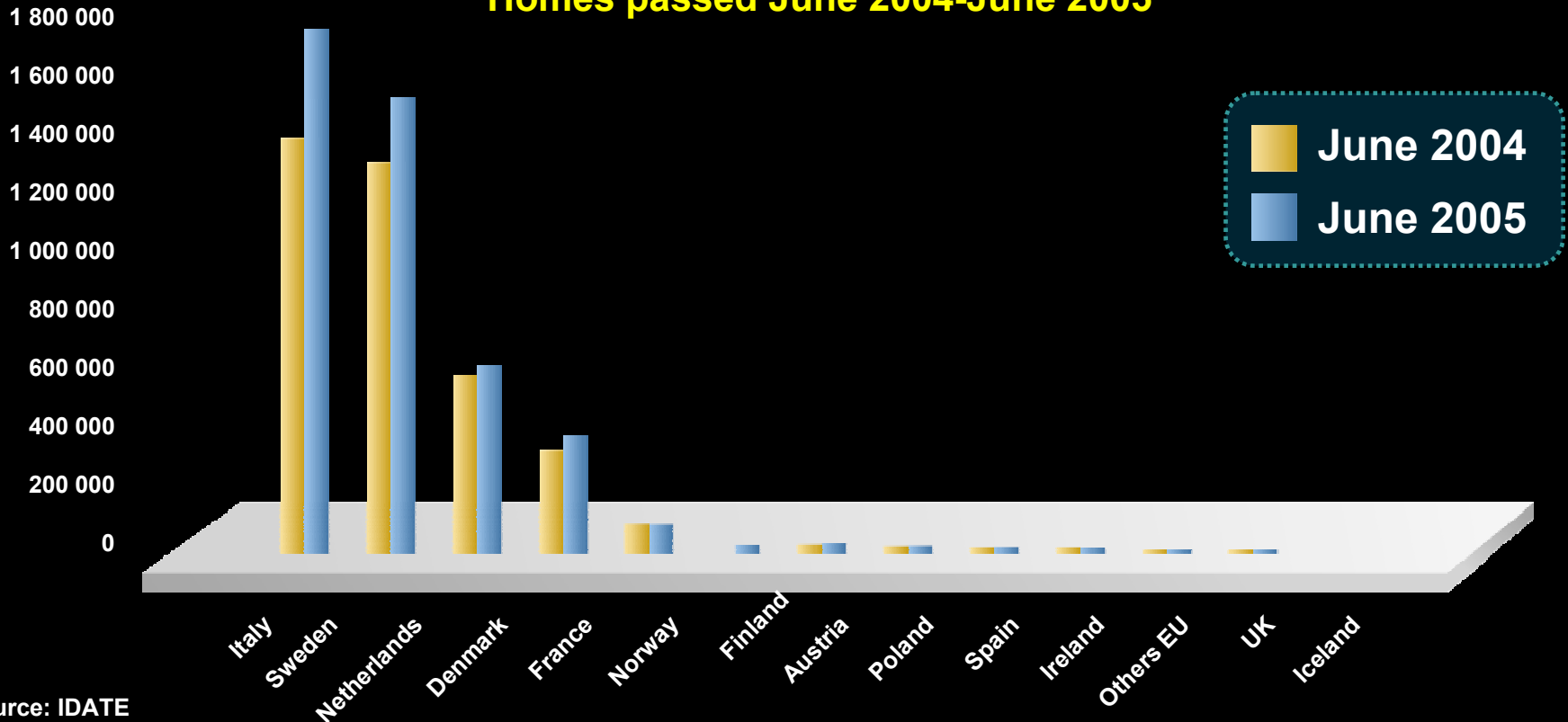
Verejný sektor je typickým investorom do projektov realizujúcich verejný záujem

What is the Market Outlook?

FTTH Homes/Buildings passed in Europe by country

Netherlands : More than 150 percent homes passed compared to June 2004

Homes passed June 2004-June 2005



Source: IDATE

Prepojená Spoločnosť

Prepojenie občanov, zamestnancov, dodávateľov, samosprávy a mestských organizácii prostredníctvom inovatívnych technológií a procesov za účelom zvýšenie bezpečnosti, skvalitnenia služieb, zvýšenie efektívnosti, stimulácie ekonomického rastu, investície do vzdelanosti za účelom zlepšenie kvality života.



**Public Safety
and Security**



**Service
Effectiveness**



**Citizen
Empowerment**



**Social
Inclusion**



**Economic
Development**

Building Connected Communities

POLICE HQ



CITY HALL



TELEWORKER



TRANSPORTATION



**AGENCY
(DATA CENTER)**



CITIZENS



**AGENCY
(BACKUP DC)**



**SCHOOL OR
LIBRARY**



PUBLIC SAFETY



Pehlad' Služieb v Jednotlivých Sektoroch

Education

- E-learning
- Curriculum management
- Regional tutoring
- Teacher training
- Interactive blended digital courses
- Multi-class projects
- Location-free schoolwork
- Remote lessons
- Virtual collaboration tools
- Assignment tracking
- Student performance management
- Study material access
- Online productivity tools for teachers
- Electronic communications
- School portals

Healthcare

- Patient education
- Home health monitoring
- Telemedicine
- Health calculators
- Online health communities
- Virtual consultations
- Health record storage/access
- Personal health organizer
- Appointment scheduling
- Appointment reminders
- Prescriptions service
- Test result tracking
- Best practice exchange
- Electronic medical certificates

Business

- Workforce optimization
- Productivity tools
- E-mail
- Workflow management
- E-commerce
- Integrated logistics and supply management
- E-procurement
- Videoconferencing
- Telepresence
- VPN services
- Unified communications
- Mobile workforce
- Data storage
- New business set-up
- Safety and security

Public services

- E-government portal
- Shared functions/processes
- "Lost wallet" type services
- Citizen feedback/involvement
- Online purchasing
- Departmental and inter-departmental workflow management
- Integrated services
- Citizen-centricity

Safety/security

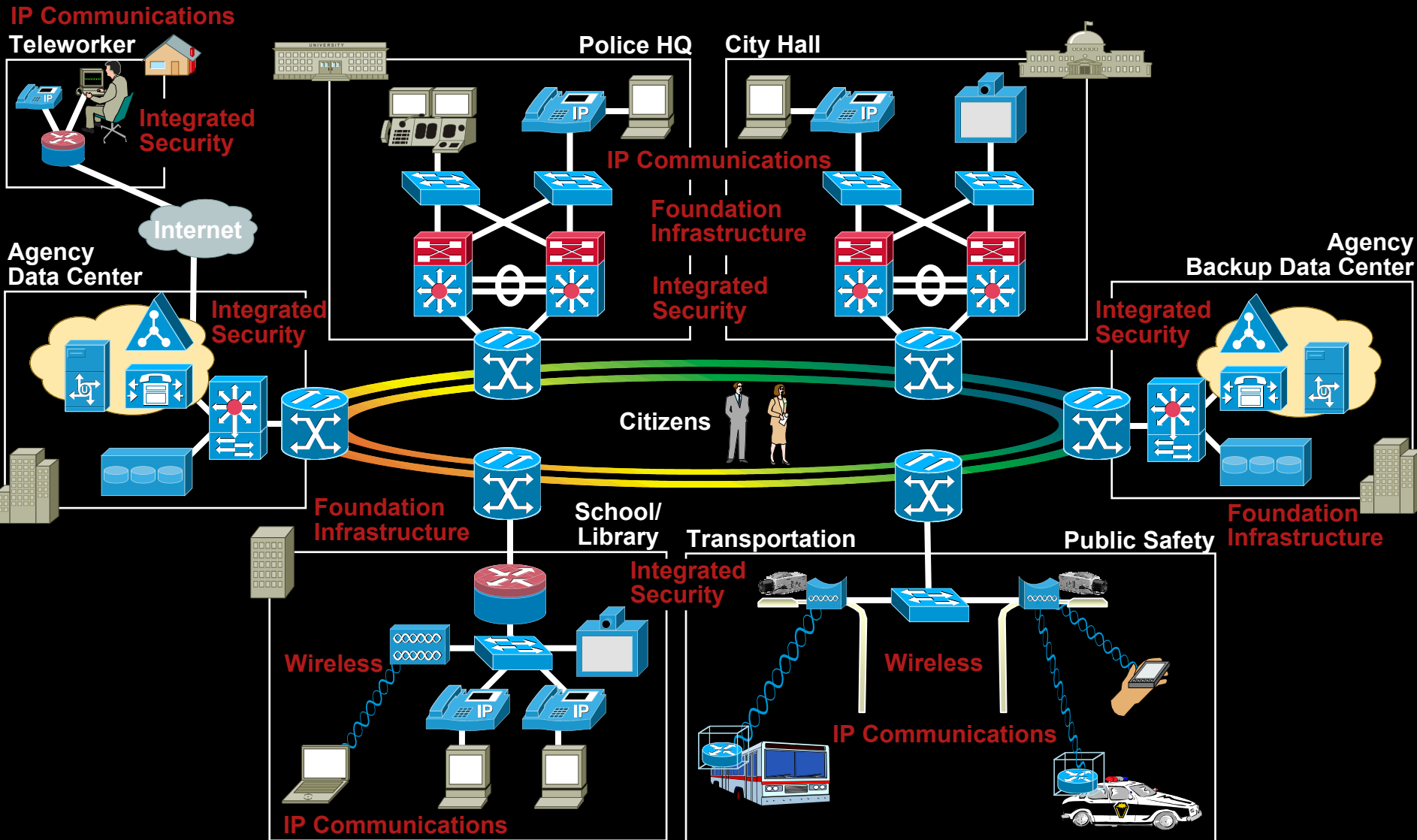
- Video surveillance
- Citizen access points
- Traffic management
- Street maintenance
- Response management
- Noise monitoring
- Pollution monitoring
- Connectivity to frontline workers

Home

- Voice telephony
- Email/messaging
- Internet access
- Broadcast TV
- Pay-per-view
- Video on demand
- Interactive TV
- Online gaming
- Home control system
- Video calls
- Video surveillance
- Storage

Illustrative example

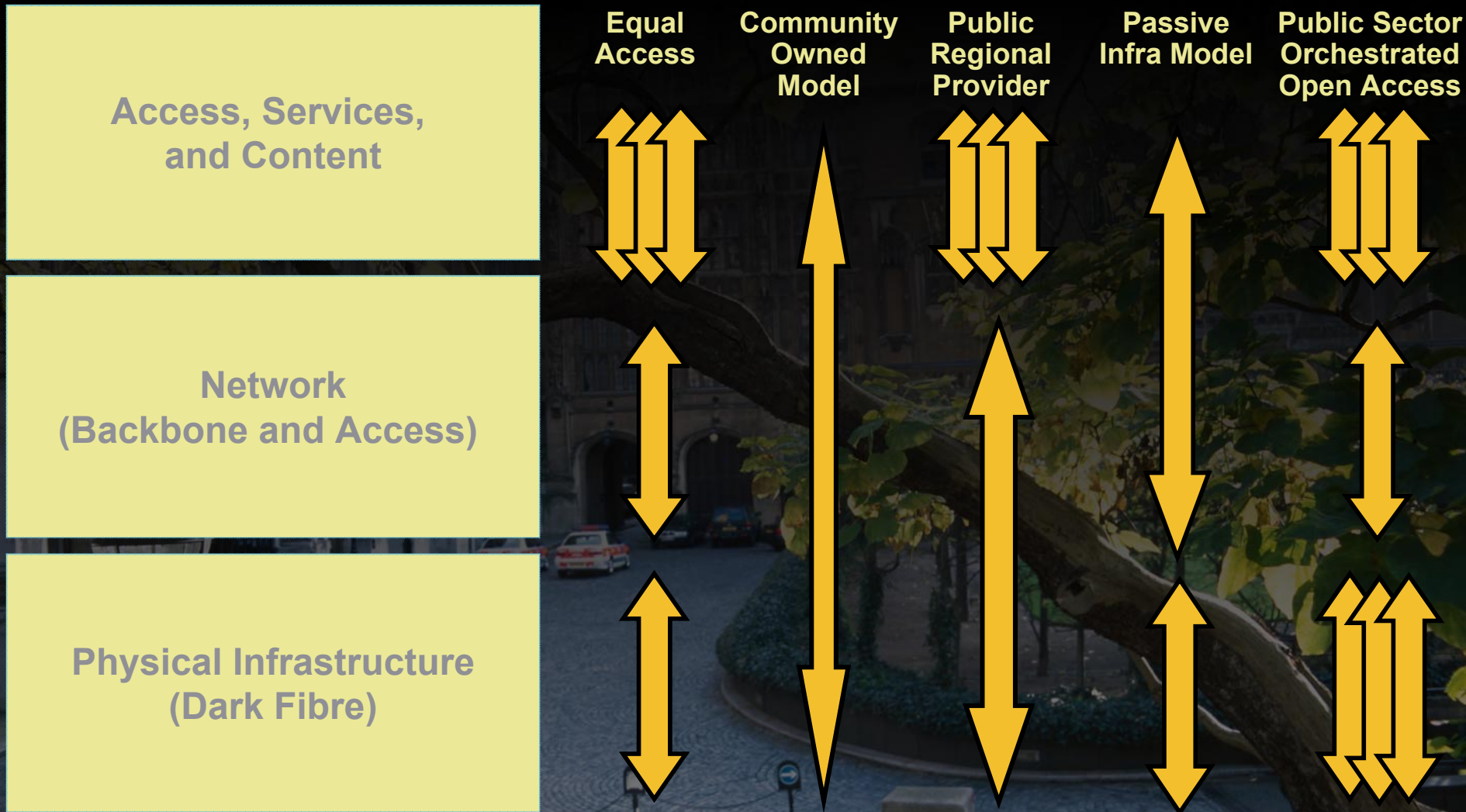
Connected Community



Choosing The Right Business Model



Public Private Partnership Model



Source: Cisco IBSG

CITYnet Amsterdam - Fiber-to-the-Home is becoming a reality

- Potentially the largest in Europe
 - 420.000 homes and businesses by 2013 at €300m
- Open network principles
- Promoting services competition
- Fair and equal access to high-speed broadband for any service provider
- First phase: 40.000 homes by 2007 at €30m

City of Almere (Holland)



- **Challenge**

- Increase economic development and innovation
 - Attract new businesses

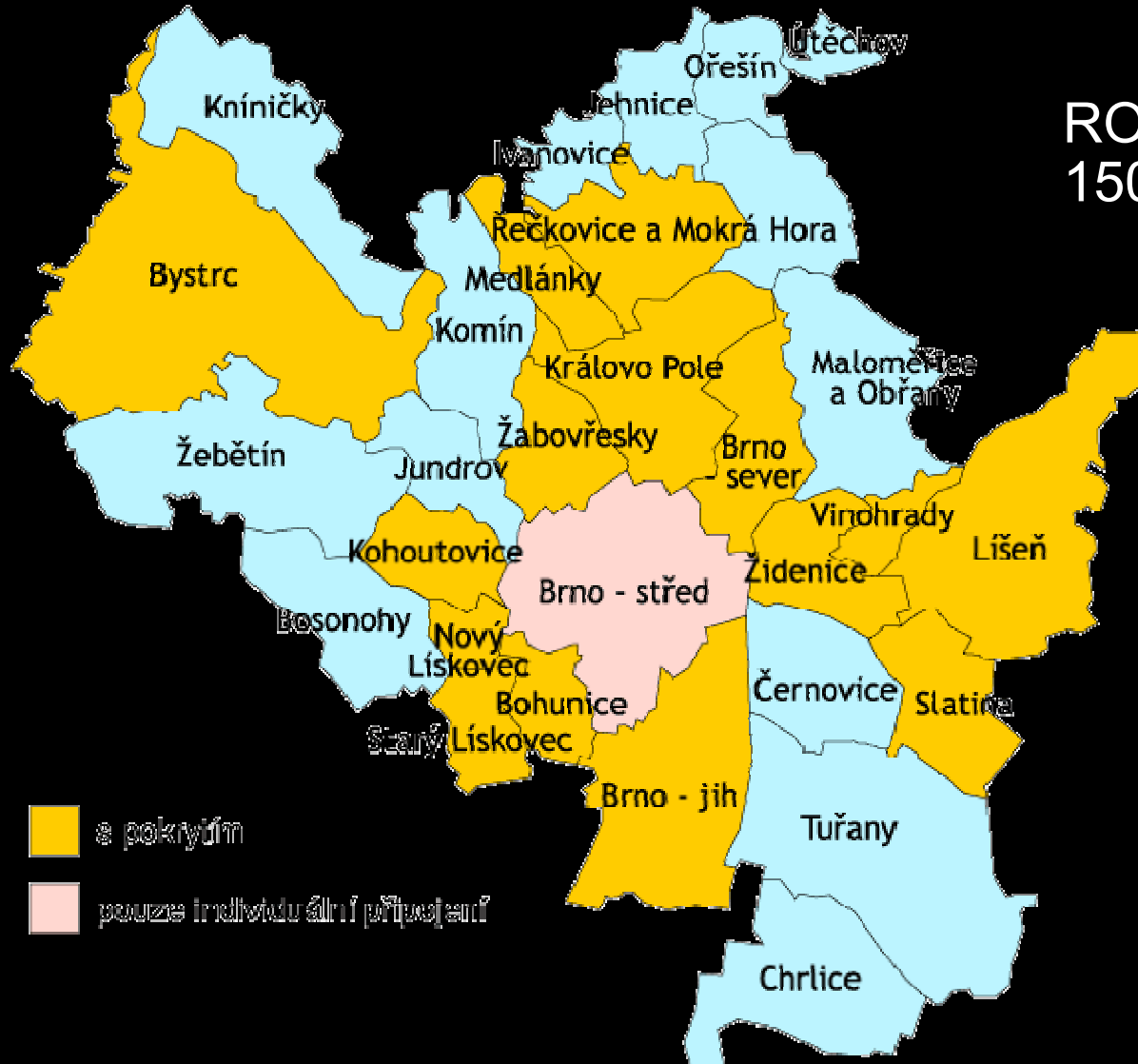
- **Solution**

- Created new business and service models through innovative public private partnerships
 - Deployed future-proof broadband network to homes, institutes and businesses

- **Benefits**

- Created 500 new jobs in the Almere Fibre Pilot area
 - Preservation of SMB and 200 jobs
 - € 5 million new investments in one year
 - Established one of the most advanced Broadband Services Centers in the world

Brno - pokrytie siete NETBOX



ROK 2005
150 000 OBYVATEĽOV

-  s pokrytím
-  pouze individuální připojení

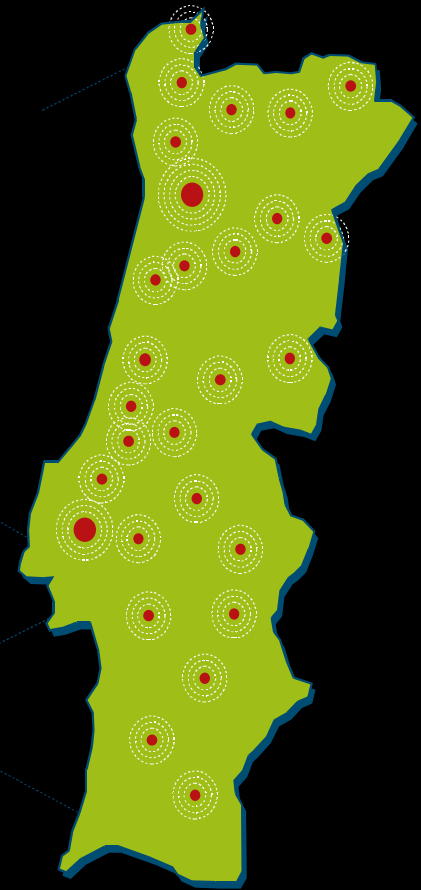
Projekt NETBOX v Brne 2005

- **I. etapa Brno realizovaná na 85%
52tis. Pripojených uživatel'ov**
- **II. etapa Brno +20tis. přípojek - 2006**
- **III. etapa Brno +15tis. Přípojek -2007**
- **Celkové pokrytie Brna 70% do roku 2007**

Best Practice Central Government Portuguese e-U Broadband

“Creating the Wireless Broadband Nation”

- **Biggest University WIFI Telecom Network Worldwide**
- **National e-Learning Platform**
- **400.000 users**
- **5.000 Access Points**
- **170 Hot Spots**
- **100% Portuguese Private and Public Universities**



The national backbone is now being open to equal access

Wienstrom – Austria

Fakty:

Rozbehnutie projektu : odbor informatiky Wien

- Pôvodne pre 400 škôl
- Pilot pre 500 zákazníkov,
- Potenciál 60'000 zákazníkov,

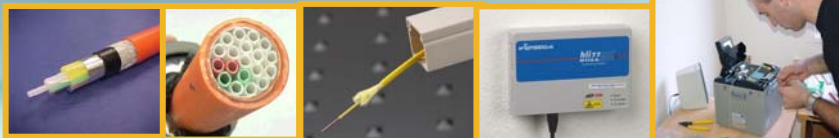
Ďalší rozvoj:

- Založenie prevádzkovateľa spoločnosti s Wienerstrom
- Aliancia s tvorcami obsahu : Video, TV, Uni atd.

WIENSTROM 660 km

FERNWÄRME 210 km

WIENER LINIEN 185 km



Website

Press



CISCO