

Multi-Program Approach to Foster eSkills

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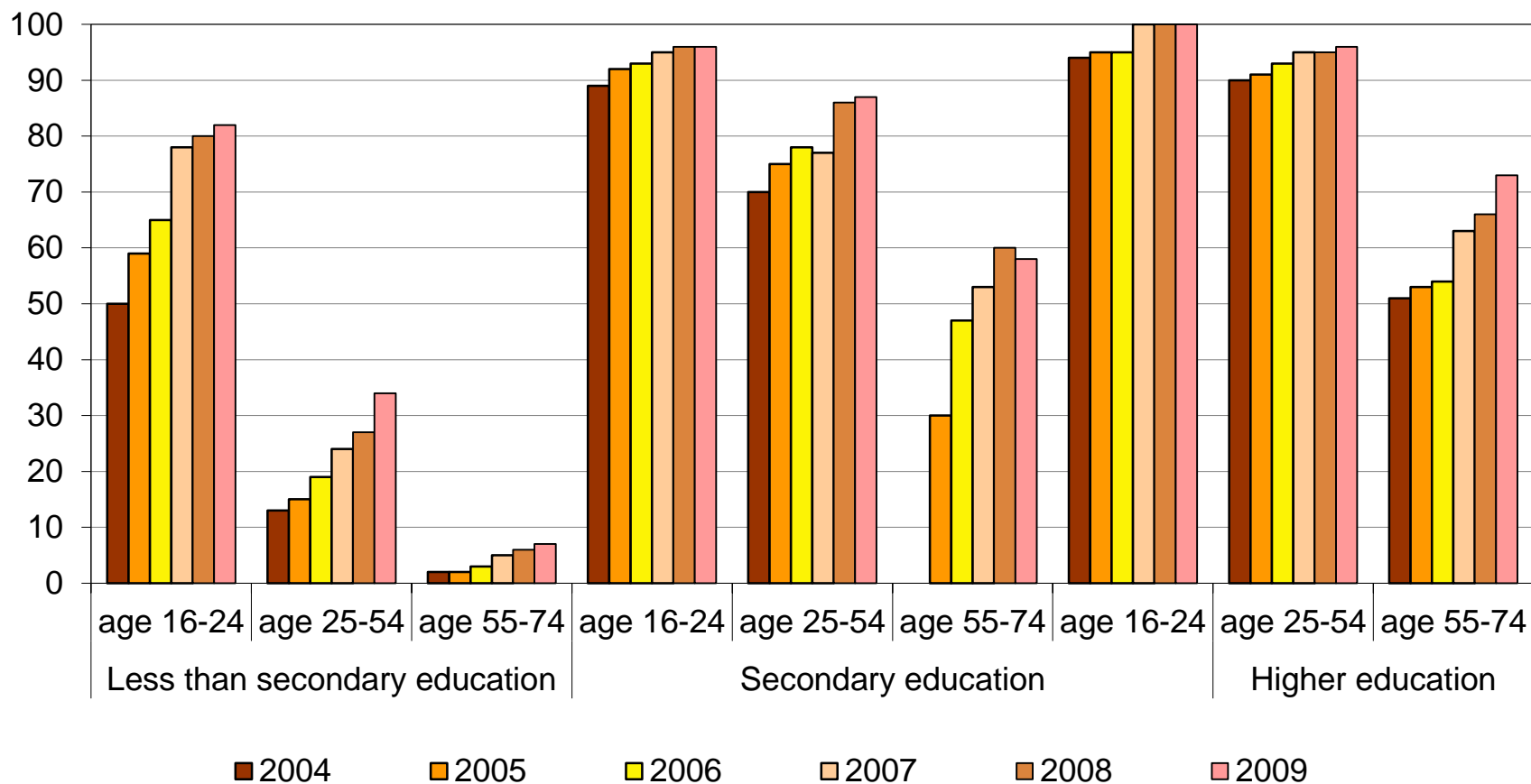
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Multi-Program Approach to Foster eSkills in Portugal

- Youth education in schools: Education Technological Plan
- Adult education: New Opportunities Program
- Open training and use in telecenters: Internet Spaces Network
- National eSkills certification system: since 2001 Basic Skills Diploma ($\approx 6^{\text{th}}$ grade ICT level). Now planned 2 more levels: Intermediate ($\approx 9^{\text{th}}$ grade ICT level), Advanced ($\approx 12^{\text{th}}$ grade ICT level)
- Professional training and certification in polytechnics and universities in partnership with industry: ICT Academies
- Professional training courses in polytechnics and universities: CET – Technology Specialization Courses
- Advanced training in ICT: ICT curricula modernization, Professional Masters in International Partnerships

Regular Internet Users in Portugal

by age and educational attainment (1Q, 2009)



Source: EUROSTAT



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Regular Internet Users in Portugal

% regular Internet users by educational attainment (1Q 2009)

→ 93% people with higher education

average UE27 2009 = 91%

→ 87% people with upper secondary but not higher education

average UE27 2009 = 71%

→ 30% people without upper secondary education

average UE27 2009 = 43%



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Education Technological Plan

- Generalize laptops for students and teachers: >1M deployed.
- High speed Internet in schools: ≥ 48 Mpbs in >93% of 5th-12th grade schools; all schools w/ broadband since Jan 2006
- Technological Kit for schools: 2 students/computer with Internet, 1 projector/room and 1 interactive board/3 rooms, in 5th-12th grade schools
- School Portal: educational content, collaborative work
- Training and certification for eSkills: teachers, students, school employees; massively
- ICT Internships: in industry for technology track students
- ICT Academies: professional training in partnership with industry
- ...



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New Opportunities Program

education of adults without complete basic education

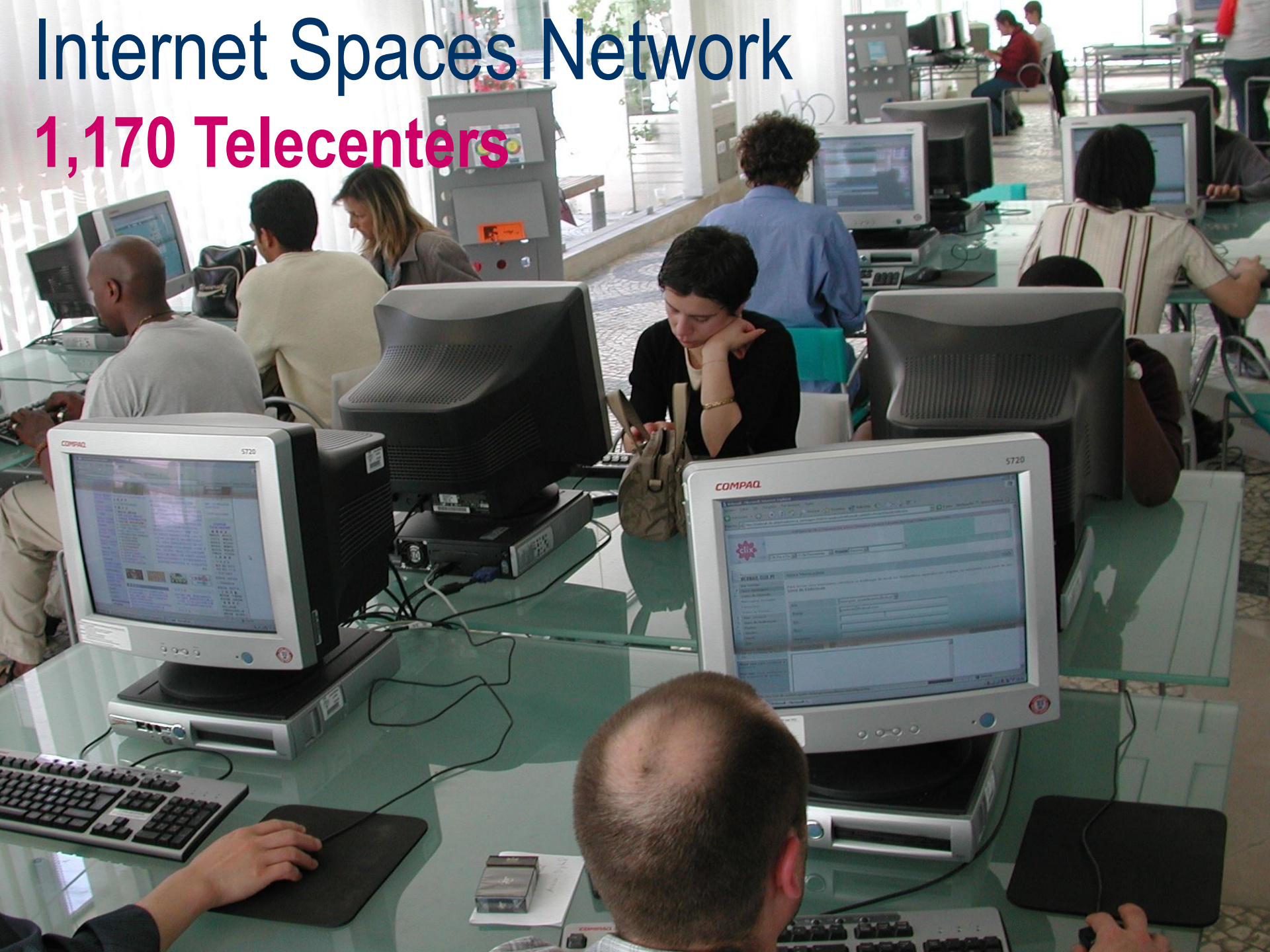
- In enterprises, enterprise associations, community centers, schools
- Target: 1M people
- Always involving eSkills training
- >200K laptops deployed within the New Opportunities Program



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Internet Spaces Network

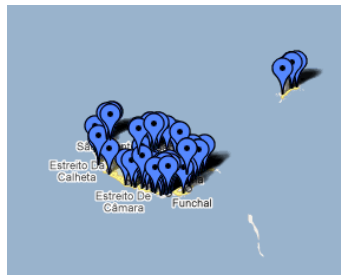
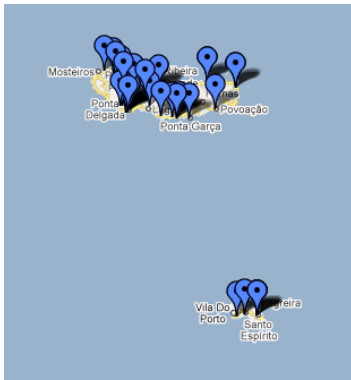
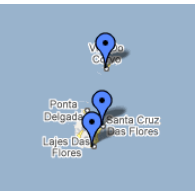
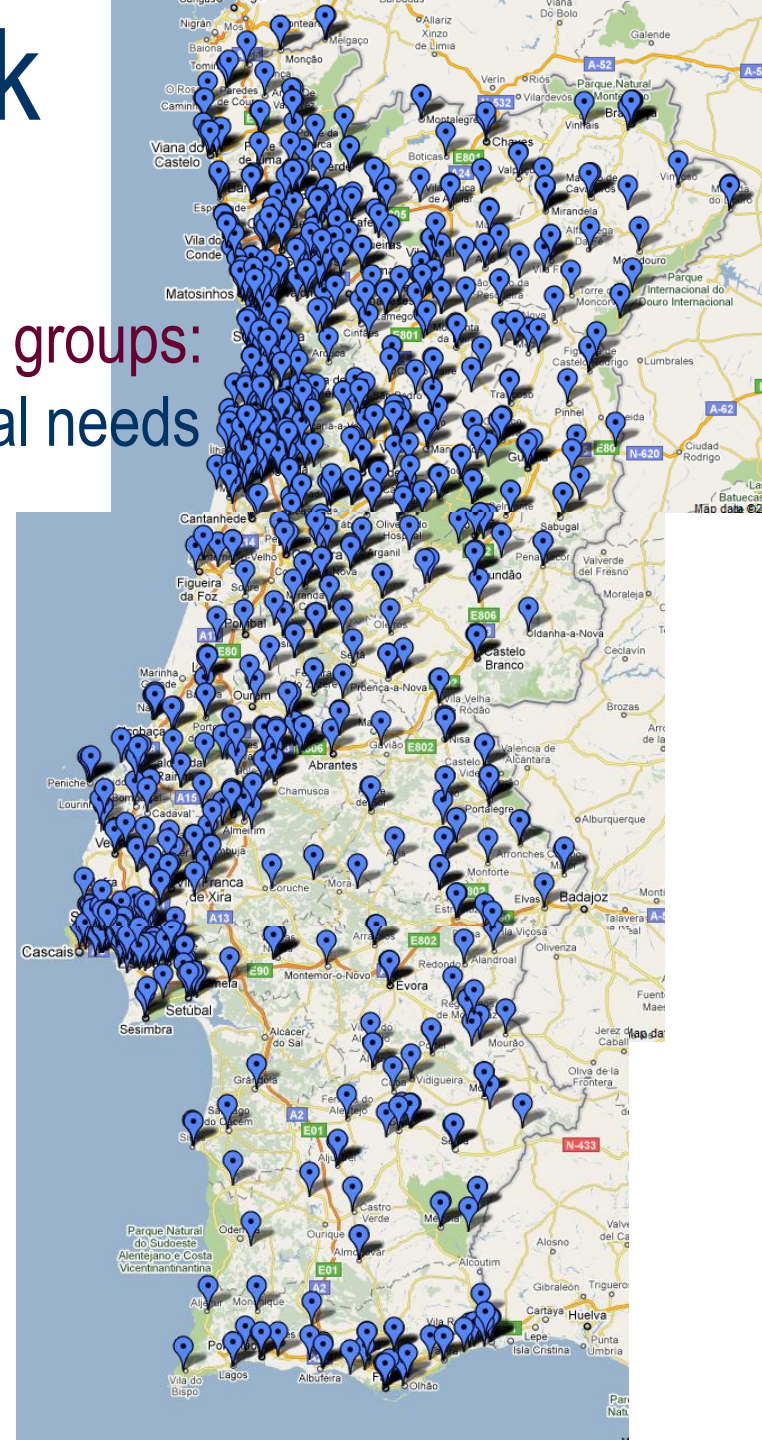
1,170 Telecenters



Internet Spaces Network

1,170 Telecenters

eSkills development actions for special target groups:
aged, parents, immigrants, people with special needs



ICT Academies in Polytechnics and Universities

professional training and certification in partnership with industry

Presently 62 in partnership with following companies:

- Microsoft
- Cisco Networking
- Sun Microsystems
- SAP
- SAS, Business Intelligence Software
- LPI – Linux Professional Institute
- ...



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CET – Technology Specialization Courses

professional training courses in polytechnics and universities

- Level 4 post-secondary education w/ professional certification
- 119 registered CETs in ICT
- in 38 institutions
- in 30 towns
- Examples:
 - Multimedia Development
 - Network and Information Systems Installation and Maintenance
 - Computer Management Applications
 - Information Systems Technologies and Programming
 - Geographic Information Systems
 - Automation, Robotics and Industrial Control
 - Software Development and Systems Management
 - Network and Information Systems Management
 - Mechatronics

...



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International Partnerships

ICT curricula modernization and Professional Masters
involving research, industry and university

MIT – Portugal Program (beginning 11 Oct 2006)

Engineering Systems: Sustainable energy and transportation systems ●
Advanced engineering design and manufacturing in electric car and mobile
medical applications

Carnegie Mellon – Portugal Program (beginning 27 Oct 2006)

Future Internet Technologies: Next Generation Networks and trusted high-
quality services ● Critical infrastructures security and trust ● Cyber-physical
systems for ambient intelligence ● Human-centric computing ● Language
technology ● Software engineering for large-scale dependable systems

UTexas Austin – Portugal Program (beginning 2 Mar 2007)

Interactive Digital Content, High Performance Computing

5 General Practical Rules

for Success in the Knowledge Society

- Develop human capital
- Foster partnerships and knowledge networks
- Aim at outcomes and measure them
- Leave room for bottom up creativity
- Promote internationalization and cooperate



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