



EARNEST Study Schools Workshop

10-11 February 2007

La Maison Internationale, Paris, France

What are the infrastructure and service needs of schools?

14:20–14:40h

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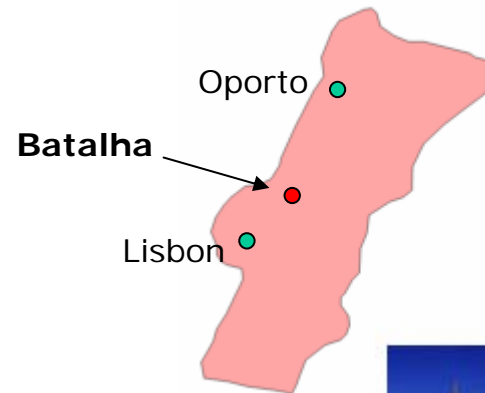


SUBJECTS

- 1- CCEMS – Short Presentation
- 2- Characterization of the schools
- 3- How we work/cooperate with “our” schools
- 4- Which are the necessities of “our” schools?
 - Infrastructures
 - Services

1- CCEMS – Short Presentation

Competence Centre “Entre Mar e Serra” (Between Sea and Mountain)



Monastery of Batalha

<http://www.ccems.pt>

1- CCEMS – Short Presentation



Created in 1998 in a national competition of projects in the scope of the Nónio XXI Century Program.



CCEMS is articulated with a Network of in-service teacher training centres.

Competence Centres general aims:

- Centres of study and investigation in ICT applied to education;
- Support to the implementation of ICT projects at school context.

CCEMS.PT

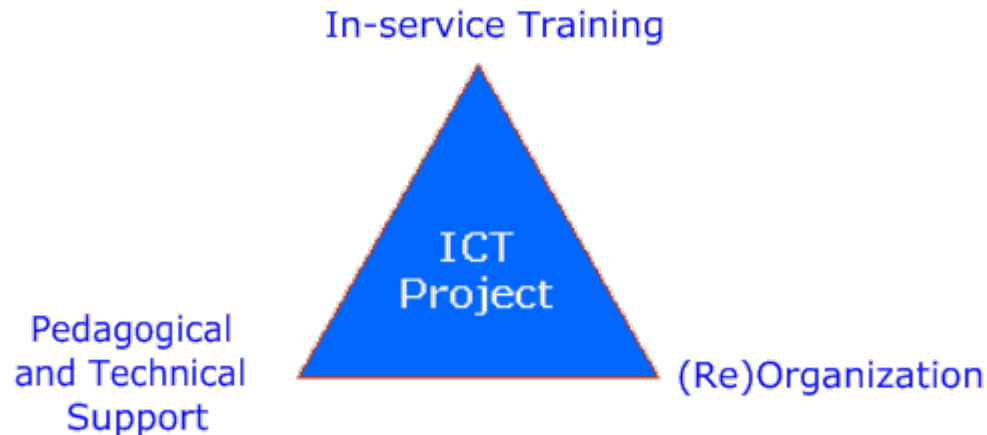
1- CCEMS – Short Presentation



We have considered 3 complementary intervention areas in all initiatives/projects.



CCEMS.PT



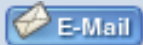
The organizational model is based on leadership and cooperation - **all projects have a school coordinator of the project team for its implementation.**

Internet Services



domain name: **CCEMS.PT**

E-mail



★user@ccems.pt

Web Pages



★Server Extensions

★ODBC

★SQL Server

★mySQL

FTP

LMS



★ Moodle
(> 190 installed)

★esbat-m.ccems.pt/

CMS



★ Joomla
★ PHP Fusion
★ OpenCMS



—● servers

WEB Services




Web domain name: **CCEMS.PT**

Web



★ prof

teachers

 <http://profs.ccems.pt/CBaltazar/>

★ school

schools

 <http://esbatalha.ccems.pt>

★ user

personal

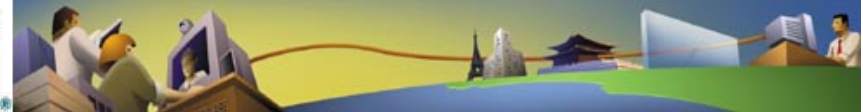
 <http://preis.ccems.pt>

GATO – Management tool for educational projects and ICT activities (<http://gato.ccems.pt>)

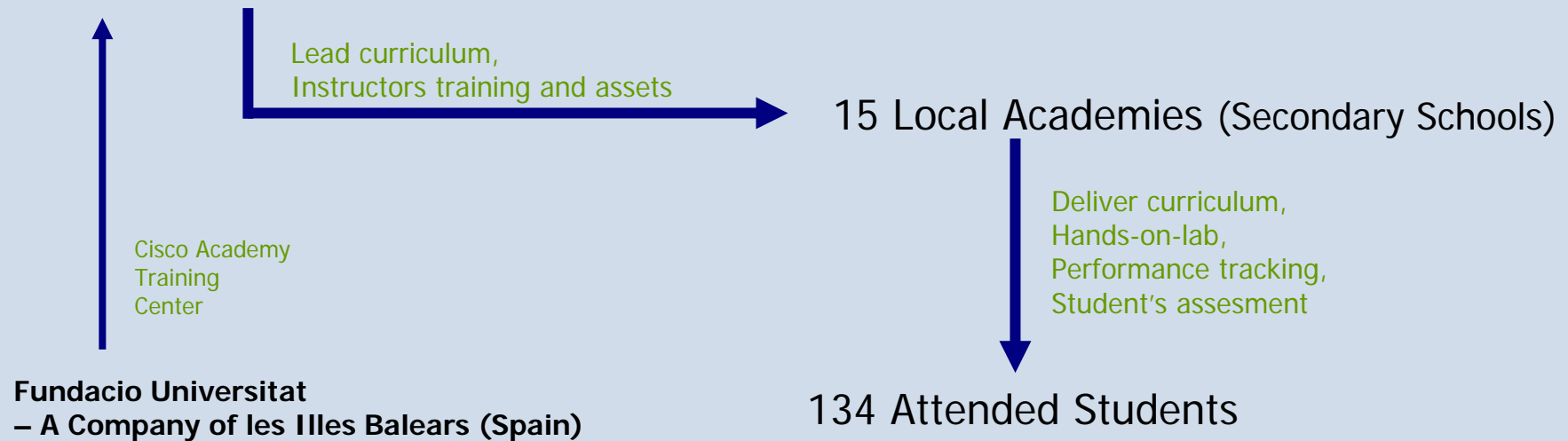
SICAE – Transmission of standardized information between teachers of associated schools and the school “headquarters” (<http://sicae.ccems.pt>)



Netacad - Cisco Networking Academy Program



CCEMS – Regional Academy



- CCEMS is a Regional Academy since December, 2001
- 12 Local Academies in public schools
- 3 Local Academies in private schools
- 1 School in application process

<http://netacad.ccems.pt>



2- Characterization of the schools

Three type of schools that we work:

- 1** – Workgroup networks
- 2** – Domain Networks (centralized services)
- 3** – Possessing their own WEB and Internet services

2- Characterization of the schools

2.1 - Workgroup Networks

- ✦ No domain server
- ✦ Security problems (data and resources)
- ✦ Difficulty of maintenance
- ✦ No backup politics
- ✦ Pedagogical and administrative resources and data share the same infrastructure
- ✦ No firewalls measures or web security implemented

2- Characterization of the schools

2.2 - Domain Networks

- ✦ Domain server (1 or more)
- ✦ More than 1 internet connection
- ✦ Network physical separation (administrative and pedagogical)
- ✦ Centralized services (users, RIS, data access and resources)
- ✦ Backup politics (*sometimes*)
- ✦ Security politics (*of little importance*)

2- Characterization of the schools

2.3 – Own School web server and internet services OUT OF RANGE....

- ✦ ... Same as 2.2
- ✦ Web, Mail and DNS Servers
- ✦ Implemented security (ISA server, OpenSource solutions)
- ✦ Administrative services accessible through Internet
- ✦ Politics of One User/One Login for all services (LDAP)

3- How we work/cooperate with "our" schools

- ✦ ICT coordinator (6 hours per week)
- ✦ We (CCEMS) work with 100 ICT coordinators – 5 groups
- ✦ Monthly meetings (share experiences, solve problems)
- ✦ Meetings supported by Moodle (Cooperative work)
- ✦ Help/Support by phone, mail, forums, visits to schools
- ✦ Study and investigation of solutions
- ✦ Specialized training for ICT Coordinators

4- Which are the necessities of "our" schools?

Infrastructures

- ✦ TIA/EIA Structured Cabling **Standards**
- ✦ Wireless Networks (problems: implementing and security)
- ✦ Standard documentation of networks design
- ✦ Design networks with a future perspective
 - Fiber or Cat. 6e/7 UTP Backbones
- ✦ Data center conditions (physical and access)
- ✦ Vlans
- ✦ Better and faster *Internet Access* (1 Mb for 100 Pc's !!!!)

4- Which are the necessities of "our" schools?

Services

- ✦ Web based information systems (automate pedagogical and administrative tasks)
 - CCEMS plataforms: GATO and SICAE
- ✦ Automation of technical procedures (Remote Installation Services, Anti-Virus Deploying, ...)
- ✦ Firewall protection
- ✦ Web Access and Content Filtering

4- Which are the necessities of "our" schools?

Services

- ✦ CMS and LMS platforms' support (Centralized or not ???)
- ✦ Backup Politics
- ✦ Remote access to school areas (VPN)
- ✦ One User – One Login (Active Directory, Moodle, Linux Terminals)
- ✦ **Regional services (C. C's) for networking support.**

4- Which are the necessities of "our" schools?

One Solution

- ✦ Schools need more and more PC's with Internet Access
- ✦ Problems: No money to buy new pc's and licensing software
- ✦ Solution? Linux + LTSP
- ✦ "Terminais Leves Linux" <http://opensource.ccems.pt>
- ✦ Thin Client architecture
- ✦ Perfect for schools because they are easy to install and require little maintenance

Thanks for your time 😊

For further informations:

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<http://www.ccems.pt>