**Master
Informatics Engineering**
Dual Training Program

ESCOLA
POLITÈCNICA SUPERIOR

**DUAL HIGHER EDUCATION IN MOLDOVA
AND UKRAINE – COOPERA**

Nov 09, Lleida (Spain)

Universitat
de Lleida

COOPERA

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Outline

- **MS Structure & Academic Objectives**
- Why Dual Training?
- Dual Training Implementation
- Results
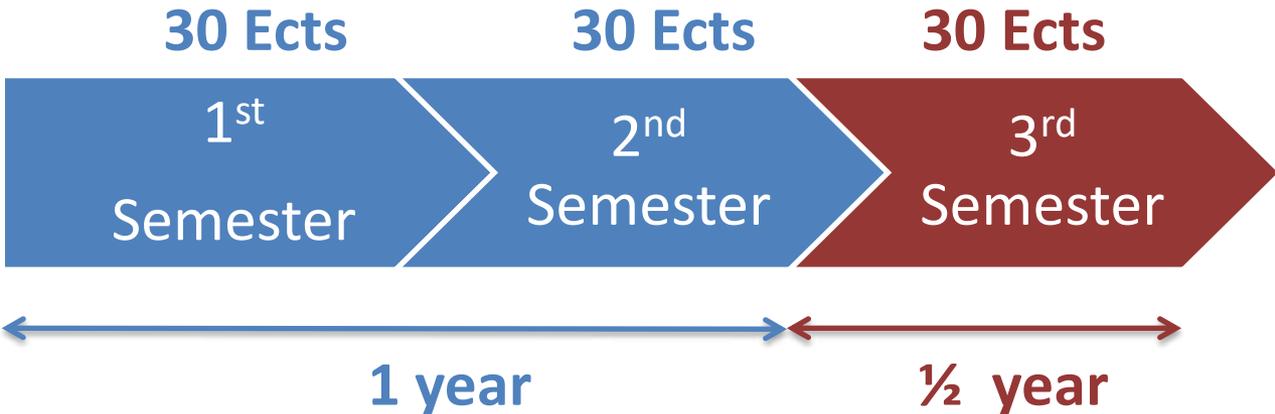- Strengths, Weaknesses and Shortcomings

MS Structure & Objectives

- Starting Academic course 2011-12 (10 years)
- Official Master degree
- 90 ECTS

30 Ects	30 Ects	30 Ects
1ˢᵗ Semester	2ⁿᵈ Semester	3ʳᵈ Semester

30 Ects   **30 Ects**   **30 Ects**

1st Semester   2nd Semester   3rd Semester

1 year   **½ year**

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MS Structure & Objectives

> Provide expertise on the latest IT technologies and also competences on Enterprise management

Basic Structure (2011-2015)	
Subjects	**ECTS**
Enterprise Management	12
IT Subjects	54
Elective Subjects	12
Master Thesis	12
Total ECTS	**90**

- Enterprise Management and Entrepreneurship
  - Enterprise Management and Entrepreneurship
  - Project Management
- IT technologies
  - WS, App development & HCI
  - AI, Embedded Systems and Computer Graphics
  - Communication and Security
  - HPC, Cloud Computing
- Elective courses
  - Research
  - Internship
  - Mobility

Implementation

1st Semester (Sep – Jan)	2nd Semester (Feb – Jun)
30 ECTS	**30 ECTS**
IT Project Management	Communication Services and Security
Development and Implementation	Technological Business Management and Entrepreneurship
Computer Graphics and Multimedia	Evaluation Techniques and Usability Testing
Intelligent systems	High Performance Computing
Embedded and Ubiquitous Systems	Specialitzation I

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Why Dual Training?

Results from surveys to students and companies

- Lack of experience in project management

- Lack of communication skills

- Lack of soft skills

Why Dual Training?

Particular situation of our MS

- 100% Employability for bachelor IT students

- Lots of IT vacancies

- MS under recognition

- Expensive fees

MS became unattractive

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Why Dual Training?

Structure (2015-2018)		
Subjects		**ECTS**
Enterprise Management		13.5
IT Subjects	Compulsory	40.5
	Specialization	18
Elective Subjects		6
Master Thesis		12
Total ECTS		**90**

- Introduction of Project Based Learning methodologies
- Revalue Project Management, Enterprise management and Entrepreneurship skills
- Adding specialitzations
  - BIG DATA analytics
  - Videogame development
- Recruitment of companies experts
- Companies seminars inside courses
- Euro-Inf Quality Label

IS IT ENOUGH???

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Why Dual Training?

- Students:
  - improving its knowledge working in a company
  - Improving soft skills

- Companies:
  - attracting new talent and training its future workers
  - dual students are very good candidates to develop I+D projects

- University:
  - academic-enterprise alignment
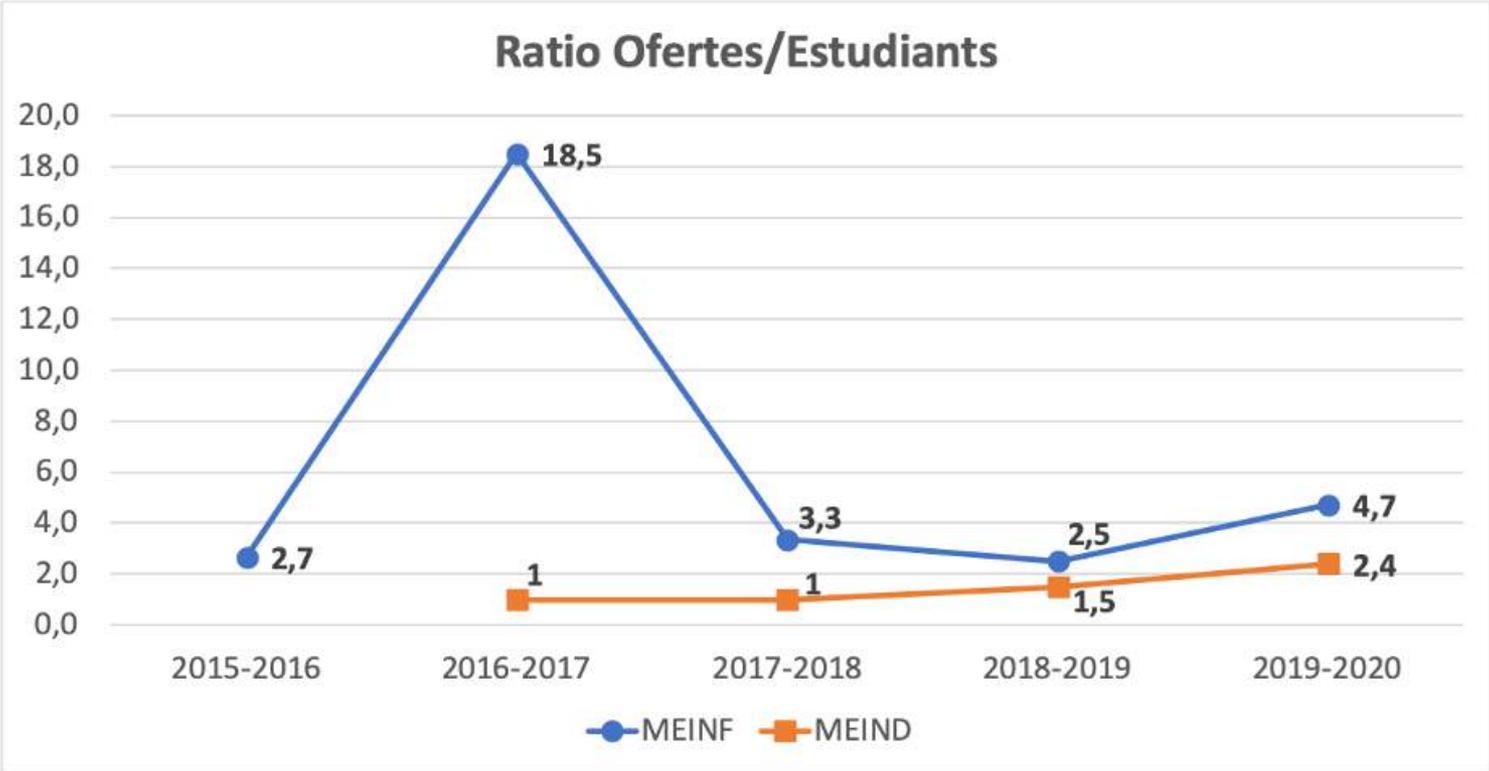 - Improvement of students satisfaction and MS attractiveness

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Implementation

1st Semester (Sep – Jan)	2nd Semester (Feb – Jun)

30 ECTS

30 ECTS

Software Project

Networks and Security Project

Ubiquity and Intelligence project

IT Enterprise Management and Entrepreneurship

Cloud Computing

Specialization I – Dual Training

Implementation

3rd Semester (Sep – Jan)

30 ECTS

Specialitzation II
Specialitzation III
Elective Subject
Master Thesis

Dual Training – Enterprise Integrated Projects

Implementation

| 1st Semester | 2nd Semester | 3rd Semester |

- Evaluation and follow-up through a Portfolio

- Student (S), Enterprise supervisor (ES), University Supervisor (US)

- 2 meetings x Semester (1S, 2S, 3S)

  - Definition of the training activities and skills to cover (ES,US)

  - Student self-evaluation, Evaluation of technological competences and Soft skills (S, ES)

- A Memory of activities x Semester

- Marks transferred to Subjects in the master program. (Enterprise-Integrated Project Speciality (24 ECTS))

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Results

Ratio Ofertes/Estudiants
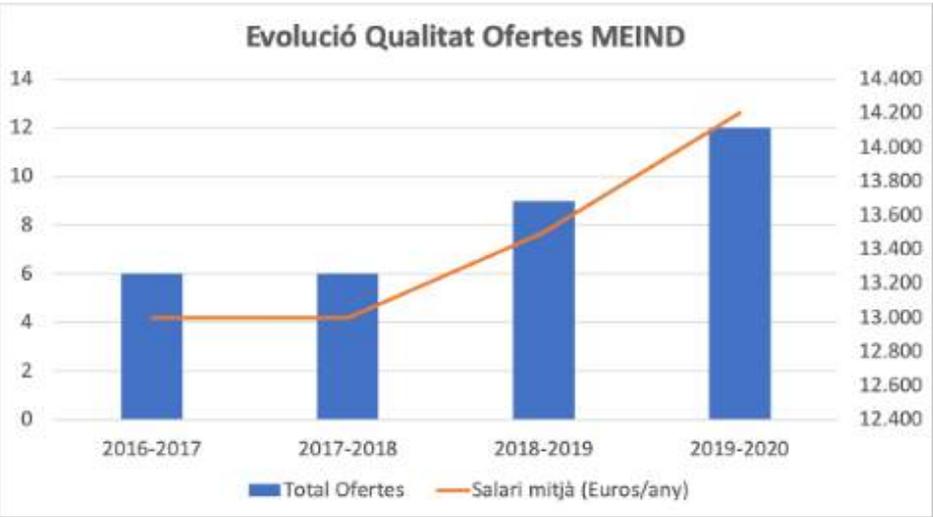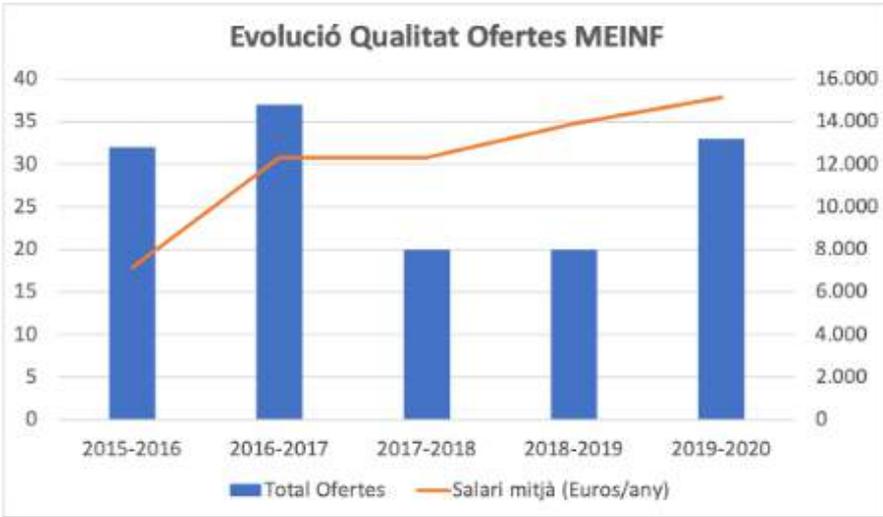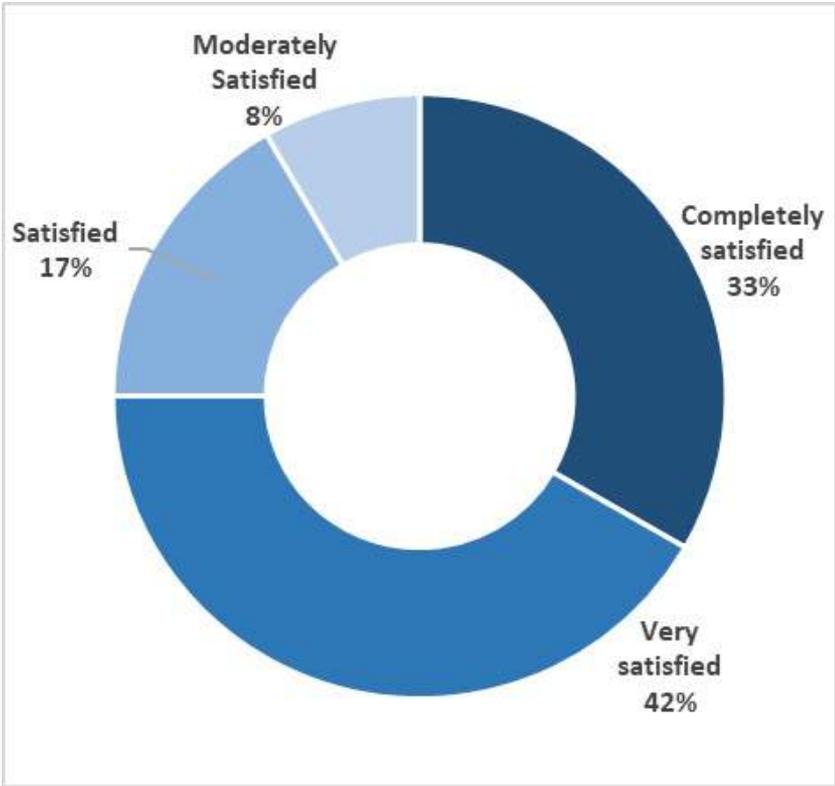
Results

Results

Student Global Satisfaction
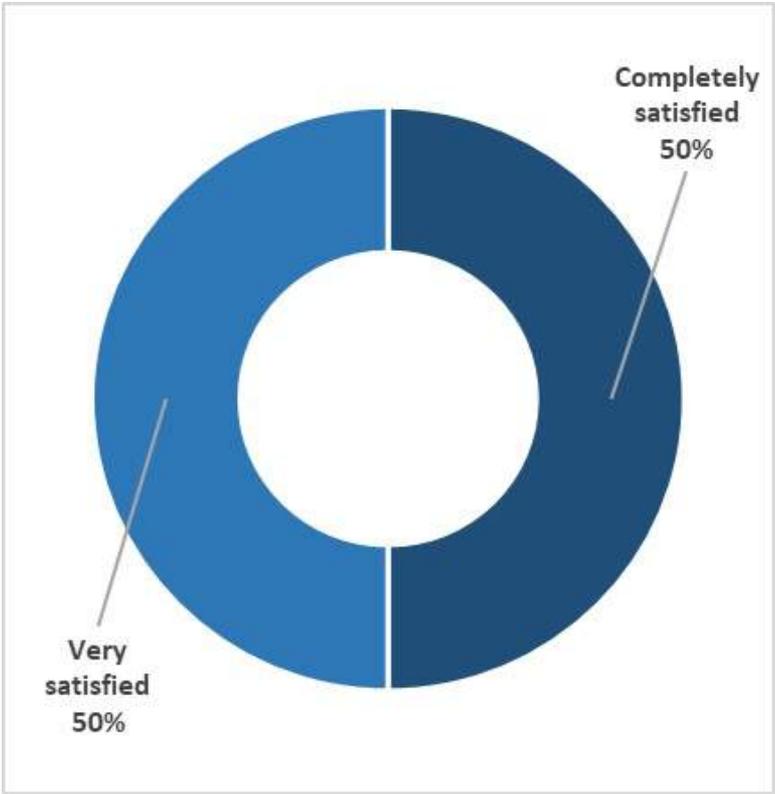
Company Global Satisfaction

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- **Strengths, Weaknesses and Shortcomings**

Strengths, Weaknesses and Shortcomings

Strengths

- Improvement of the student skills

- academic-enterprise alignment

- Improvement of students satisfaction

- Improvement of MS attractiveness

- New opportunities for knowledge transference

Weaknesses

- High workload for the students

- appreciation in value of the MS by companies and students

- Requirement of a change of mentality in the companies

Strengths, Weaknesses and Shortcomings

Shortcomings

- No internship contracts

- Administrative difficulties for foreign students

- Improvement of the grant programs

- Support to the co-evaluation process

Thanks for your atention

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www.masterinformatica.udl.cat

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