How to retain students in higher engineering education?

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Student retention in the ATTRACT project

(1) Compilation of ***state-of-the-art knowledge, statistics and practices*** in student retention based on literature review and country+university reports

(2) Implementation of ***field trials*** with the aim of

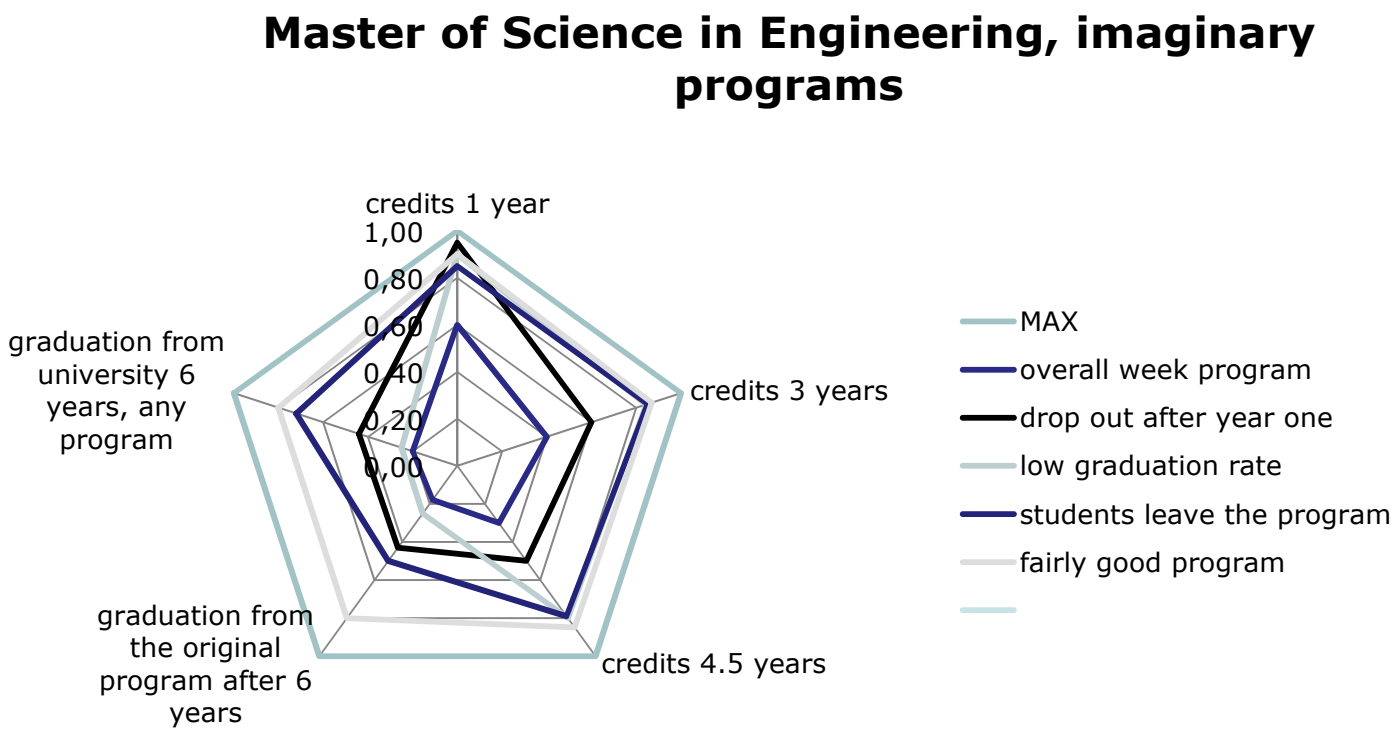
- Developing first-year students' questionnaires
- Evaluating a method of monitoring student progression
- Finding good practices in student-teacher interaction, academic integration and tutoring, and early identification of students at risk

(3) Analysis of findings and exchange of ideas and experiences, formulation of ***recommendations***

What comes out from the work of WP8?

- Methodologies for benchmarking between universities having very different context and background
- Good practices – methodology how to localise, implement and evaluate a practice of another university
- Tools, examples….
- Glossary – harmonising definitions
- Improved networks – education research and development

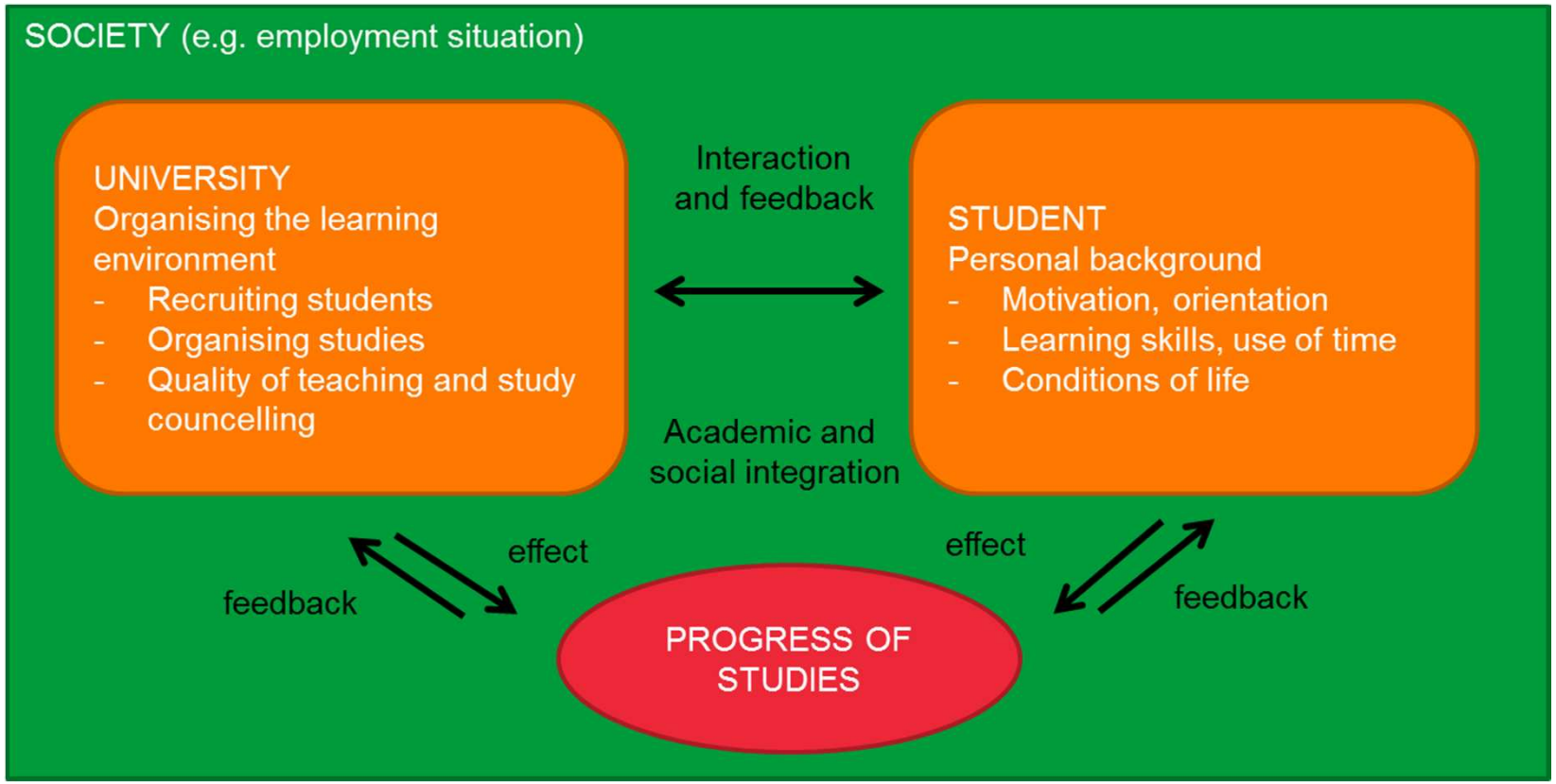
Footprint – what does it say?



Levels of different motivations, activities and goals

NATIONAL AND INTERNATIONAL LEVEL	NATIONAL/ ALLIANCE STRATEGY AND IMPLEMENTATION PLAN	SOCIETAL MACRO LEVEL Education system and global allianced
ORGANISATIONAL LEVEL: University School, Department	EDUCATIONAL INSTITUTION DEVELOPMENT PLAN AND POLICY	ORGANISATIONAL MESO LEVEL
TEACHER, TUTOR, INSTRUCTOR LEVEL	TEACHING, TUTORING, ACADEMIC INTEGRATION, CURRICULUM	
LEARNER LEVEL	STUDYING AND LEARNING, SOCIAL INTEGRATION	COGNITIVE MICRO LEVEL Cognitive and Emotional aspects of learning and teaching Including individual's previous experience, learning history, learning styles etc.

Modelling progress of studies and educational persistence



Source: Ruutu, 2010

Findings (1)

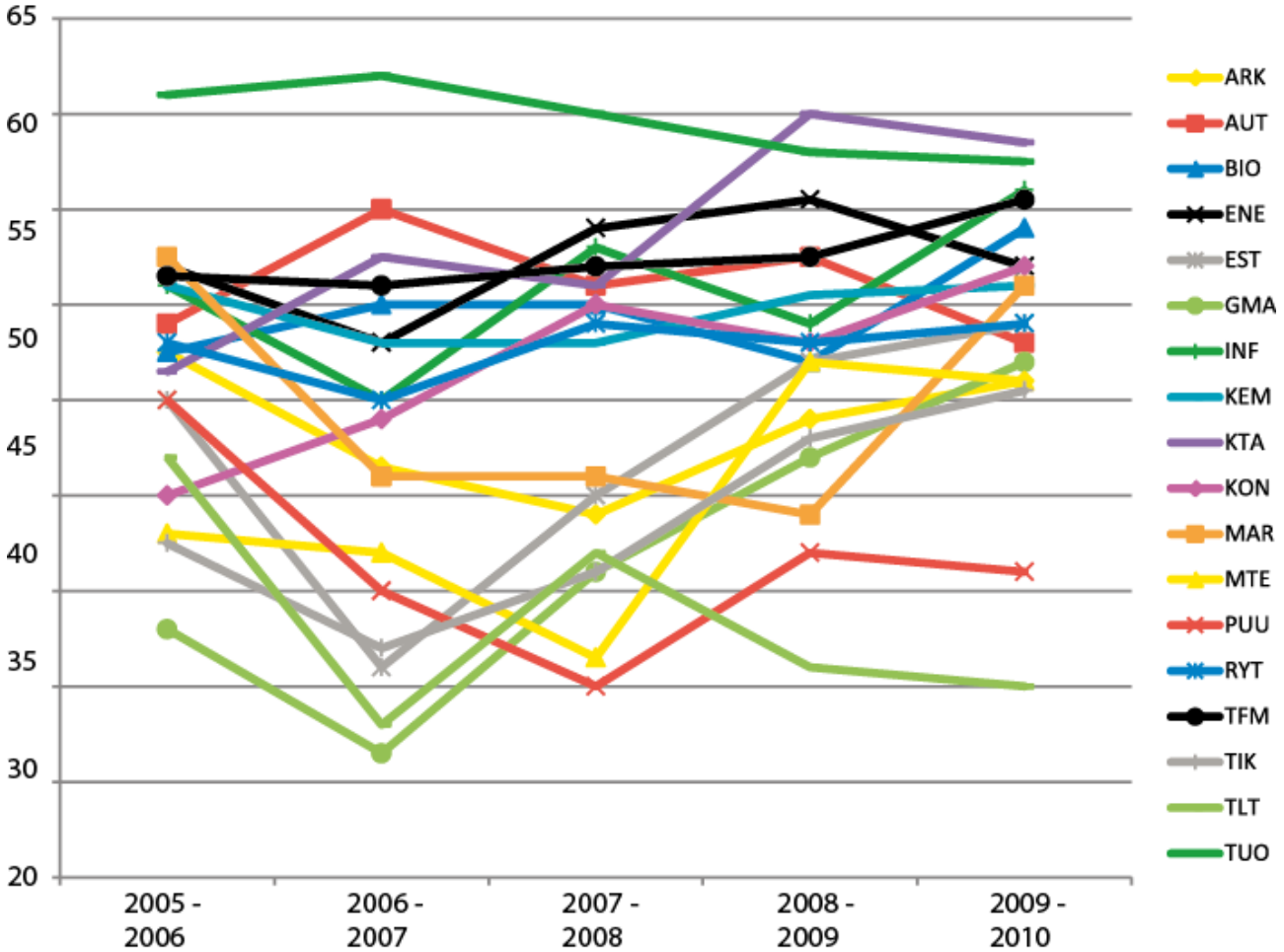
- A wide variety of concepts and measurement practices → Simple definitions, complex phenomenon → Comparison at (inter)national level challenging
- Progression rules guide how student success is followed
- Forces that lead to dropout in the early stages of academic career different from those that influence dropout later
  - Early stage: Wrong choice of programme, failure to cope with the demand of the programme
  - Later stage: entering working life, challenges with thesis, bottleneck courses
- The first-year experience is crucial for student retention
- High(er) dropout rates among first-year students and male students

Findings (2)

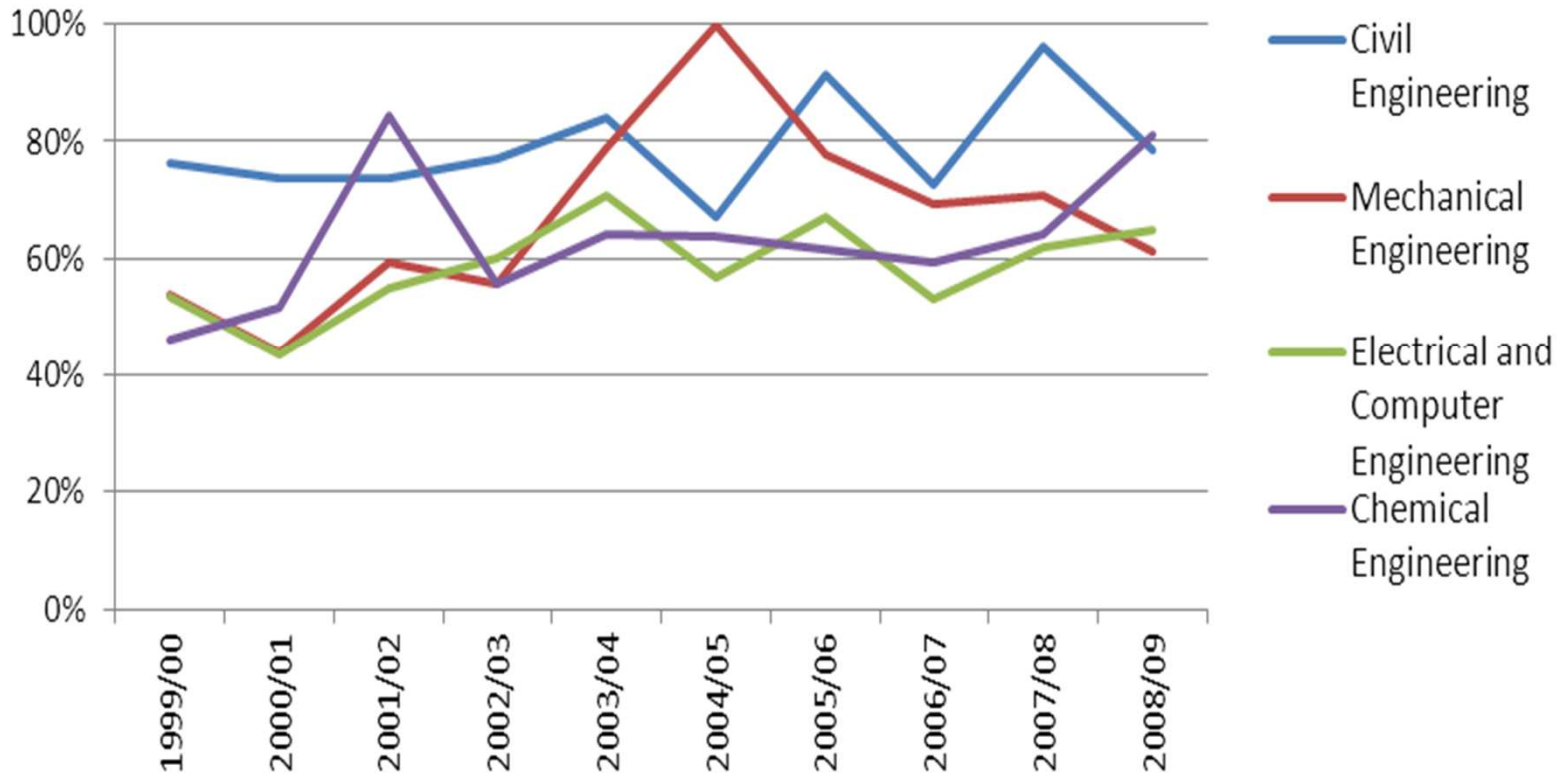
- Reasons often based on the perceptions of individual actor
- Students are individuals who react differently to the same situations: human support essential
- Large programmes vs. small programmes
- A number of activities are created to support students' well-being, but what about human support for student academic work (large programmes)??
- Focus on early warning systems

SOME EXAMPLES

1. year ECTS accumulation by degree programme 2005-2010



Portuguese Survival Rate Engineering Areas



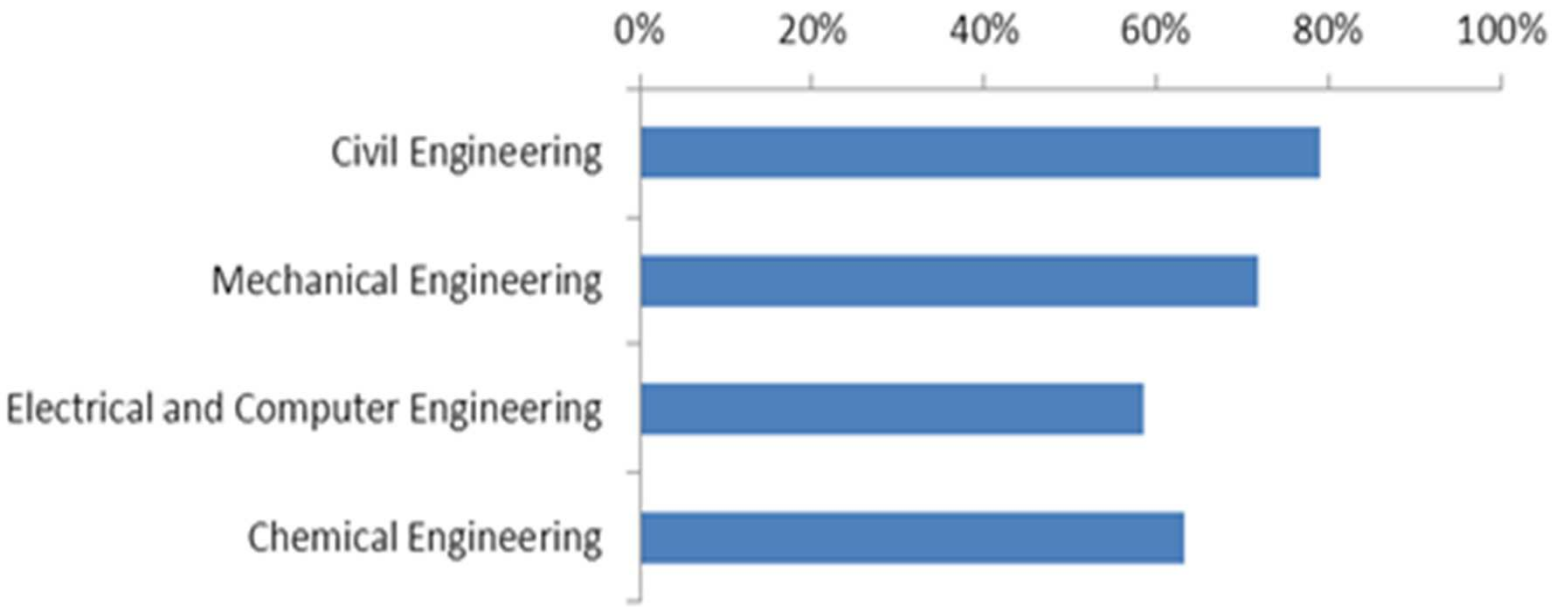
Survival Rate: OECD definition

Proportion of new entrants who successfully complete a first qualification.

Ratio of students who award an initial degree to the number of new entrants to the level n years before.

number of years required to complete the degree

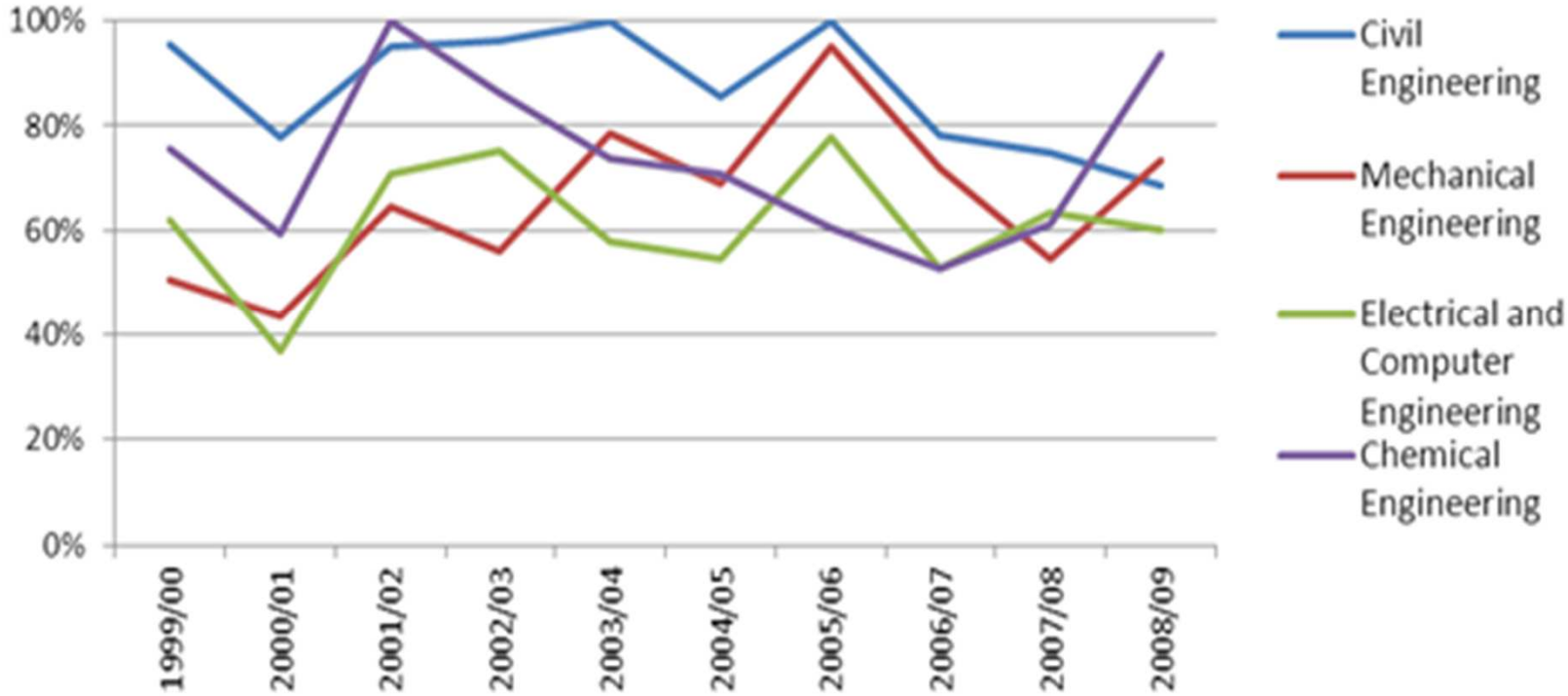
Portuguese Survival Rate Engineering Areas



Overall average of survival rate in the 1999/00 – 2008/09 period

The analysis of survival rate at a national level shows that there are **significant differences between areas** (at least between the 4 presented engineering areas), **and even within each area**, the outcomes tend not to be stable within the 10-year period analysed.

IST Survival Rate Engineering Areas



IST responses on dropout & insucess

Tutoring Program

Tutor support

Workshops for students

QUC – Unit Curricular Quality

Assess quality of curricular units

Mentoring Program

Peer to peer support