Submit a good practice

General Description:

Title: Calculating Standard FTE Students and FTE Teachers
Keywords: resource allocation, efficiency, internal management
Starting date: 1998
Dimensions and categories:
(Click on the dimension and category/ies your practice is related to)

	Financial feasibility	Social and environmental responsibility	People	Recognition & Reputation	Quality Management	Infrastructure & Equipment	International orientation	Regional engagement
Education	x		x			x		
Research								
Knowledge Technology transfer								

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Webpage of the practice (if any): not available to the public	

Characteristics of the strategic management practice:

Executive summary (maximum 250 words)

Under its organizational structure, the Instituto Superior Técnico (IST) is organized into a number of academic units (also known as departments), which are teaching and research units that overarch major fields of knowledge. The calculation and distribution of the number of full-time equivalent students (FTE) into those academic units (AU) is an important process for good school management in different strands, particularly in so far it provides the basis for establishing the standard number of teachers (number of estimated/optimal teachers), the capacity of each AU to hire, the allocation of spaces and the annual allocation for each AU.

Used as an effective planning tool since 1998/99, these results have led in recent years to the definition and strict fulfillment of the pre-set timetable in each academic year for the process. In order to accomplish this, the contributions of the various entities involved in the process are decisive, the most significant of which are the academic units.

Focus of the practice (maximum 300 words)

(*Describe the initial situation, the context and objectives. Along with the justification of its needs, the level of integration within the context and the value added*)

The efficient and effective allocation of the resources existing at the IST has been a longstanding and permanent concern within the institution, which is particularly important in current times. In 1997/1998, a space was found for reflection in order to define the most adequate and transparent

methodology to distribute the resources into the different academic units. The adopted methodology was based on the allocation of a time load to each AU at all levels (BSc, MSc, PhD, and programmes that do not lead to a degree), incorporating relevant aspects such as school retention (indirectly through the number of first enrolments in each subject) and the assurance of recovery disciplines (the guarantee to be taught) to the students in their first years of study.

Initially, the process was aimed at allocating financial resources, but soon it came to be used also as a basis for allocating the physical resources (spaces) and establishing the teaching posts to be vacant in the various units. More recently, it has been used as a support for awarding management credits to teachers for the performance of university management in the academic units.

Implementation of the practice (maximum 300 words)

(*Describe the implementation of the practice: actions, timing, resources applied. Degree of adjustment of the practice deployment with the objectives, areas and the planned approach*)

The process of calculating and distributing full-time equivalent students (FTE) into IST's academic units is divided in three steps: collection of basic information; interaction with the academic units to ensure the accuracy of the data; production of final results and respective documentation; and distribution of the results to the various stakeholders (governing bodies of IST and of the various AU).

Currently, and pursuant to the importance of this tool to the institution's management, the process takes place every year during two months – March and April (corresponding to the 2nd semester). The main participants in the process are the Scientific Board, which leads the process, the Statistics and prospective Unit, which is vested with setting it in practice and the AU, which must check whether the basic calculation information is correct.

IST's information system (Fénix) is one of the resources that has allowed for great development throughout the years. This tool did not exist when the process began (there were several sources of information, some of which hardly reconcilable, and some of the information was not even kept in computerized form, which made the process time-consuming and logistically heavy). Fénix is currently at a very advanced stage, perfectly caters for the needs and works almost the unique source of information for the whole process.

Achieved results (maximum 300 words)

(*Describe the achieved results in relation to the planned objectives, also with the changes introduced during the practice implementation. Additionally it values the contribution of qualitative and quantitative data that demonstrate the fulfillment of the objectives*)

The final result is summarized in a table, which looks as follows:

| AU	1st+2nd Cycles			Advanced Training ATD (Advanced Training Diplomas) and ASD (Advanced Specialization Diplomas)					Standard FTE Students w/ Corr (d1+d2)	Standard FTE Teachers (w x (d1+d2))**	FTE Teachers 15.03.2012	FTE teachers Exerc - standard	FTE TEachers Exerc - Standard Standard
	FTE Students	Standard Ratio	Standard FTE Teachers (d1)	FTE Students ATD	Standard Ratio ATD	FTE Students ASD	Standard Ratio ASD	Standard FTE Students ATD/ASD (d2)					
A…	367,1	10,0	**36,9**	0,0	8,0	39,6	5,0	7,9	44,8	37,1	27,5	-9,6	**-25,96%**
B…	1681,8	11,0	**159,0**	0,0	8,0	45,7	5,0	9,1	168,1	139,3	142,7	3,4	**2,46%**
C…	1455,9	10,5	**138,7**	0,5	8,0	23,3	5,0	4,7	143,4	118,8	113,1	-5,7	**-4,81%**
D…	414,2	12,0	**34,5**	0,0	8,0	8,8	5,0	1,8	36,3	30,1	26,4	-3,7	**-12,23%**
E…	1085,6	11,0	**98,7**	0,0	8,0	15,0	5,0	3,0	101,7	84,3	83,7	-0,5	**-0,64%**
F…	1287,6	11,0	**121,1**	13,8	8,0	26,6	5,0	7,0	128,2	106,2	101,1	-5,1	**-4,84%**
G…	717,5	10,0	**72,9**	0,0	8,0	16,7	5,0	3,3	76,3	63,2	77,4	14,2	**22,47%**
H…	773,1	10,5	**73,6**	1,3	8,0	16,4	5,0	3,4	77,1	63,8	54,9	-9,0	**-14,04%**
I…	1498,7	14,0	**107,0**	0,0	8,0	15,3	5,0	3,1	110,1	91,2	102,3	11,0	**12,08%**
Total	**9281,5**	-	**842,5**	**15,5**	-	**207,2**	-	**43,4**	**885,9**	**734,0**	**729,0**	**-5,0**	**-0,68%**

Ω	734,0
p	885,9
w=Ω/p	0,83

The last column shows if each AU is overstaffed or understaffed with teachers in the relationship between what would be expected taking into account the ensured educational offer and the human resources that are available for the academic year at issue.

The methodology also covers a convergence clause of standard teachers ($w=\Omega/p$), which allows the institution's Governing Board to calculate the number of teachers into which it intends to converge in a specific period and, according to that, to proportionately adjust the standard FTE teachers of the different AU and the respective balance (excess or lack) in a specific academic year.

It should be noted that, with this mechanism, most of the AUs have carried out convergence policies for the number of standard teachers, as can be observed in the following chart, which is usually part of the summary document in each academic year:
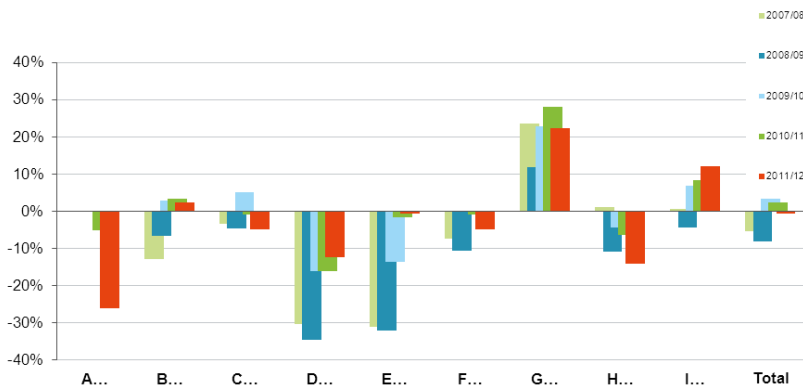
Assessment and review (maximum 200 words)

(*Describe the evaluation process and review and proposals made for improvement identified and introduced into the practice. And the degree of learning from the results obtained and not obtained*)

This process has evolved over time, which has largely contributed to the efficiency and effectiveness of its results, in particular:

a) with the implementation of the Bologna process, the ECTS[1] became a benchmark for calculating the weight of a discipline under the goal of establishing FTE students. By considering the ECTS as a benchmark as opposed to the previous situation, which only considered the number of effective academic contact time, it included for each subject the real time load associated with each course unit, both for students and teachers from the preparation point of view;

b) over the last three years, and in view of the current financial constraints and those foreseen for the near future, the convergence clause of standard teachers ($w=\Omega/p$) was applied;

c) the reformulation of the procedure timetable for calculating FTE students. At the outset, the process took place at the end of the academic year and throughout several months (mostly by the lack of an information system), and was barely effective when the following academic year was planned, in terms of the teaching resource needs. In this regard, there has been a readjustment of the timetable associated with the process, not only from the point of view of its anticipation but also the reduction of the associated period.

Innovative character and transferability (maximum 200 words)

(*Describe the aspects of internal innovation (at the institution) and innovation as respect to the context (at the university system) of the practice. As well as the elements and aspects that can be applied to a different context and possible recommendations that should be taken into account in a benchmarking opportunity*)

The methodology and procedures adopted and reviewed over time during this process allowed for clarifying and defining objectively processes such as the calculation of the number of standard teachers and the capacity of hiring, the space allocation and the annual allocation of each AU; they also allowed for implementing strategic management mechanisms in the institution in a transparent manner,

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[1] European Credit Transfer and Accumulation System

optimizing the resources and minimizing the processing time in order to guarantee their efficiency and effectiveness.

The results obtained can be easily applied to other national or international higher education institutions and with decentralized functional structures, which objectively and clearly aim to outline the resource allocation within the institution, or define convergence factors in a perspective of strategic management.

The existence of several institutions with similar resource allocation methodologies and procedures would allow for comparing areas between the various institutions that offer similar programmes (e.g. Mathematics).

Upload supporting documents (max 5MB) – currently being translated.

Authorization to publish this practice in EUSUM website?

- Yes