

ANNUAL REPORT

ACADEMIC YEAR 2020/2021

Created by: GSIGQ

Aproved by: Board/General-Secretary

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1 Introduction

1.1 ISTECS Mission

ISTEC, as a higher education institution of a polytechnic nature, which offers courses exclusively in the field of information technologies, has the following mission:

- a) To help enhance the technological potential of the country's human resources;
- b) To provide a level of higher education geared towards the exercise of a profession in the areas of information technology and multimedia;
- c) To stimulate intellectual and professional training, as well as the mobility of students and graduates, both nationally and internationally, namely with the European area as a reference;
- d) To contribute to the provision of services to the community, fundamentally through the development of projects, in partnership, in the area of information technologies;
- e) Implement targeted research and high-level professional development practices in departments set up for this purpose;
- f) To promote and institutionalize measures aimed at the effective professional integration of graduates;
- g) Create, maintain and promote an effective and preferential relationship with the business and social fabric, both nationally and in its geographical area of influence;
- h) Participate in international mobility programs, preferably in the area of learning;
- i) To value and contribute to training activities for teachers, researchers and staff;
- j) Ensuring that the syllabus is constantly updated and enriching the set of learning resources made available to students, namely through the use of educational multimedia and online communication and pedagogical interaction systems, with the aim of increasing the overall quality of the teaching provided and fostering new forms of pedagogical interaction which, by optimizing the learning times of fundamental knowledge and skills, encourage and stimulate student initiative in order to create a teaching system based on the development of competences.

1.2 Educational Project

ISTEC's educational project traces its historical roots back to the day when ITA proposed to the Ministry of Education the creation of a polytechnic higher education establishment providing higher education in the field of computer science, or in areas where the importance of computer science is fundamental.

The logical corollary of this assertion is the following: ISTECS will be a polytechnic institution which, regardless of whether it diversifies its training offer, will never leave the field of information technology.

This founding trait has set the strategic, scope and nature of the education to be provided for the future.

On the other hand, ISTECS's educational project has always focused on the high priority of creating professionals in the areas of information technology and multimedia, with a framework of skills that would enable them to carry out professional activities in both public and private organizations.

It can therefore be said that one of the structural components of ISTECS's educational project is to promote a type of teaching that is indelibly polytechnic and geared towards the exercise of a profession.

With regard to the teaching staff, it was considered that, while respecting the legal framework for polytechnic higher education, it should contain a significant number of teachers with links to business life, as this would provide many of the signals needed to constantly update the syllabus. On the other hand, despite the difficulties, ISTECS should take steps to create a pool of specialists in the area of information technology by competitive examination, not forgetting teachers with doctoral degrees.

The constant updating of syllabuses has been the cornerstone of ISTECS's educational, scientific and cultural project.

The emergence of the need to develop multimedia content, virtual reality and games, the evolution of programming languages, the growing importance of network systems, the need felt by organizations to develop apps using the different Android, iOS and Windows Phone platforms, the need for virtualization processes, the growing importance of Big Data, the judicious and functional use of drones as useful tools for obtaining data and information and the sensitive problems in the area of cryptography and computer security, all require careful, attentive and permanent updating of the syllabuses that make up the different curricular units.

With regard to links with the social and business fabric, ISTECS's main concern has been to provide services to the community, in a partnership with leading institutions, mainly at national level.

As for students, their professional integration is a fundamental concern. To this end, practices have been institutionalized that allow all those who request it to be placed in a traineeship scheme.

Participation in international learning programs is also a fundamental axis of ISTECS's project, namely in Erasmus program measures that include international internships.

The permanent consultation of students, both in the pedagogical council and in constant meetings with the student association, allows them to participate effectively in the life of the institution.

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The promotion of cultural outreach courses aimed at both former students and the community in general is also part of the educational project.

The Department of Studies and Research in Information Technologies and Society and the Department of Studies and Research in Educational Multimedia are responsible for promoting high-level professional development.

International relations with leading institutions in Europe have been achieved through the signing of protocols that have led to joint actions on a reciprocal basis.

The Director,

José António Carriço

2 Degree of compliance with the strategic plan and established objectives

On September 28, 2021, the committee made up of the Director of ISTEC, José António da Silva Carriço, the Secretary General of ISTEC, António Fidalgo and the President of ISTEC's Scientific-Technical Council, Pedro Ramos Brandão, met to analyze and monitor the implementation of ISTEC Lisboa's strategic plan (2021/2026).

This document was drawn up against a backdrop of the dire consequences of the pandemic crisis. However, there was already the possibility of gradually returning to the model of face-to-face classes and normal academic life. However, there was a need to combine this with online classes. Despite the adverse circumstances, the Institute managed to fulfill the workload of all the curricular units and hold the planned face-to-face exams.

The following was verified:

1. In the 2020/2021 academic year, the process leading to the registration of the Professional Higher Technical Course in Cybersecurity with the Directorate-General for Higher Education was drawn up. This course was registered on March 1, 2021. This fulfilled one of the strategic objectives in terms of training provision
2. The Higher Professional Technical Courses in operation have filled all their vacancies and the level of teaching has been of a high standard, despite the combination of face-to-face and online teaching. There have been some difficulties in placing trainee students in companies in person.
3. The Master's course in Computer Science, with the Cloud Computing and Mobile Devices and Multimedia branches, began its second edition. It filled around 29 of the 40 legally authorized places.
4. The first cycle courses: Degree in Network Engineering and Computer Security and Degree in Computer Engineering and Multimedia were submitted to A3ES on a fully distance learning basis. These courses were not accredited, despite the contradiction presented. This situation is a major setback for ISTEC Lisboa's strategy. We need to take an in-depth look at this unfavorable scenario, clearly understanding what happened and whether it is possible to reverse the situation with new applications and more resources for these projects.
5. With regard to teacher training, especially the transformation of specialists by deliberation of the Technical-Scientific Council into specialists with a title obtained by public competition, it can be seen that the pace of obtaining the title needs to be accelerated. It is clear that the pandemic has slowed down the processes underway, but this must be greatly increased.
6. We are pleased to note the possibility of establishing cooperation protocols involving applied and fundamental research with the ICS - Institute of Social Sciences of the University of Lisbon and of carrying out new projects with CEIIA.
7. Internally, the research projects that have begun in the field of artificial intelligence and gamification, involving Professors João Carneiro and Sandra Gama, are commendable and interesting.

8. The Erasmus + KA2 projects Escape to Your Future and Women in ICT, coordinated by Professors Paulo Branco and Pedro Brandão, have been reasonably successful.
9. Institutional relations with the Students' Association maintain the cordiality and mutual collaboration that was deepened during the pandemic.
10. International mobility programs have been resumed and expectations are very positive with regard to the involvement of teachers and students.

3 Efficiency of administrative and financial management

Regarding the 2020 financial year, and despite the negative influence of the Covid-19 pandemic, there were still positive results. It should be pointed out that the institution did not resort to state aid during the period in question and still showed positive results.

Personnel costs and external supplies and services did not change significantly.

4 Evolution of the institution's assets and financial situation and sustainability

In real terms, equity continued to strengthen. As in previous years, there was no distribution of profits and the financial solvency ratios point towards increasing sustainability.

5 Movement of non-teaching staff

The total number of non-teaching staff is 17. This academic year, two more employees (two graduates) were hired. All employees are working full time (100%).

The non-teaching staff is stable, with no terminations in 2020/2021.

The total number of non-teaching staff is distributed as follows by level of academic qualification:

Table 1. Qualifications of non-teaching staff

Degree	2019/2020	2020/2021
Doctorate	-	-
Undergraduation	5	7
Master's	1	1
Secondary Education	8	9
Below secondary education	-	-

The majority of non-teaching staff are qualified to secondary school level, and one of the objectives of the 2021-2026 Strategic Plan is to continue training these professionals, with a minimum of 1 training course per year. These indicators are monitored annually.

In this academic year 2020/2021, some training activities were planned in various areas, however, with the restrictions caused by the pandemic, it was not possible to carry out all the planned activities, and they have been postponed to the 2021/2022 academic year with no date yet set.

6 Movement of teaching staff

In terms of teaching staff, it was necessary to rectify the number of PhD or specialist teachers in accordance with the legislation and reinforced in the recommendations given by A3ES when accrediting the courses. It was therefore necessary to qualify a number of teaching staff in order to respect the necessary ratio between students and specialist or doctoral teachers: 1 specialist or doctoral teacher for every 30 students.

As a result, the qualifications of the teaching staff are distributed as follows:

Table 2. Qualification of teaching staff

Degree	2019/2020	2020/2021
Doctorate	15	17
Master	3	3
Undergraduate	6	2
Public Examination Specialist	5	5
Total of Doctors and Specialists	20	29

Bearing in mind that in the 2020/2021 academic year the number of undergraduate, master's and postgraduate students is 480, by law the teaching staff must be made up of at least 16 PhD or specialist teachers. As we already had 20 teachers in these conditions in the 2019/2020 academic year, and although there has not been a considerable increase in the number of teachers with specialist titles by public tender in the current academic year, the minimum ratio required by law continues to be met.

It should be noted that more than 30% of ISTEC's teaching staff hold a doctorate or specialist degree.

7 Evolution of admissions and attendance at study cycles

7.1 Distribution of the educational offer by study cycle

In the 2020/2021 academic year, ISTEC's training offer consisted of:

- 4 Higher Professional Technical Courses:
 - Management Informatics (IG);
 - Computer Networks and Systems (RSI);
 - Development of Multimedia Products (DPM);
 - Development for Mobile Devices (DDM);
- 2 Degrees:
 - Degree in Multimedia Engineering (LEM);
 - Degree in Computer Science (LINF);
- 1 Postgraduate Degree (PG):
 - Virtualization and Cloud Computing
- 1 Master's Degree (MEST)
 - Master's Degree in Computer Science.

The following table shows the number of students enrolled in each study cycle.

Table 3. Number of students per study cycle in the 2019/2020 academic year

		CTeSP				Undergraduate			
		MI	CNS	MPD	DMD	DCE	DME	PG	MAS
1st Year		40	60	50	50	58	38	37	40
2nd Year		34	58	41	49	92	38	-	-
3rd Year		-	-	-	-	104	49	-	-
TOTAL		74	118	91	99	254	125	37	40

In the 2019/2020 academic year, all entry places for the 1st year of the CTeSP were filled. Overall, combining the 1st and 2nd year students on these courses, the course with the most students attending is Computer Networks and Systems (RSI), and the course with the fewest students attending is Management Informatics (IG).

In terms of undergraduate degrees, the entry vacancies for the 1st year were not completely filled, and of the total number of students taking undergraduate degrees, more than twice as many are taking a degree in Computer Science.

In the 2019/2020 academic year there were 37 students enrolled in the Postgraduate program and 40 students joined the Master's program, filling all the vacancies in its first edition.

The number of students enrolled at ISTEC in the 2020/2021 academic year is as follows:

Table 4. Number of students per study cycle in the 2020/2021 academic year

2020/2021

	CTeSP				Undergraduate		PG	MAS
	IG	RSI	DPM	DDM	LINF	LEM		
1st Year	29	59	35	50	76	36	22	21
2nd Year	26	60	37	37	100	56	-	30
3rd Year	-	-	-	-	97	42	-	-
TOTAL	55	119	72	87	273	134	22	51

The year 2020/2021 was the second year after the launch of the Master's in Informatics, so it is already possible to verify the students who moved from the 1st to the 2nd year.

On the other hand, the postgraduate course in Virtualization and Cloud Computing lasts 13 months, so there is no data for the second and third year.

The following figure shows the occupancy of the courses in the 2020/2021 academic year.

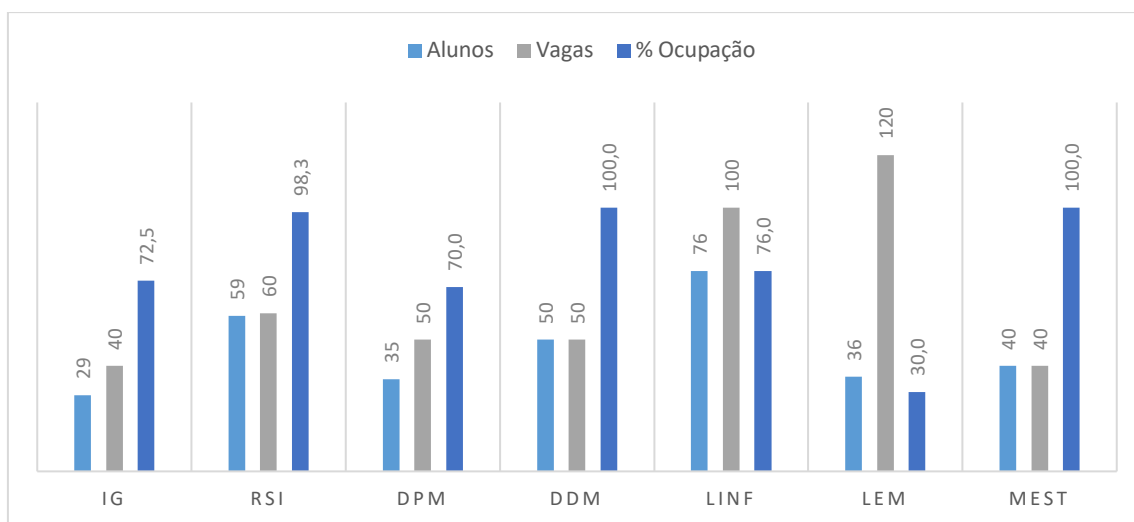


Figure 1. Course occupancy rate in the 2020/2021 academic year

As you can see, this academic year only the Mobile Device Development course filled all the 1st year entry places. The other CTeSP courses filled more than 50% of the vacancies.

In the case of bachelor's degrees, following the trend of the previous academic year, the Computer Science degree course (LINF - Computer Science Degree) had more students enrolled than the Multimedia Engineering degree course (LEM - Multimedia Engineering Degree).

The Master's degree course filled all the vacancies for the edition starting in the academic year under review.

7.2 Further Studies

At the end of a study cycle, students have the opportunity to continue their studies at ISTEC. Thus, 144 students continued their studies, advancing their higher education qualification.

The following table shows the number of students who entered the bachelor's degrees from the CTeSP and the students from each bachelor's degree who entered the master's degrees.

Table 5. Further studies by ISTEC students in the 2020/2021 academic year

2020/2021

	IG	RSI	DPM	DDM	Master
Multimedia Engineering Degree			32	5	6
Computer Science Degree	20	35	4	33	9

The students from the IG (Management Informatics) and RSI (Computer Networks and Systems) CTeSP continued on to a degree in Computer Science, as did most of the students who attended DDM (Mobile Device Development) and some DPM (Multimedia Product Development). Most of the DDM CTeSP students enrolled in the Multimedia Engineering degree.

More students from the Computer Science degree than from the Multimedia Engineering degree went on to the master's degree.

8 Evolution of degrees and diplomas awarded

When a student completes a cycle of studies, they are awarded a diploma for the course they were enrolled in.

The following table shows the evolution of graduates, comparing the 2020/2021 academic year with the previous one, 2019/2020.

Table 6. Evolution of degrees awarded at ISTEC

	CTeSP				Undergraduate		Postgraduate	Master's
	IG	RSI	DPM	DDM	LINF	LEM	PG	MES
2019/2020	16	41	20	41	74	31	21	-
2020/2021	13	42	19	39	68	27	11	-
TOTAL	29	83	39	80	142	58	32	-

Since the master's course lasts 4 semesters (2 years) and the first students joined in the 2019/2020 academic year, no diplomas have yet been awarded to students in 2020/2021, so there are no records to include in the table.

Graphically, the distribution of graduates is as follows:

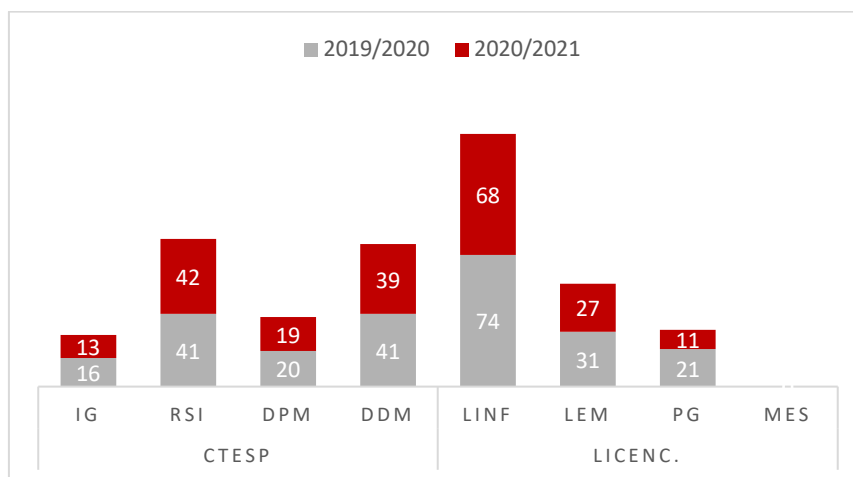


Figure 2. Evolution of degrees and diplomas awarded

After viewing the figure presented, it can be seen that more diplomas were awarded in the 2019/2020 academic year (with the exception of the RSI course) than in the 2020/2021 academic year and that the Computer Science degree course was the course that awarded the most diplomas to students in both academic years.

9 Employability of graduates

ISTEC Lisboa has a Communication and Public Relations Office (GCRP) which, in addition to promoting job fairs and other events for the academic community, is very concerned with creating partnerships with different entities, whether public or private, in order to support and accompany students in the process of curricular internships, professional internships and the possibility of integrating into the job market (namely by sending the employment newsletter to graduates, which contains privileged job offers from the different partner entities mentioned above).

However, the GCRP also promotes workshops/clarification sessions aimed at ISTEC Lisboa students, with the aim of imparting essential skills and tools to prepare them for various professional challenges.

Together with the Internal Quality Assurance System (SIGQ), the GCRP has adopted the procedure of obtaining information on the employability of its graduates, through a survey carried out among students six months after completing their courses, in order to gauge their employability situation.

As in previous years, it is expected that the employability rate will once again be around 100%, also considering the ever-increasing offer in the area of Computer Science and Information Technology and Multimedia.

10 Internationalization of the institution and number of foreign students

ISTEC recognizes the added value that results from the internationalization process, both on the part of students, teachers and non-teaching staff, which is why it is one of the subjects addressed in the strategic objectives.

In the 2021-2026 Strategic Plan, one of the objectives to be met is in the area of internationalization:

- ✓ Carry out two agreements per year, enabling the mobility of teaching staff and the exchange of teaching experiences;
- ✓ Increase the number of students participating in international mobility programs in the field of learning and include professional internships abroad. The programs should include 15 internships for graduate students;
- ✓ Increase the number of incoming and outgoing international mobility programs involving teachers and students.

These actions to be carried out in order to achieve the overall objective of increasing and diversifying international cooperation and mobility should be carried out annually. They will also be monitored annually. These points are analyzed below.

10.1 International Mobility Programs

10.1.1 Erasmus+ Program

Erasmus+ mobility has positive effects on educational, social, personal and professional development, in that it strengthens knowledge, skills and attitudes, improves employability, contributes to building confidence and independence, stimulates curiosity and innovation, fosters understanding of other people and creates a sense of belonging to Europe.

Students have had the opportunity to do their internships in foreign companies, with a grant from the European Union.

Thanks to international mobility, students have had the chance to learn new ways of working and other cultures; they have acquired skills for future jobs; they have developed their knowledge of foreign languages; they have gained maturity, tolerance.

A new Erasmus+ Charter (https://www.istec.pt/wp-content/uploads/2022/02/Erasmus-Charter_signed_30042021.pdf) has been granted for the 2020-2027 period, in line with ISTEC's new strategy in its Erasmus Policy (<https://www.istec.pt/wp-content/uploads/2022/02/Erasmus-Policy-Statement-21-27-1.pdf>).

The projects have the following objectives:

- Improve ISTEC's pedagogical effectiveness by creating the conditions and motivating young people to successfully complete their courses;

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- Create a culture of international mobility (Inbound and Outbound) within the institution, involving the entire educational community, with a focus on the importance of Lifelong Learning;
- To internationalize ISTEC, making it a well-known entity in the field of information technologies, on a par with its European counterparts;
- Modernize and implement new teaching procedures, methods and techniques, ensuring a better transition to the job market;
- Integrate a solid and cohesive international partnership network in the area of information technologies, taking part in more international projects.

Under Financial **Contract No. 2019-1-PT01-KA103-060184**, 5 grants were awarded to students and 2 to teaching staff.

In summary, the grants were distributed as follows:

2019-1-PT01-KA103-060184	10 801 €	Espanha (Madrid)	2+1 (sem bolsa)	5/2 a 4/5/2020
		Holanda	1	11/1 a 10/4/2021
		Espanha (Reus)	1	1/6 a 30/8/2021
		Sérvia	1	13/6 a 26/9/2021
		Alemanha	1 docente (JS)	10 a 14/2/2020
		Eslovénia	1 docente (JS)	29/11 a 3/12/2021

Figure 3. Scholarship distribution

Under Financial **Contract No. 2020-1-PT01-KA103-077941**, 5 grants were also awarded to students and 2 to teaching staff.

In 2021, only the 5 students were able to carry out their internships in Italy (St. Croce sull Arno), from 19/5 to 6/8/2021.

The pandemic context had a major impact on the fulfillment of the plan for teaching staff, and Job Shadowing was carried over to 2022.

International mobility programs have resumed and expectations are very positive with regard to the involvement of teachers and students.

10.2 Number of students with foreign nationality at ISTEC - Lisbon

The number of students with foreign nationality in the 2019/2020 and 2020/2021 academic years is shown below.

Firstly, the following table summarizes the number of students of each nationality, by course, in the 2019/2020 academic year.

Table 7. Number of foreign students in the 2019/2020 academic year

2019/2020

Nationality	LINF	LEM	RSI	DPM	DDM	IG	Pós G	MES
German	-	-	-	-	-	-	-	-
Angolan	4	-	2	2	1	3	-	1
Brazilian	4	2	1	-	-	4	7	2
Bulgarian	-	-	-	-	-	-	-	-
Cape Verdean	-	-	-	2	-	1	-	-
Spanish	1	-	-	-	-	-	-	-
Guinean	3	-	-	-	-	-	1	-
S. Thomas	-	-	1	-	-	-	-	-
Tunisian	-	-	-	-	-	-	-	1
Venezuelan	-	-	1	-	-	-	-	-
Total / Course	12	2	5	4	1	8	8	4
Total Students	44							

During the 2019/2020 academic year, 44 students from 8 different nationalities were welcomed. The course where the most foreign students entered was the Computer Science degree course, rather than the DDM CTeSP course. However, it should be noted that all the courses taught at ISTEC were attended by foreign students.

For the 2020/2021 academic year, the following table summarizes the number of students of each nationality, by course.

Table 8. Number of foreign students in the 2020/2021 academic year

2020/2021

Nationality	LINF	LEM	RSI	DPM	DDM	IG	Pós G	MES
Angolan	2	1	0	0	0	0	0	1
Argelian	1	0	0	0	0	0	0	0
Brazilian	4	1	1	2	2	1	7	2
Cape Verdean	0	0	0	0	0	2	0	0
Cuban	1	0	0	0	0	0	0	0
Spanish	1	0	0	0	0	0	0	0
Guinean	1	0	0	0	0	2	1	0
Italian	1	0	0	0	0	0	0	0
Moldova	1	0	0	0	0	0	0	0
Nigerian	0	0	0	0	1	0	0	0
Romanian	1	0	0	0	0	0	0	0
S. Thomas	0	0	0	0	0	1	0	0
Togolese	1	0	0	0	0	0	0	0
Tunisian	0	0	0	0	0	0	0	1
Total / Course	14	2	1	2	3	6	8	4
Total Students	40							

For the 2020/2021 academic year, 40 students from 14 different nationalities were welcomed. Compared to the previous academic year, fewer students attended ISTEC, but with greater diversity in terms of nationality.

Following the trend of the previous academic year, the course with the most foreign students was once again the Computer Science degree course, but this time the course with the fewest foreign students was RSI.

Once again, following the trend of the previous academic year, all the courses taught at ISTEC were attended by foreign students.

Finally, the composition of international students is analyzed. To make the analysis easier, the following figure shows the comparison of the number of students from each nationality for each academic year, without distinguishing between courses.

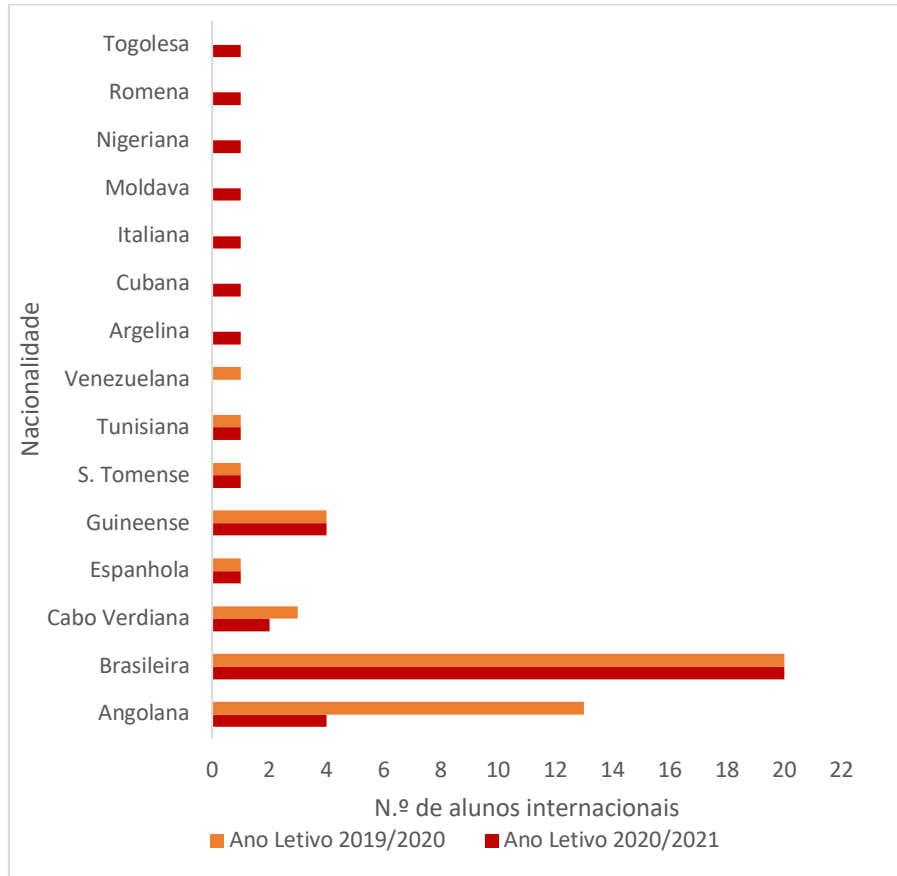


Figure 4. Evolution in the number of international students at ISTEC

The majority of international students studying at ISTEC are of Brazilian nationality, while students of Angolan nationality are also common.

Due to the growing number of partnerships with foreign schools, the number of nationalities coming to ISTEC increased in the last academic year analyzed in this report. Therefore, as expected, in the 2019/2020 academic year we received students from 8 different nationalities, while in the 2020/2021 academic year students from 14 different nationalities came to ISTEC.

11 Provision of external services and established partnerships

With regard to partnerships involving high-level professional development, the following took place this school year:

- We are pleased to note the possibility of establishing cooperation protocols involving applied and fundamental research with the ICS - Institute of Social Sciences of the University of Lisbon and of carrying out new projects with CEIIA.
- Internally, the targeted research projects that have begun in the field of artificial intelligence and gamification, involving Professors João Carneiro and Sandra Gama, are commendable and interesting.
- The Erasmus + KA2 projects Escape to Your Future and Women in ICT, coordinated by Professors Paulo Branco and Pedro Brandão, have been reasonably successful.

Institutional relations with the Students' Association maintain the cordiality and mutual collaboration that has been deepened in the pandemic scenario.

11.1 Events for the Academic Community

Every year, ISTECLisboa's Communication and Public Relations Office (GCRP) organizes two large-scale activities: "ISTEC Days" in the second half of June and "ISTEC Week" in the week of November 25, ISTECLisboa's anniversary.

The aim of these events is to boost the atmosphere among everyone, creating a more relaxed atmosphere with various attractions related to the areas taught, such as lectures, workshops, debates, seminars, sports and gaming tournaments, job fairs and the usual Diploma Award Ceremony involving the entire academic community.

Below is a list of some of the events that took place during 2020/2021, in addition to those mentioned above:

- "Audio and Video Capture" (Sound Designer at EA Sports) Gonçalo Tavares;
- "Cybersecurity on AWS" (Amazon Web Services) Alexandre Lima and João Nascimento;
- "How to make a promo for a Derby" (Narrator for Channel 11 and Press Officer for the U21 National Football Team) Rodrigo Dias.

This included two workshops and two seminars. However, due to the pandemic situation, the usual number of events was not created

12 Self-evaluation and external evaluation procedures and their results

12.1 Self-evaluation procedures

ISTEC, being committed to quality assurance management, reviews self-evaluation processes as a tool for continuous improvement.

ISTEC therefore regularly carries out surveys to evaluate the way the institute operates and to measure the level of satisfaction of students, teachers and non-teaching staff. On the other hand, there is also a pedagogical evaluation of the curricular units each semester.

The aim is to gather information not only from teaching and non-teaching staff, but also from the students of both undergraduate and postgraduate courses. The results are presented at Council meetings (Technical-Scientific and Pedagogical) and published on the ISTEC website.

Although there was a plan to carry out internal audits throughout the 2020/2021 academic year, it was not possible to fulfill the plan in its entirety, carrying out only a few internal audits and postponing some to 2021/2022.

The results obtained through these methods are important data for ISTEC's management, as they are used as a tool to aid decision-making and the basis for a culture of continuous improvement throughout the institute's activities.

ISTEC has an Internal Quality Assurance System (SIGQ) in place which supports, maintains and promotes a culture of quality, ensuring compliance with all the requirements for quality assurance certification, which is also one of the objectives planned for the 2021-2026 five-year period.

12.2 External evaluation and its results

Following a visit by A3ES (Agency for Accreditation and Evaluation of Higher Education), through an external evaluation commission, the courses were accredited for 5 and 6 years respectively:

- Multimedia Engineering Degree

Instituição de Ensino Superior: Instituto Superior De Tecnologias Avançadas De Lisboa

Unidade Orgânica: Instituto Superior De Tecnologias Avançadas De Lisboa

N.º do Processo: ACEF/1819/0027806

Grau: Licenciado

ECTS: 180,0

Decisão: Acreditado

Número de Anos de Acreditação: 3

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- Computer Science Degree

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Instituição de Ensino Superior: Instituto Superior De Tecnologias Avançadas De Lisboa

Unidade Orgânica: Instituto Superior De Tecnologias Avançadas De Lisboa

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In terms of external evaluation, the results obtained in the 2020/2021 academic year are as follows:

- ✓ In the 2020/2021 academic year, the process leading to the registration of the Professional Higher Technical Course in Cybersecurity with the Directorate-General for Higher Education was drawn up. This course was registered on March 1, 2021. This fulfilled one of the strategic objectives in terms of training provision.
- ✓ The Higher Professional Technical Courses in operation have filled all their vacancies and the level of teaching has been of a high standard, despite the combination of face-to-face and online teaching. There have been some difficulties in getting trainee students to work in companies.
- ✓ The Master's course in Computer Science, with the Cloud Computing and Mobile Devices and Multimedia branches, started its second edition. It filled around 29 of the 40 legally authorized places.
- ✓ The first cycle courses: Degree in Network Engineering and Computer Security and Degree in Computer Engineering and Multimedia were submitted to A3ES on a totally distance learning basis. These courses were not accredited, despite the contradictory evidence presented. This situation is a major setback for ISTEC Lisboa's strategy. We need to take an in-depth look at this unfavorable scenario, clearly understand what happened and whether it is possible to reverse the situation with new applications and more resources for these projects.
- ✓ Regarding teacher training, especially the transformation of specialists by deliberation of the Technical-Scientific Council into specialists with a title obtained by public competition, it can be seen that the pace of obtaining the title needs to be accelerated. It is clear that the pandemic has slowed down the processes underway, but this must be greatly increased.

13 Final considerations

In strategic terms, a new plan came into force at ISTEC, with new objectives in various areas that are monitored annually. Thus, at the end of 2021, some objectives have already been met, with the resumption of mobility programs, the creation of a new training offer, the encouragement of scientific production with the creation of its own research unit and corresponding scientific journal, the encouragement of training for both teaching and non-teaching staff, continued support for the student association and the proposal to certify our SIGQ with A3ES.

We continue to fill all the vacancies on our courses, which translates into investment and reinforcement of staff qualifications and the equipment and materials used in the classroom, improving the quality of our teaching and the skills of our students.

From the point of view of the SIGQ, it was a positive year with the reformulation of some documents, updating their content, allowing for a new organization, increasing the efficiency and effectiveness of the SIGQ, which we want to be intrinsic to ISTEC's teaching activity.

Next year, it is planned to improve some of the basic documents of the SIGQ, increase the range of training on offer, continue to increase scientific production, as well as increase student participation in research projects. New partnerships are also planned with other entities in order to be able to carry out new research projects and provide services to the community.

Also in conclusion of the 2015-2020 strategic plan, the following have been achieved:

- ✓ 3 objectives out of the 5 strategic objectives proposed for the Teaching and Training area (60%);
- ✓ 2 objectives, out of the 4 strategic objectives proposed for the area of Targeted Research (50%);
- ✓ 0 objectives, out of 2 strategic objectives proposed for the Internationalization area (only partially met) (0%);
- ✓ 1 objective out of the 2 strategic proposals for the Teaching and Non-Teaching Staff area (50%);
- ✓ 4 objectives, out of the 4 strategic objectives proposed for the area of Students and Graduates (100%);
- ✓ 2 objectives, out of the 5 strategic objectives proposed for the Organization and Management area (40%);

In the area of internationalization, the proposed objectives were only partially met because, due to circumstances inherent to ISTEC, it was not possible to meet the proposed targets. On the other hand, in the area of students and graduates, the 4 proposed objectives were met, within the scope of raising awareness of personal skills and citizenship, where there were no complaints; the UC programs were reviewed annually; the objective of 1 graduate 1 job was achieved and support for AEISTEC was met since no actions were raised on the subject either. Thus, out of a total of 22 actions to be carried out, 12 were achieved, which is equivalent to approximately 55% of objectives met.

Nonetheless, 16 actions set out in the 2015-2020 strategic plan have been carried over to the 2021-2026 strategic plan.

14 Annexes