1. IST QUALITY SYSTEM (SIQuIST)
   i. INTRODUCTION
   ii. HIGHER EDUCATION

2. ASSESSMENT/ACCREDITATION OF STUDY PROGRAMMES IN OPERATION
   i. SELF-ASSESSMENT REPORT
   ii. EXTERNAL EXPERTS VISIT

3. RESULTS
SIQuIST: IST INTEGRATED QUALITY MANAGEMENT SYSTEM

1993
Assessment and Accreditation Processes

Quality Culture

European Quality Standards

Legal Framework

2003
Reflection

• Consolidated processes
• Processes in development
• Processes to be developed

2012
SIQuIST
SIQuIST Regulation Approved fev. 2012

Continuous improvement

Critical and cyclical analysis of results

A3ES Agency

Legal Framework

Legal Framework Qual. Ass HE
Legal Framework HEIs
### 1. SIQuIST
**INTRODUCTION**

**CERTIFICATION - January 2013 – 6 years**

<table>
<thead>
<tr>
<th>AUDIT AREAS</th>
<th>RESULTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teaching and Learning</td>
<td>DEVELOPING</td>
</tr>
<tr>
<td></td>
<td>Substantial Development</td>
</tr>
<tr>
<td>Research and Development</td>
<td>DEVELOPING</td>
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<td>Substantial Development</td>
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<td>Links to Society</td>
<td>DEVELOPING</td>
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<td></td>
<td>Substantial Development</td>
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<tr>
<td>Information System</td>
<td>CONSOLIDATED</td>
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<td>Very Advanced</td>
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<tr>
<td>Human Resource Management Policies</td>
<td>DEVELOPING</td>
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<td></td>
<td>Substantial Development</td>
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<tr>
<td>Support Services</td>
<td>DEVELOPING</td>
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<td>Substantial Development</td>
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<tr>
<td>Publication of relevant information to</td>
<td>DEVELOPING</td>
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<tr>
<td>stakeholders</td>
<td>Substantial Development</td>
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<tr>
<td>Internationalisation</td>
<td>DEVELOPING</td>
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<td></td>
<td>Substantial Development</td>
</tr>
</tbody>
</table>
1. SIQuIST
INTRODUCTION

SUPPORTING DOCUMENTS

**STRATEGIC PLAN**
- Vision / Strategy
- Last Version: Jan 2015
- Review: Every 5 years

**QUALITY PLAN**
- Targets / indicators
- In progress
- Review: Every 5 years

**ACTIVITY PLAN**
- Implementation of strategies / actions
- Last Version: PA 2015

**FRAMEWORK OF ASSESSMENT AND ACCOUNTABILITY**
- Assessment / Accountability
- Last version: QUAR 2015
- Review: every year

**Quality Manual**
- Policy / Procedures Quality
- Last version: May 2012
- Review where required

**Self-Assessment results QUAR**

**Results and goals and evolution of**

**ACTIVITY REPORT**
- Results
- Last version: RA 2014
- Yearly update: April

**Structure/strategic areas**

**Indicators**

**Action lines**

**Action lines, targets, indicators**

**Operating objectives, goals, indicators**
IST QUALITY MANAGEMENT COMMITTEE

President of IST

- 1 Academic representative of Scientific Council
- 1 Academic representative of Pedagogic Council
- 1 Student representative of Pedagogic Council
- Students Association President
- Institutional Studies and Planning Office Coordinator
- Quality and Internal Auditing Office Coordinator
IST STRATEGIC FOCUS AREAS

- Higher Education
- Research, Development and Innovation
- Technology Transfer

- Multipolar Operation
- Internationalisation
- Communication

- Human Resources
  - Infrastructure
  - Processes and Quality
  - Information Technology

- Funding
1. SIQuIST

INTRODUCTION

Recommendations and improvement plans, corrective measures

1. PLAN

ESTABLISHMENT OF GOALS

(Re)definition of objectives and targets

coordination structures and strategic guidance documents

2. DO

SELF-REGULATION

Control of objectives, processes and outcomes

manuals, regulations, records (process records, rules and procedures)

3. CHECK

ACCOUNTABILITY

Self assessment
External assessment

Evaluation tools, self assessment and external reports

4. ACT

PROMOTION OF QUALITY

Development of corrective measures

SIQuIST
I. IST QUALITY SYSTEM (SIQuIST)
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1. SIQuIST

HIGHER EDUCATION

COORDINATION STRUCTURES

- Programme Coordinator
- Scientific Commission
- Pedagogical Comission

I. PLAN

Increase attractiveness of MSc and PhD degrees:
Increase the attractiveness of the graduate degrees through more efficient and focused promotion and recruiting processes, and increased financial support for students.

Streamline the educational offer: Identify courses that may be shared by several degrees (at the MSc and PhD levels) in order to streamline the educational offer. Decrease the number of courses with a very small number of students. Analyze and improve the information technology component of the curricula, as well as the online offer of additional course materials.

STRATEGIC DOCUMENTS

- Strategic Plan
- Activities Plan
1. SIQuIST
HIGHER EDUCATION

REGULATIONS/PROGRAMS

- Academic Guide (1st and 2nd)
- Academic Guide (3rd)
- Tutoring Program (1st)
- Mentoring Program (1st)

MANUALS/PROCEDURES

- Quality Manual
- Procedures Manual
  http://aqai.tecnico.ulisboa.pt/manual-de-procedimentos/
- Procedures for the creation, cancellation and change of Programmes at IST

2. DO

RECRODS

- Regulations for the Service Provision of IST Faculty Members
- General Regulations for IST Doctoral Programmes
- Regulations for Post-Graduate Studies of the University of Lisbon

- Academic Office (1st and 2nd)
- Post Graduation Unit (3rd)
- Information System (FENIX)
I. SIQuIST
HIGHER EDUCATION

EVALUATION TOOLS

1. SURVEYS
   - QUC – Course Unit Quality
   - Final Year Students
   - Graduate Students
   - Employers

2. SELF ASSESSMENT REPORTS
   - R3A – Annual Self-assessment Report
     http://nep.tecnico.ulisboa.pt/en/atividades/r3a/

3. EXTERNAL ASSESSMENT
   - ACREDITATION Processes – National Agency (A3ES)
   - Quality Label EURACE – National Engineers Association (OE)
I. SIQuIST
HIGHER EDUCATION

QUC Survey

Sources of information

Students’ survey

Students’ representative report

Lecturer-in-Charge report/Teaching report

Programme Coordinator report

Workload

Organization

Evaluation

Teaching Staff

Interaction with students

Advantages from in-class learning

Pedagogical ability

Results: Excellent

Inadequate or To improve

→ AUDITING

13 RODOS Project | IST | 27 May 2016
I. SIQuIST
HIGHER EDUCATION

ADMISSION

- Min. entrance mark
- No. of vacancies
- Similar Programmes
- No. 1st option candidates
- Demand

R3A

EDUCATIONAL PROCESS

- Percentage of foreign students
- Teaching Staff
- No. of enrolled students
- Abandon rates
- Percentage of women

FORMATIVE EFFICIENCY

- Time to completion
- Average point grade
- Number of graduates
- Employability
- Academic performance
- Percentage of women

EDUCATIONAL PROCESS

- Percentage of foreign students
- Teaching Staff
- No. of enrolled students
- Abandon rates
- Percentage of women
RECOMMENDATIONS, IMPROVEMENT PLANS AND CORRECTIVE MEASURES

- IST Programme Coordination Report (1st and 2nd cycles)
- A3ES External Experts Team Report
- OE External Experts Team Report
- Monitoring Report of Improvement Actions and Recommendations of A3ES
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SELF ASSESSMENT REPORT

- an opportunity to promote internal reflection and discussion
- an encouragement to review processes and mechanisms to assure and improve quality

SELF-ASSESSMENT COMMITTEE

- Elaborates the Self-Assessment Report
- Makes a SWOT analysis of the Programme
- Draws up improvement plans
SELF-ASSESSMENT COMMITTEE

Programme Coordinator

- President(s) Department(s) responsible for the Programme Coordination
- 1 faculty member from the Scientific / Pedagogical Commission of the Programme
- 1 faculty member from the Programme teaching staff, with no managerial positions
- 1 Student representative of the Programme Students
- 1 Alumni from the Programme
- 1 Member from the Programme non-teaching staff
<table>
<thead>
<tr>
<th>SELF EVALUATION REPORT</th>
<th>RESPONSIBILITY</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Institutional data</td>
</tr>
<tr>
<td>Higher Education Institution characterisation</td>
<td>X</td>
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<tr>
<td>Programme characterisation</td>
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<tr>
<td>General objectives of the Programme</td>
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<tr>
<td>Internal Organisation and Quality Assurance Mec.</td>
<td>X</td>
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<tr>
<td>Material Resources and Partnerships</td>
<td>X</td>
</tr>
<tr>
<td>Academic and Non-Academic Staff</td>
<td>X</td>
</tr>
<tr>
<td>Students Learning and Teaching Environment</td>
<td>X</td>
</tr>
<tr>
<td>Processes (Teaching objectives, study plan, Curricular Units Organis., Teaching/Learning Method.)</td>
<td></td>
</tr>
<tr>
<td>Results (Academic Results, Other Results)</td>
<td>X</td>
</tr>
<tr>
<td>SWOT analysis of the Programme</td>
<td>X</td>
</tr>
<tr>
<td>Proposal for improving measures</td>
<td>X</td>
</tr>
<tr>
<td>Proposal for eventual curricular restructuring</td>
<td>X</td>
</tr>
</tbody>
</table>
SWOT ANALYSIS

1. **Programme Objectives**
   - Set up clearly, and made known consistently with the mission

2. **Internal organisation/Quality Management mechanisms**
   - Skills and responsibilities clearly defined and made known

3. **Material resources/partnerships**
   - Appropriate facilities/equipment/funding and cooperation mechanisms with the exterior

4. **Teaching/non-teaching staff**
   - Sufficient qualified teaching staff/non-teaching staff, which fits the Programme area, …

5. **Students and teaching/learning environment**
   - Adequate, sustainable number of students enrolled, admission candidates/vacancies, …
   - Student support/advice mechanisms (academic integration, labour market, …), involvement in monitoring quality processes, mobility promotion

6. **Processes**
   - Curriculum structure/study plans, Organisation of Course Units, Teaching/learning methodologies

7. **Results**
   - Academic, Scientific, Technological/Artistic, Internationalisation, …

**Proposed improvement actions**
- Proposals for the HEI/Programme performance improvement
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3. RESULTS
EXTERNAL EXPERTS TEAM

- 3-5 experts selected by A3ES
- 1 international expert recognized as a competent professional in the academic/scientific area
- Adequate curriculum and profile
- Guarantee of independence from the HEI

Role:

- Conduct the assessment exercise according to the External Assessment Guide
- Make an overview regarding the Programme under the academic, scientific and professional point of view
- Elaborate recommendations and propose actions for quality improvement
2. ACEF
External Experts Visit

PREPARATION OF THE VISIT

► Duration: 2-3 days
► Coordination: Department/Programme Coordinator
► Interlocutors:
  ► Governing bodies
  ► Self-assessment team
  ► Programme Coordination and Department Heads
  ► Programme Faculty members
  ► Programme Students
  ► Non-teaching staff that provides support to the Programme
  ► Programme Graduates
  ► Graduates Employers
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3. RESULTS
3. RESULTS

Assessment and Accreditation 2010/2016

- Preliminary Programme Accreditation processes 64
- Prior Accreditation of new Programmes 15
- Accreditation of Programmes in Operation 59

100% ACCREDITED

Institutional Audit 2012/2013

Certification of IST internal quality assurance system

SIQuIST CERTIFIED JAN 2013
### Monitoring of Improvement Actions and Recommendations

<table>
<thead>
<tr>
<th>IMPROVEMENT ACTIONS</th>
<th>Self Assessment</th>
<th>OBS</th>
<th>External Assessment</th>
<th>OBS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td>Monitoring</td>
<td>No.</td>
<td>Monitoring</td>
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<tr>
<td><strong>9. Proposed actions for improvement</strong></td>
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<tr>
<td>9.1 General objectives of the study cycle</td>
<td>4</td>
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<tr>
<td>9.2 Internal organisation and quality assurance mechanisms</td>
<td>5</td>
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<tr>
<td>9.3 Material resources and partnerships</td>
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<td>9.4 Teaching and Non-teaching Staff</td>
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<tr>
<td>9.5 Student and teaching/learning environments</td>
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<tr>
<td>9.6 Processes</td>
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<tr>
<td>9.7 Results</td>
<td>3</td>
<td>3</td>
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</tbody>
</table>

- **CONCLUDED**
- **IN PROGRESS**
- **NOT INITIATED**
### 3. RESULTS

#### EXAMPLE OF RECOMMENDATIONS (SELF ASSESSMENT TEAM)

<table>
<thead>
<tr>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Promote the programme across the business sector and abroad to increase the number of students</td>
</tr>
<tr>
<td>Reduce and better focus on programme offer</td>
</tr>
<tr>
<td>Larger integration in national and international PhD programmes</td>
</tr>
<tr>
<td>Increase effort in attracting PhD grants</td>
</tr>
<tr>
<td>Increase effort to obtain a larger number of PhD students</td>
</tr>
<tr>
<td>Follow up tutorial classrooms</td>
</tr>
<tr>
<td>Expand offer to students abroad</td>
</tr>
<tr>
<td>Create teaching networks of subject classrooms nationally and internationally, in order to increase the critical mass of students per subject</td>
</tr>
<tr>
<td>Increased dissemination and sharing of results of research projects</td>
</tr>
<tr>
<td>Increased collaboration with the business sector in funded research projects</td>
</tr>
<tr>
<td>Improved maintenance and renewal of computer and laboratory systems</td>
</tr>
<tr>
<td>Increase the number and qualifications of lab. and secretariat staff with own resources or through staff from private and state-owned companies</td>
</tr>
<tr>
<td>Increase the number of students by obtaining funding from the business sector through joint projects</td>
</tr>
<tr>
<td>Need for more aggressive competition from European funding (ex.: Erasmus Mundus)</td>
</tr>
<tr>
<td>Stronger penalties for faculty members without PhD thesis students</td>
</tr>
<tr>
<td>Greater effort in obtaining post-doc employments</td>
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<tr>
<td>Raising awareness relevant authorities for greater financial support</td>
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<tr>
<td>Greater control of teaching methodologies</td>
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<tr>
<td>Coordination of study plans flexibility by rationalising offer</td>
</tr>
<tr>
<td>Increase research partnerships</td>
</tr>
<tr>
<td>Increase Programmes associated with the industry and services provision</td>
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</tbody>
</table>
THANK YOU!

marta.pile@tecnico.ulisboa.pt