Politecnico di Torino Progress Report – September 2017
(Referring to *EUA FOLLOW-UP EVALUATION REPORT/December 2015*)

1. The evaluation team shares much of the critical analysis on the degree of effectiveness of the "collegi" as documented by the Self-Evaluation Report of PdT and, as a contribution to the on-going debate, recommends that PdT should:
a) give more power and freedom of manoeuvring to the "collegi" in the interest of study programme innovations;
b) avoid merging "collegi" in such a way that too large units of undergraduate students are being created, which would harm the learning experience;
c) indeed promote inter-disciplinarity, especially at the 2nd and 3rd cycles.

During 2016, a specific Committee aimed at the coordination of the teaching and educational activities, called "Commissione istruttoria per il Coordinamento dell'Attività didattica e Formativa" widely debated on the need to introduce some new innovative methodologies in educational matters with the aim of pursuing a steady improvement in the PdT's educational offer . In December 2016, the Board of Governors decided to include a € 10.000.000 extra-fund for educational laboratories and for innovative educational activities in the provisional budget to the benefit of students and of the quality of the teaching activities. The funds for the innovation of the laboratories/lab innovation will be assigned on the basis of renewal and development projects submitted, which will be assessed by a specific commission.

Furthermore, in order to promote a wider inter-disciplinarity in our degree courses' programmes, tutoring hours in classrooms and laboratories have been increased, as well as the budget at the disposal of the student teams. In this regard, it is important to underline that some initiatives emerged on student project ability focused on specific students groups (I and II level and PhD level), who preferably belonged to different degree courses in order to create a student team as interdisciplinary as possible. Here, the main objective was to provide students with a precious opportunity to gain project planning ability experience through the implementation of innovative and creative activities of general interest and to reach the most part of student population.

2. The evaluation team recommends that PdT should carry out some in-depth work on the didactics of student-centred learning. With respect to the academic staff, both the qualifications and the training of teaching competences should be given more weight.
These aspects would justify a "collegi"-wide educational upgrade project. The final result should be that, in line with PdT's strategic aims, teaching performance will have the same importance, quality and impact as research performance.

In order to answer this recommendation, it is necessary to clarify an important point. According to the Italian law system, researchers or professors who intend to participate in public selection procedures and apply to cover a position for Full or Associate Professors in Italian Universities must possess, as main requirement, the so-called Italian Scientific Qualification (Abilitazione Scientifica Nazionale). This qualification can be assigned only on the basis on the evaluation of research criteria. This is the reason why most of the applicants decide to focus their activities and commitment on research. Due to this element, PdT decided, in line with the Strategic Plan, to list in the requirements included in the *bandi* for the selection procedures and public competitions (full and associate Professors) the multimensional evaluation, where among all requirements, elements and selection criteria documents and details on the candidate's teaching activity are included, as well. Furthermore, each candidate is required to participate in a specific interview called "seminar open to the faculty members" focused on a specific topic/subject. As for the

public selections for researcher position (assistant professor), where the Italian Scientific Qualification is not required, details on the teaching activity can be included in the elements to be submitted by each candidate and discussed during the interview.

As a result, the opportunity to give more weight to teaching performance and implement a "collegi"-wide educational upgrade project is strongly influenced and depends on the updating of the requirements needed to cover Full and Associate professors positions through Italian public selection procedure competitions.

However, in order to face this problem, also by taking into consideration a recommendation expressed by the Institutional Evaluation Committee (NUV) on this issue, it is necessary to underline that the Institutional Quality Assurance Committee (PQA) has strongly wanted and then launched a training educational project, by implementing an initiative already started in the past aimed at the fixed-term researchers/assistant professors in tenure track in their first year of contract with Politecnico .

This new initiative also meets all requirements/recommendations of the Quality assurance expressed by the Italian National Agency for the Evaluation of the Italian University System and Research (ANVUR) related to the monitoring of the updating initiatives implemented for the faculty members at a scientific and educational level.

On the basis of all the experiences gained by the other Italian Universities, the PQA decided to benefit from the expertise of a research group coordinated by Prof. Felisatti, Full Professor of Experimental Pedagogy at the University of Padova.

The activities of the group were organized in 4 modules structured in Lectures and Workshops taking place between February and May 2017 on the following topics:

- Introduction of the initiative, of the dealt topics, of the student-centred perspective, of the results of the submitted questionnaire.
- Planning educational activities (didactics): definition of the expected learning outcomes
- Teaching and learning methodologies: educational methodologies overview and their features
- Methodologies on the evaluation of the Learning outcomes: different kind of tests, diagnostic and educational evaluation

The initiative was pretty successful since 120 researchers out of 130 addressees participated in the activities; due to this reason, our Institution wishes to propose the initiative once more next year and to extend it to the whole academic community.

In order to put into effect what the researchers learnt during this initiative, they will be involved by the Coordinators of *collegi* in the rewiew of the so-called "schede insegnamento", forms describing the educational programmes offered in our Institution together with the corresponding learning outcomes and exam/assessment modalities.

Furthermore, in order to guarantee a correct monitoring of the educational offer planning, it is relevant to highlight that PQA, in particular during last year, required a great commitment and implemented a raising awareness campaign on the topics of the Quality assurance of the Educational issues/didactics, by supporting the Coordinators of *collegi* and the Responsibles of the educational programs/degree courses in their activities of drafting the documents on the planning of the educational offer, but also in the filling the so called "scheda del riesame", a sort of evaluation forms on the degree courses offered by Italina Universities.

Moreover, in this regard, the PQA has been highly committed in training activities (http://www.qualita.polito.it/far_crescere_il_sistema_qualita/ambito_didattica/iniziative_di_formazione_interna/formazione_per_la_visita_di_accreditamento).

Furthermore, on the occasion of the national assessment carried out by ANVUR between May 23-27 2016 at our University, and thanks to this growing commitment in educational topics, the PQA asked the Head of the Departments to strengthen their communication activities on these educational topics and to choose some Responsible members both in the academic and in the administrative staff for Quality different for Teaching/educational and research issues as privileged spokesmen/women on these topics.

These elements represent what the Institution has been doing concretely to try to find a balance between research and teaching/education field/activities through initiatives which can help professors and researchers be encouraged, involved and committed in teaching/educational activities and to be part of the formative process.

3. The evaluation team recommends that PdT should seriously look into the learning environment in terms of maximum class size, available study places and adequate facilities for laboratories and other experimental work.

In the last years, in order to solve the problem of the shortage of spaces in the university campus aimed at educational and student activities, also due to the growing number of students, our University identified some solutions shared with the local partners in order to design and create new classrooms, laboratories and spaces aimed at research and functioning of the University.

The increase of the student population number together with new needs emerging in the fields of education, research, knowledge transfer requires more spaces to be available for the daily institutional activities of our University.
In addition, on the basis of the idea of a "Sustainable campus" centered on the development of the infrastructures, new opportunities in terms of student accommodation facilities have emerged (new halls of residence "Carlo Mollino"and Cesare Codegone"), new socialization spaces, as well as further and wider areas aimed at services have been created (baby-parking, nursery service, study halls, external study areas..)

Here listed below are the most interesting project initiatives implemented or to be implemented (working in progress):

- **Hall of residence Carlo Mollino**
  On January 30 2015 PdT signed a concession license agreement related to the building and the management of two halls of residence: "Carlo Mollino" and "Cesare Codegone".
  The building works for the hall of residence Carlo Mollino" began in February 2015; starting from October 3 2016 the structure has been officially functioning as student accommodation facility, by guaranteeing at least 60% of the available accommodation places (62 places out of 104) to the talented students. Since January 2017, at the end of the works, Residenza Mollino is officially open.

- **New student areas**
  New student areas were created and officially opened to students at the end of 2016 such as a new study hall, a 150-places classrooms and two new hygienic service structures, one on the ground floor and one on the basement. These structures were created partly through the building renovation and reallocation works of some preexisting areas and partly through the creation of a new structure within a secondary courtyard of the Campus.

- **Cittadella Politecnica – New classrooms in Via P. Borsellino n. 53**
  According to the project, now in progress, a pre-existing building will be demolished and rebuilt to create new areas for classrooms, different from the typology and the size of the others: this is done with the aim to partially deal with the shortage of big size classrooms for the Engineering degree courses' students
  In the same building, some new study halls and spaces for students will be created.

Finally, some new prefabricated classroom buildings have been designed and will be created within Spring 2018 in an area which is now used as a parking lot for Polito employees.

4. The evaluation team recommends that PdT should seriously consider that the number of students must be in proportion with the available facilities and faculty in order to maintain the quality of education and to be internationally attractive. As long as these cannot be expanded, student numbers should be frozen. Otherwise, quality will suffer.

Considering that our Institution is the only Polytechnic School of the Piedmont Region and that 12.000 pre-applications for first enrolment were submitted for the a.y 2017/2018, decided to confirm a "programmed admissions" scheme, also for the a.y 2017/2018, for a total number of 5335 available places.
At the same time, it is necessary to underline the strong effort of increasing the number of professors during 2016 through the recruitment and hiring of more than 100 researchers, by increasing the total number from 43 (December 31 2015) to 154.

5. The evaluation team is of the view that the need to enhance actual (and active) student involvement in the governance of PdT remains an important issue. It is a challenge worldwide and there is no simple recipe to better this. A serious and visible feedback loop on faculty response to students' comments will be helpful. More generally, the evaluation team believes that a sense of ownership on the part of students for their learning process contributes to stronger involvement. Relative size of groups and facilities, and a fair student-staff ratio also have a positive impact. In this regard, the evaluation team recommends that university leadership should continue its efforts in that direction.

Student representatives take part in all institutional governing bodies: Academic Senate, Board of Governors, Institutional Evaluation Committee, Department Boards and *Collegi*;
The Joint Committee for Education, Italian acronym CPD, is a joint body balanced in terms of member category (student and professor representatives) which is in charge to monitor the formative/educational offer. As a result of the work of CPD, in the view of the 2017 student elections, a campaign aimed at starting raise awareness among students about the participation in the voting sessions started: this initiative brought to an increase of the participation of students from 9% (2015) to 15%.

Furthermore, a video showing students the organization of our University and its structures/facilities was created and made available on the personal page of each student's section of Polito website.
During the a.y 2016/17 CPD implemented some communication initiatives aimed at students which brought to a relevant increase in the percentage of students who filled in the evaluation questionnaires (71,8% vs 54,9% of the previous year). Again, on the basis of an initiative launched by CPD, at the beginning of the a.y 2016/17, professors were invited to comment the outcomes of the questionnaires on the evaluation of the programme of the single learning unit/subject filled in by the students of the previous year.
Students are also involved in CPD's working subgroups, in particular in the constructive evaluation of the degree course's descriptions and in the descriptions of the single subjects/learning units which, afterwards,

are sent to the Responsible of the educational programmes/degree courses and to the Coordinators of *Collegi* for any required comments/suggestions.

Moreover, thanks to some new initiatives for the development of the student project ability which have been emerged recently, students can commit themselves in the creation of a project carried out in parallel with all other study commitments. As a result, this initiative not only makes grow students' cultural, technical and management skills, but also it aims to enhance student socialization https://didattica.polito.it/team_studenteschi.html.

Finally, as already explained in the previous point, in order to improve the professor/student ratio, in last years our Institution has highly invested in the recruitment of fixed-term young researchers in order to deal with the growing number of students that, in spite of the programmed admissions scheme on the first year of the bachelor's degree level, also to reduction of the dropout rate, has increased.
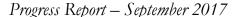
6. The evaluation team, in line with its earlier recommendation for the academic staff, recommends that PdT broadens the basis for research assessment of academics by honouring faculty performance in technology transfer and service to society.

During the last evaluation process related to the years 2011-2014, the Italian National Quality Assurance Agency for Higher Education, ANVUR, collected data and leaded an evaluation on performance in technology transfer and service to society. As a result of this process, PdT received a very good evaluation in the field of research and knowledge transfer performance, confirming the strong commitment in this concern, but it was disadvantaged in the evaluation in the so-called III sector because of the lack of an organized internal structure in charge of collecting data and make them available. So, some meetings were organized between staff from the Quality and Evaluation Service (QVAL), the Research Area (ARI), the Technology Transfer Area (TRIN) and the Communication, Events and Relations Service (CORE) in order to start working on these subjects immediately. Members of the staff from QVAL and CORE participated in a seminar organized by AICUN in Novara where the best practices for collecting data and honouring faculty performance for service to society were explained. Moreover, the national consortium for IT in universities, Cineca, is developing a module for managing data on technology transfer and service to society as a part of the CRIS (Current Research Management System) that most of the Italian universities are using, called IRIS, that PdT will also adopt shortly.

In the last years a new administrative area called TRIN (mentioned previously, Technology Transfer Area) was created, whose specific aim is to support professors and researchers of our University in the topics of technology transfer and relations with companies and the Industry sector.

7. The evaluation team has some concerns about the large number of international partnerships of PdT. In order to be more successful in its efforts, PdT should limit and focus its international cooperations by setting clear priorities. Furthermore, the evaluation team recommends that, in terms of recruiting international faculty, post-docs and graduate students, PdT might better concentrate its efforts in the first instance on four or five "front runners", rather than working on a very wide front.

During the past years PdT has invested efforts in better defining the international cooperation policy, both by deleting silent agreements and by updating the active ones. In the review process, each Department involved was contacted to state the willingness in maintaining the agreement.

Regarding the student mobility agreements and the Double Degree Agreements, a new model has been introduced to better focus on specific academic programs and to actively involve the relevant academic referent along the entire negotiation process.

New agreements have been signed only after careful evaluation mainly focused on partner university reputation and students exchange opportunities.

PdT strategy in international cooperation applied also to the participation to the Erasmus+ programme, KA107. In the framework of the past calls the University decided to submit a limited number of proposals with those which are already our partner universities located in target countries.

8. The evaluation team would like to point to two earlier recommendations: that PdT includes teaching and learning performance in the assessment procedure of the faculty so as to guarantee a balanced faculty performance in research and in teaching, and that PdT takes initiatives to foster stronger involvement of students in governance.
These points have been previously dealt

9. The evaluation team recommends that, in addition to bonuses and rewards for research, the university should also consider the introduction of awards for teaching excellence.

This recommendation, which has been expressed by the Nuv, as well, has encouraged a debate within CPD and PQA; due to the lack of previous experiences in this regard, some other different possibilities are being evaluated in agreement with the academic community.

10. In order to ensure the successful implementation of the strategic plan, the evaluation team recommends that PdT continuously monitors the execution of the strategic plan and the action plan, and refocuses priorities where and when needed.

PdT periodically updates its own action plan in order to monitor constantly the implementation of the Strategic Plan; a new important update will be provided in Autumn 2017, in view of the end of the Rector and Rector team's mandate in March 2018.