



UNIVERSITÀ
DEGLI STUDI
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Executive summary - english version

Nucleo di Valutazione di Ateneo

THE NUCLEO DI VALUTAZIONE

ANNUAL REPORT 2016-2017

EXECUTIVE SUMMARY

This year's annual report on the University of Padova by the *Nucleo di Valutazione* (NdV), the independent university performance watchdog, is of particular relevance because the Evaluation Commission (CEV) appointed by ANVUR, Italy's National Agency for the Assessment of the University System and Research, will visit the University in November 2018 for its periodical assessment. This report is therefore not only of interest to the University in its entirety, but also to the ANVUR's experts, who will find here a full picture of the University's many activities and initiatives.

Apart from introducing a few important innovations, the report will, as always, assess the quality, efficacy and transparency of the University's mission. The organization and management of human, instrumental and physical resources will be examined, with a specific focus this year on property investment. Data and indicator analysis will also help implement a better and broader monitoring system. Comparisons will be made with similar universities nationwide and the picture that emerges will pinpoint Padova's strengths and the areas where improvements could be made. The report is aimed at anyone who is interested in the University's students, academic and administrative staff, infrastructure, activities, research and initiatives.

In the interests of giving the University's achievements proper visibility, the NdV once again decided to delay publication of its report until reliable data was made available. It therefore waited to assess the effect of the new State financing of Departments of Excellence, which saw Padova ranked as one of Italy's leading universities for number of departments to benefit from this financing. The delay also allowed the NdV to consider the University's reorganization of its Central Administration, which began in 2017 and concluded in March of this year, as well as the major reform of the University's Quality Praesidium, which now brings together teaching, research and third mission bodies. It was also able to examine the Administration's efforts in the property field concerning future structural, logistic and organizational measures.

The report consists of this brief introduction and nine chapters on People, Organization, Teaching, Student Services, Research, Third Mission and Social Impact - first introduced last year to assess the University's activities in the community at large - Internationalization, plus Management and Property, which examines important new investments in this sector.

PEOPLE

A total of 8,783 people are involved with the University in various ways. It has over 4,000 employees, of whom 2,140 are professors or researchers, 2,303 are technical and administrative staff (PTA), or managerial staff, and about 5,000 are post-doctoral trainees, PhD students, teaching contractors, seasonal workers, volunteers and others. This represents a considerable patrimony in terms of human resources. Unlike many other Italian universities, the number of people working and studying at the University has seen little variation over recent years. The number of students enrolled in its various courses has remained fairly stable: 57,272 in 2016/17 is similar to the 57,745 of 2013/14. The fact that most students come from the Veneto (79.5% this year compared with 80.1% last year) shows that, despite a slight improvement, the University is still unable to encourage greater mobility among Italian students, with only 16.4% coming from outside the region. Compared with other Italian universities in the same group (i.e. Bari, Bologna, Firenze, Milano Statale, Napoli-Federico II, Roma-La Sapienza, Torino), Padova is in sixth place for number of foreign students

(4.1%), and while this is slightly less than last year, it is still a promising figure with, of course, room for improvement.

There has been little variation in staff over the past three years and most PTA and academic staff have permanent contracts. The year 2017 saw an increase in technical and administrative and managerial staff, rising from 2,268 to 2,303. The only fall was registered in category D, down 14 employees. The number of managerial staff was up by two, despite two managers not being in service on 31 December 2017.

In 2017, 118 people signed new permanent contracts and 72 left their positions, due to either transfer or retirement. A total of 80 researchers became associate professors and 47 associate professors became full professors. On the whole, the lecturer-student ratio is very positive (38.3), the lowest value among the Universities which are part of the benchmarking group.

In research and postgraduate medical research, there are 1,229 PhD students, 879 scholarship students and 1,290 trainees. In 2017, the number of scholarship and PhD students decreased slightly while that of trainees increased.

The composition of Padova's academic staff remained stable between 2015 and 2017, with 24% being full professors, 43% associate professors and 33% researchers. The reduction in numbers of researchers with respect to associate professorships, as a result of retirement, university reform and recruitment, is offset by the significant numbers of researchers hired on temporary contracts.

Compared with other universities, Padova has greatly increased the number of researchers on temporary contracts (RTD): from 85 in 2015 to 250 in 2017. Padova is now one of Italy's top five universities, with its RTD/professor ratio being 12% (it was 8.6% in 2016). This is a considerable investment by the University, made possible by special ministerial funding for 65 Type-B RTD¹, which represent 5% of the national total. The NdV is impressed by the way the University has managed these funds as it took into account its Evaluation of Research Quality (VQR) (in particular the final indicator for research (IRFD) for the VQR 2011-2014) and also guaranteed financing for the departments excluded from the projects of excellence.

This policy has also had a positive effect on the average age of academic staff (51 in 2017 compared with 52 in 2016), slightly below the national average (52). The effect of retirement will need to be monitored; between 2018 and 2021 some departments will see over a quarter (25.9%) of their professors retire, and by 2025 the figure is expected to be over 40% for some departments. Calculating retirement figures on the basis of age alone, the University can expect 9.1% of its present academic staff (at 31/12/2017) to retire in 2021, a figure that will rise to 18.6% in 2025.

Regarding recruitment, the NdV feels that the University has made good use of its budget for appointing academic staff, following procedures correctly and making a parsimonious use of resources.

There is, however, still an imbalance in the number of women employed at the University, especially in the top positions. Once again, Padova lags behind other Italian universities here; only 36% of the workforce are women (35% in 2016). Only one full professor in five is a woman (21%) and only one in three associate professors (36%). The situation is more balanced among permanent researchers (48%) and temporary researchers (42%). Only 49 of the 118 new personnel hired in 2017 were women (38%); 2 of the 10 new full professors were women (20%); 6 of the 17 new associate professors were women (35%); and 41 of the 92 new temporary researchers were women (45%). Concerning the 127 people promoted in 2017, 30% of associate professors promoted to full professorship were women (14 out of 47) and 41% of researchers promoted to associate professorship were women (33 out of 80). There are therefore signs of an improvement over last year, fruit of growing awareness and effort. However, the situation varies considerably from department to department, and the presence of women in top positions remains a serious issue. In 5

¹ Which can be considered tenure track positions.

departments out of 32, fewer than 5% of the full professors are women (there are none in 4 departments) and in 8 departments the figure is less than 10%.

Among the PTA, like last year, there is a good gender balance and slightly over 50% of all staff are women. The only exception is to be found in the managerial staff, where only 3 out of 11 managers are women (27%). This represents a drop from 2016.

Although the University is generally healthy and dynamic, there is still room for improvement. The NdV thus recommends that policies be put in place to favour staff renewal in preparation for the great number of retirements expected in the near future. In particular, as far as redressing the balance within the academic staff is concerned, it recommends hiring young people (temporary researchers, scholarship and post-doctoral students) and removing obstacles to women's careers, especially in top positions. Positive gender policies are essential for the University's image, given its great tradition and history.

ORGANIZATION

In early 2018, the reorganization plan proposed by the General Director went into operation.

The main aim of this reorganization is to reform Central Administration and focus available resources on the provision of services connected to the University's main functions (i.e. teaching, research, student services, third mission), and to work more closely with Departments, Schools and other University facilities. This will entail organizing the administration into 9 areas, 35 line offices and 3 staff offices, finding homogeneous groups of processes and a considerable cut in General Management staff.

The NdV appreciates the efforts made by the Administration to improve managerial and organizational processes within the University.

With regard to the performance cycle, the NdV also acts as an Independent Evaluation Body (OIV). In August 2017, ANVUR sent the Administration an integrated plan recommending both operational objectives and evaluation criteria. On that occasion, ANVUR indicated several areas for possible improvement, many of which already indicated by the NdV. The main ones are the Performance Evaluation and Measurement System (SMVP), which has not been updated since 2011, the link between strategic planning, Ministry of Education (MIUR) three-year planning and performance objectives, the establishment of operational objectives, their links with economic and financial planning, and the establishment of targets for performance objectives and indicators for measuring results. The NdV/OIV recognizes that over the past two years, the University has followed its recommendations and has made a concerted effort to improve its performance cycle. Worthy of note was the selection of a manager to implement and monitor the performance cycle (a position later suppressed), the aforementioned plan to reorganize Central Administration, and a proposal to revise the SMVP initially presented to the University board in July 2017 and then updated in March 2018. The NdV/OIV is impressed by the attempt to be more objective in performance assessment through the use of surveys on service quality, customer satisfaction and organizational well-being. At the same time, the NdV/OIV suggests that fuller, more detailed and cohesive indications and procedures be provided during the next annual SMVP update, and that attachments be better integrated with the text.

The NdV appreciates the University's participation in the "Good Practice" project, which promotes constant monitoring of organizational performance and the continuous improvement of administrative services. This is a particularly useful tool for the performance cycle process, a point also noted in the SMVP. However, the NdV recommends raising visibility of project findings so that the people involved are more aware of indicator trends and their role within the University. In the interests of transparency and utility, the SMVP should also define more clearly the way surveys are carried out and clarify the link between survey results and performance assessment.

The organizational well-being survey for 2017 was carried out along the lines recommended by the NdV, despite the fact that such surveys are no longer required by law. The University recognizes that the survey raises awareness of strong and weak points and considered it useful enough to include the results in the

SMVP so that the managers' organizational performance could also be assessed. Unlike the previous year's survey, the 2017 edition was promoted and managed by General Management. It took place between December 2017 and the beginning of January 2018, a period in which many organizational changes were being made, particularly in Central Administration. Overall, 943 employees (40.9% of the total) responded to the survey, a considerable fall in participation compared with preceding editions (64.1% in 2016 and 68.1% in 2015). This is a worrying matter and must not be underestimated, as it may indicate a sense of malaise that should be investigated and resolved. Due to the difference in the number of questionnaires compiled, combined with the fact that no analysis was made of respondents and non-respondents, data from the 2017 survey cannot be confidently compared with preceding surveys. Consequently, the NdV recommends careful analysis of the available data, taking into account the 2016 results.

At any rate, the survey paints a discordant picture of organizational well-being. Alongside positive elements, e.g. University image, working environment, sense of belonging and appreciation of immediate superiors, are less positive ones that require attention. Among them is the distribution of workload and responsibilities, the fairness of salary compared with the workload, career and professional development opportunities, the sharing of adequate information on general University objectives, strategies and results, and, more in general, the workings of the system, with particular reference to the SMVP and individual assessment forms. These are elements the NdV believes that the University should hold in consideration when creating and updating the SMVP and defining policies to improve system awareness, understanding and participation. Management has an important role to play here.

In relation to performance, the NdV invites the Administration to re-examine the possibility of appointing a manager to monitor the timing and running of the whole performance cycle. Keeping to deadlines, including legally binding ones, continues to be a problem and needs to be presided over. It therefore recommends that careful monitoring of the performance cycle be put in place as soon as possible to ensure that progress is being made. Note that this is also a legal requirement. It will be very important during 2018 to monitor the entire SMVP and its deadlines closely to ensure that they are correctly implemented.

The NdV appreciates the significant efforts made by the University in equal opportunities, which involved many different people and bodies and was coordinated by a pro-rector who gave shape and unity to the initiatives. During 2017, the Plan of Positive Action (PAP) 2015-17 produced "Guidelines for Transparent and Inclusive Language" and published the first University of Padova Gender Report. This is one of the first in Italy and in large Italian universities. The document confirms the NdV findings for this year that opportunities are still far from equal. The graphs show that the imbalance between men and women is more marked in the Sciences than the Arts, but even here there are significant exceptions.

The NdV appreciates that the University is making an effort to lay the basis for gender equality in its policies and financial governance, as it has included the question of gender at all levels of budgeting procedures and restructured income and expenditure to promote equality between men and women. The NdV hopes that gender equality will soon be included in the annual Performance Report, as required by Italian law.

Finally, it commends the University for making a concerted effort to promote equal opportunities, gender equality, health and well-being, work-life balance and inclusion, and to prevent discrimination and molestation.

TEACHING

The University of Padova offers a wide range of degree courses: 173 in 2016/17. Padova is also one of Italy's most popular universities, as its share of national enrolment figures has increased from 3.8% to 3.9%.

Some recent trends have been reconfirmed this year, ones that the NdV has already commented on favourably:

- the second-cycle degree courses are increasingly popular, as they attract over a quarter of their students from outside the Veneto and/or abroad (3.6%);

- students continue to find jobs after graduating, with a special mention going to the *Scuola Galileiana di Studi Superiori* whose graduates enter the job market more quickly than the national average and with higher levels of satisfaction;
- good levels of participation in the survey of student opinion (the effects of innovations on survey administration are still to be assessed).

In this generally positive picture, there still remain a few matters in need of monitoring that had been pointed out last year. In the degree courses of some Schools, data concerning student performance reveal values that need to be explained and improved. Moreover, the NdV has discovered major differences both between different degree courses and between the modules of individual courses. We would like to renew the recommendation to give greater space to innovative teaching methods (e.g. e-learning, digital support, social media for teaching) as a valid tool both for frontal lessons, as well as for bolstering or replacing traditional approaches. Moreover, the NdV feels it necessary to reiterate its appeal to identify the causes of negative data concerning student performance and to improve the situation by making better use of the survey of student opinion. In line with ANVUR proposals, it suggests introducing new survey questions about the degree courses, the state of classrooms and equipment, support services and examinations (e.g. how far the examination reflects teaching and what was explained at the beginning of the lessons or online). It recommends therefore that survey results be put to better use and analyzed with the students at Joint Student-Professor Commissions.

When interviews were being planned for University degree courses in 2016/17, the NdV offered to check whether there was a QA system at various levels and, if so whether it worked. It believes the experience to have been extremely positive and, particularly in the light of the forthcoming ANVUR visit, that it has made everyone involved in the QA system more aware of the concept of quality and better able to pinpoint areas where there is room for improvement.

The majority of the degree courses are adequate. However, some aspects need improving and in a very few cases the courses were deemed insufficient.

The NdV hopes that the University will put the quality control and improvement of its degree-course organization, management and teaching on a more stable footing, and not simply because an ANVUR visit is imminent.

STUDENT SERVICES

For the 2017/18 academic year, the University applied new national laws regarding student fees, which vary according to the degree course and are payable in three instalments. The fees, which vary from €1,673 to €2,734, are higher than in previous years (a gross increase of 1.2% to 3.8%, inclusive of reductions and grants). To cover the increased financial demands made by the reform, the University decided to increase fees for students with means-tested incomes over €28,000 per annum, but no increase has been imposed on incomes up to €28,000. Should the State reimburse the University for income lost due to the reform, it has promised to invest these monies in student services.

Apart from increased fees, the situation regarding services for University of Padova students is generally positive. Students can easily apply for benefits and exemptions, and there are study grants for deserving students, some of which are commendably innovative. For example, the “Mille e una lode” grant awards funds to about 3% of students on each degree course for specific activities or services (e.g. paid internships, topping up an Erasmus grant, 50 hours of tutoring).

The NdV is impressed by the steep rise in the number and use of degree-advice services, which now reach a much wider public of both potential and effective users. Equally impressive is the constant growth in the number and the effectiveness of the University’s tutoring projects. The NdV has selected the following for special mention: the “Drop-out” project, which has lowered the drop-out rate by an average of about 1.5-2 percentage points across the 30 degree courses involved; the “Risveglio” project, which has encouraged

39% of the drop-outs contacted to resume their studies; the “Cultura e accoglienza” project for refugees, which started as a pilot in academic year 2016/17; and the “FisiChat e MathChat” project, which started as a pilot in 2017 and uses online platform Moodle to provide peer-tutoring and real-time answers to mathematics and physics problems.

The NdV notes that there was a steady increase in the number of placements and internships abroad for the University’s students and graduates (up 20% in 2016/17 on the previous year). The achievement of internationalization objectives was boosted by a range of projects introduced by the University Language Center (CLA); special mention goes to the “Learning English for Academic Purposes”, and autonomous-learning and peer-to-peer learning projects, such as “Face-to-Face Tandem Learning” and “E-Tandem”. The NdV believes that it would be useful to continue monitoring the effectiveness of these projects and to evaluate initiatives that would further promote them, as they may have an excellent cost-benefit ratio, as well as positive repercussions on integration.

The NdV welcomes the University’s efforts to ensure that students with disabilities and learning difficulties have the right to study, but believes it would be useful to set up means of monitoring the level of satisfaction with the Disability service and its support activities. Furthermore, it recommends that more effective action be introduced to ensure adequate student participation in the election of the Disability and Inclusion representatives on the Student Council.

More generally, the NdV recommends that bespoke measures be introduced to raise student awareness of the essential role played by representative bodies within the QA process. One of the main issues noted was the low student-turnout to elect student representatives on bodies such as the Joint Professor-Student Commissions (CPDS), the role of which is governed by Italian law and is of vital importance within the Self-assessment, Assessment and Accreditation System (AVA), Accreditation and Assessment Groups (GAV), and the Student Council.

The NdV also wishes to draw attention to the low participation in the internship evaluation questionnaire. This questionnaire is essential for acquiring information and intervening effectively to improve substandard situations, as these measures will help safeguard interns and ensure greater satisfaction among host organizations, as well as promote internships and the acquisition of skills by students.

The NdV notes that students are failing to use the university sports facilities (CUS) in ever-increasing numbers. The NdV advises bespoke action to discover the reasons and to put forward corrective action, as increased use of CUS facilities may result in major economies of scale.

RESEARCH

This year’s report looks at data for research conducted in 2016-17 up to the evaluation results for Italy’s “University Departments of Excellence”, which were published in January 2018. These results help to determine the resources awarded to departments and to the entire University, thanks also to decisions by the University’s governing body. Furthermore, this report focuses on the planning, activities and instruments introduced over the year to build a Quality Assurance (QA) system for research. The main step was the establishment of a University Quality Presidium (PQA) in October 2017, although it was not the first step to be taken. The PQA requires a Research Quality Supervisory Commission (CPQR) to be established, with one of its components being a Research Observatory (OdR). The NdV hails this innovative idea, as it rationalizes QA organization and simplifies the processes it oversees. The CPQR is assigned the key functions for QA, with its main tasks being to promote a culture of quality, to provide the University’s governing body with advice on QA matters, to supervise and monitor QA processes, and to foster the continuous improvement of quality and support of QA process management University-wide. An additional task is to organize the Single Annual Forms for Departmental Research (SUA-RD) and to ensure they are completed. It is also responsible for coordinating and supporting QA procedures at department level, collecting data for monitoring qualitative and quantitative indicators, and publishing the results.

Over the last two years, while a University Strategic Planning report is being drawn up, the Pro-Rector for Research has introduced a series of initiatives to draw up a Three-Year Plan for Research Development (PTSR) for 2016-2018. This document invites each department to list its strengths and weaknesses with a SWOT matrix as a basis for drawing up its own three-year development plan. Technical support was provided by the OdR, which oversaw the drawing up and building of the plans. The initial period of activity is rather limited, and thus the undoubted benefits stemming from this reorganization have not yet been fully witnessed. The NdV, however, would like to draw attention to two key issues: the ongoing dichotomy between OdR and CPQR needs to be eliminated as soon as possible; and a method should be introduced that enables the research QA bodies and the NdV to work more closely and more efficiently. Last year's report suggested that they may find it useful to provide the NdV with a report detailing their activities in the previous year, their activities planned for the next year, and the relative scheduling, all within a structured flow of information.

Overall, the NdV retains that the University's introduction of the PTSR is extremely positive as it is an excellent opportunity for departments to analyze their strengths and weaknesses and plan for the future. This move saw departments make an initial approach towards a stage of bottom-up planning for research and the planning and use of resources that focused on research. The NdV believes, however, that there is room for improvement, especially when it comes to reducing the departments' habit of self-referencing during self-evaluations. The aim is for them to promote a more holistic vision that looks at research in relation to other University missions and to foster analysis of all of the human-resource categories involved.

As the PTSR is a useful initiative, the NdV recommends that it becomes, or is combined with a global departmental planning tool that comprises BIRD budget resources, as well as funds from other areas and academic staff points in order to mirror the Ministry of Education's requirements for its "University Departments of Excellence" project. The PTSR should, however, also comprise documents that include the focus points and requirements of research QA (see AVA's R4.B). The NdV also invites the University to examine other major aspects of research planning (e.g. personnel, facilities and logistics) and to promote an integrated approach along the lines of ANVUR requirements.

Another research initiative that has seen Padova achieve excellent results at national level is the MIUR's funding of the "University Departments of Excellence" project envisaged by Italy's 2017 "Stability Law". This legislation earmarked €1,355 million over five years for the project and sent Padova into the top positions of the national ranking for initiatives that stimulate research and make results tangible. Overall, 27 of Padova's departments qualified for the selection procedure, a far higher number than the maximum 15 allowed for each university. At the end of the evaluation procedure, the ministerial commission established that 13 out of Padova's 15 candidates were "Departments of Excellence" (8 CUN areas out of 14), a result that ranked it second at the national level. Bologna ranked top with 14 out of 15 departments. Overall, Padova was awarded funding amounting to €102,156,370: 7.5% of the national total. This figure compared well with Padova's weight within the entire university system (4.3%) and its VQR rating (5.1%).

In addition to being pleased with these results, the NdV also commends the University both on how it dealt with the unenviable task of setting the criteria for selecting potential candidates and on how it made resources available for the departments selected to design their project. The selection process for the "University Departments of Excellence" project was based on clear and agreed regulations. It was an exercise in planning and defining priorities which witnessed a valid use of skills and resources. It was coordinated by the Research Observatory, which provided advice for drawing up the project and evaluated the project before it was sent to MIUR. The observatory was supported by a working group with technical skill in drafting development projects and business plans. The NdV retains that the University's considerable success in this undertaking is a combination of the top-quality research conducted by its departments (VQR 2011-2014), the overwhelming support provided by its QA bodies, especially the Research Observatory, and the technical and administrative staff who worked alongside them.

The NdV also notes that these excellent results continue to enjoy concerted University support in terms of funding, as it has continued to provide generously from its own budget to compensate for the lack of ministry

funding; establishing criteria for distributing funds responsibly and inclusively among departments; and ensuring first-rate organization and evaluation.

Regarding the first point, the NdV notes that the University's good practices include encouraging its departments to be autonomous in how they spend the research funds they are awarded, which are still encouragingly high. It also notes that a number of the University's initiatives are both a competitive means for financing research and a training ground for attracting external fundraising. Its many praiseworthy efforts include "Supporting TAlent in ReSearch@University of Padua - STARS@UNIPD" (2017-2018), a University-funded competition and a major new means of financing research of excellence.

The NdV's in depth analysis has also revealed several points that require consideration or additional thought. One ongoing issue in need of continuous monitoring is the limited funds available for purchasing and/or implementing high-impact research infrastructure. Therefore, the University needs to set about acquiring additional resources from public and private entities, as well as from enterprises, with greater determination and with structured support by the Administration. For example, during the NdV's interviews with the departments, it came to light that the University had no clinical research centre for Phase 1 and Phase 2 clinical experiments, a major obstacle to the development of clinical research and a source of serious repercussions.

Although the University's ability to attract European funding is reasonable by Italian standards, it is somewhat modest when viewed on a European scale. The NdV believes that the University should conduct in depth analysis of the reasons behind this in a bid to improve its position both at national and especially European level. The University also needs to check the extent to which it is achieving the research objectives it has set itself by further integrating them into the Performance Plan and ensuring that ad hoc monitoring is conducted by the University's own inhouse monitoring bodies: first and foremost, the Research Observatory (OdR). The University must also check the ex-post efficiency of its initiatives (e.g. the abovementioned inhouse competition announcements, the employment of research managers).

Although the NdV is pleased that research is thriving at Padova, there is one issue that requires decisive action. Unfortunately, the percentage of "non-active" professors that characterizes some departments is on the rise and needs to be addressed systematically, especially due to the approaching deadline of the VQR3 at the end of 2019. The NdV does not believe that the bodies appointed to deal with this issue are fully aware of its implications and points to the lack of bespoke initiatives. It therefore recommends that these bodies take remedial action.

THE THIRD MISSION AND SOCIAL IMPACT

The Third Mission (TM) became a full part of the NdV annual report on the University of Padova only last year. This decision was taken to comply with the major importance that the University gives to the development of its TM, and three of its categories were included among the strategic objectives for 2017-18: Technology Transfer and Employment, Public Engagement, and Health and Wellbeing. The University gave increasing importance to this field in October 2017 when a Commission for the Supervision of Third Mission Quality (CPQTM) was set up as part of the University Quality Praesidium (PQA). It was only on 27 March 2018, however, that the members of the CPQTM were appointed. Consequently, it is still too early for the TM QA process to be included fully in the QA system and for it to be effectively assessed by the NdV.

It is noteworthy, however, that the departments were asked to include TM activities for analysis, assessment and strategic planning in their Three-year Research and Development Plans (PTSR) for 2016-2018, as well as to set objectives and targets and to list the material and human resources needed to achieve them. Although TM activities struggle to be included among the University's institutional activities, some departments are tackling the problem by setting up specific TM commissions in order to promote its role and contribution. The departments are still finding it difficult to see the TM as an institutional duty and thus rarely set bespoke objectives or devote the necessary resources to their achievement. However, the NdV

appreciates the University's determination to remedy this situation and recommends that each department launch a TM QA process equipped with both a bespoke plan and objectives that can then be assessed.

The NdV has carefully examined the PTSR of each department and the University and generally appreciates the University's commitment to its Third Mission in the individual environments assessed by ANVUR. The NdV believes it extremely positive that the University's departments and their researchers are showing determination to increase the number of patents registered and to set up spin-offs, which have risen significantly over the past year. It is also satisfied with the University's increasing focus on introducing and redefining the mission of intermediaries that promote research, foster new enterprises and find placements for graduates. These intermediaries include those that the University controls or in which it has a stake. Furthermore, the NdV commends the commitment of several departments in the promotion of their research with clinical trials which, it retains, are "good practices" that certify the quality of the University's research. The NdV also notes that the managers of all the University's museums introduced measures that led to a constant increase in visitor numbers. More generally, the wide range of public-engagement events at a vast number of University sites is producing extremely positive results in terms of participation and visibility. Finally, the NdV observes that the income from commercial activity has varied well-within the norm, although SWOT analysis in some departments has revealed difficulties due to the economic downturn.

SWOT analysis has also highlighted some features that may limit broad development of TM activities, with the NdV believing they should be pointed out, as they occur within all macro-areas. One weakness is a lack of interest in conducting TM activities, as they count little towards career progression. Other reasons include the lack of material and human resources for said activities, increasing difficulty to broker agreements for third-party activities due to the continuing economic crisis, and the lack of clear TM objectives and policies. The NdV observes that if the TM is to be a major feature of University strategy, then the University must introduce consistent, award-based policies. The CPQTM has a decisive role to play within this framework.

INTERNATIONALIZATION

The University of Padova has decided to place strengthening its internationalization at the heart of its action plan, a move that involves making structural improvements to the efficiency and stability of its international relations in terms of teaching, research and competition participation. The NdV commends this objective and encourages the University to convert it into specific action that will afford Padova greater global visibility, e.g. higher positions in international rankings, increase attractiveness to foreign lecturers, increase the flow of students to and from foreign universities, and raise the percentage of foreign students studying for degrees and doctorates at the University.

The NdV's report lingers in greater detail on the University's internationalization of teaching, including research doctorates. The internationalization of research and funding, both international and European, are dealt with in the chapter on "Research".

As regards the internationalization of teaching, the NdV notes that the University is being consistent with its strategic objectives as it continues to expand the number of courses taught in a language different from Italian at the highest levels, and that it is making a direct effort to build packages that will facilitate the admission of international students. In addition to international courses, Padova's number of degrees taught in English continues to grow annually. It offered nine first-cycle *Laurea* and second-cycle *Magistrale* courses in English in 2014/15, a number that rose to 15 in 2016/17. Extending the number of courses taught in a foreign language in a bid to make the University more appealing is thus one of its main internationalization policies.

The NdV realizes, however, that with a 2017 ruling, Italy's Constitutional Court placed tight restrictions on degrees being taught in a foreign language. Consequently, it states that the University should continue to pursue its internationalization objectives, but recommends finding ways of ensuring that teaching in a language other than Italian complies with the three fundamental principles imposed by the court, i.e. that

Italian must be the predominant language; students must be assured the right to study at the highest levels; and academic freedom must be guaranteed.

After a drop in recent years, the percentage of international students taking a first-cycle *Laurea*, a second-cycle *Laurea Magistrale* and single-cycle *Laurea Magistrale* has started to rise again.

The University's postgraduate training is strongly internationalized. The largest rise is in the number of international students studying for a PhD, which went up from 12% in 2014/15 to 16.8% in 2016/17. It is noteworthy that about 46% of the international PhD students are from Asia.

In 2016/17, the EU's "Erasmus+ for Study" continued to be the preferred mobility scheme for both outgoing and incoming students (79.8% and 78.3% respectively). The five-year period 2011/12-2015/16 witnessed another steep climb in figures for both outgoing and incoming students. In Italy, Padova ranks second for the number of outgoing mobility-scheme students, with 2.6% of its students going abroad; it ranks third for the number of incoming students with 1.8%.

The NdV also commends the University's concerted efforts to increase international mobility with bilateral agreements. The most noteworthy examples are agreements with Australia and China (Guangzhou University), but there are also many other nations with which it has set up international agreements culminating in double or joint degrees. It also appreciates the University's work to promote the number of international degree-seeking students, i.e. people with a foreign qualification who are not part of an international scheme but enrol at Padova with the intention of graduating there.

Although the percentage of international students taking a *Laurea*, single-cycle *Laurea Magistrale* and *Laurea Magistrale* at Padova is increasing, it still compares poorly with the universities within its group. The NdV hopes that the University will take decisive action to achieve its objectives.

The results for the University's "Visiting Scientist" and "Visiting Professor" schemes, however, have been a highly successful part of its internationalization policy. The former, which was launched in 2010, aimed to foster the short-term incoming mobility (1-3 months) of renowned foreign scholars. Since then, numbers have risen progressively, with the awarding of 66 positions in 2017. The latter was designed to increase the University's number of foreign lecturers and was again sponsored by the CARIPARO Foundation in 2017. The scheme funded 7 positions for renowned lecturers who were appointed to teach in a medium of instruction and 21 positions for academic cooperation in various departments.

The official websites for the University, its departments, schools and PhDs are vital for raising international visibility and attractiveness. All of these websites thus require a continually updated English-language version that mirrors the Italian site. At present, the English version of the University's "Degree Courses" page contains information that is often incomplete. Although significant improvements have been made, the current situation is still not entirely satisfactory. The NdV therefore invites the University to take decisive action to translate all of its official websites into equivalent English versions and to ensure that they are continually updated, a recommendation that applies to the teaching and research pages especially.

The NdV retains that the University of Padova has all of the assets required to make major improvements to its international standing. It must therefore set specific objectives in all of the key internationalization areas, as well as timeframes and indicators for monitoring the results. The University must also establish measures, assign personnel, and earmark organizational and financial resources.

MANAGEMENT OF ECONOMIC AND FINANCIAL RESOURCES

The general scenario that emerges from the NdV's analysis of the University's management results and budget is extremely positive. It expresses approval especially for the University's ability to attract income from a range of sources and to meet the requirements that determine ministerial funding, which is substantially stable despite cuts at national level. Its ability to attract a growing share of the "bonus award" from the Ordinary Financing Fund (FFO) (up 1.9% on 2016) compensates, albeit only partly, for the reduction in its traditional share of funding. Despite the University's excellent results in the VQR 2011-2014, the rise in

its bonus award is below the general increase in ministry resources earmarked for the award (up 7.2% on 2016). This means that Padova falls one position to stand fourth for receiving the FFO bonus award.

As recommended in the NdV's 2016 Report, the University should set up a reporting system that enables it to determine at set intervals how it is progressing in the three bonus domains (Teaching, Research and Recruitment) used to calculate the indicators for assigning the FFO. This system will enable the University to monitor its results over time and to introduce any corrective action in real-time, as MIUR criteria have now been more or less established. More thorough analysis of the FFO could focus on University performance in terms of indicators, as well as on the ministerial policies behind awards at national level. The NdV therefore invites the University to analyze these details.

The NdV also acknowledges the University's excellent indicator rankings for ratio of expenditure on personnel to operating income, debt level, and economic and financial sustainability, which contribute to establishing the "personnel points" that each university has for recruitment and career progression.

In a closer look at individual budget items, the FFO accounted for about 53% of total University income, unvaried on last year, whereas University-generated income accounted for about 24%. Student fees were responsible for the majority of this, reaching 77% of the total in 2016 (up 7%). Competitive research funds, however, plummeted to 17%, down a staggering 25% on 2015, and income from commissioned research and technology transfer accounted for 7%, also down slightly. The NdV therefore invites the University to further its commitment to increasing resources from competitive research funds and from commissioned research. For more on these points, see the chapters on "Research" and "Third Mission".

As regards drawing up the University budget, the NdV notes that over the financial year the University overcame most of the administrative, accounting and management issues arising from the introduction of a new financial and property accounting system that replaced its public financial accounting. As a result, it managed to close and approve its budget by the deadlines set for large universities. This achievement was by no means certain, as its 2015 budget was closed and approved at the end of 2016.

Nevertheless, the NdV reiterates its recommendation to ensure a greater link between objectives and resource allocation, which also involves meeting the demands by ANVUR stated in its observations about the Performance Plan 2017. The NdV also advises the University to continue adding value to its available resources by capitalizing investments in personnel in order to sweep aside the remaining obstacles to an efficient use of the single budget, including increasing investment in bespoke training at central and facility level. Overall, the NdV hails the considerable progress the University made in 2017 and invites it to continue along this path.

PROPERTY

This is the first year that the NdV's report has dealt with the University's property and it is convinced that the manner in which this patrimony is conserved, maintained and managed is of enormous importance for the University. The University's policy includes a systematic range of general property objectives, with them being geared towards expanding its patrimony to meet the needs of teaching, research and services, as well as ensuring regular maintenance and suitable safety standards. First and foremost, however, its objectives are designed to ensure sustainable development and economic and financial equilibrium. The University has placed enormous focus on its property, despite the fact that building-work is a lengthy affair subject to unpredictable breaks due to a host of reasons, including appeals to Italy's Regional Administrative Courts (TAR) and its Council of State. Italy's Ministry of Education has failed to provide any funding for university buildings for a number of years now, and this failure has become a major obstacle to development and maintenance, forcing Padova to seek the resources needed to finance its three-year building plans within tight budget restrictions.

The Rector's management report, which is enclosed with the Single Budget 2016, highlights some of the main building issues. One is that the resources needed to renovate existing property and erect new buildings have been made available, but only partly used. The same applies to the resources for routine and

extraordinary maintenance. The NdV invites the University to examine the reasons behind delays to building work and to introduce measures that will address them and prevent future ones. Now that the University has moved from financial accounting to a financial and property system, it must focus on ensuring financial coverage for multi-year building investment plans and annual work plans, with special regard to funding that is available but has not been used within the required times.

The NdV commends the University for the increasing transparency with which it approaches building work, a situation that started in 2011 and perfected since then. Its approach involves establishing a preliminary project that outlines work to be carried out on each building or group of buildings, with the University focusing on safety standards, user needs, and optimization of spaces and their use. Each project within the three-year plan is assigned its own code; the project also states the overall cost and estimated expenses over the three years. Projects started under previous plans also state amounts spent, and those taking more than three years provide a rough estimate for the coming years.

The NdV acknowledges that the University's approach complies fully with Italy's current legislation governing public works and that it promptly published on its website all the information identifying the property it owns and possesses, as well as the leasing fees and rents paid or received, thus fully observing its obligations.

The NdV, however, notes the lengthy period of uncertainty that characterized the procedure of setting up, opening and decommissioning the University's "Multifunctional Centres", which led to issues and delays concerning maintenance and safety. Only seven of the twelve centres were initially opened, but four were then decommissioned, leaving only three up and running; these three were originally the University's interdepartmental services centres (i.e. Agripolis, Psychology and A. Vallisneri). The NdV recommends that the new organizational and operational procedure, which has been introduced to resolve the ensuing management issues, be closely monitored to determine its efficiency and effectiveness.

The most onerous property commitment the University has made in its three-year plan is unquestionably the Piave Military Barracks. November 2017 witnessed the ceremony to mark the University's purchase of the majority of the barracks and its annexed buildings. There is one part still occupied by the army that will be purchased at a later date. The barracks are a major resource that will redesign and rationalize the University's presence within the city's Renaissance walls. The cost of the purchase and renovation, which are to be found in the annual and three-year investment plans, amounts to about €50 million.

The University has a number of major commitments to face in the coming years, including its new hospital, which will be divided between two sites. Unforeseen circumstances aside, the agreement signed by the Veneto Regional Government, Padova City Council and the University will lead to the opening of a new hospital at Padova Est and the renovation of the existing city-centre hospital in Via Giustiniani. The University stated from the outset that only the building of a new modern high-tech hospital would enable it to further its research, teaching, clinical and healthcare activities, and this agreement heads in that direction.

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