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**Α.ΔΙ.Π.**  
 ΑΡΧΗ ΔΙΑΣΦΑΛΙΣΗΣ ΚΑΙ ΠΙΣΤΟΠΟΙΗΣΗΣ  
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 ΣΤΗΝ ΑΝΩΤΑΤΗ ΕΚΠΑΙΔΕΥΣΗ

HELLENIC REPUBLIC  
**H.Q.A.**  
 HELLENIC QUALITY ASSURANCE AND  
 ACCREDITATION AGENCY

## EXTERNAL EVALUATION REPORT

DEPARTMENT OF FOOD TECHNOLOGY

SCHOOL OF AGRICULTURAL TECHNOLOGY

TECHNOLOGICAL EDUCATIONAL INSTITUTE OF THESSALY  
 BRANCH OF KARDITSA

June 2013



### External Evaluation Committee

The Committee responsible for the External Evaluation of the Department of Food Technology of the Technological Educational Institute of Thessaly, Branch of Karditsa consisted of the following four (4) expert evaluators drawn from the Registry constituted by the HQAA in accordance with Law 3374/2005 :

1. **Prof. Sophia Kathariou**, Department of Food, Bioprocessing and Nutrition Sciences, North Carolina State University, Raleigh, North Carolina, USA (Coordinator)
2. **Assistant Prof. Georgia Drakakaki**, Department of Plant Sciences, University of California, Davis, CA, USA
3. **Assistant Prof. George Manganaris**, Department of Agricultural Sciences, Biotechnology & Food Science, Cyprus University of Technology, Lemesos, Cyprus
4. **Dr. Serafim Bakalis**, School of Chemical Engineering, University of Birmingham, Birmingham, United Kingdom

*N.B. The structure of the “Template” proposed for the External Evaluation Report mirrors the requirements of Law 3374/2005 and corresponds overall to the structure of the Internal Evaluation Report submitted by the Department.*

*The length of text in each box is free. Questions included in each box are not exclusive nor should they always be answered separately; they are meant to provide a general outline of matters that should be addressed by the Committee when formulating its comments.*

## ***Introduction***

### I. The External Evaluation Procedure

- Dates and brief account of the site visit.
- Whom did the Committee meet?
- List of Reports, documents, other data examined by the Committee.
- Groups of teaching and administrative staff and students interviewed
- Facilities visited by the External Evaluation Committee.

### II. The Internal Evaluation Procedure

Please comment on:

- Appropriateness of sources and documentation used
- Quality and completeness of evidence reviewed and provided
- To what extent have the objectives of the internal evaluation process been met by the Department?

The External Evaluation Committee (hereafter the EEC) visited the Department of Food Technology (hereafter the Department) of the Technological Educational Institute (TEI) of Thessaly, located in Karditsa, from June 3<sup>rd</sup> to June 5<sup>th</sup> 2013. On the afternoon of June 3<sup>rd</sup>, the EEC met for about one hour with the Head of the Department, Dr. Manouras, and later in the evening (for about two hours) with the OMEA team (Dr. Manouras, Dr. Gortzi and Dr. Lalas).

On the following day, June 4<sup>th</sup>, the EEC met with the following: The entire group of the eight permanent faculty and the MODIP president, Dr. Ipsilantis. The group was joined by the TEI President, Dr. Goulas. All faculty introduced themselves and described their teaching and research programs. Furthermore, presentations on specific aspects of the Department were made by Dr. Manouras, M.Sc. Giovanoudis, M.Sc. Malissiova and Dr. Gortzi. The EEC also visited several laboratories, including an actual laboratory session. Then, the EEC met with the permanent faculty over a late lunch at the TEI's restaurant.

On June 5<sup>th</sup>, the EEC toured several additional laboratories and met with 11 of the 15 temporary faculty members (Εκτακτο Εκπαιδευτικό Προσωπικό), the single technical support staff (Ε.Τ.Π.) Mrs. Tsirogianni, the Department's administrative staff Mr. Tsatsos and about 60 undergraduate students. The EEC also met with six (6) representatives of the local economy including the mayor of the city of Karditsa, the chair of the Chamber of Commerce, and owners of four (4) local food companies dealing with development, manufacture and distribution of diverse products (e.g. salads, meat and cereal products, oils, honey and propolis). In addition, the EEC met individually with four junior faculty and the one technical support staff. The EEC toured the Library and the student housing unit and visited the Department of Wood

and Furniture Design & Technology Products and its Head, Dr. Mantanis. Lastly, the EEC presented a briefing of the key findings from the evaluation to all permanent faculty, followed by a discussion with the Department's faculty.

The EEC considered the meeting with Department faculty informative and productive. The EEC met with all eight permanent teaching faculty (EII) and 11 of the 15 nonpermanent teaching staff. Each meeting lasted approximately 60 minutes.

The EEC also had positive impressions from the meeting with the Department's Technical Support Staff (E.T.II.) (one person) and with the Administrative Secretary for the Department. Technical and administrative staff appeared satisfied with working conditions and with their interactions with faculty and students.

The students with whom the EEC met (approximately 60 individuals) ranged from first semester to students who had been in the Department for 6-7 semesters. The students were highly engaged and eager to offer their opinions and ideas to the EEC.

During the preparation of the external evaluation report, the EEC considered the self-evaluation report, which is extensive and well prepared, as well as the presentations, tours, interviews and discussions that occurred during the site visit. In addition, the EEC considered several documents (e.g. examples of Diploma Thesis [πτυχιακή εργασία]; class notes; summaries of research program participation; examples of documents related to administrative committee service; examples of the work of the Food Technology student club) provided by the Department. Requested documents were made readily available by the Department.

*The site visit took place in an atmosphere of professionalism and collegiality. The EEC is unanimous in thanking the OMEA members and all the staff, faculty and students of the Department for their hospitality and assistance in all aspects of the evaluation site visit.*

The Department is new, having been established in 2004 and having started its operation only in 2005. At this time, 169 students have already graduated, with 40 new graduates expected shortly. The Department's efficacy and value will be ultimately measured by future assessments of the quality of graduates, their ability for professional development and careers in relevant fields, and their contributions to the regional and national economy. The Self-Evaluation Report was well written and followed the format provided by HQAA. It contained most of the information needed by the EEC for the evaluation. As noted earlier, the EEC requested additional

information which the Department readily provided.

### ***A. Curriculum***

*To be filled separately for each undergraduate, graduate and doctoral programme.*

#### **APPROACH**

- What are the goals and objectives of the Curriculum? What is the plan for achieving them?
- How were the objectives decided? Which factors were taken into account? Were they set against appropriate standards? Did the unit consult other stakeholders?
- Is the curriculum consistent with the objectives of the Curriculum and the requirements of the society?
- How was the curriculum decided? Were all constituents of the Department, including students and other stakeholders, consulted?
- Has the unit set a procedure for the revision of the curriculum?

The goals and objectives of the Curriculum are to equip students with education and training in the area of Food Technology so that upon graduation they are qualified for employment in, and contributions to, relevant sectors of the economy, especially the food industry. The Curriculum also aims to equip students with knowledge and skills that would qualify them for post-graduate education, if they so desire.

The plan for achieving these goals and objectives is based on a series of 39 courses taught over 7 semesters, including theory and laboratory sessions. The plan also includes six calendar months of an internship (πρακτική άσκηση) and a thesis (πτυχιακή διατριβή), for which students undertake a research topic, sometimes jointly by two students. The curriculum consists of 35 required courses and four electives (out of 8 electives available); all electives concern technological aspects of food products. Each semester consists of 9-12 hours of laboratory work and 12-18 hours of theory.

The curriculum appears to have been designed so as to be in general agreement with other Food Technology programs in Greece. Decisions on curriculum composition and implementation are made by the faculty of the Department. The EEC did not identify procedures in the Department that would facilitate consultation with students on issues related to curriculum.

The EEC considers the curriculum consistent with the stated objectives and goals of

the Department and in general compliance with current trends in Food Science and Technology. However, the EEC also saw the need to revise the curriculum due to the restrictions for hiring temporary personnel, and in order to conserve resources and respond to new trends and developments in Food Technology. Some courses can be merged to prevent redundancies in the curriculum, and others can be streamlined and condensed.

In revising the curriculum, the Department needs to take into account current standards in Food Technology departments in other academic institutions in Greece and elsewhere in Europe. The Department should also identify needs and opportunities of special regional relevance and consult with stakeholders (e.g. representatives of the Food Industry) to enhance the relevance of the curriculum to regional and national needs. The EEC was informed that a three-member committee consisting of the Department Head (Dr. Manouras) and two faculty (Dr. Lalas and Dr. Tsiotsias) has been established for the revision of the curriculum. Curriculum assessments and revisions will need to be incorporated in the Department's Strategic plan.

### **Specific recommendations**

**Recommendation A1:** Certain parts of the curriculum should be restructured. Some suggestions are the following:

- (a) The numbering in courses (I, II, III) should be substituted by a better definition of each course.
- (b) ECTS should be whole numbers (without decimals).
- (c) Some courses may be eliminated or merged with others, with the aim to avoid overlap. This is particularly important to Chemistry-related courses.
- (d) The outline of laboratory courses should be more thoroughly described.
- (e) Where possible, the number of teaching hours may be reduced by condensing and streamlining course content. The regular split of 3-hours theory and 3-hours laboratory per course should be reconsidered.

**Recommendation A2:** Certain new courses can be added to the curriculum while others can be strengthened (e.g. Seminar, Trends in Food Science & Technology, Food Engineering). The EEC encourages the faculty to team-teach some of these courses, including Department faculty members with diverse areas of expertise. Core courses, particularly those in the first semesters, can be team-taught. Introduction to Food Science & Technology is one course for which participation of multiple faculty would be especially beneficial.

**Recommendation A3:** Details about each course should be provided in the Department's website (aims and scopes of the course, course outline/syllabus). Such details should be also given in English with the aim to attract potential students from

abroad through mobility grants (e.g. Erasmus).

**Recommendation A4:** The Department must consider European, national, and regional scientific and economic trends and make appropriate revisions to its curriculum to enhance its relevance, its ability to provide marketable skills and knowledge, and its ability to attract high quality students. The Department should commit itself to reevaluating its Curriculum on a regular basis and should include curriculum assessments and revisions in its Strategic Plan. The EEC recommends that the Department conducts an evaluation and analysis of market needs before revising the curriculum, possibly in conjunction with its Strategic Plan. This should provide information on the skills that the market (both public and private sectors) requires of graduating students and will make the students more employable and competitive.

**Recommendation A5:** The creation of post-graduate programs in conjunction with other TEIs and universities should be considered as the curriculum is assessed and revised, and should be incorporated in the Department's Strategic Plan.

## ***B. Teaching***

### **APPROACH:**

Does the Department have a defined pedagogic policy with regard to teaching approach and methodology?

Please comment on :

- Teaching methods used
- Teaching staff/ student ratio
- Teacher/student collaboration
- Adequacy of means and resources
- Use of information technologies
- Examination system

The Department appears to have a defined pedagogic policy with regard to teaching approach and methodology. The underlying principles noted by the EEC were those of professionalism and strife for excellence in course development and delivery, faculty accessibility to students and transparency in course evaluations.

### *Teaching Methods Used*

The curriculum consists of groups of courses covered by lectures (θεωρία) and laboratory (εργαστήριο). Teaching methods include lectures using PowerPoint presentations, laboratory exercises, opportunities to engage in laboratory research,

and fieldtrips for selected classes. Most of the courses use electronic platforms (e-classroom) to distribute class-related materials. Alternative formats that may include participatory components (e.g. presentations by students, group discussions, participation of guest lecturers from industry) would further enhance the educational experience.

#### *Teaching staff / student ratio*

The Department has 702 active students and 8 permanent faculty, a ratio of 88:1. The contribution of the temporary faculty is substantial, however the student-to-staff ratio still remains quite high. Due to the financial crisis the number of temporary faculty is projected to be drastically decreased thus negatively impacting the student to staff ratio. This will present a significant challenge for the Department during the next few years.

#### *Teacher / Student Collaboration*

The EEC was impressed with the atmosphere of trust and comfort that appeared to exist between faculty and students. The students respected the Department's faculty for their knowledge and expertise (even though several students articulated complaints about teaching and grading methods by faculty from outside the Department who taught certain core classes, e.g. Mathematics). Students appeared to enjoy the labs and the theoretical parts of the courses were generally well-attended, even though attendance was not mandatory. The Department is to be especially commended in this regard; in the experience of the EEC with related departments in other TEIs, poor attendance was one of the major issues. Students were especially satisfied with the accessibility, attention and time dedicated to their needs by the Department's temporary as well as permanent faculty.

Even though relationships and interactions between students and academic staff appeared to be excellent, the EEC noted the need for an officially designated academic support for students (guidance/mentoring). The introductory day for the first-year students is a good starting point that has been initiated by the Department. The support provided by faculty to students should be formalised and academic advisors should be assigned to all students. Such advisory roles should be spread out among the faculty.

#### *Adequacy of Means And Resources*

The Department had few faculty from its inception and the number of permanent faculty remains small. Only a portion of the Curriculum's teaching load is taught by the Department's permanent faculty and faculty members from other departments. A significant part of the teaching is undertaken by temporary teaching faculty. The imminent massive reductions in temporary faculty place the Department's teaching

mission at risk.

Classrooms were clean, well maintained and overall in good condition, although several reminded more of a school of secondary education than a Technological Educational Institute (TEI). Through collaboration with other departments, well-attended core courses are supported in big amphitheatres elsewhere within the Campus. Laboratory facilities varied markedly: two laboratories appeared well maintained and equipped with state of the art equipment, while others were largely empty and barely had basic equipment for lab instruction. The latter labs also appeared to suffer from a severe lack of reagents and supplies for lab exercises.

In their interviews during the EEC site visit, students indicated that teaching materials used were adequate and appropriate. An issue raised by many students was that they did not have the possibility for hands-on experience with equipment during lab sessions and were frequently only given demonstrations. This limited their acquisition of practical skills. Therefore, faculty should identify efficient and economic ways to undertake experiments that cover key aspects of Food Science and Technology.

The EEC considers the lack of a working pilot plant a major weakness of the Department. A working pilot plant would enhance the ability of students to acquire necessary skills and to be prepared to handle practical problems often encountered in the industry.

In conjunction with certain courses, faculty occasionally organize visits to local industries as well as 2-3 day visits to more distant sites. The EEC strongly encourages the faculty to continue these efforts and whenever possible to further enhance them. It is particularly important that the Department allocates sufficient space and resources for pilot scale demonstrations of food processing, product development and food preservation procedures that are especially relevant in the food industry.

Overall, the number of students is high considering the available facilities and the small number of permanent faculty and staff. Some laboratories are adequately equipped for teaching their subject matter, and a few are equipped well enough to allow performance of research at international standards. However, other laboratories are poorly equipped and there should be in a priority list in a future funding for equipment in the Department.

As a result of recent national financial difficulties laboratories are faced with significant challenges in getting the necessary consumables. On the other hand, some

of the equipment appeared to be under-utilized. Synergies were explored between some groups but a larger spectrum of collaborative activities to explore the capacity and infrastructure of the Department is highly recommended.

#### *Use of Information Technologies*

Faculty use e-class as means of communication with the students. According to student interviews lecture material is frequently made available prior to the lectures (which clearly the students preferred) and in some cases in the beginning of the term. Distributing material prior to the lectures is strongly encouraged. Common use computers are available to the students in a computer room and in the library.

#### *Examination System*

Instructors can implement measures that can encourage and reward attendance (e.g. mid-term exams, bonus points for participation in group discussions and presentations). Students were satisfied with the laboratory sections; however, laboratories were more often in the form of demonstrations than hands-on exercises.

#### *Mobility of Academic Staff and Students*

Overall, there was moderate mobility of faculty, while students do not appear to take full advantage of opportunities such as Erasmus. Faculty and students recognise the opportunities and some efforts have been taken to increase mobility. The EEC strongly encourages such initiatives for student and faculty mobility.

#### *Evaluation by the Students of (a) the Teaching and (b) the Course Content and Study Material/Resources*

The results of student course evaluations were promptly posted, being freely available to all students and faculty. The EEC was impressed by the transparency of the process. Student evaluations were positive and reflected the overall positive student attitude in the Department.

#### **Specific recommendations**

**Recommendation B1:** Laboratories need equipment and reagents adequate for the effective and safe operation of the laboratory exercises. The management for the Institute must make funds available to the Department for procurement of the required laboratory equipment and supplies. This is especially critical for a relatively new Department, in operation only since 2005.

**Recommendation B2:** Further incorporate students in the classroom, especially in laboratory courses where greater hands-on student involvement is needed.

**Recommendation B3:** Further explore potential synergies between laboratories to

deliver high quality training and maximise the use of under-utilised equipment

**Recommendation B4:** Create and maintain a structure that will inform and encourage students and faculty (both full time and temporary faculty) to take advantage of opportunities offered by European mobility programs.

**Recommendation B5:** Update the Department's website to include current information about syllabus, grading scheme and class expectations for all courses.

**Recommendation B6:** Organize more frequent visits to regional food and beverage industries as part of certain courses, and encourage guest lectures and presentations by industry representatives. This is especially needed given the lack of a working pilot plant and the primarily demonstration-based nature of lab exercises.

### **C. Research**

*For each particular matter, please distinguish between under- and post-graduate level, if necessary.*

#### APPROACH

- What is the Department's policy and main objective in research?
- Has the Department set internal standards for assessing research?

Teaching has been the focus of the TEI's mission since it was founded and is clearly still the focus. However it is currently expected that faculty must also have a research program which results in grants, refereed publications and conference presentations. This is reflected in the research program of the Department.

The self-stated mission of the Department is to conduct applied research that is important to regional and national stakeholders. The Department has developed research programs on nanotechnology, food chemistry and food microbiology, product development, quality assurance, food engineering and sensory analysis. Some of these programs have yielded promising results and have contributed to patent applications. The Department also has the capacity for development of new flavors in regional wine and spirit products that have received substantial attention.

The TEI's strategic location in an agricultural hub provides a great opportunity to explore direct links with local agriculture. Several discussions are taking place to find venues for industry to further support applied research in the Department.

Research facilities and equipment range from routine lab equipment to real time PCR and equipment for gas chromatography mass spectrometry (GC-MS), a laminar flow safety cabinet, a freeze dryer and a spray dryer. The Department also has a state of the art sensory lab that can be used for educational, research and product development practices. However, several laboratories have only minimal equipment; these would benefit from a stronger research infrastructure. Considering

the lack of resources, the Department should continue to promote a collaborative culture for access to equipment. In order to maintain the equipment in good working condition a formalized procedure for accessing equipment is recommended; this can include training in the proper use of the equipment and a plan for sharing expenses, for repair or maintenance.

The Department has developed joint research activities both at the local and the national level, including the School of Agriculture of Aristotelian University of Thessaloniki, the TEI Athens, the University of Ioannina and the University of Thessaly. The Department is also working with local and regional industry on research activities important to these stakeholders.

Within the Erasmus projects, several students and faculty have visited universities abroad establishing collaborations and gaining research experience within this framework, although this effort could be significantly enhanced. Since the Department does not have a post-graduate program, the research activities are heavily dependent on attracting graduate students from other research institutions to conduct their research with the Department's faculty. So far the department is collaborating with Universities in Greece and the Department's faculty co-supervise MSc and PhD projects. It is noteworthy that already one graduate student is pursuing his PhD thesis research in this Department. Post-graduate research would provide an immediate boost to the research productivity of the Department.

The Department has not yet established research priorities on which most of the faculty members could collaborate. Instead, research goals are established by individual faculty members or through small research team collaboration as is obvious from peer-reviewed publications.

#### *Research Productivity*

Measuring and documenting research productivity is always a difficult task. Some of the means typically used are research grants, publications in peer-reviewed journals and impact on stakeholders. The EEC has used these three parameters to assess the research productivity of the Department's current permanent and temporary faculty. Our assessment is based on review of CVs and other data provided in the Self-Evaluation Report.

Table 1 summarizes data on publications as aggregated from CVs provided in the Self -Evaluation Report. Recognizing the financial constraints under which the Department operates, we find that the Department's faculty generally compare well to faculty from peer teaching-intensive institutions in Greece, elsewhere in Europe and the USA.

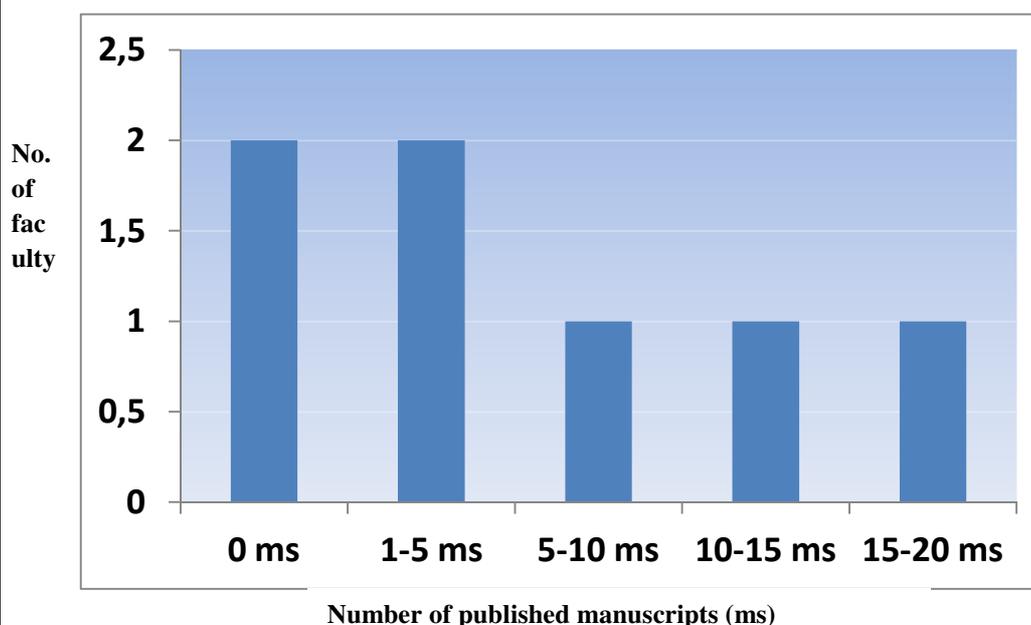
**Table 1. Published papers in peer reviewed journals by faculty during the evaluation period (2007-2011)**

<i>Rank</i>	<i>Number of publications</i>	<i>Publications per person per year</i>
<i>Professor (0)</i>	-	-
<i>Associate Professor (2)</i>	14	1.4
<i>Assistant Professor (2)</i>	19	1.9
<i>Lecturer (4)</i>	5	0.25
<i>Non-Permanent (34)</i>	28	0.165
<i>Total (42)</i>	66	0.314

Publication numbers during the evaluation period (2009-2011) varied significantly among permanent faculty of the Department. Some published extensively while others have poor publication records and two permanent faculty lacked publications (Figure 1). Under the current academic structure, there are no repercussions for not publishing. Lack of publications appears to only affect faculty members who are candidates for promotion, as research productivity is a criterion for advancement.

In total, the permanent faculty published 38 refereed articles in international journals during the evaluation period (Table 1), which corresponds to a ratio of approx. 0.95 peer-reviewed publications per faculty member per year. This rate is similar to that of other Food Technology departments at TEIs in Greece and at peer institutions of higher education abroad. Publications were in relevant journals.

**Figure 1 - Histogram of the distribution of peer-reviewed publications of permanent faculty during the evaluation period (2007-2011)**



Taking in consideration that the Department was relatively recently established,

assessments in terms of publications may be premature. Several laboratories are still in the process of being equipped and lack the facilities to perform the expected research. Nonetheless, certain faculty members have extensive research activities that contribute significantly to the local and regional economy. During the evaluation period, permanent faculty members of the Department secured approximately 4000,000 € in extramural funding. Department faculty members are principal investigators in many of these projects, which is an important accomplishment. The EEC noted that there is great momentum for enhancing research activities and it is expected that this will increase the publication record within the next few years. This can provide an opportunity to increase the Department's visibility as well as increase the number of undergraduate and post-graduate students supported by those funds.

Overall, the EEC was impressed by the outreach efforts of the Department. The newsletter published by the student outreach team was impressive and provided a snapshot of accomplishments and opportunities at the Department. Industry members, being informed through the outreach team, are offering student internship opportunities. Another notable example included an industry member auditing a course relevant to his area of interest. There are also numerous liaisons between the Department and the local High School, facilitated by the Department's close proximity to the High School (within the same building). Maintaining and enhancing such outreach activities will increase the Department's profile and its ability to attract high quality students in the future.

Last, but not least, the EEC strongly recommends that the Department forms an advisory committee that will actively cultivate relationships with the major stakeholders in the public and private sector in order to create a database of potential applied projects that can benefit both these stakeholders and the Department. This Department is in an advantageous position since it is located in one of the most productive agricultural regions of the country.

### **Specific recommendations**

**Recommendation C1:** The Department should establish a mentoring system to help the professional development of junior faculty. This should include collegial support of junior faculty to establish their research program in the form of resources or advice in grant writing in order to obtain extramural funding. This is particularly important under current funding trends, when collaborative research projects have higher chances of being funded.

**Recommendation C2:** The EEC encourages well equipped research groups to continue to collaborate with others in the Department to maximize the use of

resources and help the Department cope with the lack of equipment observed in some of the labs.

**Recommendation C3:** The development of a post-graduate program is considered useful especially when viewed in connection to a Research/Teaching Assistant model. Such a program could be developed in collaboration with other TEI departments thus taking advantage of the expertise of each department and using resources more effectively.

**Recommendation C4:** The EEC urges faculty to further improve the visibility of their work, especially applied research and relatively small projects undertaken for local industry. The internet, local and national newspapers, local radio programs, open day activities and informative seminars are valid venues.

**Recommendation C5:** All permanent faculty members should be encouraged to participate and present their work at international meetings and to publish their research findings in peer-reviewed publications.

**Recommendation C6:** Further align the Department's research with the strategic needs of Greek Agriculture, particularly those of the surrounding region. Initiatives could include development of novel ingredients and products for niche markets.

**Recommendation C7:** The Department should establish an Excellence in Research Award to be given every 2 years in recognition of faculty research accomplished within that time period.

**Recommendation C8:** The Department should establish a means of assessing productivity of awarded projects reflected by publications and outreach. For instance, a "Science Day" can be established when all research groups present their projects.

**Recommendation C9:** Develop an advisory group consisting of Department representatives, industry stakeholders and local authorities to enhance the Department's potential to address local and regional problems.

**Recommendation C10:** The EEC recommends that the Department enhances the use of paid student workers or students conducting their internship to support its research activities. This has major advantages for both students and faculty: students gain significant research experience and receive some financial support while faculty obtain research support at relatively low cost. This approach is used successfully at universities around the world and by some TEIs in Greece.

**Recommendation C11:** The Department should encourage enhanced student and faculty mobility which is currently quite low. The Department should take more advantage of programs such as Erasmus and partnerships with other universities.

### **D. All Other Services**

*For each particular matter, please distinguish between under- and post-graduate level, if necessary.*

#### APPROACH

- How does the Department view the various services provided to the members of the academic community (teaching staff, students).
- Does the Department have a policy to simplify administrative procedures? Are most procedures processed electronically?
- Does the Department have a policy to increase student presence on Campus?

Services to Department faculty, staff, and students are of high quality. The Department's secretary appeared organized and conscientious. Internet access for faculty and staff is excellent, but because there is no wireless internet on the campus, students are limited to the library or computer labs for internet access. Library, two student residence halls adjacent to the library and cafeteria appeared good. Food costs are subsidized by the TEI and meals are available to students at no cost. The Department is moving toward simplifying administrative procedures by processing many procedural items electronically. For example, all final grades are posted electronically and can be viewed by students electronically. In addition, for each class the data from class evaluations are open-access to all students and faculty.

The EEC had a productive discussion with the technical support staff (E.T.Π.; one individual). This staff member appeared to be well educated and provides critical support for the teaching and research missions of the Department.

Areas under the umbrella of "Other Services" with room for improvement include:

1. Student advising and orientation. Students are not allocated a "faculty advisor", a service which the EEC strongly feels should be introduced.
2. Student access to information about job openings for possible employment upon graduation. TEI Karditsa Placement / Professional Development Office (Γραφείο Διασύνδεσης) is a useful venue to provide such services. This is an area of critical need especially under today's economic conditions.
3. Mobility programs such as Erasmus. These are available, and bilateral agreements are in place, but mobility initiatives need to be enhanced, both for students and for faculty.

### **Specific recommendations**

**Recommendation D1:** Assign a faculty advisor to each student upon their arrival at the Department. Advising duties should be evenly distributed among permanent faculty.

**Recommendation D2:** Enhance assistance and services offered through the TEI Karditsa Placement / Professional Development Office (Γραφείο Διασύνδεσης) to students and alumni regarding professional development, positions and networking.

**Recommendation D3:** The Department should institute a regular program for reward of excellence to its students. This can be sponsored by local food companies, thus further strengthening the partnerships between the Department and the Industry.

**Recommendation D4:** Student evaluation results for all courses should be made available to all instructors (both permanent and temporary faculty) soon after the course is completed.

**Recommendation D5:** The Department should promote mobility for students and faculty, e.g. through Erasmus and similar programs. It would be helpful for the Department to implement a periodic orientation program to familiarize students with such mobility programs.

**Recommendation D6:** Every possible effort should be made to provide financial support to postgraduate (MSc), pre-doctoral or post-doctoral scholars, using funding from research programs or scholarships. To enhance their academic training and reduce isolation, these scholars should be encouraged (and financially supported) to present their work at national or international conferences.

**Recommendation D7:** The Department should make every possible effort to simplify the administrative process and reduce paperwork burden for contract renewals of the temporary faculty.

### **Collaboration with social, cultural and production organizations**

The Department has developed a number of successful initiatives with local and regional industry and other stakeholders. However, there is need for improvement. For instance, workshops on specialized applied topics can be offered (free or for a nominal fee) to farmers and food companies. Seminars open to the public can be given on a regular basis (e.g. once each semester) to present faculty research programs that are of special relevance and interest to the community.

**Recommendation D8:** Faculty and students should organize periodic “Science Day” events or workshops with focus on specific Food Technology areas. Events should be geared towards issues of special regional relevance.

**Recommendation D9:** The Department should take advantage of its unique location

(including vicinity to Meteora) to organise an international conference/symposium in a Food Technology area. This would enhance its visibility regionally, nationally and internationally.

### ***E. Strategic Planning, Perspectives for Improvement and Dealing with Potential Inhibiting Factors***

*For each particular matter, please distinguish between under- and post-graduate level, if necessary.*

Please, comment on the Department's:

- Potential inhibiting factors at State, Institutional and Departmental level, and proposals on ways to overcome them.
- Short-, medium- and long-term goals.
- Plan and actions for improvement by the Department/Academic Unit
- Long-term actions proposed by the Department.

### ***Strategic Planning, Perspectives for Improvement and Dealing with Potential Inhibiting Factors***

The Department currently lacks a comprehensive Strategic Plan with clearly stated mission, vision, long and short term objectives. The EEC encourages the Department to take incremental steps towards the development of a Strategic plan.

#### **Specific recommendations**

**Recommendation E1:** The Department should decrease the number of courses and/or duration of specific laboratory courses offered and eliminate redundancies.

**Recommendation E2:** The Department should consider offering a 3-year B.S. degree compliant with the Bologna process.

**Recommendation E3:** The Department should offer a post-graduate degree, provided that necessary support will be given by the State.

**Recommendation E4:** The Department should encourage the shared use of lab facilities and equipment among its faculty. Synergies among Faculty should be improved.

**Recommendation E5:** Internal evaluations of all faculty members should take place every 3 years. Evaluations should include funded research programs, publications and outreach, teaching load and quality, service activities and administrative tasks.

**Recommendation E6:** Establish incentives to increase the mobility of faculty (e.g. sabbaticals) and students through mobility grants.

**Recommendation E7:** As a long-term plan, the Department should offer a post-graduate degree relevant jointly with the Department of Nutrition and/or the School of Veterinary Science. A short-term aim should be the establishment of more synergies with the School of Veterinary Science, located on the same campus.

**Recommendation E8:** The faculty are encouraged to strengthen and expand outreach efforts through additional regular workshops that familiarize local industry and other stakeholders on the training and research programs and expertise of the Department and that maintain a regular give-and-take between the Department and the local economy.

**Recommendation E9:** Faculty members should be involved with multinational research teams and position themselves to pursue European funding opportunities. Significant growth of extramurally-funded research will require long-term strategic planning.

**Recommendation E10:** The Department should improve its visibility through the organisation of scientific conferences, seminars or workshops.

**Recommendation E11:** The Department should develop an Advisory Council consisting of stakeholders, the Department Head, and the Head of the School of Agricultural Technology. Stakeholder members should include commodity groups and community leaders. The Advisory Council will serve the dual purpose of providing the Department with feedback on what issues are relevant to the stakeholders while also increasing the visibility of the Department among its stakeholders.

## ***F. Final Conclusions and recommendations of the EEC***

*For each particular matter, please distinguish between under- and post-graduate level, if necessary.*

Conclusions and recommendations of the EEC on:

- the development of the Department to this date and its present situation, including explicit comments on good practices and weaknesses identified through the External Evaluation process and recommendations for improvement
- the Department's readiness and capability to change/improve
- the Department's quality assurance.

**The most important conclusions reached by the EEC are assembled here.**

**Recommendation F1:** The Department is encouraged to take advantage of the presence of the sister Department (Nutrition and Dietetics) towards a combined training and research program based on synergism and resource sharing. This issue is particularly important since the newly established Department of Nutrition and Dietetics is lacking permanent staff.

**Recommendation F2:** The Department is encouraged to explore and develop synergistic activities with the Veterinary School, especially in the area of Food Safety and Nutrition.

**Recommendation F3:** The Department is encouraged to strengthen collaborations with other TEIs and universities.

**Recommendation F4:** The Department is encouraged to promote further mobility for its students and faculty (sabbaticals, visiting scientist program, Erasmus etc).

**Recommendation F5:** The Department is encouraged to develop specific initiatives to promote the professional development of junior faculty through mentorship, relatively reduced administrative load, and other support systems.

**Recommendation F6:** The Department is encouraged to do everything possible to streamline procedures associated with faculty recruitment and promotion.

**Recommendation F7:** The Department is encouraged to maintain and further strengthen a culture of collaboration and mutual support among faculty that would best utilize and build upon the faculty's diverse talents, interests and expertise.

The Members of the Committee

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