Tuning Tools and Insights for Modern Competence-Based Third-Cycle Programs

Ann Katherine Isaacs

1 Introduction

The organization and delivery of quality doctoral studies is one of the major challenges facing European universities (as well as those in other parts of the world) today. PhDs are often considered to be a key unit of measure of the quality, the importance and the prestige of universities on a world scale. The percentage of PhDs in the academic staff, the number of doctoral degrees awarded, the number of doctoral students enrolled are often taken as objective measures of prestige, quality, and the ability to carry our high level research.

Strangely, doctoral degrees are taken as a common currency, much more so than Bachelor or Masters degrees have ever been, on what appears to be the unspoken assumption that they are basically equivalent, and that their value differs according to the ranking of the university that awards them.

In reality, the activities leading to the award of a PhD and the competences that those holding a doctoral degree can reasonably be expected to possess, are still quite different not only in different countries, but even in different institutions in the same country, including those belonging to the EHEA.

The need for greater transparency and a common approach to the third cycle was felt only after the initial phases of the Bologna Process. Indeed, although the 'third' or 'doctoral' cycle was not considered in the Sorbonne Declaration, nor in the first Bologna agreements, by the Berlin conference (2003) it had come to constitute the final sequential step in the overarching structure agreed upon for the formation of European citizens. As a result, countries in the EHEA have been called upon to change their approach to doctoral studies in a variety of directions. For example, those for whom the doctoral title constituted, if not the crowning point of a career, at least a mark of achievement of a mature scholar, have had to shorten their

A.K. Isaacs (✉)
University of Pisa, Pisa, Italy
e-mail: k.isaacs@unipi.it

programs and simplify their degree structure, but nevertheless ensure the high level of formation necessary for research. Other countries have had to create new phases in their previous degree structure, creating the three cycles where they previously did not have them.

Very useful and important descriptors of the three cycles were published and began to guide the modernization of higher education in the early and central part of the 2000s. The Joint Quality Initiative, and the QF for the EHEA, made it clear that the doctoral cycle was closely related to the other two, as 'higher' in level, but not diverse in its nature: the third cycle could be defined in a general way as the crowning step of a single progressive path. The descriptors elaborated for the third cycle expressed, with respect to many of the existing systems, quite a revolutionary vision of the objectives of the doctoral cycle. Whereas doctoral studies had previously emphasized the formation of very specialized research abilities, the 'Bologna' doctorate underlined that, as the most highly educated members of society, those holding a third cycle degree also needed to be able to explain their research to other sectors of society, and to interact effectively with experts—including PhDs—from other disciplinary backgrounds. In other words, they needed new competences and important transversal skills of varied kinds.

It seemed clear that traditional models of third cycle study, in which the objective was the reproduction and hopefully the continuation and development of the often very specialized personal research interests of a single supervisor, were not adequate to the needs of present-day society. A 'learning society', such as Europe is or needs to become, requires highly educated people who also have broad understanding of several scientific domains, and who are creative and able to take the initiative in various contexts. The Dublin Descriptors and the QF for the EHEA made this clear; but how could this vision become reality?

The Tuning projects, now collectively described as the Tuning Process,[1] elaborated a very successful methodology and a number of important tools for increasing the quality and relevance of higher education. Many of these tools are designed specifically to assist in the planning, development and delivery of doctoral programs. Our purpose in this text is to present them and to discuss them.

2 Modern Third Cycle Studies and Tuning

The traditional model of doctoral studies was largely based on an academic version of the master-apprentice relationship. In many countries, a single supervisor accepted the doctoral candidate, and guided him or her through the research which would eventually be crowned by a publishable dissertation, a public defence and the

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[1]The Tuning Academy publishes, on paper and on-line, the peer-reviewed *Tuning Journal of Higher Education* where further material on Tuning and related matters may be found: http://www.tuningjournal.org/.

award of the degree. This kind of relationship could be very fruitful; often it was not, and many realized that change was needed.

In the last ten or so years, however, many institutions have made significant structural changes in the organization of their doctoral programs. Particularly, in response to funding and organizational pressure, as well as to the new criteria that appeared because of the Bologna Process, there was a widespread movement towards 'doctoral schools'. What exactly was entailed in the 'schools' was not always clear: in theory, the school was to permit the grouping of formerly separate doctoral 'programs' in order to facilitate the formation of inter- and multi-disciplinary competences, as well as providing better support in terms of logistics and counselling. As to the substance of the training offered, the new doctoral 'schools' may not always have been able to meet the objectives posed by the new orientations and they may still not respond to present needs. The work completed in the Tuning Process has produced tools which can be of help in organizing a 'learning/research' environment conducive to the high level of achievement and the formation of the variety of competences expected today for those holding a third cycle degree.

3   The Tuning Process

The first Tuning project (TUNING Educational Structures in Europe) was born in parallel with the Bologna Process. Its initial inspiration came from the eleven years of collaboration of the key partners and the Tuning Joint Co-coordinators in the ECTS Pilot project, which began in 1989. The Co-coordinators were Julia Gonzalez Ferreras of the University of Deusto and Robert Wagenaar of the University of Groningen, active respectively as member and as central coordinator of the ECTS History Subject Area Group.

The Sorbonne Declaration, and after it, the Bologna Declaration, responded to the realization built over the previous decade that higher education programs were so different in the various countries of Europe that transparency and compatibility would not be possible goals without structural legal and normative change. Working in parallel with the Bologna Process, the first Tuning project was instead a product of the universities' realization that laws might be elaborated, approved and imposed, but without grass-roots knowledge of how to organize the learning experience in a better way, the powerful push towards greater cooperation in European HE would not give the expected fruits.

Tuning was (and is) based on the idea that the paradigm shift from input-based to out-based systems of higher education can only take place beneficially if the practitioners and stakeholders (students, academics and employers in the first place), are involved in elaborating learning strategies and outputs. Tuning also considers that the 'Subject Area' (corresponding to a disciplinary or thematic area in the academic map, and often to single Degree Programs) is the most useful dimension for understanding how degree programs can best be designed,

redesigned and delivered in order to achieve the highest possible degree of quality and relevance. In recent years, Tuning has also addressed the 'sectoral' dimension, creating useful tools for achieving quality in Learning, Teaching, and Assessment in broad domains such as Social Sciences or Humanities.

Tuning owes its success to the fact that it provides a carefully structured platform for expert and committed individuals, working together, to prepare tools for the planning, organization and delivery of quality programs, learner-centred and competence based. Tuning has created a number of important tools for the third cycle, as well as for the previous two. It has shown how to ensure that programs (including third cycle programs) are needed and how to design them in such a way that those receiving the doctoral degree in effect will possess competences of a level that corresponds to their future social and professional role and responsibilities.

The development of the Tuning methodology and of Tuning tools has been possible thanks to a series of large-scale projects, supported morally and financially by the European Commission, and coordinated by the Universities of Deusto and of Groningen. These have required the committed participation of hundreds of universities and several thousand academics, who have both worked together and consulted tens of thousands of students, graduates, employers and other key stakeholders around the world. Today Tuning has been carried out or is being carried out in Europe, Latin America, the United States, Canada, the Russian Federation, Georgia, Africa, Central Asia, China, Japan, India, North Africa and the Eastern Mediterranean. In these areas too, the central idea of Tuning had been that, alongside the normative changes needed to improve comparability, compatibility and transparency between HE systems, the hands-on knowledge of those who actually teach and learn in universities is essential. Although the Tuning project began in Europe, as a University-driven complement to the Bologna process, it has since been taken up with determination and enthusiasm by countries and continents in most of the other macro-regions of the world.[2]

4   Tuning Methodology

Here we present briefly the Tuning findings and tools, especially insofar as they are applicable to the doctoral cycle. Because not everyone may be acquainted with how the Tuning methodology has developed, we will begin by giving a brief explanation of its five "lines". Subsequently, we will investigate how the Tuning results and tools facilitate designing and delivering useful and relevant doctoral programs.

In order to coordinate and make productive the work of large numbers of people, Tuning began with a seemingly simple series of steps, each of which had to be

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[2]For general information on the Tuning Process, in all its stages, see the Tuning Europe website, which contains links to publications and to Tuning projects in all other countries and continents www.unideusto.org/tuningeu.

taken in order to go on to the next one. The first so-called 'line' comprised the 'generic competences'. In some ways, at the beginning of Tuning in Europe, this was the most difficult for academics to palate, and only slowly did they come to realize its full potential. Academics were convinced that their job was to 'transfer knowledge', and they understood this to mean transferring knowledge of the subject matter peculiar to their field to new generations of students: obviously an essential part of their job, but, as Tuning began to make evident, not the only one. According to Tuning, 'generic' competences are as important as those specific to the subject area, and it is essential to provide for ways of forming or enhancing them through well designed study programs and learning/teaching strategies.

In Tuning, one of the most important key words is 'competence'. The concept of 'competence' is both central and pervasive. The definition of competence is very broad, insofar as it includes everything that the learner knows, understands and is able to do, as well as such intangibles as mind-set. Competences belong to the learner, and they are formed or enhanced during the learning process. Tuning recognizes of course that there are many other possible definitions of 'competence', but for clarity it uses the very broad definition given above.

What Tuning calls 'generic competences' are the competences useful in all disciplinary areas to a greater or lesser degree, often called 'transversal skills'. In the line one, academics investigated the importance and the degree of achievement of the generic competences among the graduates of their subject area through a large-scale 'consultation', representing another key step in Tuning. The generic competences constituted one part of the consultation, which involved also the subject specific competences elaborated in the Tuning 'line 2'. In fact, Subject Area Groups (formed usually of at least one academic from the area involved from each country participating in the specific Tuning project) had as their second major task that of formulating a list of about 30 competences deemed particularly important in their area. These lists formed the basis for the next step, organizing the 'consultation'.

The 'consultation' typically involves large numbers of students, graduates, academics and employers, distinguished in the resulting statistics as to stakeholder group and Subject Area Group. The consultations in Europe and other parts of the world have most often been made using on-line questionnaires, although, at times, focus groups or paper based consultations have been preferred. The respondents are asked to consider and give their judgment on a 1–4 scale of the importance of each competence (generic and subject specific) and of the degree to which it is formed during university study. The consultation is considered exactly that, a consulting with the stakeholder in order to understand better their needs and their perception of them: it is not a survey, or a 'popularity contest' among competences. Rather, analyzing the results of the consultation, the Subject Area Groups are able to come to considered conclusions about which competences are most important for learners at different degree levels, and to identify those already satisfactorily formed in present higher education programs, and those which, instead, require further effort.

The formulation of the key competences—generic and subject specific—for a subject area, in conjunction with the consultation, allows the elaboration of draft descriptors for the three cycles, which serve as a basis for the following steps.

Line 3 in Tuning is the calculation of student or learner workload, in time, and in the EHEA is normally associated with ECTS or compatible credit systems. In other parts of the world, work with other systems has led to or is leading to the formulation of 'credit reference systems' by which the various systems in existence can be related to each other and made understandable. The principle of ECTS, as is well known, is that all the time a student/learner normally requires to achieve the expected learning outcome is considered: whether spent in the classroom, in the library, in the lab or studying at home, the rule is 'one hour equals one hour'. In Tuning, the measure of student workload is considered to be one of the most important tools for planning and running higher education degree programs. Student time is considered not a valueless commodity, but rather the most valuable parameter with which we must work. From this point of view, teachers and educators are 'using' a very 'costly' resource, and must use it in the most efficient way possible in order to achieve the expected result.

Line 3 then is one of the bases for the all-essential Line 4, which consists in the alignment of learning, teaching and assessment methods and criteria with the desired competences. This step may seem obvious, but many higher education systems even today in practice are operated as traditional input systems, in which learners are 'taught' subject matter, and then tested on their knowledge using such systems as written exams or essays, without taking into account the duty of forming or enhancing more complex competences and assessing their achievement in an appropriate way. By taking the chosen competences one by one and looking at how each one can best be learned, taught and assessed (using the available time), the Subject Area Groups have been able to formulate very useful 'Guidelines and Reference Points' to share their knowledge with the academic community or communities. By now, many such 'Reference Points' have been elaborated and published, for a great variety of disciplinary or thematic areas; they are freely available on-line in pdf format.

The final Tuning 'line', Line 5, is Quality, and consists of the process of evaluating, designing or re-designing degree programs using the results of the previous lines, monitoring the results and adjusting them in a continuous fashion. The focus is on the quality of the process and on whether the declared learning outcomes are both appropriate and actually achieved.

4.1 Tuning Tools for the Third Cycle

At the very beginning of Tuning, during the first phase of the Tuning Educational Structures in Europe project, the third or doctoral cycle was not included, as in fact it was not included in the Bologna Declaration. Subsequently, however, the Subject Area Groups and associated organizations extended their work to the third cycle (the Erasmus Thematic and Academic Networks also carried out the Tuning process for their own subject areas).

As emphasized above, in Tuning—as in the Bologna Process—the third cycle is not considered to be something quite different in nature from the preceding two cycles. The requirements for a doctoral degree in terms of competences, and the means for forming them to the necessary level, can be described using the same language and conceptual tools as for the other cycles. For Tuning, on the one hand, the need to form the key competences required to formulate and carry out meaningful research is not limited to the third cycle. Although at a different level, such a need is recognized and provided for in the first and second cycles as well. On the other hand, the need for broad understanding and important interpersonal and creative skills is not limited to the first two cycles, but is also taken into account for the third cycle, for the reasons indicated above.[3]

As a result, in the above mentioned 'Guidelines and Reference Points',[4] there is much useful material on doctoral programs, which can be most helpful for institutions wishing to improve the quality of their offer, in terms of its relevance for the young PhDs whose talents will be necessary for future society.

The Guidelines and Reference Points for the various subject areas include formulations of specific level descriptors for the third cycle, as well as discussions of how to form the key competences at doctoral level. According to subject area and competence, various 'learning methods' and environments are proposed, including the production of the classical dissertation. The elaboration and defence of the doctoral dissertation is seen as a powerful tool for acquiring research skills and assessing them—as it has always been—but in the Tuning perspective it is only one of the activities to be carried out and assessed.

As an example of the results, we may consider the work of the European Tuning History Subject Area Group, which resulted in a separate consultation with doctoral candidates in all or almost all European countries. That consultation gave a rich harvest of qualitative material as well as quantitative data, and amply confirmed the hypotheses of the Subject Area Group: doctoral students were dissatisfied with their current programs; they thought the programs were exclusively geared to preparation for an academic career which they would not in reality be able to access; they felt they needed to interact more strongly and in a more organized manner with researchers from other related and even non-related disciplines, and that they needed better language and interpersonal skills, project management skills and so forth.

This consultation was carried out in 2006; and after eight years we asked those that participated in the original consultation about their present career status and whether they would answer the questionnaire in the same way as they did originally. Interestingly, their careers turned out to have developed better than they

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[3]For a note on the Tuning viewpoint on the third cycle: http://www.unideusto.org/tuningeu/tuning-3rd-cycle/introduction.html.

[4]For the forty-two Guidelines and Reference Points produced in European Tuning (many more are available for other world regions, all of them of interest): http://www.unideusto.org/tuningeu/subject-areas.html.

foresaw, a fact which they explain by their participation in the pan-European History Networks: however, at the same time they emphasize that if they were to do their doctoral studies again, they would ask for much more training in communication and interpersonal skills, including working in and leading teams.

4.2   Credits as a Planning Tool for the Third Cycle

Whether or not credits should be used for doctoral cycles is a topic so strongly debated that it has become nearly taboo. The difficulty of discussing credits would seem to be due to two factors: the doctoral 'mystique' (that is that the doctorate is something separate and of a different essence with respect to the rest of higher education), and some misunderstandings, or at least different understandings, about what credits are and how they can be used.

As doctoral programs have evolved, taking into account the requirement that they form a variety of competences alongside that of being able to do high level specialized research, many systems have introduced several or even many 'taught' components into their third cycle programs. In some countries it is usual practice to allocate ECTS credits at least to such components, if not to the entire cycle of doctoral studies. In others, as mentioned, this practice is considered inappropriate.

From a Tuning point of view, credits are a way of measuring the time the learner needs to achieve certain results. They can serve the same purpose for the 'early stage researchers' who are doctoral candidates. They are not earned automatically, simply by punching a time card: the credits are awarded when the learning outcome has been achieved and assessed. Credits—in addition to constituting the basis of the present 'credit transfer and accumulation system'—are very valuable as a planning tool, and they can help HEIs to organize their programs in a rational way. For the third, as for the first two cycles, the fear that students or young researchers will simply 'accumulate' credits in a chaotic manner and cash them in for a degree, is totally unfounded. HEIs are always in charge of what they require for the award of a qualification, and they are in no danger of being forced to award degrees if their conditions have not been met.

Tuning has suggested using credits or credit equivalents to help doctoral candidates and the organizers of doctoral programs to plan and carry out all the required components, including their research and writing of the dissertation in a reasonable time. In fact, in most systems, one concern of doctoral candidates and doctoral program organizers is the number of years, in almost all countries much greater than the legal length of doctoral studies, that candidates require to complete their work and receive their degree. By breaking down the various activities that lead to the final result and distributing them among the available semesters, using credits or 'credit equivalents' as a time and task planning tool, it should be possible to shorten and make more effective the period of years dedicated to the third cycle.

4.3 Enhancing the Quality of Doctoral Mobility

The recently released Erasmus Impact Study (EIS)[5] shows clearly what most people involved in promoting student mobility have known or believed for some time; that is that many key competences for learners are greatly enhanced by a period of study abroad. The EIS actually measures the effects of a mobility period in terms of competences and employability, showing results that are probably even greater than expected. Mobility during the third cycle is not the object of the study: however, it is obvious that many of the competences foreseen by the Tuning Subject Area Groups, and also requested by the doctoral candidates, can be enhanced by mobility. Erasmus+ is open to doctoral candidates; most doctoral programs foresee that possibility of mobility, at the very least to access libraries, archives or laboratories where research relative to their dissertations can be carried out.

As in doctoral studies in general, a careful formulation of the competences to be achieved during the third cycle should lead to higher quality mobility, in which interaction with the scientific culture and traditions of other countries can contribute to forming the high level social and communication competences needed by those holding a third cycle degree today. In order to make explicit these more complex objectives of mobility in an ongoing Erasmus Mundus doctoral program between Europe and Argentina carried out by Tuning partners, a modified Learning Agreement has been proposed and tested. This doctoral LA or 'Doctoral Training Agreement' uses elements of the existing Training Agreements developed for use in Erasmus mobility in order to clarify what activities, in addition to 'research', are to be carried out by doctoral candidate, and in view of the formation of which competences. This is in line with the idea that learners, including early stage researchers, will learn more effectively if they themselves understand and support to the objectives of the learning experience, or in this case the mobility experience.

4.4 Professional and Industrial Doctorates

Both the Bologna Process and Tuning consider that doctorates in any field can be approached using the same general tools. The QF for EHEA is formulated in such a way that the highest degree of expertise, whether in an academic or in a professional sphere, is included. Regulated professions, such as Nursing, Occupational Therapy and Civil Engineering, have been the object of Tuning, and have led to the careful consideration of how the third cycle relates to their subject area, and which competences and at what levels are required, as well as how they are developing or can be developed. As with respect to the other two cycles, Tuning methodology can be utilized to set up competence-based learner centred degree programs for the PhD.

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[5]For the Erasmus Impact Study: http://ec.europa.eu/education/library/study/2014/erasmus-impact_en.pdf.

The European Industrial Doctorates (EIDs) which are now being promoted under the Marie Skłodowska-Curie action of Horizon 2020 ask HEIs to guarantee the application of the Salzburg principles and the Principles for innovative doctoral training which apply to all European doctorates. Their particular features derive from the partnership between 'industry' and higher education institutions. Tuning tools can be of great assistance in defining exactly how industry or enterprise and universities can collaborate in a meaningful way to form the required competences for EIDs.

4.5 Fine and Performing Arts Doctorates

The same can be said of doctorates in the fine and performing arts, or the Creative Arts and Sciences as their practitioners now wish to call them. In some countries third cycle studies in these fields do not yet exist, largely in cases in which they have not traditionally been included in Universities, but rather in a separate system of Academies and/or Conservatoires. In this sector too, however, Tuning methodology has allowed Thematic Networks such as inter}artes, Elia and Polifonia to carry out important work in formulating competence-learning-outcome based tools for delivering quality degree programmes. The third cycle has been included in their work, and specific publications have been produced to give guidance.

4.6 Tuning Sectoral Qualifications Frameworks

Tuning has also grouped together a certain number of Subject Area Groups into broad domains, in order to create 'Sectoral Qualifications Frameworks' or SQFs. These so far have been elaborated for the Social Sciences, and, thanks to the HUMART Project, for the Humanities and the Creative and Performing Arts and Sciences. The last two are both included in a publication entitled "Sectoral Qualifications Frameworks for the Creative and Performing Disciplines and for the Humanities".[6] Such sectoral qualifications frameworks include all three cycles. Because they comprise many subject areas in their 'sector', they can be useful in defining internationally referenced outcomes for other related specific fields as well.

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[6]For the Sectoral Qualifications Frameworks: http://www.unideusto.org/tuningeu/tuning-sqf-social-sciences.html.

http://www.unideusto.org/tuningeu/images/stories/HUMART/SQF_for_the_Humanities.pdf.

http://www.unideusto.org/tuningeu/images/stories/HUMART/SQF_for_the_Creative_and_Performing_Discilpines.pdf [sic].

http://www.unideusto.org/tuningeu/images/stories/HUMART/SQFs_for_the_Creative_and_Performing_Disciplines_and_the_Humanities.pdf.

The Tuning SQFs in the Creative and Performing Disciplines and the Humanities have also developed a way of elaborating and presenting the level descriptors for the three cycles using a format compatible with the EQF, while introducing the concept of 'Dimensions', which allow the grouping of key competences in a meaningful and balanced manner.

4.7 Tuning Guide to Creating Degree Programme Profiles (CoRe2)

A further useful Tuning tool was created in collaboration with the ENIC-NARIC Network in order to give guidance to HEIs in formulating "Degree Program Profiles", allowing them to describe according to a commonly understood format the characteristics of a specific program. The work was carried out thanks to the CoRe2 ('Competences for Recognition') project coordinated by the Dutch NUFFIC. The agreed format developed in the project can be used to enrich and clarify the descriptions found in the Diploma Supplement, or for general purposes of communication and presentation of an HEI's offer. The work was carried out by Tuning experts and recognition specialists for three Subject Areas (History, Nursing, and Physics) in order to test the results for Humanities, Natural Science and for a regulated Health profession. The descriptions formulated using the common 'Template' include profiles of third cycle programs for all three pilot subject areas. The descriptions show clearly the roles of the key competences and key learning outcomes in formulating an outcome-based description of a particular program, and can be used by institutions for guidance in describing the specificities of the doctoral training they offer.[7]

5 Concluding Remarks

It is striking how difficult it has proved for various sectors of the academic community to accept that doctoral programs not only can, but must profit from the new viewpoints and understandings that have been built up in the era of the Bologna Process. It is striking that even in the context of international projects, discussions on communalities and differences between doctoral programs among academics still often centre on the technicalities of the defence of the thesis or dissertation, rather than on what leads up to it, and what the award of a doctoral degree actually guarantees. This no doubt is an aspect of what we have call the 'doctoral paradox' or the 'doctoral mystique': the idea that the doctoral defence is something apart, a

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[7]For the Erasmus Impact Study: http://ec.europa.eu/education/library/study/2014/erasmus-impact_en.pdf.

kind of rite of initiation, and that it is not necessary to look under the carpet, so to speak, to know that a PhD is a PhD.

In effect, the PhD is still seen by a certain number of professors belonging to what may now be considered 'the old guard', as the bastion of the academic tradition, and as a guarantee of excellence, related to an idea, largely formed in the late 19th and early 20th centuries, of what and who an advanced researcher should be. However, the relevance and the quality of third cycle studies—even more than those of the first and second cycle—stand to benefit greatly from a reconsideration and a reorganization based on a clearer idea of what doctoral studies should entail today: in the interests of society, of the economy, and of the persons themselves who are embarking on third cycle studies in whatever field.

The Tuning projects in all parts of the world, starting from Europe, have produced a number of useful results and tools for program design and delivery, for mobility and recognition, and for quality enhancement. These tools are based on a specific methodology which has allowed tens of thousands of people around the world to interact in order to elaborate a new way of approaching Higher Education. The findings of Tuning, and the materials published constitute an important resource for reorganizing doctoral training so that it can better form the competences required by today's world.

Online Resources

Core-project. CoRe2 Guide. http://www.core-project.eu/documents/Tuning_Guide_Publicada_CoRe.pdf.

For the 42 Guidelines and Reference Points produced in European Tuning (many more are available for other world regions, all of them of interest): http://www.unideusto.org/tuningeu/subject-areas.html.

For a note on the Tuning viewpoint on the third cycle: http://www.Unideusto.org/tuningeu/tuning-3rd-cycle/introduction.html.

For the Erasmus Impact Study: http://ec.europa.eu/education/library/study/2014/erasmus-impact_en.pdf.

For the Sectoral Qualifications Frameworks: http://www.unideusto.org/tuningeu/tuning-sqf-social-sciences.html, http://www.unideusto.org/tuningeu/images/stories/HUMART/SQF_for_the_Humanities.pdf, http://www.unideusto.org/tuningeu/images/stories/HUMART/SQF_for_the_Creative_and_Performing_Discilpines.pdf, [sic] http://www.unideusto.org/tuningeu/images/stories/HUMART/SQFs_for_the_Creative_and_Performing_Disciplines_and_the_Humanities.pdf.

The Tuning Academy publishes, on paper and on-line, the peer-reviewed *Tuning Journal of Higher Education* where further material on Tuning and related matters may be found: http://www.tuningjournal.org/.

TUNING Educational Structures in Europe. For Tuning, a good starting point is the Tuning Educational Structures in Europe website, which allows access to all the publications and provides links to the other Tuning Projects worldwide. http://www.unideusto.org/tuningeu/.