The Italian Higher Education Reform Process: International, EU and National Background

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(Pre)history: Before Bologna (1987-1999)

- **1987:** *the European Commission launched the Erasmus programme for student mobility with (possibly) full recognition of studies done abroad*
- **1988:** *Magna Charta Universitatum signed in Bologna by 388 Rectors proclaiming fundamental academic principles and encouraging mobility of teachers and students*
- **1989:** *start of the development of the European Credit Transfer System (ECTS)*
- **1990s:** *set up of thematic networks to map diverse national approaches across several disciplines*
- **1997:** *Lisbon "Convention on the Recognition of Qualifications concerning Higher Education in the European Region", signed by 55 countries, Israel included, and ratified by 54 (USA did not) [Italy signed in 1997 but ratified in 2010]*
- **1998:** *Sorbonne declaration, signed by France, Germany, Italy and United Kingdom*
- **1999:** *Bologna declaration, signed by 29 European countries*

History: Since Bologna (1999-now)

- ***1999:*** *Bologna Declaration, originally signed by 29 European countries, aiming to create the European Higher Education Area (EHEA) by 2010*
- ***2003:*** *Berlin Communiqué, including the doctoral level as third cycle*
- ***2005:*** *Bergen "Framework for Qualifications of the EHEA", describing the three-tier structure in terms of credits and general learning outcomes (Dublin Descriptors)*
- ***2010:*** *Budapest-Vienna Declaration, including the official launch of the* ***European Higher Education Area*** *(EHEA), now comprising 48 countries*
- ***2015:*** *Brussels "European Standards and Guidelines for Quality Assurance in EHEA" (revision of a 2005 document); Yerevan "European Credits Transfer System (ECTS) Users' Guide"*
- *Many communiqués: Prague (2001), Berlin (2003), Bergen (2005), London (2007), Leuven and Louvain-la-Neuve (2009), Bucharest (2012), Yerevan (2015), Paris (2018)*
- ***2020:*** *Rome Declaration (to appear...)*

European Higher Education Area

The European Higher Education Area (EHEA) is defined by:

- ***Principles***
- ***Actions*** *(including the establishment of an European Qualifications Framework)*
- ***Policies***
- ***Transparency tools***

Principles of EHEA

The basic principles of EHEA (from the Budapest-Vienna Declaration):

- ***Public responsibility:*** *Higher education is a public responsibility; higher education institutions must have the necessary resources within a framework established and overseen by public authorities*
- ***Academic freedom:*** *Academic freedom, autonomy and accountability of higher education are essential principles*
- ***The role of higher education institutions (HEI):*** *HEIs plays a crucial role in fostering peaceful democratic societies and strengthening social cohesion*
- ***The role of the academic community:*** *to provide the learners with the opportunity to acquire knowledge, skills and competences furthering their careers and lives as democratic citizens as well as their personal development*
- ***Commitment to a learner-centred approach in education:*** *the study programmes should be designed so as to ensure the acquisition by the learners of the expected knowledge and competences*

Actions to be implemented

The main **actions** to be implemented by EHEA countries as **structural reforms** concern the adoption of :

- ***A common degree structure (European Qualifications Framework),*** *described in terms of cycles, ranges of credits and general learning outcomes (more details later)*

- ***Common quality assurance procedures,*** *involving both internal and external quality assurance in institutions, as well as in the QA national agencies themselves (more details in other talks)*

- ***Common recognition procedures,*** *following the principles stated in the Lisbona Recognition Convention (more details in other talks)*

The national implementations of these actions **vary** greatly among EHEA members, though following common guidelines.

Policies to be pursued

The main **policies** to be pursued by EHEA countries concern:

- ***Mobility:*** *in 2020 at least 20% of those graduating in EHEA should have had a study or a training experience abroad*
- ***Lifelong learning***
- ***Social dimension and equal opportunity***
- ***Employability***
- ***Internationalisation and global collaboration for sustainable development***

Transparency tools to be used

To foster mobility inside a common qualifications framework the following transparency tools should be used:

- ***Diploma supplement,*** *an agreed template for the description, in two languages, of the qualification, including details on the HEI and on the programme of study*
- ***ECTS Course Catalogue,*** *an agreed template for the description of institutions, programmes of study and single educational units*
- ***Grade distribution tables,*** *needed to make possible a fair conversion of the grades awarded to students in other countries/institutions/programmes*

The use of these tools is required for participation in the Erasmus+ programme.

European Qualifications Framework (1)

The European Qualifications Framework (EQF) consists of 8 ***levels***, from primary up to tertiary education. The levels are defined in terms of descriptors (*Knowledge; Skills; Responsibility and autonomy)* of the relevant general ***learning outcomes***.

Learning outcome: *statement of what the individual knows, understands and is able to do on completion of a learning process.*

The EHEA qualifications framework consider only tertiary education and consists of 4 cycles again defined in terms of (Dublin) descriptors*: knowledge and understanding; applying knowledge and understanding; making judgements; communication; lifelong learning skills.*

The tertiary education levels are: Level 5 (EHEA short cycle), Level 6 (first EHEA cycle: bachelor), Level 7 (second EHEA cycle: master), Level 8 (third EHEA cycle: doctorate).

National Qualifications Frameworks can consist from 7 to 12 levels.

European Qualifications Framework (2)

Each level *usually* has an agreed size expressed in ***credits***.

Credit: *unit of measure of the learning time (workload), defined as the time the individual typically needs to complete all learning activities (such as lectures, seminars, projects, practical work, work placements, and individual study) required to achieve the defined learning outcomes.*

Usually, 1 credit = 25 hours of workload; 1 year of study = 60 credits.

Examples of learning outcomes

Level 6 (first cycle; bachelor):

- *Knowledge:* Advanced knowledge of a field of work or study, involving a critical understanding of theories and principles
- *Skills:* Advanced skills, demonstrating mastery and innovation, required to solve complex and unpredictable problems in a specialised field of work or study
- *Responsibility and autonomy*: Manage complex technical or professional activities or projects, taking responsibility for decision-making in unpredictable work or study contexts; take responsibility for managing professional development of individuals and groups

Level 7 (second cycle; master):

- *Knowledge:* Highly specialised knowledge, some of which is at the forefront of knowledge in a field of work or study, as the basis for original thinking and/or research; critical awareness of knowledge issues in a field and at the interface between different fields
- *Skills:* Specialised problem-solving skills required in research and/or innovation in order to develop new knowledge and procedures and to integrate knowledge from different fields
- *Responsibility and autonomy*: Manage and transform work or study contexts that are complex, unpredictable and require new strategic approaches; take responsibility for contributing to professional knowledge and practice and/or for reviewing the strategic performance of teams

Levels: duration

Level 5 (short cycle): approximately 120 credits

Level 6 (first cycle: bachelor): typically 180 or 240 credits

Level 7 (second cycle: master): typically 90 or 120 credits, with a minimum of 60 credits

Level 8 (third cycle: doctorate): usually 3 or 4 years

Typically Level 6 + Level 7 should sum up to 300 credits, but there are exceptions.

EQF Level 5: short cycle

- Usually 2 academic years = 120 credits
- *Aim:* to give a good preparation in a given area suitable for entering in the job market at a lower intermediate or intermediate level
- *Admission:* a high school degree is always required; sometimes there is an entrance examination.

EQF Level 6: first cycle Bachelor

- Usually 3 or 4 academic years = 180 or 240 credits
- *Aim:* to give a sound but not too specialised preparation in a given area, leading to further studies and/or to entering the job market at a high intermediate level
- *Admission:* a high school degree is always required; sometimes there is an entrance examination.

EQF Level 7: second cycle Master

- Usually 1 or 2 academic years = 90 or 120 credits, 60 credits in systems where the first cycle lasts 4 years
- *Aim:* to give a thorough preparation in a specialised area, leading to further studies and/or to entering the job market at an high level
- *Admission:* a first cycle degree is always required; often other requirements should also be fulfilled.

EQF Level 8: third cycle Doctorate

- At least 3 academic years; credits are not always used

- *Aim:* to give a very deep preparation in a specialised subject, leading to research in that subject and/or to entering the job market at a very high level

- *Admission:* a second cycle degree is (almost) always required, as well as to pass an entrance examination.

EQF exceptions

Qualifications governed by European agreements might require a unique cycle instead of first & second cycles.

- Architecture, Pharmacy, Veterinary Medicine: usually 5 years = 300 credits
- Medicine, Dentistry: usually 6 years = 360 credits

There are also national exceptions. For instance, in Italy: Law, Conservation and restoration of cultural heritage, Primary education: 5 years = 300 credits

The length depends also on the overall length of primary & secondary education.

Professional and artistic qualifications

- There exist higher education institutions (not necessarily universities) issuing professional or artistic qualifications.
- Professional qualifications usually require from 1 to 3 years of study, and are aimed to technical professions at a low intermediate and intermediate level.
- Artistic (e.g., fine arts, musical instruments, dance) qualifications usually require up to 5 years of study.

Italian qualifications framework (1)

- Before the Bologna process, the Italian qualifications framework for higher education was strictly centralised. The name, structure, length and content of university programmes were dictated by national decrees. The universities could choose the programmes to activate, but not their structure. There was a first cycle, lasting from 4 to 6 years, followed by a second cycle consisting in doctorate or specialisation programmes lasting from 2 to 6 years.
- First sign of changes started to appear in the 1990s, when some new programmes were created, still defined by national decrees but activated in few universities only (and often requested by them). A first attempt to change was the law 341/1990, introducing among other things shorter diplomas (lasting 2 or 3 years) aimed to give professional training.
- Law 127/1997 authorised the Ministry to issue decrees giving general criteria for the organisation of tertiary programmes but leaving the details of the structure to the autonomy of each university.

Italian qualifications framework (2)

- **Decree 509/1999**: implementation of the new system, coherent with the Bologna declaration, and characterised by a balance between centralised rules (whose aim is to ensure national recognisability of the qualifications and a consistent level of quality throughout the country) and a large degree of autonomy of the universities (ensuring the adaptability of the system to local and emerging necessities).
- Five kinds of qualifications:
  - *Laurea* (first cycle, bachelor): 3 years = 180 credits
  - *Laurea magistrale* (second cycle, master): 2 years = 120 credits
  - *Laurea magistrale a ciclo unico* (first+second cycle): 5 or 6 years = 300 or 360 credits
  - *Dottorato di ricerca* (third cycle, doctorate): 3 years, no credits
  - *Diploma di specializzazione* (third cycle): from 2 to 6 (now 5) years = from 120 to 360 (now 300) credits
- Furthermore there are two more qualifications that can be issued:
  - *Master di primo livello:* require a Laurea to enrol, last 1 or 2 years = 60 or 120 credits
  - *Master di secondo livello:* require a Laurea magistrale to enrol, last 1 or 2 years = 60 or 120 credits

  They aim to provide a mostly professional preparation in specific subjects, also for lifelong learning.
- The decree 509/1999 cancelled the shorter diploma programmes introduced by law 341/1990

Italian qualifications framework (3)

- **Decree 270/2004**: update of 509/1999, but without changing the main structure. It is still valid.
- The decrees 509/1999 and 270/2004 mainly concern the first (laurea) and the second (laurea magistrale) cycles.
- The *Dottorato di ricerca* (doctorate) is less centrally structured; presently it is governed by the decree 45/2013.
- The *Scuole di Specializzazione* (specialisation schools) are quite a bit centrally structured. Presently they are governed by:
  - Cultural Heritage: law 29/2001 and decree January 31, 2006
  - Psychology: decree 50/2019
  - Veterinary Medicine: decree January 2006, 27
  - Medicine: decrees 68/2015 and 402/2017
  - Law: decree 537/1999
- The *Master di primo e secondo livello* are not centrally structured at all
- L. 40/2007, decree September 7, 2011, etc.: *Diploma di Istituto tecnico superiore* (short cycle), professional programmes lasting 2 or 3 years (120 or 180 credits), not in universities, loosely centrally structured

Italian qualifications framework (4)

- Decrees 570/1999 and 270/2004 subdivided first and second cycles programmes in *classes,* to be subsequently defined.
- The classes for 270/2004 have been defined by several decrees (the first one was issued on November 25, 2005, the last one on January 31, 2018, the main ones on March 16, 2007).
- There are **49 classes** for first cycle programmes (e.g., Humanities, Industrial Engineering, Physical Sciences and Technologies, Political and International Relationships Sciences, Biotechnologies, etc.).
- There are **103 classes** for second cycle programmes (e.g., Modern Philology, Mechanical Engineering, Sciences of the Universe, International Relationships, Industrial Biotechnologies, Medicine, etc.).
- There are no classes for doctorate programmes, nor a priori requirements on their content or organisation.
- Scuole di specializzazione: there are **14 classes** (subdivided in 55 specialisations) for the sanitary area, **3 classes** (subdivided in 17 specialisations) for the veterinary area, **8 classes** for the cultural heritage area, **5 classes** for the psychology area, **2 (sort of) classes** for the legal area.
- Each class is determined by its general learning outcomes, and by a prescribed minimal number of credits assigned to specific kinds of activities.

The structure of a class

Each first or second cycle programme must contain a minimum number of credits for the following activities:

- **basic activities** (only in first cycle), providing the basic background needed for the programme;
- **characterising activities**, providing the main core of the programme;
- **affine or integrative activities**, consisting in courses on subjects which are complementary with respect to the main core of the programme;
- activities freely chosen by the students;
- activities for the thesis (or other kind of final activity for first cycle programmes);
- activities for learning foreign languages (compulsory for first cycle, optional for second cycle);
- other activities (stages, computer literacy, etc.)

Scientific-disciplinary sectors

- In Italy, knowledge is classified in **14 areas**, each one subdivided in many "scientific-disciplinary sectors" (SSD); they were defined by decree October 4, 2000.
- The 14 areas are: Mathematics & Computer Science; Physics; Chemistry; Earth Sciences; Biological Sciences; Medicine; Agricultural and Veterinary Sciences; Architecture and Civil Engineering; Industrial and Information Engineering; Archeology, Arts, Languages & Literatures; History, Philosophy & Psychology; Law; Economical Sciences; Political and Social Sciences.
- Each class requires a **minimum** number of credits in specified groups of SSD for each of the basic and characterising activities.

From a class to a programme

When a university would like to start a new first or second cycle programme in a given class it prepares a project including:

- the specific learning outcomes of the program, more precise than the general learning outcomes of the class, described using the Dublin descriptors;
- the description of the professions and/or subsequent studies the programme would like to prepare the students for;
- the admission rules;
- the choice of the SSD to be activated in basic, characterising and affine of integrative activities, chosen among the ones provided by the class for basic and characterising activities, (almost) freely chosen otherwise;
- the subdivision of the 180/120 credits among the various activities, and among the groups of SSD for basic, characterising and affine or integrative activities.

The university is then (almost) free to choose as it wishes the finer details of the project (actual courses offered, grading rules, etc.).

Example of a class

The **Industrial Engineering** first cycle class (L-9) requires:

- learning outcomes related to many branches of Industrial Engineering;
- at least **36** credits in basic activities, that should be in specific SSDs in mathematics, computer science, statistics, physics and chemistry;
- at least **45** credits in characterising activities, that should be chosen in at least three of the following groups of engineering SSD: aerospace, automation, biomedical, chemical, electric, energy, managerial, materials, mechanics, naval, nuclear, security;
- at least **18** credits in affine or integrative activities;
- at least **12** credits freely chosen by the students;
- at least **some** credits for linguistic activities, thesis and other activities.

Each programme in this class decides (almost) freely how to distribute the remaining 69 credits among the different activities.

Example of a programme

The project for a first cycle programme in **Mechanical Engineering** in the class L-9 might be given by:

- learning outcomes related to Mechanical Engineering;
- a description of the kind of professions a student with this degree is prepared to do;
- admission rules (e.g., an admission test on basic mathematics);
- for basic activities: **30** credits in mathematics, **6** credits in physics and **6** credits in chemistry;
- for characterising activities: **50** credits in mechanical engineering, **20** credits in automation engineering, **10** credits in security engineering;
- for affine or integrative activities: **20** credits in computer sciences and/or in SSD related to civil or information engineering;
- **12** credits freely chosen by the students;
- **6** credits for learning English;
- **10** credits for the thesis;
- **10** credits for a stage.

Basic quality assurance

Even though the universities are autonomous, two **quality checks** are made at a national level for each new programme:

- the *National University Council* (CUN) checks whether the project is respecting the laws, whether the specific learning outcomes declared for the program are coherent with the learning outcomes of the class, and whether the declared activities are coherent with the proposed outcomes and professions;
- the *National Agency for the Evaluation of Universities and Research* (ANVUR) checks whether the actual realisation of the programme conforms to the declared project, and whether the university has suitable (human and structural) facilities to efficiently implement the programme.

If a programme does not pass a quality check it receives a warning; if it does not comply with the warning in the allotted time it is closed.

Note: the complete quality assurance procedures are more complete and involved, and involve ongoing programmes too.

Final comments

- Italy has been one of the first European countries to implement the Bologna process.
- At the institutional level the Bologna principles are well accepted, even though the implementation might need some updating; at the university level the cultural changes involved are still in the process to be accepted, in particular for what concerns a learner-centred approach.
- The three actions have been implemented, even though the quality assurance procedures are still mostly seen as a bureaucratic chore instead of as providing tools for improving the quality of the programmes.
- The five policies are taken into account by the government and by universities.
- The transparency tools are widely used (with the possible exception of grade distribution tables).
- The balance between central state control and local university autonomy is delicate but is mostly working, at least for the programmes of study, even though more flexibility is required.

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Other characteristics

- *The most common form of lecture still is a professor talking to the students. Online courses are rare.*
- *Some courses (in particular basic courses) have exercise classes. Many programmes have laboratories. Stages are becoming increasingly more common, even for non-professional programmes.*
- *Every course has an oral exam; some courses (in particular basic courses) may also require a written examination. Each student usually has at least five occasions every year for passing the exam of a given course.*
- *The final thesis for a first cycle programme usually is just a short written and/or oral report on a subject close to what the student has studied during the programme.*
- *The final thesis for a second cycle programme is a much more substantial work, always with a written thesis defended orally, and having elements of originality, either because it contains new results or because it presents known facts in a new and well-organised way.*