



**FIG Working Week**  
- Bridging the Gap Between Cultures  
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Marrakech WW2011

**A Permanent Training for the Italian Surveyor and a New Path Towards an Effective School System for the Youth**

FIG Consiglio Nazionale Geometri e Geometri Laureati

Fausto Savoldi- Italy

The technological revolution that took place in the last twenty years in Italy widened the gap between school education and the real operational skills required by every professional Surveyor. Although with a great delay, a substantial reform promoted by the Italian Government in 2010 was meant to fill this gap. This reform states how our “Technical Institutes” have to be changed into “Technological Institutes”.



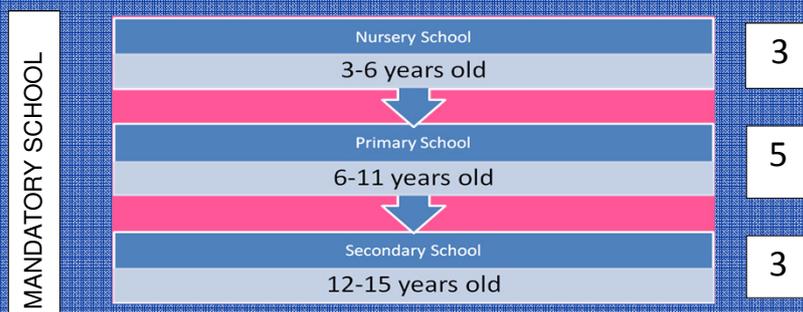
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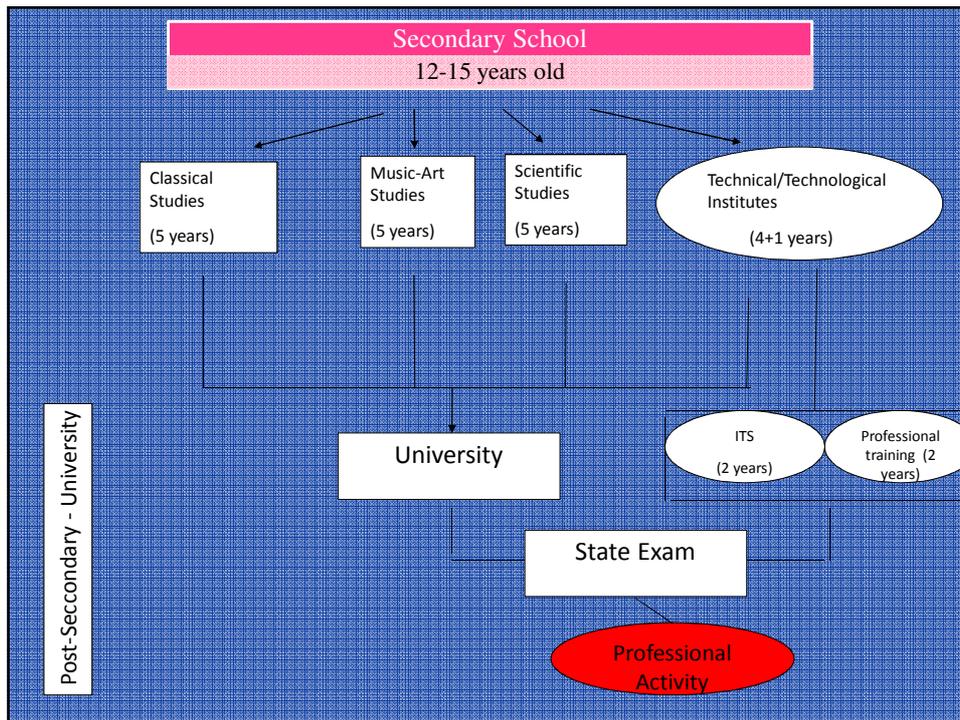
The following slides will show you how the Italian school system is structured:



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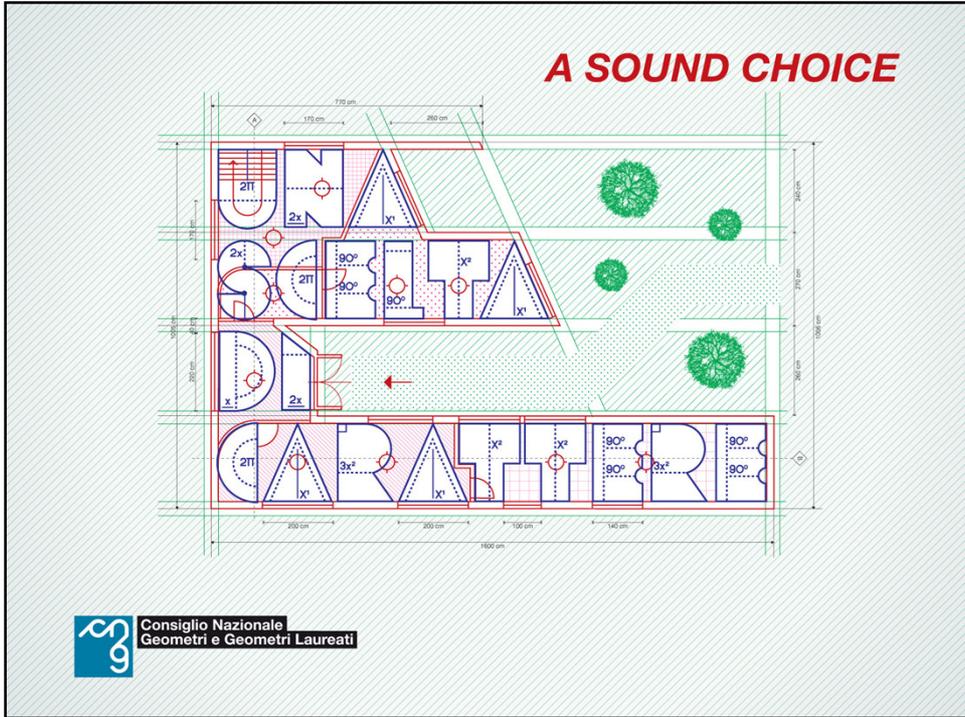


Our Category is now trying to help all the students attending the last mandatory year of schooling (that's to say: the second year in a Secondary School) in order to:

1. Guide young students to a choice that could improve their potentials. We are publishing booklets that illustrate all the characteristics and the opportunities offered by “a firm choice”: to attend a Technological Institute specialised into “Building, Environment and Territory”



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2. Persuade parents and teachers that a Technological Institute is as qualified as a “Liceo”. The former matches the urgent needs of our Country. We do need more than 150.000 technicians for the industrial sector, for the Public Administration and as self-employed professionals.



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Why you should choose "to choose".exe

### WHY YOU SHOULD CHOOSE A TECHNICAL INSTITUTE

Because it is an educational path that offers a wide range of alternatives: employment, post-diploma studies, university studies

Because it teaches subjects and skills related to the building construction, town planning and architectural sectors which in turn offer diverse employment opportunities

Because it is a kind of school where in addition to studying texts one learns and experiments hands-on.



**Know-how is therefore a sound choice, which begins in the Technical Institute that provides the cultural and technical key elements for immediately tackling the future profession**



With the reform of 2010, during the first 4 years of a Technological School the focus has been placed on the fundamentals: Math, Italian Literature, Foreign Languages. From the 5<sup>th</sup> year we start with programs more addressed to the professional activity and the post-secondary education (University: Engineering or Architecture) or Post – Secondary Technological School (MA in the professional qualifications that are more demanded by the industrial sector).



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Here you can see the educational path that a student of a Technological Institute “Building, Environment and Territory” has to follow in order to be registered in the Professional Roll



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**Technological Institute**  
(formerly named Technical Institute)

SECONDARY

For the surveyors

Fields of activity

**Building - Environment  
Territory**

5 years (4+1)



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Three are the ways to the registration into the Roll, and all of them lead to the State Exam that qualifies a professional to the practice of his activity (both as self-employed or as employee).

We added to the former two-years of practical training that used to grant the recording into the Roll:

- Three years at the University (Engineering or Architecture) and the subsequent degree.
- Two years at the “Senior Technological School” in order to become specialised in one of the four disciplines that are crucial both for our Country and for our professional activity:

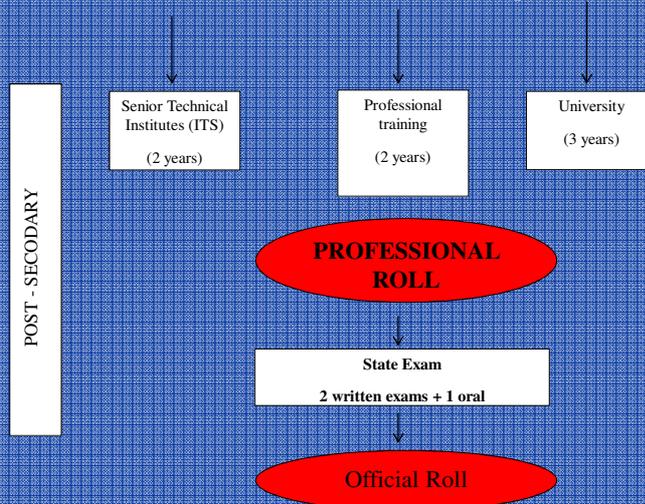
1. Power efficiency
2. Sustainable mobility
3. New technologies of the “made-in-Italy” – House System
4. New techniques applied to the cultural preservation and promotion



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### The 3 ways to be recorded into the professional roll



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## BUT what is really new in this reform is

ALL the Professional Categories are actively participating in the whole Secondary School Education process: we are all contributing to the creation of “Laboratories” and “Scientific Committees” in every Technical Institute

The Scientific Committees, formed in every School by teachers, parents and professionals, should establish the fields of teaching and the practical experiences (stages) required for the professional activity in every specific territory. Every School can choose to use part of the “free” teaching hours for these purposes that are exceeding the standard education programs.



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As for the Post – Secondary Education, we are ALL involved in its management, and, for this purpose, we are creating specific Foundations with the partnership of the Industrial Sector, the Public Administration and the “High schools in Technology” (ITS)

To these Foundations (all conceived as partnerships) funds are granted by the Local Public Administration, by Companies operating in the sector, by Technical Institutes and by Educational Organisations. Among the companies active in the field, we can mention even our Professionals and the Professional Category itself. These Foundations have two crucial tasks: to manage a two-years training financed by the State and by the Regions; to organise practical stages in Companies and Public Organisations that are active in the Educational Sector.



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That's why, after so many years, for the first time our Category has been called to take an important role in the educational process of the future generations of Professionals. Heavy task! Our great responsibility is increased by the urgent need of a constant updating of the technical knowledge required from the Professionals already registered in the Official Roll.

100.000 Italian Surveyors (30.000 topographers, 50.000 building planners, 20.000 valuers and experts), whose education dates back to the Sixties or the Nineties, would run the risk of a significant reduction in their professional activity without an updating of their competences. New technologies in building, surveying and valuating (the three most important activities in our profession) do not match anymore what our schools taught them. Moreover, our daily practice cannot fill our educational gaps, especially those concerning electronic procedures, new technical instruments, and the new rules stated by law and by the market



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Through its National Board and the 110 County Boards, our Category is well aware of these problems and needs. For such a reason, we promoted different kinds of initiatives:

1. A permanent education has been made mandatory for all the Professionals that are registered in the Official Roll. All of us have to participate to training courses that give us "professional credits". These credits have to be acquired every year, according to the age of the Professional and in order to maintain the registration in the Roll and be operational.
2. We started to give a practical contribution inside the Secondary School System, sending our Professionals as teachers especially in the Technical Institutes ("Building, Environment and Territory"). In such a way, we want to participate with our experience (enhanced by our permanent education) in teaching to the youth a "know-how" in building, surveying and valuating.



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3. We encouraged those people already registered in our Official Roll and whose age ranks from 30 to 50 years old to resume their training in order to obtain a Three-years Degree in Engineering or Architecture.

Nowadays, our Category is called "Surveyors and Graduated Surveyors": it's a way to show the change from a 5-years education into a technological training of 8 years after the mandatory school.

4. We chose to subscribe the 2010 Reform providing for a new educational path that represents an alternative to the three-years University course named "Senior Technical Institute (ITS)" that starts after the 5 years of Technological Institute. This new path (two years) is meant for high-qualified technicians, specialised in specific fields related to the surveyor's traditional activity. This new educational process will gradually take the place of the two-years practical training that is now mandatory in order to be registered in the Official Roll. The "Apprentice Surveyor", mistakenly considered as a self-employed professional, becomes a "student" again! Nevertheless he will be formed through a real professional practice within established Companies, Professionals or Public Offices.



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5. We encourage young Professionals to create partnerships that might offer different specialisations (topographers, builders, valuers), in order to give to the client the full range of services. Even other Categories have been involved in the creation of these cabinets: engineers, geologists, forest agronomists



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Why are we doing all this? Because technological innovations have deeply changed our way to operate, and have given way to new fields of activity.

A few years ago we weren't talking about power saving. Nowadays such an item is crucial in every building project: we have to consider it in the choice of the plan, the materials, the cost valuation. In Italy, every building will have its "power-consumption certificate", mandatory in order to establish the building characteristics, the kind of systems installed and to suggest a possible price if sold. Such a reform compelled our Professionals to attend specific updating courses that might be different in the various Regions



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As for the implantations, our knowledge has improved to the point that we can compete with the Category of the Industrial Experts, traditionally the most competent in this field and close to the production sector.

The idea of power-saving is strictly linked with the concept of environmental preservation.

A Professional more sensitive towards this subject means a more responsible and careful way to build and a deepest knowledge of the Territory.

Even a topographic map does not anymore constitute a mere survey and a graphical representation. It becomes a collection of data about rights on properties, characteristics of the soil and dangers related to them, landscape and cultural values attached to every single parcel. Topography is no more a mere collection of measurements and their graphic representations: it becomes a way to record the whole of our knowledge of a specific territory: its cadastral status, its nature and dangerousness, its economic potential



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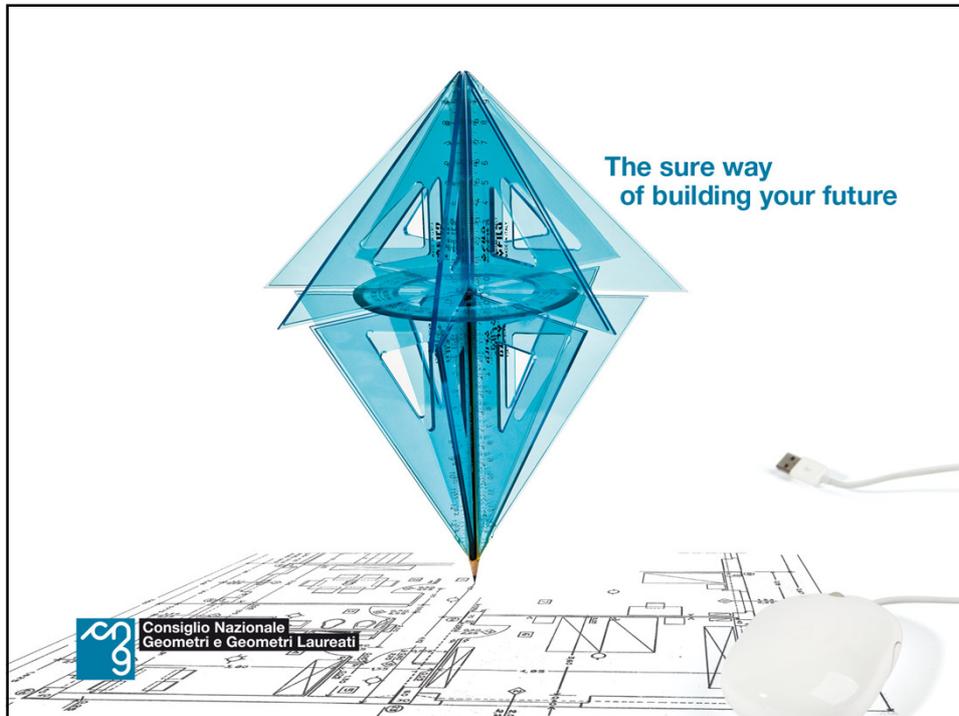
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As it is, topography is a discipline deeply linked with the problem of a “sustainable mobility” that so much characterises our world both in the working sector and in the communications.

To prevent power-waste, to protect the environment, and to make it easy to communicate and to exchange news among people represents a new way to “live” our homes and our territory. New horizons are opened in the relationship among the people and between citizens and Authorities. That’s the new kind of living, thinking and working that the Italian Surveyors want for their Youth. That’s the way to assure to them a future and stands as an example of a self-recreated profession for all our Colleagues around the World



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Thank you very much for your kind attention!!!

Fausto Savoldi – President of the Consiglio Nazionale Geometri e Geometri Laureati  
Piazza Colonna, 361 – 00187 Roma – Italia  
E-mail: [pressavoldi@cng.it](mailto:pressavoldi@cng.it)



Fausto Savoldi - Italy