

AGREEMENT NUMBER: 2011 – 2550



Building up Quality in  
Architectural Education

**ARCHI-MUNDUS**  
**Building up Quality in Architectural Education**

**Final External Evaluation Report**

Conducted by Architect Antonios Moras

## 1. Introduction. The overall profile of the reported project

This report presents the evaluation of the Erasmus Mundus Action 3 Programme 'ARCHI-MUNDUS: Building up Quality in Architectural Education' granted by the European Commission as part of the LLP Programme. The programme was granted under the agreement number 2011 – 2550, based on the relative submitted application describing all the aspects (academic, operational, managerial and financial) of the project. The initial duration of the contractual period was 28 months. An extension of the contractual period for 4 months made the real duration of the project 32 months.

ARCHIMUNDUS project was structured by 35 partners among which five major Associations related to the Architectural Education: The European Association for Architectural Education (EAAE), the Association of Collegiate Schools of Architecture (ACSA), the Latin American Union of Schools and Faculties of Architecture (UDEFA), the Union of Schools and Faculties of Architecture and Design of Central America (UDEFADAC), the National Architectural Accreditation Board of the USA (NAAB) and the Association of Schools of Architecture of MERCOSUR Countries (ARCHISUR). From its partner Schools 13 are from Europe and 23 are from Latin America.

The overall budget of the project was 403661 € and the grant covered the amount of 299791€ corresponding to 74% of the budget.

## 2. Programme objectives and rationale

The project had two types of objectives: Those that are explicitly stated in the description of the project and those that emerge implicitly from its rationale. The project defines as its objectives the following:

1. To develop collectively a quality culture in architectural education worldwide, which will be based upon broader agreements on values, priorities, principles and means, which will give the possibility to this quality to be implemented and assured.
2. To investigate the impact of this quality culture on the structure and restructuring of architectural curricula in our schools of architecture.
3. To investigate the impact of this culture to the teaching approaches, the pedagogies implemented and the educational strategies to be applied in order to assure the expected quality.
4. To develop reference points which will define the excellence and the benchmarks for all the competences (as learning outcomes) of the contemporary profile of the architect.
5. To elaborate and redefine the set of competences which will represent the qualified profile of the architect of our fast changing world.

From the description of the rationale of the project we can detect the following objectives, which are not clearly stated as such but appear as emerging values, dedicated to guide the activities of the project.

1. The European Policies for Higher education are not only a European Issue but affect and are affected by the international dynamics in higher education, so there is an urgent need for the schools of architecture to define their strategy for the development of their curricula in a fast changing and unstable world.
2. The dialogue on architectural education becomes more and more internationalized and participation in this is extremely valuable as a condition for each school to find a place in the international competition of schools of architecture due to the competition of the degrees they offer in an internationalised architectural market.

3. The competences-based architectural education constitutes an innovative approach compared to existing trends in architectural education worldwide. For this reason its implementation in the educational system of the partner school appears as a positive perspective.
4. The comparability of the conceptions about quality appears as a significant multiplier of the perspective of the international mobility of the staff, students and ideas.

### 3. Description of the activities of the programme

To achieve the above-mentioned objectives the project developed a clear strategy, which remained the same throughout the project. This strategy consisted of the definition of four broader and major themes. These themes were proposed as catalytic opportunities to reveal common and different points of view on the permanent concern on quality of architectural education. Each theme was developed separately in each one of the partners' institutions and then elaborated on by all the partners in the framework of a workshop-conference. The first phase was a kind of consultation process where partners prepared the answers to the questions the coordination of the project formulated on the basis of the debates and the issues raised by the previous event. The material prepared was presented in the workshops/conferences and was discussed by the partners in each one of the four sessions of each event.

The four main themes and their subthemes through which the achievement of the objectives was envisaged were:

#### 1. Conceptions of Quality in Architectural Education: What we already have

##### 1.1. Quality and institutional context

*How do we define today quality in the education we offer to our students? How do we describe what is qualitative in the educational practices we are developing in our institutions? Are there any controlling mechanisms implemented by our institutions or by our institutional framework to control the quality of architectural education? How efficient are they?*

##### 1.2. Quality and school curricula: Education and sustainable architecture

*How do our schools of architecture incorporate into their curricula the contemporary call for quality? How do they control the quality of the competences of their graduates? How do the curricula assure the expected quality? How does the concern for quality is expressed in the academic life of the school? How can we recognise and evaluate the quality? Does the school understand innovation as a parameter of quality?*

##### 1.3. Quality and teaching:

*How are we controlling the level of quality our teaching practicing have assured? How this request of quality can introduce our students to an (innovative?) way of thinking, designing and materializing architecture? How do the existing quality control mechanisms affect our teaching approaches, methods and strategies? How can we become more efficient in our teaching in order to assure the requested quality?*

##### 1.4. Quality and innovation, creativity and quality culture:

*How can the claim for innovation and creativity be introduced to the teaching of different subject areas of architectural curricula? How can we assure our students the ability to be innovative and creative? Which teaching methods do we apply for this purpose? Which educational processes do we follow? How can contribute to the development of a quality culture in our educational institutions?*

#### 2. Conceptions of Quality in Architectural Education: What we expect to achieve

##### 2.1. Redefining excellence in a fast changing international educational environment:

*What must be the expected profile of the architect in the fast changing world (of architecture)? Which must be the reference points describing the knowledge, skills and competences of this new expected profile which will be able to cope with the instability, the adaptation to the changes, the responsiveness to the new conditions, the management of the unpredictable, the collaboration with interdisciplinary teams, the openness to the unknown, the familiarisation of the unusual, the update of the technological advances? How does request of this new profile affect the structure of the schools curricula? How does it affect the way we organise our architectural design studio? How does it affect the way we are teaching?*

## 2.2. Redefining excellence in a learning-centred educational environment:

*We tend to evaluate the teaching practices without having a clear idea of how to evaluate the quality of learning achieved and even more to evaluate the impact of this teaching in the overall learning quality achieved by the entire curriculum. How can we evaluate the quality of learning? Which tools, processes, methods and means can we implement to assure this quality? How can we accredit this quality? Which are the possible curriculum reforms that we can make in order to assure better conditions of learning? Which are the current trends of updating curricula taking into account the quality of learning in the framework of the established values and contemporary concerns of architecture, the outcomes of avant-garde experimentations, the new advanced technological possibilities and the dynamics of the unstable market? The quality of learning is directly dependent upon the quality of teaching. Do Schools of architecture implement systematically a staff development strategy? Which forms of staff development can we promote under the existing financial and institutional conditions to contribute to the enhancement of the quality of learning? Have we developed new teaching approaches to architectural design based upon learning outcomes?*

## 2.3. Redefining excellence in a creative thinking oriented educational environment:

*How do our schools of architecture incorporate into their curricula the contemporary call for creative thinking? How can we introduce our students to a creative way of thinking, designing and materialising architecture? How can the claim for creative thinking be introduced to the teaching of different subject areas of architectural curricula? How can we assure to our students the ability to be creative? Which teaching methods do we apply for this purpose? Which educational processes do we follow? Are there innovative teaching methods to assure creative thinking to our students? How can we recognise and evaluate the creative thinking? What do we consider as the appropriate assignments that can enhance creativity in our students' thinking processes?*

# 3. Conceptions of Quality in Architectural Education: How can we achieve what we expect

## 3.1. What we mean by excellence in architectural design education?

*Do we mean standards? Do we mean minimum requirements to be fulfilled? Do we have clear criteria to evaluate the quality? Can we define reference points? Can we define excellence as the distance we can take above the acceptable?*

*Schools of architecture are increasingly dealing with a new set of values emerging from the contemporary debate on architecture, the architectural avant-garde, the broader cultural framework, the state-of-the-art of the profession, the national and international political and institutional environment. Transparency, flexibility, adaptability, quality, openness, creativity, innovation, mobility, experimentation, diversity, compatibility, comparability, parametricism, and employability, appear to be already established values which demand new strategies, new actions and new approaches to the structure of school curricula in order to respect the contemporary definitions of the quality in architectural education.*

*How can we define what is quality in architectural education today? How different is this definition compared to those given some years ago? How easy is it to move towards this new version of quality in our existing institutional frameworks? Do we consider that the reforms we have experienced adapted curricula in a way to achieve a high quality education?*

### 3.2. What can we do as teachers in order to assure excellence?

*What type of architectural design exercises-themes-projects school should ask students to develop in the teaching framework of the architectural design course(s) or workshop(s) during their architectural education? Which must be the main characteristics of these exercises-themes-projects? What must be the criteria and what is the logic behind this selection? Why schools shall apply these criteria and this logic? What we as teachers expect to achieve from this design theme? Which competences we want our students to develop? How we evaluate the impact of the exercises-themes-projects in the development of these competences? How does it make sure that the competences taught are the same that society needs?*

### 3.3. How can we develop architectural design studio modules assuring excellence?

*Is excellence related to the cross disciplinarity, the innovation and the lateral thinking? Which way of thinking we must assure to our students in order to be able to reach high quality design work. Which kind of skills we have to encourage in an idea framework of education on architectural design?*

### 3.4. What we are expecting to get as learning outcome from the studio modules we teach in order to be considered as excellent?

*If there is a question of a new, unpredictable, profile of the future architect what has to be our pedagogic strategy for the learner of today? Which are the most significant competences that this architect has to fulfil in order to be able to adapt in the fast evolving society? What is the fundamental knowledge and skills she or he has to acquire from the education in order to become a competitive and successful (excellent) architect? Do we need new pedagogical approaches assuring these competences? Do we know how to teach in order to assure these?*

## 4. Towards an Architectural Education Quality Culture: Excellence and innovation in Architectural Education

### 4.1. Studio Teaching and Innovation

*What we understand for innovation in architecture? Is innovation a must in architecture? How do we achieve innovation in architectural education? How we do combine innovation with tradition in our schools and how we deal with these concepts in the curricula? Is innovation an added value in your school?*

### 4.2. Innovation as tool for architectural design

*Which are the most innovative studios in your school and how you recognize that? Can we enhance the quality of the studio schemes without innovation? Is the innovation merely technical or also theoretical and conceptual? Is innovation a key factor for new approaches and understanding of the problems that the studio attempts to sort out?*

### 4.3. Studio Teaching and methodologies

*The architects we are educating today will arrive at their professional establishment at least after ten years. Is it possible to preview their necessary profile now? More and more such a prediction becomes difficult taking into account the fact that two years ago it was not possible to predict that one out of four architects would be unemployed today. This is why we have to rethink the more or less fixed profile they tended to create during the past years.*

*If there is a question of a new, unpredictable, profile of the future architect what has to be our pedagogic strategy for the learner of today? Which are the most significant competences that this architect has to fulfil in order to be able to adapt in the fast evolving society? What is the fundamental knowledge and skills she or he has to acquire from the education in order to become a competitive and successful architect? Do we need new pedagogical approaches assuring these competences? Do we know how to teach in order to assure these?*

### 4.4. Approaches to Studio Teaching

*Which design teaching methods are used in the studio? Which kind of bibliography and precedents are used for the scheme didactics? How do we balance theory and practice within the studio work? What is valued most, is it the process or the final result? Do you teach digital and multimedia representation or hand drawing as well? Do you use or encourage only traditional methods of design?*

*In the fast changing world we are experiencing significant transformations in all the cycle of production of the built environment, which affect the structure of the content of our studies. The strong specialization tendencies in the professional practice have significantly transformed the curricula of our schools. For the specialized curricula existing subject areas of architectural education obtain gravity or completely disappear, while in the general education curricula architectural design is under serious pressure to assure time for a large number of other subject areas, which will in turn assure the generalistic character of the offered degree. In a broader view we can detect a progressive reduction from the contemporary architectural curricula of the urban studies, social sciences, basic natural sciences, mathematics, structures, etc. On the other hand we can easily recognize a progressive raise of the gravity of subject areas related to the environment and sustainability, an the emergence of new subject areas like scripting, computing, biology, construction management etc.*

*To what extent do these changes affect the profile of our graduates? How easy is it to be updated on the new trends and directions of the local and international dynamics? Which new subject areas do we consider as necessary to be incorporated in our educational framework? How will these subject areas be structured in the existing curricula?*

Looking closer to the above spectrum of themes and the agendas accompanying them, we can observe that the first two of them mainly deal with the diagnosis of the issues related to the quality, as concept as objective and as strategy for the education of the architects and as a guide to structure curricula and educational environments. The third and the fourth themes have primarily an operational character and are approaching quality from a more practical and technical viewpoint. It is important that the two last workshops where these two themes were discussed and developed were organised in a different format from the previous ones. From a more conference type and plenary presentations and debates the last two workshop moved to an organisation in small workgroups where the debate were deeper, more organised and more vivid. From this point of view this is a positive strategy of the project to cover a large spectrum of issues and to implement different organisational structure to get the maximum of the collaboration between the partnership.

## 4. Results and findings

### 4.1. Achievement of the objectives

A general remark on the evaluation process is that the application does not define the criteria of the successful achievement of the objectives neither gives any indication regarding the precise way that the achievement of the objectives will be assured. This makes a systematic evaluation very difficult.

Having described the activities and the outcomes of the project we can examine to which extent the realized outcomes are in a position to fulfil the objectives of the project.

#### **Objective 1.**

*To develop collectively a quality culture in architectural education worldwide, which will be based upon broader agreements on values, priorities, principles and means, which will give the possibility to this quality to be implemented and assured.*

As it appears from the scheduled presentations, the question of quality was always in a central place in all the events and activities of the project. However it is not possible to estimate if the expected quality culture was formulated and to which extend. From the texts submitted in the preparatory phase of the ARCHI-MUNDUS events it is rather clear that there is not an agreement on values, priorities, principles and means so the question 'what quality is' appears to have many answers. However what is clear is that the project raised a big number of questions, which would be fertilised in the future and will give results. The outcomes of the project related to this objective cannot be a clear. What is evident however is the high degree of experiences exchange and the exposure of the partners to a broad spectrum of questions relate to the architectural education. (Grade 6/10)

**Objective 2.**

*To investigate the impact of this quality culture on the structure and restructuring of architectural curricula in our schools of architecture.*

During the contractual period all partners appear to spend a significant amount of time thinking, proposing and elaborating practices related to the implementation of a quality request from the academic point of view and not from the technical part of any accreditation mechanisms. As this request is not yet broadly analysed in depth in our educational system, it is not easy to expect coherent and articulated proposals but rather ideas and scenarios. Taking into account that during the life of the project a total 80 presentations were made, framed by at least 32 hours of debate, this indicates a significant amount of time was spent on collaboration and exchange. The problem that appears is that a large number of these presentations is not yet available. When their final form is presented in the Website of the project, then a significant amount of information will be available to represent the content and the spirit of the exchange and collaboration developed by the project. (Grade 7/10)

**Objective 3.**

*To investigate the impact of this culture to the teaching approaches, the pedagogies implemented and the educational strategies to be applied in order to assure the expected quality.*

This objective has been significantly covered, as two of the four themes concentrated on the questions of teaching architecture and more specifically architectural design. The fact that the presentations covered a big spectrum of issues and ideas from experienced teachers coming from completely different educational environment, gave to the partners the possibility to examine many aspects of teaching not only in different aspects of architectural design, but also in different years of study. (Grade 8/10).

**Objective 4.**

*To develop reference points which will define the excellence and the benchmarks for all the competences (as learning outcomes) of the contemporary profile of the architect.*

There is no evidence that this objective was significantly approached by the partnership. The partners have made very few references in the presented contributions to issues related to evaluation standards, benchmarking and outcomes descriptors. As mentioned in the final report, "the debate on these issues is very little developed by the schools of architecture in Europe and not at all in Latin America and for this reason the eventual discussion on these issues did not find a fertile ground in the academic activities of the project". (Grade 4/10)

**Objective 5.**

*To elaborate and redefine the set of competences which will represent the qualified profile of the architect of our fast changing world.*

As it is explained in the final report, the partners decided to concentrate on the design work rather than on other aspects of architectural education quality. This could be considered as a limited approach as the question of quality and excellence is a holistic situation and must not be approached as fragmented. To all debates in the events of the project lost the contact with other subject areas structuring architects 'toolbox'. The project did not proposed a set of competences organising the profile of the graduate but certainly gave some strong impulses to the ideal frame of mind and skills and knowledge necessary for the contemporary architect. Grade of 6/10.

Taking into account the fact that: the consortium had an almost three year life-span, that a significant amount of academic exchange happened during that time, that the curricula of the partners were at the centre of the debates, that the same, more or less people constructed the partnership, we can easily consider that the consortium has successfully established a solid basis for academic collaboration which has to be capitalized on in the near future.

The fact the consortium had the significant advantage of having five associations among its partners as mentioned above, we believe and it is promised that this will give the possibility for the continuation of those efforts in other for a and opportunities.

Average grade for coverage of the objectives of the project have been covered: 6,2/10

## 4.2. Academic Quality

The material produced by the consortium consists mainly of presentations of cases related to the institutions of origin of the presenters and to a certain extent to its broader geographical area. As in most of the cases these presentations were concentrated on teaching experiences, they always had the character of position papers regarding the teaching strategies and pedagogical approaches partners implement as teachers of architecture. In most of the cases the presentations present interesting paradigms of teaching practice with references to the students' work and to the rationale of the selection of the assignments.

From this point of view the material produced is not characterised by its academic rigor, or its extended argumentation or theoretical statements supporting the pedagogical objectives. On the other hand it constitutes a very useful range of material for further investigation and study, able to offer interesting insights in the way that the different subject areas related to architecture are taught in different educational environments. Since in the initial application there is no prescription for the form and the content of such an output, we can consider it as primary material or work documents, extremely useful for further investigation of the competences-based architectural education around the world.

It is also important to mention the importance of the two statements-manifestos that the group managed to produce as a minimum consensus on architectural and architectural education quality. This material will be certainly capitalised by the partners, schools and Associations. With a minimum further elaboration this will be able to become a significant reference point for the debates on the quality and excellence in the world of architectural education. (Grade 7/10)

## 4.3. Organizational structure

The overall administration of the project appears to be articulated around the preparation and realization of the academic events of the project in such a way as to achieve continuity and assure the complementarity of the debate. The advantage of this organizational strategy is that it gives the possibility to all the partners to participate in the formulation of the main axes of the agenda as they have been prepared, proposed and

agreed on during the last session of the previous event. There is no evidence that the project suffered by its organizational structure as the time schedule was respected and the proposed outcomes were produced on time and according to the agreement. However it is interesting to mention the linguistic difficulties the project faced. During the last two events where the groups worked separately, the basic criterion for the formation of the groups was language. This had as consequence to have one English speaking and two Spanish speaking groups, losing the opportunity to have a better amalgamation of the different architectural education cultures.(Grade 7/10)

## 5. Conclusions

The estimated average of the grades of the different headings of the evaluation is 6.7/10. It represents a significant performance of the consortium.

The weak points of the project are:

- The restricted production of easily perceivable information about the innovative character of the quality and excellence request, the particularities of this request on the level of teaching as well as on the level of the creation of new architectural curricula.
- The unclear distinction in the presentations between aspects of the presented issues belonging to the innovative approaches to learning and to student centred approach and those coming from past teaching experiences of the partners not necessarily improved or filtered through the new conditions and dynamics.
- The (as yet) unclear degree of possible dissemination of the outcomes as they are presented in the Website of the project.

The strong points of the project are:

- The development of the debate about the quality that can establish better conditions of collaboration and exchange between the partners and can assure transparency and improvement to the education of architects in the contemporary world.
- The opening of the discussion to the teaching approaches, methods and pedagogies, a theme that remains rather marginal in academic fora worldwide.
- The quality of the consortium and the potential it has after the successful completion of this project.
- Creation of possibilities and conditions for a close comparison of educational values, priorities and orientations.
- Creation of possibilities and conditions to detect similarities on which someone can construct future collaborations.
- Detecting of significant differences, which need further elaboration, academic dialogue and profound understanding of the social and financial particularities of each region.
- The possibility to test the impact that a quality culture is ready to be emerged from a broader and international academic environment.
- Possibility to follow teaching approaches on the most significant subject area of architectural education, the design education, emerged from completely different educational environments, habits and traditions.
- Promotion of the values dictating our educational system and development of an academic dialogue on this issue with a long perspective.
- Creation of an academic milieu of collaborators with good quality personal relations as a solid basis for the continuation of this project and the implementation other academic initiatives.
- Development of synergies with other projects on architectural education Thematic Network as an example of collective work done by schools of architecture promoting the quality of architectural education as well as the quality of teaching.

- Extended contacts of the non-European Partners with more than 120 Heads of Schools of Architecture in Europe or academic programme coordinators, very promising to the creation of future links, contacts and collaboration.
- Presentation to the European Heads of Schools of Architecture of some fundamental characteristics of the work done in schools of architecture in Latin America.