



European Competition Programmer Handbook

GreenArch project results

July 2015

This project has been funded with support from the



This publication reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

CONTENTS

EXECUTIVE SUMMARY	2
AIMS AND OBJECTIVES	2
SUMMARY OF RECOMMENDATIONS	3
1. European digital networks for architecture competitions	3
2. Architect competition programmers	3
3. Design contests.	3
4. Micro, SME, young, and emergent architects	4
5. Raising the EU threshold values.	4
6. Progressing GreenArch	4
CONTEXT - COMPETITION PROCEDURES IN EUROPE AND THEIR DEFINITION	5
THE GENERAL FRAMEWORK IN EUROPE	5
GREEN PUBLIC PROCUREMENT IN COMPETITION PROGRAMMING	9
PUBLIC PROCUREMENT AND ARCHITECTURE COMPETITIONS IN GREENARCH PARTNERS' COUNTRIES	10
<i>Introduction</i>	10
<i>Czech Republic</i>	12
<i>France</i>	12
<i>UK</i>	13
<i>Spain</i>	16
<i>Italy</i>	19
GREENARCH PROJECT	20
THE PLATFORM	20
<i>Introduction and principles</i>	20
<i>Description of the tool</i>	20
CORE PROJECT ACTIVITIES: PROFESSIONAL TRAINING AND MENTORING	22
<i>The professional training program</i>	22
Context	22
Programming	23
Objectives	23
Training	24
Training evaluation	26
<i>The mentoring activity</i>	27
Introduction	27
Short Course	27
Long Course	28
Online course	29
The Mentor and the mentee	29
TARGETED FUTURE ORGANIZATIONS	31
THE FUTURE OUTPUTS AND IMPACTS OF THIS PROJECT	31
DETAILED RECOMMENDATIONS	33
1. European digital networks for architecture competitions	33
2. Architect competition programmers	35
3. Design contests.	35
4. Micro, SME, young, and emergent architects	35
5. Raising the EU threshold values.	36
7. Progressing GreenArch	37
BIBLIOGRAPHY	38
CREDITS	40

EXECUTIVE SUMMARY

Aims and objectives

GreenArch is a 2013 financed European project involving partners from France, Spain, UK and Czech Republic and other associated partners from Italy and UK.

GreenArch started from the consideration of the need of young architects to find a better place in national and European contexts, to acquire relevant practical experience and support their integration into the labour market.

Very often, young Architects are attracted by design contests but have limited knowledge of the competitions complex system.

Under the Greenarch project the participant partners have shared the knowledge on their experiences and views on design contests.

The project principally aims at providing more opportunities for all architects, especially young architects, to better understand the European design contests system.

The main objectives of the project focused on the improvement of:

- The built environment
- The profession of architecture and the service offered to clients
- The brief
- The access to competition
- Creating opportunities for the newly qualified architects and those approaching new business ventures
- The competition programming training
- Networking across Europe for those Architects interested to bid and work together across geographical boundaries

GreenArch has brought together significant architectural engagement from across Europe. From this process of meetings, discourse, joint research and evaluation participants have unanimously agreed a set of recommendations that represent their common priorities and objectives for public and private sector competitions that are addressed to European architects and policy makers.

An increasing emphasis on risk, particularly acute since 2008, has constrained European economies and blocked growth. Improving access, quality, effectiveness and efficiency, and reducing risk in competitive processes can increase opportunities contributing to growth, innovation, value and sustainability in our built environment producing lasting benefits for civil society and its wellbeing.

In summary, Architects working together across Europe might enhance the numbers and quality of architectural competitions to:

- Improve access, opportunity, societal engagement and quality;
- Reduce waste and increase sustainability;
- Support and enhance growth.

Summary of recommendations

GreenArch summary recommendations are set out below more detailed recommendations follow.

1. European digital networks for architecture competitions

Recommendation 1

A digital portal for construction design professionals should be established for pan EU level operation to enhance collaboration, knowledge sharing, guidance, educational initiatives, professional engagement, transparency, research and access whilst being able to provide feedback on digital migration.

GreenArch believe that there is much more that could and should be done to build on the reforms of the new Directive 2014/24/EU to further improve opportunities.

To sustain better outputs in architecture and construction at all levels sector specific pan-European digital platforms need developing. This platform offers opportunity to further sustainable competition practices, disseminate pedagogy, offer remote support and training, deliver online competitions guidance, increase cross border interaction, collaborations, develop policy research, evaluations, comparative analysis and feedback reporting and develop multiple innovative resources, that might extend over the whole construction life cycle etc. These could allow issue, transmission, exchange and repositories of submissions along with facilitation of the European single e-Procurement Passport.

2. Architect competition programmers

Recommendation 2

An advanced, accessible and high level educational program for architectural competition programmers and advisors should be developed so that project briefs and competition programming, knowledge, guidance and best practices might be improved prior to competitive tendering.

Procedures for selection of architectural services are recognized as distinct. A Europe wide need has also been identified to improve construction outputs, the services architects can offer clients and architects engagement in competitions. The lack of adequate preparation and briefing prior to awarding design commissions through competitive tendering is identified as a deficiency and a key stage that needs to be addressed further. This educational programme would contribute towards professionalizing and improving competition programming services. Courses for competition programmers could be delivered across the digital network.

3. Design contests.

Recommendation 3

Preferably construction design and planning services should be acquired by anonymous selection and assessment through design contests with a majority of independent jurors. A third of all jurors should be architects or where another particular professional qualification is required at least a third of the jury shall have that or an equivalent qualification.

For delivering the most cherished and best value architecture, design contests are unmatched. They can successfully deliver quality, sustainability, best value, improved access and support innovation. Their use should be further promoted as the default method for the procurement of architectural services.

4. Micro, SME, young, and emergent architects

Recommendation 4

More still needs to be done to provide opportunity and create a level and proportionate playing field for Micro, SME, young and emergent architects to allow them to compete within the European market.

Increasing access improves competition, encourages innovation and by allowing business progression contributes to growth.

5. Raising the EU threshold values.

Recommendation 4

EU threshold value and specifically those for service contracts should be raised to a value equivalent to the median of contract award values. In this context however the EU should legislate to ensure all public competitions above euro 20k be advertised transparently in standard formats across pan European portals.

We welcome and support the commitment made in Directive 2014/24/EU (Art 92) towards raising EU threshold values. At lower contract values, the disproportionate cost and complexity of public procurement processes and procedures is contributing to the exclusion of young architects, SMEs and micro businesses from competitions.

A less proscriptive legislative approach to lower value contracts requires that they be advertised publically to ensure the principles of transparency are maintained simply and easily, with acceptance of greater risk, and reliance placed on intelligent commissioning and probity by national legislation. For EU service contracts procured at the median values the economic cost of the transactions (c. 8%) reach a more reasonable and proportionate viability.

6. Progressing GreenArch

Recommendation 5

A commission should be created including the GreenArch participant parties in order to further develop, promote, consult on and realise the summary and detail recommendations contained in this report.

CONTEXT - COMPETITION PROCEDURES IN EUROPE AND THEIR DEFINITION

The general framework in Europe

Private architectural competitions are unregulated at EU level, but public architectural competitions in Europe are part of a complex legal system. Recent evidence collated by the commission in preparation for the reform of the EU procurement directives has highlighted that this system can have significant negative impacts reducing:

- Transparency, efficiency, effectiveness, proportionality and quality of the award selection processes which in turn adversely impact on the value of the final built work;
- Access and working opportunities particularly for architects who are micro businesses and SMEs. This arrests innovation, competition, growth and business progression as over 95% of EU architects are either SME's or micro businesses.
- Sustainability, cohesion, growth and innovation of works and projects delivered in relation to their particular social, economic and cultural contexts.

When discussing competitions at an international level public and private European architectural commissioning has to account for a wide variety of national differences. These are primarily differences in culture and language, but national legal frameworks are also material. Together these differences are all reflected in national procedures, processes and practices. But to work together to improve competitive commissioning across Europe requires a better basic and common understanding of the unitary laws which define procedures, processes, mappings, data evaluation and methods, etc. for all those engaged with public competitions in Europe.

In the procurement Directives, most particularly the reformed Public Contracts Directive 2014/24/EU, a standard European legal framework already exists for the acquisition of works, supplies or services. This also specifies the limited scope for member state subsidiarity (national non mandatory practices). The new directive substantially reforms the previous directive.

The legislation is principled upon transparency, equal treatment, proportionality, free movement of labour and best value. The Directives provide common definitions of legal language, procedures, instruments, processes and criteria which all EU member states are required to adopt.

In general, the Directive provides information, valid for all public competitions, about:

- Scope, definitions and general principles;
- Procedures;
- Techniques and instruments for procedures;
- Preparation;
- Transparency;
- Choice and award of participants.

The Directive specifies **7 types of competition procedure** suitable for use in selecting architects:

1. OPEN PROCEDURE (Directive Art. 27):

Any interested economic operator may submit a tender in response to a call for competition. The minimum time limit for the receipt of tenders shall be 35 days from the date on which the contract notice was sent. The tender shall be accompanied by the information for qualitative selection that is requested by the contracting authority;

2. RESTRICTED PROCEDURE (*Directive Art. 28*):

Any economic operator may submit a request to participate in response to a call for competition containing specific information for qualitative selection. The minimum time limit for receipt of requests to participate shall be 30 days from the date on which the contract notice or, where a prior information notice is used as a means of calling for competition, the invitation to confirm interest was sent. Only those economic operators invited to do so by the contracting authority following its assessment of the information provided may submit a tender. Contracting authorities may limit the number of suitable candidates to be invited to participate in the procedure;

3. COMPETITIVE PROCEDURE WITH NEGOTIATION (*Directive Art. 29*):

Any economic operator may submit a request to participate in response to a call for competition containing the information for qualitative selection that is requested by the contracting authority. In the procurement documents, contracting authorities shall identify the subject-matter of the procurement by providing a description of their needs and the characteristics required of the supplies, works or services to be procured and specify the contract award criteria. They shall also indicate which elements of the description define the minimum requirements to be met by all tenders. The information provided shall be sufficiently precise to enable economic operators to identify the nature and scope of the procurement and decide whether to request to participate in the procedure. The minimum time limit for receipt of requests to participate shall be 30 days from the date on which the contract notice or, where a prior information notice is used as a means of calling for competition, the invitation to confirm interest was sent.

4. COMPETITIVE DIALOGUE (*Directive Art. 30*):

Any economic operator may submit a request to participate in response to a contract notice by providing the information for qualitative selection that is requested by the contracting authority. The minimum time limit for receipt of requests to participate shall be 30 days from the date on which the contract notice was sent. Contracting authorities shall open, with the participants selected, a dialogue the aim of which shall be to identify and define the means best suited to satisfying their needs. They may discuss all aspects of the procurement with the chosen participants during this dialogue. During the dialogue, contracting authorities shall ensure equality of treatment among all participants. To that end, they shall not provide information in a discriminatory manner which may give some participants an advantage over others. This procedure is rarely used in most EU common practice;

5. INNOVATION PARTNERSHIP (*Directive Art. 31*):

Any economic operator may submit a request to participate. The contracting authority may decide to set up the innovation partnership with one partner or with several partners conducting separate research and development activities. The innovation partnership shall aim at the development of an innovative product, service or works and the subsequent purchase of the resulting supplies, services or works, provided that they correspond to the performance levels and maximum costs agreed between the contracting authorities and the participants. The partnership shall be structured in successive phases following the sequence of steps in the research and innovation process, which may include the manufacturing of the products, the provision of the services or the completion of the works. This procedure has been introduced in 2014;

6. USE OF THE NEGOTIATED PROCEDURE WITHOUT PRIOR PUBLICATION (*Directive Art. 32*):

This procedure may be used for public works contracts, public supply contracts and public service contracts only in very specific circumstances; where no tenders or no suitable tenders or no requests to participate or no suitable requests to participate have been submitted in response to an open procedure or a restricted procedure and provided various conditions are met. This procedure is rarely used in most EU common practice but is particularly valuable for use at the conclusion of a

of design contests (which is specifically allowed for).

7. DESIGN CONTESTS. (*Directive Art. 79 – 82*)

Design Contests are a legally unique and distinctive type of competition for use specifically in architectural, spatial and design commissioning with different rules, processes and procedures. But they are now rarely used except in a few countries. Selection is based on scrutiny of an anonymous design and submission determined by a jury of whom at least 1/3rd shall have the same or an equivalent qualification as the contestants.

EU architects do not often use the defined legal language and commonly refer to an architectural “competition” when meaning an architectural “design contest”. In international architectural discourse this creates some confusion whilst there are also many architects who believe all competitions are design contests.

To support better understanding and engagement the European architectural profession should change its use of language by clarifying and embedding use of architectural ‘design contests’ for this procedure, separately from all other architectural competitions.

The Open or Restricted procedures (Items 1 & 2) above may be used on their own.

Procedures Items 3 & 4, above have notices issued with either an Open or Restricted procedures (Items 1 & 2) above;

It is specifically allowed that Item 6 may be used after Design Contests (Item 7).

The described procedures in Items 2, 3, 4 and 5 give rise by default to multiple competition stages.

The unitary definitions, legal practice and mappings under the EU Procurement Directives provide a standard platform, for engagement with understanding competition procedures, practices processes research and guidance. The architectural professions in most member states however do not always map their national competition systems to this primary EU legislation. More consistent use and understanding of this standard legal framework by European architects would improve collaboration, cross border trading, knowledge sharing, reporting and policies, whilst providing new opportunities for national practices that would inform both private and public sectors.

To deliver the necessary growth and opportunity that can benefit to civil society, stakeholders, clients, culture and the profession, European architects would benefit from working better together across the EU to embed reforms. Cooperation in reform is important at both quantitative and qualitative levels as the construction industry is a large proportion of our economies. For example in the UK, the construction industry accounts for almost 10% of GDP, with some 40% of this being in the public sector. The proportions are similar in other EU nations.

Public construction procurement has also been shown to be very expensive and inefficient, and frequently delivers buildings that are unsustainable and of sub-standard design quality, in a market with significant barriers to fair competitive access. General procurement processes have been costing up to 29% of a contracts value, for contracts at the thresholds: this means that nearly 1 in every 4 construction projects at threshold values is lost to the procurement cost. The reforms proposed within the new directive provide a vital opportunity for changing procurement culture and practice as in the current economic climate growth is a clear imperative.

Construction professionals across the EU all have very similar profiles: they are mainly micro businesses or SMEs (small and medium enterprises). But these firms along with new entrants to the market have not been getting equal opportunities to participate in public competitions. There have been many glass ceilings. Fair competitive access by SMEs and micro businesses to public contracts would imply they win a proportion of contracts equal to their weight in the economy, but this is not happening. Their market access to public procurement falls well below their access within the economies as a whole; in the EU the

average is 19% below, in UK 25% below, in Italy 33% below, in Czech Republic 34% below, in Spain 42% below (ref. image below). The new EU Directive has, in part, sought to address this with new provisions.

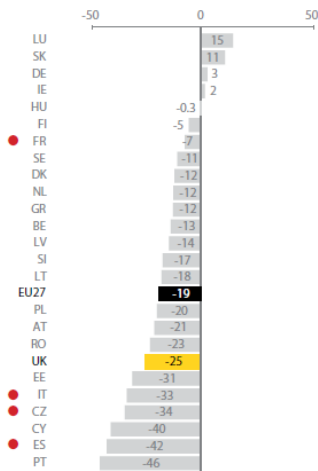


Image 01:

SME's share in the total value of public procurement (across all sectors) relative to their share of the private sector in the economies as a whole.

Credits: 'Evaluation of SME Access to Public Procurement Markets in the EU' coordinated by DG Enterprises and industry submitted by GHK Sept 2010. Abstraction by Walter Menteth, <http://www.projectcompass.co.uk/>

The migration to digital procurement proposed under Directive 2014/24/EU offers new possibilities for transformative reform that should be considered.

E-Procurement is now fully embedded within the Directive. This requires and incentivises all states to move towards paperless fully digital procurement processes and practices. This also potentially promises significant improvements in access, reductions in cost, greater efficiencies and better transparency that can improve knowledge sharing and research whilst informing best practices across all spheres. The European single digital passport is a further aspect of this development which might ease cross border trading.

There is also clear focus on whole life cycle value and the cost to environmental externalities at the procurement stage; while Communication (COM (2008) 400) "Public Procurement for a better environment" principles have now also been embedded within the new directives so that the three issues which define sustainability; economic, environmental and social are now far better accounted in the European directives that define competition programming and contract awards.

Member states have until 18 April 2016 to adopt the reformed new directive.

Project Compass in collaboration with Architectuur Lokaal in the Netherlands provide an example through their portal www.thefulcrum.eu of a pathfinding sector specific digital procurement initiative. This potentially disruptive innovation has been set up recently to provide a framework and collaborative portal for trans-European digital procurement, which can develop forward research, feedback, intelligence, guidance and a range of other fully online digital procurement initiatives. It is currently covering only the architectural sectors in the UK and the Netherlands although it is hoped to organically expand. This system is also now open to not for profit digital portal organisations from other member states.

The available evidence shows an ongoing need to improve guidance, simplify practice, enhance access, reduce costs, increase effectiveness, efficiencies and transparency, raise the EU threshold values and creatively migrate to digital e-procurement. To effect the necessary changes the reforms presaged by the EU Directives can only be implemented successfully by challenging existing and embedded procurement culture and by facilitating initiatives forward.

Green public procurement in competition programming

Communication (COM (2008) 400) “Public Procurement for a better environment”, defines Green Public Procurement as a process whereby public authorities seek to procure goods, services and works with a reduced environmental impact throughout their life cycle when compared to goods, services and works with the same primary function that might otherwise be procured. Its implementation can give a huge contribution to sustainability, in terms of consumption and production, and influence the market. In some sectors, public purchasers command a dominant market share so their decisions have considerable impact.

Green Public Procurement (GPP) has been a voluntary instrument supporting selection criteria, providing guidance and references developed to facilitate their use in public tenders. While the adopted EU GPP criteria aim to reach a good balance between environmental performance, cost considerations, market availability and ease of verification, procuring authorities may choose, according to their needs and ambition level, to include all or only certain requirements in their tender documents.

The format for the purchasing recommendations comes in the form of two sets of criteria:

- **Core criteria** for use by any Member States contracting authority addressing the key environmental impacts for the product in question and designed for use with minimal additional verification or cost.
- **Comprehensive criteria** are for those procurers wishing to purchase the best products available on the market. These may require additional verification or slight cost increase compared to other products of equal function.

Within both criteria, the guidance follows the various stages of a public procurement procedure and explains how best to integrate environmental criteria at each stage:

- **Subject matter:** The title of the tender, including a short description of the product, works or service to be procured;
- **Technical Specifications;** such as a detailed description of the requirement and standard to which goods, works or services should conform; and description of the (specific environmental criteria, including hurdles and levels that need to be met for specific products);
- **Selection Criteria;** to identify appropriate suppliers and assess the capacity / ability of the bidders to perform the contract;
- **Award Criteria;** such as on which basis the contracting authority will compare the offers and base its award;
- **Contract Performance Clauses;** that is the conditions that must be met in the execution of the contract (how the goods or services are to be supplied, information or instructions on the products to be provided by the supplier ...).

Construction design, project planning, services, water and product specification of relevance to architects are all addressed by this instrument which has relevance in the preparation of briefs, competition programming, and from the start of design through to post occupancy completion.

Public procurement and architecture competitions in GreenArch Partners' countries

Introduction

Some common features and differences emerged from meetings, discussions and presentations shared among the participant countries regarding how competitions are programmed and managed.

The EU regulatory framework. The thresholds for a public procurement competition procedure are fixed under the terms of the European directives. These are applied at national level and, in some cases, in regional regulatory systems. Private Commissioners are not bound by the legislation or thresholds of the EU Directives.

The participant countries use different **types of public competition** to a greater or lesser extent. Variations arise according to:-

- The size/cost/complexity of the project.
- The degree by which financial risk will be apportioned to contractors.
- The legal status of architects in individual countries i.e. whether the function, or title, or both of architects is protected by the countries legislation.
- National, regional and local regulations, standing orders, guidance, practices and culture.
- The financing of a project whether public; or public/public; or public/private partnership; or private.
- Whether they are open or restricted competition procedures and the type if any of other procedures
- Whether competitions are held in one or two phases.
- The type of commission sought on award of a contract; whether for the direct appointment of an architect, an architect along with other consultants, or a prime contractor with an architect (and design team) along with their contractual relationship to the client.
- The type of instruments used with competition procedures, whether for lots and/or frameworks where allowed for in the EU Procurement Directives.

In national practices there is therefore a notably wide range of procedural variations. These are allowed for by the Directives ([ref: "The General Framework in Europe"](#)).

From the experiences of GreenArch participants it was agreed that the following are some key **BEST COMPETITION PRACTICES**:

- Ensuring the competition and project briefings are sufficiently precise, well-structured, clear, and adequate for the task in hand, that the topics are well focused, information is well communicated and is free and easily accessible. The French MOP (maitrise d'ouvrage publique) law would appear uniquely to provide an example of how this maybe done at national level.
- Ensuring the competition and project financing and budgets are realistic and well estimated, and that these are agreed prior to launching any competition.
- A well advised client will adequately resource the competition stage procedures and their preparation.
- The requirements for any competitive submissions should be strictly proportional to the task in hand.
- A programme/time scale that is appropriate and reasonable for the clients and necessary for preparing, authorising and validating briefs prior to the launch of a competitive procedure.
- A programme/time scale that is appropriate and reasonable for the competition contestants to do the necessary work making the competitive submission.
- A knowledgeable and well informed client body versed in the specifics of architects' and the construction industries activities and services.

- The terms of the architects and consultants appointment are clearly, simply and fairly specified at the outset, using member states standard terms of employment, and those terms are proportional to the project, the risk and the outputs sought.
- All stakeholders and public authorities having a material interest in a project should be consulted (and where necessary their authority and support received) both prior to the launching of a competition procedure and at the shortlisting stage. Wider engagement can be both necessary and important for success.
- Programme times are strictly adhered to.
- Competition submissions are evaluated on design quality.
- The award evaluation criteria should be clearly expressed with objective values;
- Feedback, Memorandum and or minutes recording the assessment of competition submissions are publically accessible and available;
- In response to any brief competitors should be able to submit a statement of their vision along with any evaluation or design submission.

For Design Contests:

- When undertaken appropriately open design contests being based on design quality provided opportunity to achieve the widest access and best overall outputs from a competitive process.
- A well-considered and impartial jury having a minimum 1/3 experienced architects having no conflict of interest with contestants or the client body;
- To attract the best caliber of entrants Design Contest should include reasonable honorariums for adequately rewarding contestants; and that all prizes should be proportional to the effort required in making the submission.

Some of the **WORST PRACTICE** were also identified:

- Unprofessional, poorly defined and imprecise briefs that lack clarity and focus having notices and communications which generate misunderstanding;
- The project being inadequately advertised, or having documents that can only be acquired by payment of an entry fees, and/or use the incorrect NUTS and/or CPV codes that impact upon their transparency.
- Competitors expending time, intellect and cost on entering and winning awards for projects that are not subsequently built. This frequently arises due to poor budgetary analysis and/or a lack of stakeholder commitments or approvals. It also occurs eg where frameworks awards are won and were architects are not subsequently called off.
- Some countries reported competitors only being awarded commissions for architectural services to a short fragmentary stage in a projects' construction. Typically this might be for achieving planning approval and where the cost of the competition submission was barely recompensed by the value of the commission subsequently awarded.
- Design quality is not the most important evaluation criteria; with resourcing, insurance, experience and/or other risk evaluations being regarded as predominant criteria.
- Work done by competitors is not paid for or rewarded in any reasonable way.
- Competitions that require competitors to undertake a disproportionate amount of unnecessary work. This is particularly the case with e.g. the use of nonstandard PQQs in 2 stage restricted procedures and where highly advanced stage design submissions are required prior to shortlisting.
- Programme timings are not adhered to.
- Clients/juries have an unreal expectation of what might be deliverable and/or are supported by inadequately qualified advisors.
- The evaluation criteria are not clear, and/or not applied transparently and/or not verified by the assessors.
- The competition winner does not comply with or departs significantly from the competition brief;
- Design Contests. A jury which does not take a consensual approach. For example where a juror/client representative deliberates alone in the jury (e.g. a mayor holding an intransigent view

who wants to compel the jury to vote according to his will).

This process of knowledge sharing, analysis and research into how to improve architectural competitions at both national and European level was ultimately concluded by the **RECOMMENDATIONS** contained elsewhere in this document.

GreenArch participants provided the following accounts of their national competition frameworks and procurement practices as a descriptions of the context that informed the conclusions in this document.

Czech Republic

The system in which architects operate in the Czech Republic is regulated by the common EU law on public procurement integrated in the Czech law under the Act 136/2006 Coll. Competitions have to also be in accordance with the Competition Regulations (last updated in 2013) – issued and controlled by the Czech Chamber of Architects (cka.cz).

There are several perspectives through which the types of architectural competitions in Czech Republic can be categorized, according to:

- Specific topics of reference (urbanistic, architectural, constructional or their combination);
- Activity requirements (project design or idea/concept);
- Participation: it can be open (always anonymous), invited (can be both anonymous and non-anonymous) or their combination;
- Typology: one-round or two-round competitions.

In order to be officially approved by the Chamber the Jury, the competition must reach a majority of independent architect jurors. Based on the type of a competition, the whole procedure lasts from 6 to 30 weeks.

Competitions are organized by a department of the public authority or by companies commissioned by it. So far, there is not recognized the role of the programmer. The prize-winning teams are invited to a closed negotiation with the procurer (public administration). The procedure is always individually adjusted by the procurer for each competition, although it has to follow the law and has to be transparent. Thus it is possible for the commission to be given to any of the teams.

During the last few years around 30 architectural competitions were held on average, but no detailed statistics or data are available: only recently there are a few facts and figures about architectural competitions maintained by the Czech Chamber of Architects. In the Czech Republic more than half of the architects are “young”. However there are also no concentrated statistics on the number of graduates from architecture school and their actual involvement in the profession.

France

Public procurement rules result from the EU Directive 2004/17/CE.

This directive has been transposed into the internal French law with the 2006 Public Market Code and the 2005, December the 30th Ordinance for the public authorities which are not submitted to the Code but using public funds (social housing company, public establishment). This EU Directive fixes the thresholds to choose the procurement’s procedure.

The rules are about to change in 2016 with the transposition of EU directive 2014/24/CE. The Council of the Architects' Order stands for maintaining the particularity of architecture competitions within public procurement.

Two more laws apply in France for architectural public contracts (as they are classified as specific procedure procurement):

- Law 77-2 from 1977/01/03 dedicated to architecture
- Law MOP (public contracting authority) from 1985/07/12 concerning the relations between public contracting authority and architects.

Public procurement are published on bidding platform.

According to the thresholds, architecture's procurement can be launched with various procedures:

- Open procedures among them Tenders;
- Restricted procedures between selected candidates such as Competitive dialogue, Negotiated procedure, Tenders or Design contests.

In particular, a restricted design contest allows for:

- The choice of a project design rather than assessment being judged on financial criteria or the teams experience and composition.
- improve the architectural quality, creating healthy competition between the participants
- A democratic and accountable procedure, with the project being assessed by a jury, a third of which are architects
- Creating decent professional conditions for the selected candidates. Indeed, as the architects produce a preliminary design (graphic documents, brief and sometimes model), they will receive an allowance representing at least 80% of the estimated price of the working phase (this allowance will be deducted off the winner's global fees).

French architecture competitions are usually divided into two phases: the first to select a limited number of teams and the second to select the best project. These design contests are compulsory for any contract whose architectural fees exceed 134 000€ VAT (State's contracts) or 207 000€ VAT (Local authorities' contracts - except for those not including conception, or for renovation only).

The competition procedure lasts at least 6 months from the information notice to the attribution of the market. In the meanwhile, the public contracting owner may be assisted by advisory support or specialists such as a consulting engineers. The jury can be assisted in their deliberations by appropriate experts.

The competition market mixes public and private bodies: when an authority needs a public equipment financed by a private company, it build the equipment at its own cost. Thus, the authority pays a rent for 20 or 30 years and, at the end, the property of the equipment comes back to the authority.

The role of the competition programmer is well recognized and specific training courses already exist.

UK

The main UK procurement legislation and guidance concerning the criteria used in competitive selections can be found in the documents listed below:

- The Public Contracts Regulations 2015 (England and N. Ireland). This includes the UK transposition of Directive 2014/24/EU. Scotland and Wales are devolved.
- PAS 91 (see 1.3.3 below) A standardised form providing mandatory and recommended criteria for selection stage in a restricted procedure.

- BS 8534:2011 (British Standard on Procurement)
- BS ISO 10845:2011 (Part 1 and Part 2)

The Public Contracts (Social Value) Act 2012, and the National Planning Policy Framework are national legislation and regulations which should also be material to a contracting authorities procurement decisions. These aim to embed sustainability, localism, design quality and stakeholder value but there relationship to competition procurement is frequently poorly considered.

The following are the main UK recognized competition systems and typologies:

- **Competition by two stage restricted procedures** is the most common process for public contract awards for architectural services accounting for 81% of public notices.
- **Competitive Dialogue**; this procedure was used extensively in the public sector up until about 2011 for the acquisition of construction and design teams who were paid to develop up proposals in competition through to considerable detail. (UK schools and Health programme.) UK uptake on this inefficient and time consuming procedure was sensibly not matched elsewhere in the EU. been used frequently up until 20 or Limited / Selected / "Non-open" competitions, depending on who is allowed to participate sometime preceded by an open pre-qualification process; expensive and long
- **Framework Contract awards** –in conjunction with a 2 stage restricted procedure this instrument, provided for under the EU Directive, is frequently used to award public contracts to a number of operators for a period of time (typically 4yrs) so that they may be ‘called off’ to do a project commission during this period.
Architects appointed onto by a framework receive no guarantee of work and are frequently required for any subsequent ‘call off’ to enter into an unregulated design ‘mini-competition’ to secure a commission of work. This is popular but very economically expensive particularly for consultants.
- **Design contests**; by Open or restricted procedures where the submissions are judged anonymously by a jury comprising at least a third independent architects.
- **Ideas contests** for Architectural, project, art or design works. Where the competition is generally to generate new ideas. These are frequently for works below the EU thresholds and might be judged anonymously through an open, single or two stage procedure.

It is worth noting the following:

- **Open design contests** (national or regional) for the realization of built works where the submissions are judged anonymously by a jury comprising at least a third independent architects are extremely rare (<1% of UK architectural commissions).
- The largest numbers of commissions architects receive in the public sector are as sub-contractors to the constructor or facilitator (49%), whilst of those remaining over half are acquired only through working in consortia with others.
- Selection through a single stage restricted procedure or by negotiated procedures are rarely used.
- A large number of contract awards are in Lots or onto Frameworks.

Within the UK the word procurement also refers to the type of construction contract and financing arrangements which may also be a critical factor in determining the form of competitive procedure invited under an EU public contract notice. These are:

- **Traditional Contract** - used for 43% of construction projects (RICS 2003 data). This traditional method is the most popular for small sized construction projects where an architect is engaged. The constructor works according to a detailed plan provided on behalf of the client by the architect. There are few traditional public contracts
- **Design & Build (D&B)** - This now applies to 42% of all projects where architects are engaged, is more popular on medium to larger projects, and captures the largest proportion of the market by

value. The contractor provides a single point of contact, takes the risk and is responsible for the design and building; while the investor might provide only an outline project brief. Tier 1 Architects are sometimes appointed up to the achievement of planning and may then be transferred over (novated) to continue work as a sub-contractor to the prime design build constructor.

- **Construction Management** - It first appeared in the UK in 1980s. Commonly applied, especially in technologically complex projects, where fast completion is crucial. The contractor acts as a management consultant, not directly responsible for subcontractors and only manage the construction works undertaken by subcontractors.
- **Management Contracting** - a hybrid form being a fusion between traditional method and construction management where the management and implementation of a contract is tendered through the construction phase but risk and responsibilities are distributed.
- **Private Finance Initiative (PFI)** - Contracts for this are most typically Design, Build and Finance. A D&B form used for large projects, where the contractor with or without a financial partner provides all or some of the project investment provided for public construction works. The financiers are frequently banks or other lending institutions.

The premises are also maintained and serviced by the financier who most frequently makes an investment return through a lease agreement where after a designated period of time ownership reverts to the financiers.. e.g. Queen Elizabeth II Bridge in Dartford. Hospitals, Schools etc
This transfers risk and investment from the public exchequer, but also transfers the power and accountability and frequently design quality and sustainability. PFI projects can have extremely complex legal structures that lock in the public authorities to making long term payments without capital gains.

- **Public-Private Partnership (PPP)** - a form of long-term joint contracting founded on PFI style engagements but invoking partnership between public authorities and private organisations, e.g. modernisation and maintenance of London underground.
- **Prime Contracting** - an expanded traditional form including long-term partnership. The contractor is usually obliged to undertake construction works and further building maintenance. It is commonly used by governmental institutions, such as NHS and the army.

In the UK the 'Title' of Architect is protected by law but not the 'Function' of an architect. All architects are required to be duly qualified and registered with the Architects Registration Board (ARB). Therefore legally it is not necessary for a buildings' design to be undertaken by a qualified architect. For this reason nearly 48% of commissions in the UK public sector for the design of buildings are acquired from others, (mainly contractors). In such cases architects are frequently sub-contractors.

The Chartered Institute of Purchasing and Supply (CIPS), a professional body which has mainly developed in response to the EU procurement Directives, have largely replaced the role of architects in the management and programming of public procurement, the processes of selection and much of the development of briefs. Their work is mainly managerial, process and financially lead and engages across all fields of procurement. They are not trained to have design skills.

There remain a number of private organisations in the UK providing architectural competitions advice. One of these the Royal Institute of Architects (RIBA), is USEs' silent partner. The RIBA have a dedicated competitions office described as a 'provider of design competition management services'.

The office has a reputation for organising architectural competitions for a diverse range of project types from buildings, to urban design and the public realm, and running competitions for clients looking for innovation in product design. Competitions are seen by RIBA as source of 'inspiration and value' for clients, where choice can be delivered through a competitive selection process. The office instigate and issue very few open design contests, is not run by architects although after inception calls upon RIBA certified Client Advisors.

Before any design contest competition starts, the relevant actors that, play a role in the procedure at various levels are identified. In the UK the initial players in a competition may be:

- The client and their delegated representative or team.
- Managers -
 - Who can advise from the range of different selection and appointment procedures the most suitable options to meet the expectations and needs, from early feasibility to commissioning of a design team;
 - to provide and comply with a full and comprehensive audit of the process;
 - who develop the competitive selection and assessment procedure
- Experts in the field/sector are used when doing a bespoke competitive process. To find the right design team and/or design solution to meet all expectations this ensures that the brief and submissions can be technically prepared, assessed and validated from the wide range of alternative submissions.
- Organisers – who take care of the competition organisation and administration
- Promoters – to promote the competition and endorse contestants that the competition will be efficient and fair and will conform to the highest standards.

Stakeholders should play a major role in the programming and completion of a design contest or competition. But UK competitions are frequently very unprofessional with incomplete and poorly constructed briefs that ignore stakeholders and are frequently launched without the approval of statutory authorities. (RIBA work stage '0') These lead to many competitions not being realised.

Better competition programming practice should engage with:

- Professionalising the project briefing and competition programming service, improving information and research.
- Consulting and engaging widely with local stakeholders
- Enhancing the potential for empathies between clients and competitors, and between competitors and the production teams to ensure working relationships can be sympathetic and collaborative.
- Ensuring proportionate quality, analysis and precision in both the project and competition briefings, and whether the consultants will be able to realise the designs through to completion (not just planning).
- Resourcing a competition properly - including paying the design team fairly- and so as to attract the right caliber of entrants.

All too frequently UK competitions for architectural services are poor. They are often complex and expensive, when subsequently tested designs prove to be unrealistic in terms of needs, cost and stakeholder expectations, the clients, assessors and/or designers have unrealistic expectations, commissioning is aborted and best value high quality design is not regarded as a priority. This might not be the better case if there was better competition programming, guidance, training and research.

Spain

The Spanish regulatory framework applied to public competitions is as follows:

- The worldwide regulatory system issued by the World Trade Organization
- The European regulatory system
- The Spanish regulatory system “Ley de Contratos del Sector Público” (Law on Public Sector Contracts)
- Regional regulatory systems as they may apply.

There are various different Spanish typologies for architecture competitions issued by public entities. Each different type and different regulation depends on the fee for the project. Participation can be open or restricted, and be held in 1 or 2 phases.

Minor Contracts - *Contratos menores*

- Where projects have a fee < 18.000€ the appointment is directly commissioned without a competition

Private competitive procedure with negotiation, which is not advertised - *Licitación con procedimiento negociado sin publicidad*

- Where the fee is > 18.000€ and < 60.000€ and the appointment is to lead to a project commission, a minimum of 3 can be privately invited to compete.

Publicly advertised: Competitive Procedure with Negotiation - *Licitación con procedimiento negociado con publicidad*

- Where the fee is > 60.000€ and < 100.000€, the appointment is to lead to a project commission and the competition is an Open call.

Open Competition - *Concurso abierto*

- Where the fee is > 100.000€, the appointment is to lead to a project commission, the competition is undertaken in a 1 stage and advertised by an Open call

Restricted Competition - *Concurso restringido*

- Where the fee is > 100.000€, the appointment is to lead to a project commission,
- Under invitation - minimum 5 invited
- 2 phases

Design Contests - *Concurso de proyecto con intervención de jurado*

- This is not dependent on the fee, is an open competition judged anonymously by a jury, where there is an award of prizes that does not need to lead to a commission, and maybe in 1 or 2 phases.

The number of competitions held in Spain over the past 5 years are as follows:

Open Competition –	
<i>Concurso abierto:</i>	4.964
Restricted Competition –	
<i>Concurso restringido:</i>	989
Publicly advertised: Competitive Procedure with Negotiation	
<i>Licitación con procedimiento negociado con publicidad:</i>	195
Design Contests	
<i>Concurso de proyecto con intervención de jurado:</i>	482

(source: Col·legi d'Arquitectes de Catalunya web database - which includes almost all public competitions and the few of the most relevant private competitions. it does not include the *Licitación con procedimiento negociado sin publicidad*).

There is no official data about the issued public competitions but an estimation can be done. There is no official data neither about the issued private competitions and is not easy to track them.

Private competitions are not regulated by law there is no data on them and they are difficult to evaluate.

In Spain there is no official difference between “national” and “international” competition, since all the national competitions are open to all European architects, although language can be an obstacle to cross

border trading. Sometimes The ‘label’ International Competition” is sometimes used just to make a competition more appealing, if it’s published in English, or when it has an International jury.

Public competitions are issued by the government (the ministries), the regional government, the city councils, the foundations, the associations, or by public or semi-public companies (eg. In Catalunya GISA, AENA, INCASOL, BIMSA, BSM, Foment Ciutat Vella...).

The average number of contestants in a competition ranges between 150 and 200 depending on the competition itself.

Public competitions are either organised by the public body’s technical department, or in cases where they have none or the project is beyond their capacity, is assigned to a public company which would later also be responsible for managing the projects construction.

“Competition Programmers” and their role is not recognized, and there are no courses that provide professional training for this task. In some cases the organisation and management of private and public competitions are commissioned from the Architect Chambers (COAC, COAM, ...) or a private architectural studios (eg In Catalonia: Builtonet o Opengap).

During the competitions development the procedure is managed by the issuing body, or where it has one, its technical department; otherwise the work is delegated to external private advisors, to the Architecture Boards, or specialist architectural offices. Competition notices are published by the State through the BOE, by the local administrations and also by the Architecture Chambers.

Officially the competition procedure lasts some months:

15 days is the minimum time for the submission (although normally 3 months is allowed).

3 months is the maximum time from the issuing body to give results.

(normally this lasts more even not contemplated by the regulations)

Although there is no clearly available data about competition outcomes, over recent years observable and circumstantial evidence clearly indicates the trends have been very negative:

- 1 Competition number have declined significantly.
- 2 The proportion of competitions that end without a building being commissioned has increased.

Considerations regarding the weak points of the competition in Spain:

A very large investment is required for architects to participate in a competition. Often the total amount of money spent by each single office sums up to more than the total cost of the project itself. This is not sustainable for the practices or the profession. Less detail should be sought in project submissions, better reward for entrants or funding contestants should be considered.

In two stage restricted procedures, and where the first phase shortlisting is determined on experience, there is discrimination against the participation of young architects.

Finding competitions in other countries is difficult: because architects find accessing and using TED difficult, and much of the data is not transparent. As a result it has been impossible to inform policy on the effectiveness, efficiency and quality of the competition system in Spain. It would be very useful to have an automatic system for architects which collects publishes and evaluates data about competitions (number of participants, percentage of positive competition outcomes...).

Italy

The Italian regulatory framework on competitions directly belongs to the Directive 2008/18/EC “on the coordination of procedures for the award of public works contracts, public supply contracts and public services contracts”. This Directive has been fulfilled through the *Decreto legislativo* 163/2006 “Law on Public Procurement” and the Regulation on the fulfillment of the Law on Public Procurement (2010).

In public procurement there are two choices that can be made. On one side, the invitation to tender (choice of a designer, based on price drop) and, on the other, competitions (choice based on the project). Competitions are very effective tools to appoint a work, and often give high quality results. For this reason, they should be considered as an ordinary tool. But, in Italy it’s not so, and there are very few competitions (around 250 per year): with respect to a European average of 35-40% on the total of appointments, in Italy the use of competitions as means to appoint a work struggles to overcome 5%.

In fact, the Italian law includes a good principle, which is actually poorly applied: “When a project is related to works characterized by architectural, environmental, historical, artistic as well as technological, the contracting authority primarily considers the opportunity of applying the competition procedure, both as design or concept competition”.

This is due to:

- Lack of specific competences within the contracting authority;
- Fear of a long, time consuming procedure;
- Fear of increasing in costs;
- Fear of pleas;
- Fear of losing control over the overall designing.

In Italy there are three main types of competition:

1. Design competitions, dealing with a final project (a work to be realized);
2. Concept competitions, dealing with a feasibility study (focus on the idea);
3. Private competitions.

The first two types can be done through public tender or tender by restricted procedure (based on a selection through a portfolio evaluation or a two-phase competition, the first on concept and the second on the project). A jury is in charge of evaluate projects: their number, role and qualifications are described in the announcement, but not their names.

GREENARCH PROJECT

As mentioned before, GreenArch project started from the need of young architects to find their working place in national and European contexts, having thus the chance to acquire experience spendable on the labour market. In this framework, the project was built on **4 main actions**:

1. **Reading the context**: partners shared national and European competition context and analysed stakeholders. This led to a common framework for competition programming;
2. **Programming**: partners defined contents and assessment method of a training course;
3. **Mentoring** for young architects: partners defined and implemented a training/mentoring activity tested and evaluated during project life;
4. **Share opportunities**: it deals with a discussion on how to implement a framework and aspects of a cooperative digital platform for architects wishing to participate in European competitions.

Main outputs are strictly related to these actions and they can be summarized as follows (further details will follow in the following pages):

- 1) The **Platform**: starting from the context analysis and the discussion related to training and advisory services needed by architects to participate to competitions, partners developed a drafted idea of a networking tool able to connect architects from different countries and provide help and information on international architecture competitions;
- 2) The **professional training**, to train – at national or international level – architects willing to become European Competition Programmers;
- 3) The **mentoring activity**, to “train”, providing help, specifically young architects (in terms of age and experience) to participate to a competition (how a brief should be read, what is needed to participate, ...).

The Platform

Introduction and principles

This new digital component is detailed and proposed in addition to the digital portal and guidance tools recommended otherwise within this report.

A platform named COCO (Competition Connector) be designed as a connection tool for architects and studios allowing them to team up, collaborate and be able to compete together on an international level.

According to EU law, an architect with an address or firm based in the European Union or European Economic Area can participate in any of the competitions held here. However, it is obviously more advantageous to work with someone who knows the local or regional settings and their specific communities, history, topography, climate, laws, standards and regulations.

Additionally, to successfully compete in the EU or EEA area architects from outside must team up with an EU practice.

Description of the tool

COCO platform aims at making architects able to team up more easily and enter the competition.

Essentially it is a database, where you enter simple information about yourself and more importantly your contact info.

COUNTRY, CITY

NAME OF THE PERSON OR STUDIO

PERSON / OFFICE

LANGUAGE OF COMMUNICATION:

CONTACT:
WWW.WEBPAGE.EU
NAME@EMAIL.EU

The principle of the database is simple. It is provided for architects who are either willing to participate in a competition, are aiming to create a team and are looking for others to work with, or for architects who are looking for competitions available in other countries (see image below).

COmpetition-Connector
STUDIOS, OFFICES AND ARCHITECTS

BE
SFGUR, CONEM VOLORER
EICIUSA IS POS ULPA
DELLACCUMET EXERCHIT
OFFICIL ITAQUUNT.
ANDAE NOBIS EST AUTEM ET,
OFFICATE RA QUIS ULLANT,
OMNIMUSCIAE CONSENDI

BG
SINVERUM ET OCCUM ENT EST
ALIAS AUT ALIQUIAM QUO TE
ET ALIAE. NEQUE ES DOLORI
INUSAPERO VOLOREIURIS
SEQUIA NIHIL ILITIAE NULLAM,
ULLEST FUGITIAS ABORROR
ESTIUNT LA NOBITATEM.
AXIMINULLAM QUAS EST, NITIS
RE QUISTIBUSAM HARITIBUS,

CZ
UT RE PORE VELENDIS ETURE
SOLUPTAQUI OPTATEM. ET PRO
IS ET DOLUPTA TEMQUO DE
VOLUPTA VENISSI SUM IPSUM

DK
NONSECABO. QUIS CON RE
SINT EOSTRUM, VOLUPTATUR,

DE
OPTAS DOLUPIS QUID MO
EIC TE POR MA QUIA SUNT
ADIONSE VOLUPTI DOLORRO
VIDESTRUM HARUNDU
NDANDAN TIBUSAME EXPERIB
USAPEROVID MOLUPTATUR
ALITIOR AM ELIAE PREPTAS

EE
PERESSUM SERFERIBUS, A
NONSEQUO BEA DOLUPTAT
LATE ENIA DOLORER RUNTIA

IE
QUI DOLOR REPRORI DOLORES
EQUIAT DOLLESTET ASSUS ET
PARUPTAQUI ALIT, ABORUM

EL
IPSUNT EST MOLOREN TORIBEAT

ES
DOLUPTATECUS SUM EXPLIGN
IHILIA AUTATE PRA AUT AUT
IPSAM FACEATUR SUNTIOS AUTE
PREMPORECEPE NI CONSE
CON ESTIO. ITATIUM IM FUGA.
NAM, QUE CULPA VOLOREPTA
VENDAERIO. UT ARUM IPID
MOLOR AUT EAQUODI
DOLESTIIS CON NULLAM, IUM
QUAM ENDIA PE VENT.

FR
LITATUS QUISSEQUE INUM LA
NULPARI BEATIAS EARUPTATE
NATIOORRO ILLO TO BLAB ID
MOLORES TIOSAM

...
...

MORE competitions?

The main aims of the tool are:

- Ease networking among architects;
- Make entering international competitions easier and more feasible;
- Enhance the quality of competition entries.

The platform would need development to deliver its potential and functionality. However as only a minimum of information and a contact details need be provided it would be possible, for architects to express their interest in taking part in competitions initially at an early stage.

For young architects and smaller practices, who already operate successfully in such digital network environments, this tool would be of particular value whilst also providing them with access to partner more established offices wishing to enter a competition. This collaborative tool can improve efficiencies and cross border trading for example by providing a specialist knowledge service about local environment, laws, regulations and standards, help overcoming language barriers, offer flexible designing skills and internal market outsourcing. It has capacity to develop long term EU, national and regional collaborations.

Core project activities: Professional Training and Mentoring

GreenArch project originally aimed at extending architects' chances to enter the labour market. This would be achieved by promoting the "competition programmer" role at EU level and by supporting architects to find their "professional identity", with an innovative career guidance. In addition, architects should be enabled to work in different countries and untangle among different national regulations and procedures, improving their competences.

To reach that, the following strategy has been implemented:

- the analysis and exchange of problems, suggestions and possible solutions, good and bad practices, in order to learn from others' success, mistakes and previous and/or effective experiences;
- the discussion of new training approaches and advisory services to be implemented to help architects in working on competitions, taking into consideration sustainability and paying attention to technical, regulatory and socio-cultural aspects.

From this continuous activity of sharing among partners, two main results arose:

1. Proposals for implementing mentoring activity to support architects in dealing with competitions at European and national level;
2. Proposals for course training of European Architecture Competition Programmers (EACP).

The professional training program

Context

For several years, the economic squeeze leads to the development of fearful and overcautious attitudes from contracting bodies and clients who are looking for way more guarantees before engaging a project.

At the same time, more and more obligations and responsibilities rely on architects. Each step of the project requires to make precise decisions and choices leading sometimes to significant renunciations.

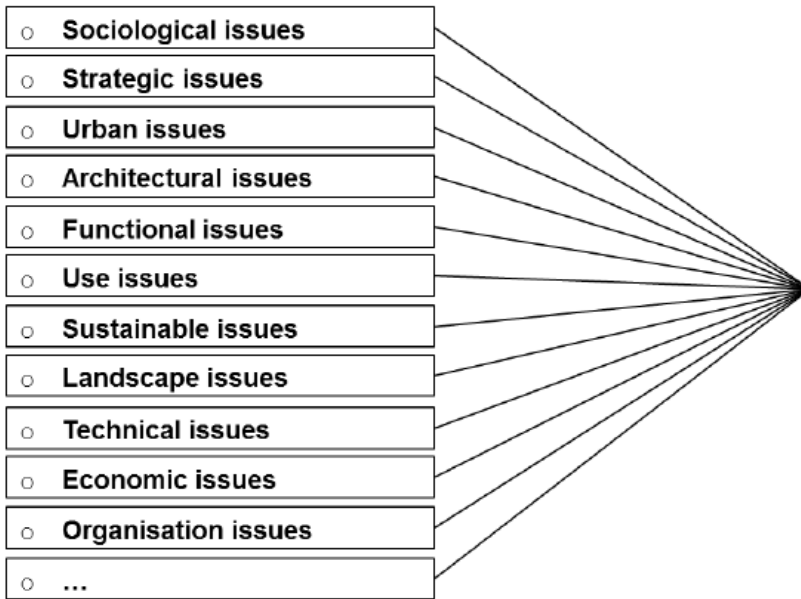
Programming allows us to define upstream, more precisely, the purpose of any commission: its feasibility in terms of regulatory, architectural, functional, economic and operational constraints are properly evaluated to thus allow architects and their team to give a more precise and clever answer to the owner's expectations.

Programming, by undertaking a detailed analysis of the context, a clear definition of the objectives and an intelligible explanation of the use issues, the needed resources and the performances that need to be implemented, helps to lay the foundations for a productive dialogue between client and architect.

France, with the MOP (maitrise d'ouvrage publique) law, appears as an exception in the European spectrum, by requiring the realisation of a detailed brief (what we call the program) before launching any architectural design contest or competition.

A well written program is the result of several months (or years) of work going through several phases and involving a various and important number of stakeholders (users, partners, policy makers, funders, etc).

It specifies the programmatic concept and finely describes:



As a contractual document, the "program brief" contains the conclusions of a long process. As such, the programmer is one major piece of the projects existence and the guardian of the project’s memory in keeping all the exchange traces and pursued objectives throughout its mission.

Programming

Whether the commissions are public or private and whatever their national specificities, their type and position, they require the completion of specifications.

European programmers can therefore find themselves in different situations:

- Private:
 - Establish a program for another architect and accompany the selection;
 - Define the brief in order to achieve the project himself (if he’s architect).
- Public:
 - Establish a program for a competition.

Eventually, this mission can be extended to accompany the selection.

Two components could be distinguished in the programmer’s work:

1. Developing and writing the program itself
2. Its implementation (from candidates’ selection to project’s management of the architecture team, on behalf of the client.)

Objectives

The study conducted under the GreenArch project is twofold:

- On one hand, improving the quality of the command in organizing and defining the expectations, means and specifications of the framework, in particular among young registered architects,
- On the other hand, conducting a pedagogical activity towards the project owner to promote good practices, architectural quality and take into account environmental constraints in the various stages of his project.

Training

The training aims to complete the initial training of architects in upgrading and consolidating their programming skills and methods to allow them, to structure and accompany the command in its definition. It is based on two complementary approaches:

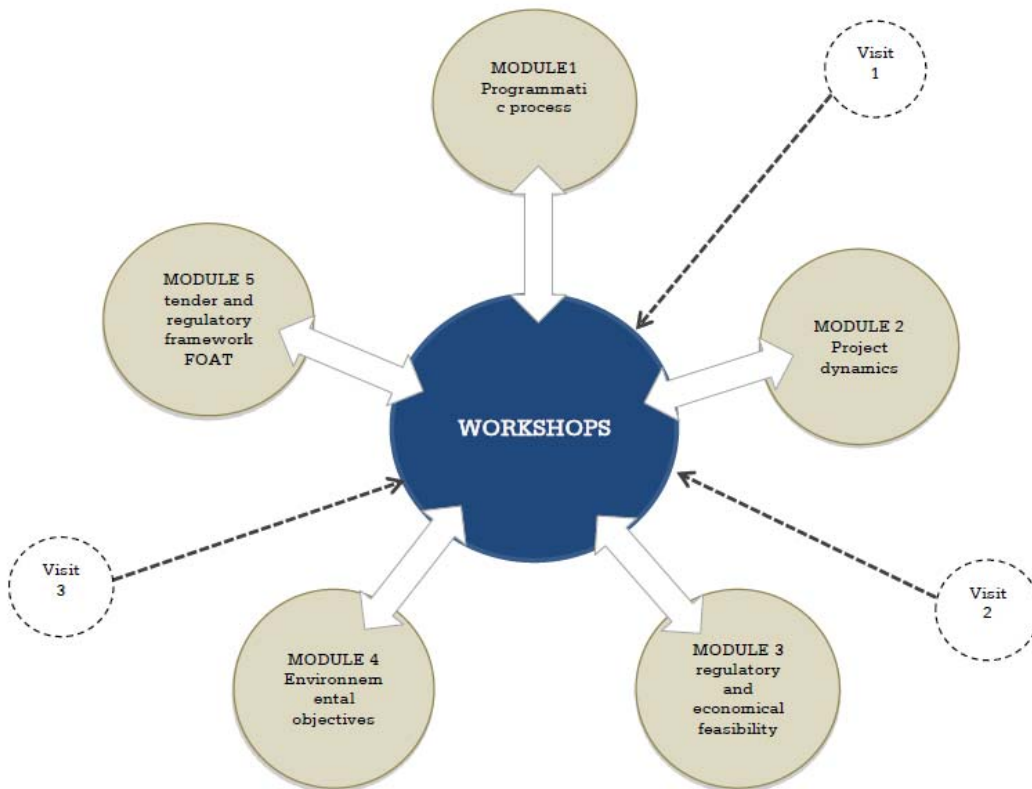
- Learning modules and / or awareness of the issues and skills that needs to be implemented at each step of the programmatic process
- Workshops, enabling their implementation and articulation within a global approach through practical work and simulation exercises

The training approach is based on an active implication of the participants: through individual and group exercises they will set in resonance the project and its context as a global matter.

Facilities buildings and installations tours can also be arranged. They would question the role of the program and the nature of its content through a critical analysis of the buildings' use, the buildings' relation to the context etc...

Training schedule: 17 days of classes, visits and practical cases, divided as follows:

- 6.5 days of theoretical modules
- 6 days of practical workshops interspersed throughout the modules
- 3 days of visits
- 1.5 days of evaluation and reporting.



MODULE 1 THE PROGRAM PROCESS

Goals:

- Define the role of the programmer,
- Raise awareness of the programming approach,
- Provide programmatic method and the "tools"
- Articulate the various phases of a global vision

Duration: 1 day

Themes:

1. Key programming steps, "from command to program":
 - a. Definition phases:
The opportunity studies;
The pre-program: defining objectives, needs, programmatic concept;
 - b. Architectural, technical and economic feasibility;
 - c. The various development phases: general program;
 - d. Consolidation phases: detailed technical specifications and tender documents.
2. Programming "Tools":
 - a. The synthetic media (maps, tables);
 - b. Concept maps and schemes (general, detailed);
 - c. Functional articulation diagrams;
 - d. The summary of surfaces;
 - e. The space sheets;
 - f. Feasibility Scenarios;

MODULE 2: THE PROJECT and ITS DYNAMIC

Goals:

- Knowing the different project stakeholders
- Identifying the resources persons and knowing when you will have to mobilize/involve them in the process
- Knowing how to bring out the needs and writing them down
- Understanding the context and the different levels of expectations
- Raising awareness of the participatory methods
- Learning how to mentor a group > role-playing game

Duration: 2 days

Themes:

1. The system of actors / stakeholders:
 - a. The contracting authorities;
 - b. Instances of validations and supervision (technical committee, steering committee);
 - c. Users (people working in and for the building);
 - d. Users (people enjoying the building);
 - e. Employees;
 - f. Resource persons;
2. Survey Methodology and the participatory method:
 - a. Questionnaire
 - b. Semi-structured interview
 - c. Free individual interview and / or collective one
 - d. The different levels of involvement / their benefits and limitations:
 - e. Consultation,
 - f. Dialogue,
 - g. Participation,
 - h. Self-management,
3. The animation and support of a participatory approach
 - a. Goal definition
 - b. General organization and schedule:
involving and associating the "driving forces" (well engaged people)
schedule

- c. financial and human resources
- d. The implementation tools

4. Synthesis and restitution

Workshop 1 and 2:

programming and Objectives' definition phases' Diagnosis

MODULE 3: REGULATORY AND ECONOMIC FEASIBILITY

Goals :

- Knowing how to establish an economic assessment at the stage of the program
- Anticipating risks

Duration: 1.5 days

Themes:

1. Feasibility studies : a critical stage of the project:
 - e. Regulatory framework analysis;
 - f. Physical and contextual constraints Analysis;
 - g. Site Capabilities -Adequation with the objectives;
2. Predictive cost Estimate of the operation in the programming stage:
 - a. Total cost estimate Analysis;
 - b. Consolidation;
 - c. The concept of risk;
 - d. The overall cost;
 - e. Financial analysis of feasibility scenarios;
3. Operational Planning

Workshop 3: requirements definition and programmatic concept

Workshop 4: programmatic scenarios and feasibility

MODULE 4 : ENVIRONMENTAL TARGETS

Goals :

- Raising awareness of sustainable development issues
- Enlightening regulatory frameworks and assessment tools within a sustainable development framework
- Developing an integrated approach regarding technical and environmental issues
- Identifying specific technical performances regarding the program's expectations
- Critical analysis of validation and performance systems

Duration: 2 days

Themes:

1. The sustainable development approach
2. Regulatory requirements and other criteria
3. Technical performances - programmer's role/ designers' role
4. Approaches, certifications and labels
5. Maintenance and durability of structures

Workshop 5: detailed technical and environmental functional program

Workshop 6: specific programs (furnishing missions, scenography, museography)

Training evaluation

1. Continuous assessment conducted throughout the training (participation and group work)
2. Final report done by a team of 3 people maximum to articulate the various steps of a programming project (method of proposed work) and oral presentation in front of a jury (training exercise)
3. Final Scenario with final oral (in the presence of a client)

The mentoring activity

Introduction

Defining a mentoring training programme is one of the core activities of the GreenArch project and it's aimed to orient and prepare young architects at the moment to face an international competition. Three different formats have been imagined for this training course:

- a short course to be held in London RIBA/USE
- a long course to be held in Barcelona IAAC
- an online course

Short Course

Short CPD (continuous professional development) course with appropriate credits (see different countries legislation) at RIBA/USE

For the short course a pilot test took place in London on 22nd February 2015 (*please see appendix 3 – Other case studies – 2 young architects approaching a competition: competition mentoring pilot exercise*). Paola Boffo of USE acted as the mentor and recently graduated architects from Curl La Tourelle Architects were the trainees.

Below there is the summary of the topics developed for a typical CPD short course.

Summary

- How to analyse the competitions Market and which competition to select
- How to read the Brief
 - Who's the client
 - The judge
 - What contract imply?
 - What is the prize?
- What is required to be delivered
 - A concept or an idea
 - A Pre-qualification questionnaire (PQQ)
 - Detailed layouts
 - Graphics, CGIs
- What needs to be presented?
- How to communicate the idea to put forward?
- Dates and Deadlines to consider and meet
- Team organization and collaboration
 - Who to collaborate with
 - How to collaborate
 - Workload and programme
- Resources evaluation
- Legislation and Regulations in European countries
 - Where to refer for the legislation
 - Who to contact: 'Green Arch competition Portal'
 - Headlines on the planning and legislation system work in European countries
- Other countries aspect to consider: currency, banking system, economical and political situation
- Exit strategy
 - Lessons learnt
 - How and when to market the project

- If a winner
- If a non-winner

Regular webinar with a Q&A session could be also organized to provide all the necessary support.

The organization that could disseminate/host events around the Green Arch competition mentoring course:

- RIBA and any architectural professional institution in the form of a CPD (continuous professional development) course with appropriate credits (see different countries legislation);
- Universities;
- ACE, Architects Council of Europe.

Long Course

Long course accreditation

This course is planned to be taught at IAAC - Institute for Advanced Architecture of Catalonia - with the collaboration of the COAC - Col·legi d'Arquitectes de Catalunya. The course is directed to architects (no age limit) who are aiming to improve their possibilities to win an open architecture competition.

This course will last 50 hours and will offer 2 ECTS recognized by the UPC - Universitat Politècnica de Catalunya. ECTS stands for European Credit Transfer System, the standard adopted by all universities in the European Higher Education Area (EHEA) to ensure the homogeneity and quality of the courses they offer. Under the current model, a credit is equal to 10 class hours, whereas an ECTS credit takes into account, in addition to actual class time, all the other activities carried out during a student's learning process (studying, assignments, practical work, etc.).

Structure of the long course

The 50 hours of training are including classes, exercises and activities of evaluation, and they are distributed in three weeks in evening hours (3 hours per day from Monday to Friday) in order to allow working people as well to attend to the course.

The course is divided in 3 modules, corresponding to the competition phases:

Module 1 - Getting ready for the competition

Module 2 - During the competition

Module 3 - After the submission

Long course - draft program

	TOPIC	CONTENT	METHOD	HOURS
MODULE 1	How to analyse the competitions Market?	-Possible opponents -Possibilities to win -Evaluation of the own experience -Interests of the competition	-Dissertation + examples -Exercise: analyse a real competition	2+3
	How to read the Brief?	-The client -The judge -The contract -The prize	-Examples -Exercise: elaborate your own brief	2+3
	Requirements to deliver?	-Idea -Pre-qualification	-Dissertation -Exercise: Select a group of	2+3

		questionnaire -Detailed Layouts -Graphics, CGIs	documents from other offices and comment them	
MODULE 2	How to communicate the idea?	-Marketing -Visual strategy	-Examples of brands logics -Exercise: Try to sell your idea	2+3
	Dates and deadlines	-Working flow -Planning	-Examples -Exercise: Create your own schedule in groups	2+3
	Team organization	-Who to collaborate with -How to collaborate -Workload and programme	-Psychology dissertation -Exercise: Role game	2+3
	Resources evaluation	-Economy -Time -Skills	-Examples -Exercise: Elaborate a budget	2+3
	Legislation and Regulations	-Where to refer to legislation -Who to contact (Co-Co platform)	-Dissertation -Exercise: Find an specific legislation	2+3
	Other countries aspects to consider	-Economy -Politics -Culture - Art - History	-Examples -Exercise: List of country characteristics	2+3
MODULE 3	Exit strategy	-Lessons learnt -How and when market the project (winner/no winner)	-Dissertation -Exercise: Public debate	2+3

Online course

A possible evolution of the short and long course is the online course that can be possibly integrated with the digital portal.

The interest of this format is in the possibility to address more specifically the different national realities. The online course should be completed with Q&A sessions to provide all the necessary support.

The Mentor and the mentee

Role of the mentor:

- Share information about the competition mechanism with the students
- Increase their capacity to plan the work
- support and analyze when there are no winning results
- Increase their capacity to have an economical understanding of their profession

Competences that the mentor should own:

- Experience of at least 15 years in a Practice
- Being at least be the winner of 1 contest and 1 competition (private and public)
- Understanding how to programme a competition and how these are evaluated

- Experience in competition programming or competition evaluation (having participated as jury or organizer)
- Skills in marketing and communication
- Knowledge about the contemporary market of architecture
- Knowledge about how to manage a company
- Knowledge about the regulation of international competitions

The mentor competences/skills/knowledge to be able to “assist” architects:

- Assist with Q&As
- Assist with local knowledge and regulations
- Having teaching experience, skills and methodology
- Being an architect him/herself

How can the Mentor skills be measured/assessed:

- CV and Portfolio
- Interviews
- Evidence of previous competition work
- Questionnaire
- References

Competences skills the mentor should be able to share with the students:

- Capacity to measure and predict
- Rationality
- Efficiency
- Empathy (team work)
- Marketing: How to engage the client with the proposal
- Being able to share the experience
- Having a deep understand the competition process
- Having a deep understand the brief and what needs to be delivered
- Knowledge of the European panorama of competitions and contests
- Knowledge and understanding of the European laws and local regulations
- Capability to be effective in the communication (either graphic and written)
- Capability to effectively organize the schedule and the workflow in a given time

The new competences of the “mentored people” should be:

- How to find the information
- How to team up and gather suitable human resources for the competition
- How to gather general resources suitable for the project to deliver
- How to choose a suitable competition
- How to be more effective in communicating your ideas

How can these be measured?

- CV and Portfolio
- Interviews
- Live competition result
- Questionnaire proving the level of satisfaction of the mentored people
- An exercise testing the competences acquired

TARGETED FUTURE ORGANIZATIONS

The project partners involved different professionals and target groups, from construction company's directors to project managers, from students to architects engaged at different levels in different sectors.

Young architects were involved to test the mentoring aspect of the project. Their participation has been tracked with direct interviews and full involvement in the project meetings. Presentations were given to present the pilot test and the effectiveness of their experiences.

From the test it became apparent that the main organizations to target are Universities and professional institutes. These have the majority of the links and opportunities to reach out the right type of audience for the mentoring and programming courses the GreenArch team would like to deliver.

Due to geographical distances or other type of barriers, the digital platform will create the opportunity to target a much wider audience.

THE FUTURE OUTPUTS AND IMPACTS OF THIS PROJECT

The GreenArch project is recognized by all partners to have provided an excellent opportunity to share the knowledge and competences across borders, create a suitable environment to talk about matters that otherwise would not have been discussed and put together a group with the aim to continue to network in the future.

The project had a tremendous impact on the way of thinking and perceiving work in different countries especially for young Architects and SMEs.

The involvement of stakeholders during the project helped to establish and strengthen the cooperation network setting the basis for further projects development.

If delivered as currently thought and set up, the GreenArch project will impact on the professional competences an Architect will be able to acquire across Europe. Through the enhancement of competitions as tools to better programme and deliver architectural projects, young practices and individual professionals will have better and more opportunities to enter in the construction market.

With the implementation of the GreenArch recommendations, design contests will be delivered in a more transparent and equal way, the average quality standard will raise and costs probably will be better controlled. The skills and knowledge of the competition market will increase creating more of a demand to program more design contests.

The promotion of the European Architecture Competition Programmer role to deliver and monitor competitions will create more of an interest around the subject of the competitions delivery.

In addition, architects working together across Europe might enhance the numbers and quality of architectural competitions to:

- Improve access, opportunity, societal engagement and quality;
- Reduce waste and increase sustainability

- Support and enhance growth.

This final point is going to be the starting point for future initiatives and project continuation.

The GreenArch project team have discussed to further develop the project and build the digital platform as described in this handbook. Through the platform there will be the opportunity to create a network of professionals and potential clients where they can share knowledge and information, team up with partners from different countries and enter markets that otherwise would be difficult to access.

The platform should also function as a display of all European competitions. The Competition Programmer academic program and the Young Architect Training Course for Design Competitions should be also announced in this platform.

The future development of the project can also oversee the delivery of the courses in different locations across Europe.

The GreenArch team is interested in exploring the opportunity to further develop the project under a future Erasmus programme or a similar kind funding opportunity.

DETAILED RECOMMENDATIONS

The following represents the full **RECOMMENDATIONS** identified by the GreenArch partners to improve architectural competitions at both national and European level were

1. European digital networks for architecture competitions

RECOMMENDATION 1

A digital portal for construction design professionals should be established for pan EU level operation to enhance collaboration, knowledge sharing, guidance, educational initiatives, professional engagement, transparency, research and access whilst being able to provide feedback on the digital migration.

Much within the new Directive 2014/24/EU is welcome particularly on digital migration which is recognised as having the capacity to transform competitive practices. GreenArch however believe that there is much more that could and should be done to build on the reforms of the new Directive 2014/24/EU to further improve opportunities offered by digital migration.

To sustain better outputs in architecture and construction at local and EU levels sector specific pan-European digital platforms need developing. These could allow issue, transmission, exchange and repositories of submissions along with facilitation of the European single e-Procurement Passport.

This platform offers opportunity to further sustainable competition practices, disseminate pedagogy, offer remote support and training, deliver online competitions guidance, increase cross border interaction, collaborations, develop policy research, evaluations, comparative analysis and feedback reporting and develop multiple innovative resources, that might extend over the whole construction life cycle etc.

This single portal should aim to bring together existing and new competition and architectural networks, other information sources on international markets, practice, briefs, guidance, construction, standards and regulations to offer architects from different countries pan European collaborative opportunities, knowledge sharing and learning tools.

This would also empower and connect architects interested in consortia working, collaborations, teaming up and practicing together by remote network, so they can deploy jointly and engage cross border in competitions and professional practice.

Repositories of exemplary European practice and big data analysis of comparative practices would be facilitated with potential for links into the professional institutes across member states to permit understanding of different regions regulatory frameworks and servicing for exchange of the European Procurement passport. The first tier stakeholders might be the GreenArch participants along with those identified in the web bibliography.

FURTHERMORE:

Recommendation 1.1

A portal/platform providing a single point of access to European architectural competitions delivering a comprehensive database would support better communication and professional engagement.

- It remains difficult to find public and private architectural competition opportunities in other EU

countries despite the availability of TED, a number of national/regional initiatives and expensive subscription services. This is detrimental to cross border trading.

Recommendation 1.2

A single access portal as recommended above should be deployed to develop a trans-European digital service capable of automated collation and archiving of comprehensive competitions data (values, types of procedures and instruments, number of participants, awards, percentage of positive competition outcomes, etc...).

- Analysis and evaluation of the efficiency, effectiveness and quality of EU architectural and construction competitions and their outputs is not adequate. The data grain available on TED excludes private competitions and is insufficient.
This would provide the facility and capacity to research policy, impacts and practice for ongoing improvement.

Recommendation 1.3

A platform (named COCO within this report) be designed as a connection tool for architects and studios allowing them to team up, collaborate and be better able to compete together on an international level.

- There are limited facilities for pan European collaborative practice or for developing capabilities that allow designers to tap into regional or local knowledge and practice.
For young architects and smaller practices, this tool would be of particular value whilst also providing them with access to partner more established offices wishing to enter a competition. This collaborative tool can improve efficiencies and cross border trading by for example providing a specialist knowledge service about local environment, laws, regulations and standards, help overcoming language barriers, offer flexible designing skills and internal market outsourcing. It has capacity to develop long term EU, national and regional collaborations.

Further draft details of this digital module are described elsewhere within this report

Recommendation 1.4

Model Pan European competition best practice standards and guidance for the appointment of architectural services informed by the profession clients, and research outputs (from eg the European portal) should be developed and adopted for benchmarking. These would be made available digitally in multi lingual publication.

- There has been inconsistent application of standard competitive procedures defined under the EU Public works directives across European member states. There is a lack of benchmarking and access to exemplary practice and guidance across Europe between different member states that gives rise to the inconsistent application of standards. Many of the standards applied fall short in terms of high quality, sustainable and best value outputs. The EU architectural profession should work together to recommend, agree and promote standardized best practice and sector specific competitive selection methodologies, guidance and practice covering the appointment of architects by relevant ranges of procedures.
This would include developing standardised procedural methodologies facilitating better, simpler more accessible, efficient and effective practice, raise the quality benchmark and deliver benefits for cross border trading that would advance and improve competitive selection.

Recommendation 1.5

There should be better facilitation of social networks for information use and sharing.

- To improve dissemination, communication and networking.

2. Architect competition programmers

RECOMMENDATION 2

An advanced, accessible and high level educational program for architectural competition programmers and advisors should be developed so that pre tendering project briefs and competition programming, knowledge, guidance and best practices might be improved.

FURTHERMORE

Recommendation 2.1

Training of competition programmers should be a specific development objective to:

- Improve the quality and potential of pre-tender project and competition briefs their preparation, and analysis, along with the means, the adequacy of specifications and the proportionality of the competition procedure.

AND

- Promote by pedagogical engagement with client/commissioners improvements which can advance sustainability that can deliver impacts in practice across all stages of an architectural commission and beyond.

European competitions organized by a trained Competition Programmer would be acknowledged by a distinction, validation or quality kitemark.

- Courses for competitions programmer could be delivered digitally across the proposed digital platform.

A course structure giving further indicative detail is described within this report

3. Design contests.

RECOMMENDATION 3

Preferably construction design and planning services should be acquired by anonymous selection and assessment through design contests with a majority of independent jurors. A third of all jurors should be architects or where another particular professional qualification is required at least a third of the jury shall have that or an equivalent qualification.

Design contests (Directive Art 78-82) are unmatched for repeatedly delivering the most cherished and best valued architecture. Design contests can successfully deliver quality, sustainability, best value, improved access and they support innovation.

4. Micro, SME, young, and emergent architects

RECOMMENDATION 4

More still needs to be done to provide opportunity and create a level and proportionate playing field for Micro, SME, young and emergent architects to allow them to compete within the European market.

Increasing access improves competition, encourages innovation and by allowing business progression contributes to growth.

FURTHERMORE

Recommendation 4.1

Competitions should be more economic, adopt procedural standardization (where possible and beneficial), and be simpler; or alternatively there should be better funding made available for competing.

- Participation in a competitive selection is a large speculative investment for architectural firms. The total economic cost of all individual firms participating can easily amount to more than the value of the contract commission.

Recommendation 4.2

Access for young architects, micro-businesses and SMEs to competitions should be significantly improved. This might be advanced with better guidance and/or a type of quota system (as is provided by embedding adoption of the principle of 'wild card' bidders).

- Economic progress is dependent on allowing new talent and innovation to enter the market.

In restricted competitive procedures, first stage selection under taken on the basis of previous experience or financial standing is particularly prejudicial to the participation of young and early career architects starting practices.

Recommendation 4.2

Small firms should be better enabled to compete

- To improving access to competitions consideration should be given to providing small firms and young architects the facilities to allow them to be better able to compete. This might include through networking or programmes of training and mentoring.

5. Raising the EU threshold values.

RECOMMENDATION 5

EU threshold value and specifically those for service contracts should be raised to a value equivalent to the median of contract award values. In this context however the EU should legislate to ensure all public competitions above euro 20k be advertised transparently in standard formats across pan European portals.

We welcome and support the commitment made in Directive 2014/24/EU (Art 92) towards raising EU threshold values. At lower contract values, the disproportionate cost and complexity of public procurement processes and procedures is contributing to market aggregation and the consequent exclusion of young architects, SMEs and micro businesses from competitions.

A less proscriptive legislative approach to lower value contracts requiring that they be advertised publically can ensure the principles of transparency are maintained simply and easily with acceptance of greater risk,

and reliance placed on intelligent commissioning and probity by national legislation. For EU service contracts procured at the median values the economic cost of the transactions (c. 8%) reach a reasonably proportionate viability.

7. Progressing GreenArch

Recommendation 5

A commission should be created including the GreenArch participant parties in order to further develop, promote, consult on and realise the summary and detail recommendations contained in this report.

BIBLIOGRAPHY

Ed: Chupin, Jean-Pierre., Cucuzzella. Carmela., Helal, Bechara., (2015) *Architecture Competitions and the Production of Culture, Quality and Knowledge: An International Inquiry*. Potential Architecture books. Canada 26 Jan 2015 ISBN 978-0-9921317-0-8

ACE (2012) *The Architectural Profession in Europe 2012 - A Sector Study Commissioned by the Architects' Council of Europe*. Architects' Council of Europe Dec 2012

ACE (2014) *European Public Procurement Legislation and Architects' Services: Recommendations and Guidelines for Transposition into National Law. Adopted by the ACE General Assembly on 24 April 2014*. 15p Architects Council of Europe. April 2014

EU Commission (2008) (COM (2008) 400) *Communication from the Commission to The European Parliament, The Council, The European Economic And Social Committee And The Committee Of The Regions Public procurement for a better environment* In: EUR-Lex Access to European Law. 16 July 2008

European Parliament, Council of the European Union (2014) *Directive 2014/24/EU of The European Parliament and of The Council of 26 February 2014 on public procurement and repealing Directive 2004/18/EC* In: Official Journal of the European Union 26 February 2014

Menteth, Walter, O'Carroll, Owen, Curtis, Russell and Sawyer, Bridget (2014) *Public construction procurement trends 2009-2014*. In: Project Compass CIC, UK. Dec 2014. ISBN 9780993148101

Mission Interministérielle pour la qualité des constructions publiques (MIQCP) *Guide de sensibilisation à la Programmation – Découvrir l'intérêt de la programmation et s'engager dans la démarche*. 84p. (2008)

Achatzki, Hans Peter., *Achatzi Dahms GbR, Berlin, IfS Institut für Stadtforschung und Strukturpolitik Berlin*. (2013) *Aufwendungen bei der Vergabe von Planungsleistungen: Evaluierung der zeitlichen Abläufe und monetären Aufwendungen bei Vergabeverfahren von Planungsleistungen im Hochbau*. 14p Bundesministerium für Umwelt, Naturschutz, Bau und Reaktorsicherheit. Deutschlandim Auftrag des Bundesinstituts für Bau-, Stadt- und Raumforschung (BBSR) im Bundesamt für Bauwesen und Raumordnung (BBR) und des Bundesministeriums für Verkehr, Bau und Stadtentwicklung DE. November 2013

IABSE (2013) *Guidelines for Design Competitions for Bridges*. 56p International Association for Bridge and Structural Engineering Zurich, ISBN 978-3-85748-131-4

RIBA (2012) *Building Ladders of Opportunity – How reforming construction procurement can drive growth in the UK economy*. 40p RIBA London May 2012

RIBA (2012) *Design Competitions guidance for clients*. 24p RIBA London

European Commission (2011) *Regions in the European Union Nomenclature of territorial units for statistics NUTS 2010/EU-27* ed: 2011 148p Eurostats Methodologies & Working papers Publications Office of the European Union, ISBN 978-92-79-18521-2

(2010) *Competition Standard for Architecture – CSA 2010*. 66p The Federal Chamber of Architects and Chartered Engineering Consultants. Austria.

Websites and digital publications:

GREENARCH (2015) <http://greenarch-euproject.com> Website of the GreenArch Project containing items presentations, research and outputs many of which are referenced in this report

OJEU (2015): www.eur-lex.europa.eu/ Website of the official compendium of EU legislation (L series) and other official documents of the EU institutions, bodies and agencies (C series and its supplements). It is published every day from Tuesday to Saturday in the official languages of the EU and is available in different formats.

ACE (2015): www.ace-cae.eu Website of Architect's council of Europe. GreenArch areas of interest are largely covered under the remit of The Public Procurement and Competitions working group.

CNOA (2015): www.architectes.org Website containing the board of architects and data about exercise conditions of architect profession

CROAIF (2015): www.architectes-idf.org CROAIF website presenting the institution and their events

FOAT (2015) www.concorsomuseoscienzatorino.concorrimi.it Website and template for the competition for The Regional Museum of Natural Sciences of Turin, providing a competition digital interface with depository for submissions and management system. FOAT, IT 2015

Project Compass CIC (2015) www.Projectcompass.co.uk Website: easy access e-procurement intelligence service for architects and clients, providing current UK construction related OJEU tender notices, data, research and guidance. Menteth, Walter, Curtis, Russell, O'Carroll, Owen and Sawyers, Bridget Project Compass CIC. UK Feb 2015

TheFulcrum.EU (2015) www.thefulcrum.eu Website: The Fulcrum an international platform that aims for better & transparent public procurement for architecture via an e-procurement system, Project Compass CIC, Architectuur Lokaal Feb 2015

RIBA (2015) www.architecture.com Website portal for the Royal Institute of British Architects a UK membership organization for architects

ARB (2015) www.arb.org.uk/ Website of the Architects Registration Board containing a digitally accessible register of all UK registered architects.

Secci, Roberto (2014) <http://youtu.be/s4kBxwM623A> Video. Land reclamation and environmental restoration of Balangero and Corio former asbestos mine. IT

MIQCP (2015) www.archi.fr/MIQCP/ Website for the Inter-ministerial Mission for the quality of public building which aims to promote the architectural quality

STEUNPUNT ('Helpdesk'-2015) www.ontwerpwedstrijden.nl/ Website : of the Dutch architecture network Architectuur Lokaal providing Competitions access, support, research and guidance for clients and architects.

BUSTLER (2015) www.bustler.net/index.php/competitions/ Website for international competitions.

DIVISARE (2015) <http://divisare.com/competitions> Website: for public and private competitions in architecture in Italy and internationally

KONKURADO (2015) www.konkurado.ch Website: for public and private competitions in architecture and engineering in Switzerland providing support, guidance and research.

Wien Museum Projekt (2015) http://wettbewerb.wienmuseumneu.at/projects_wienmuseumneu_e.htm
Website for the Vienna New Museum competition providing an example of a recent professionally executed design contest digital procurement

CREDITS

Contributory writers and editors:

Paola Boffo (USE)
Walter Menteth (USE)
Julie Fernandez (CROAIF)
Cécile Fridé (CROAIF)
Ilham Laraqui (CROAIF)
Marianne Tartarin (CROAIF)
Roberto Secci (FOAT)
Silvia Brandi (IAAC)
Ana Marti Serichol (IAAC)
Igor Kovačević (CCEA)
Karin Grohmannová (CCEA)
Yvette Vašourková (CCEA)

Participants

Allan Baird (USE)
Davide Argentieri (USE)
Una Mollin (USE)
Milda Buotoite (USE)
Christine Leconte (CROAIF)

GreenArch July 2015