

ENGINEERING FACULTY AS A PLANNING OFFICE

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Abstract – The University of Pecs (UP) is one of the biggest universities in Hungary where some 26,000 students study in 9 faculties. Our particular characteristic is that we have an Engineering Faculty where architects, civil engineers, mechanical engineers and electrical engineers are trained and excellent professionals are available for planning in these trades, so the opportunity is given to work as a very complex planner. After the social changes in Hungary the great planning enterprises collapsed and many small companies sprang up. This means that the situation of the Engineering Faculty, as a complex planner became more valuable. We founded a firm, named Polytechnic Ltd. to help this process (the owner is the UP). On the other hand the Engineering Faculty is involved in the development (planning, project managing) of UP as well. We can utilize our planning and managing experiences in engineering education (practice) and we involve the engineering students in this contracting work as well.

Index Terms – Planning, project management, public procurement.

INTRODUCTION

There was an integration process based on a parliamentary decision in Hungary from 1st of January of last year. In consequence, the integration of the University of Pecs (UP) is one of the biggest universities in Hungary where some 26,000 students study in 9 faculties. The building of the University of Pecs has a property of about 350,000 square meters. There was construction investment approximately 9,700 square meters in the last three years, of which amount two thirds was building reconstruction. Presently there is construction work in process on 12,900 square meters.

The IDP (Institution Development Plan) for the next few years is about 33,000 square meters construction investment. These great volume developments are carried out by the investment management belonging to the university.

Our particular characteristic is that we have an Engineering Faculty where architects, civil engineers, mechanical engineers and electrical engineers are trained and excellent professionals are available in these trades.

Our paper presents how this “complex” engineering faculty of several professions has become a great planning

office, competing with outside market leaders also, so to make students gain “real” experience through solving planning problems.

GETTING USED TO THE CHANGED ENVIRONMENT

After the social changes in Hungary the great planning enterprises collapsed and many small companies sprang up. Some small companies died, others proved viable. This natural selection process is still going on today. This means that the situation of the Engineering Faculty, as a complex planner became more valuable. We founded a firm, named Polytechnic Ltd. to help this process (the owner is the UP). On the other hand the Engineering Faculty is involved in the development (planning, project managing) of UP as well.

In the beginning, about 10 years ago there were at least three reasons to establish the Polytechnic Ltd.:

- In the first place it helped lecturers without personal firms to legally take up planning, professional and other engineering jobs, with more preferable tax circumstances than having to do these jobs within the bounds of the Faculty.
- In the second place the risks of planning jobs taken by the lecturers were only insured by a Ltd. established with an approximately 3500 EURO amount capital, not risking the property of the establishing Faculty, in any case of harm caused by planning mistakes.
- In the third place, the Faculty did not have to pay tax issued by the government on profit gained from external planning duties as this tax law did not include the Polytechnic Ltd.

This model worked well within the market circumstances blurred by the change of regime, and it has given suitable bounds for market practice of lecturers of the Faculty.

Today's situation has become different. Leading lecturers have personal firms in all professional fields (Ltds. and Limited Partnership Companies), through which they may pursue planning practices independent of the Faculty. However, these firms are individually too small for carrying out the complex planning of greater projects. They are capable of undertaking tasks within their own professional fields, having to compete with other partners.

These lecturers, “company owners” soon realized that in the same building in the neighboring department, a different professional field, and on the floor above that another professional field is striving harder to get a job in the market place, there would be less chance to get work, than if they gathered together and created a complex planning group.

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Keeping their own firms, but having the Polytechnic Ltd. as main stream they are capable of tendering complex planning jobs so that they are actually the employees of a great Faculty of education, but regarding the firm they are the subcontractors of the Polytechnic Ltd.

With this a group of planners representing different professional skills has been established together with an up-to-date business structure, meaning important competitive advantage as opposed to competing external companies working separately. The "main contractor", the Polytechnic Ltd. by law, the substantial capital is not adequate to cover possible planning mistakes. Today this can be done through planning project responsibility insurance. This means that for any harm caused by a project taken up together the insurance company takes the charges up to 35.000 EUROS. The insurance costs are paid together by subcontractor companies proportionally.

With this the Polytechnic Ltd. which was established 10 years ago out of necessity has become a major competitive complex planning office.

Note that the Faculty during the change of regime, ten years ago (then as an independent College) established this Ltd. company just in time, as there could not have been a legal possibility to do so later on. After the great university integration the University needed other Ltd. company for different tasks, for which there was no legal path to establish, but with regard to the fact that an already existing company could create a new one, in the establishment of the Polytechnic Ltd. other university Ltd. companies also operate.

THE PROCEDURE OF PROJECT ASSIGNMENT IN HUNGARY

There was a Public Procurement Act in Hungary passed in 1995 that determines the rules for procurements which are carried out from public money (money of taxpayers) and within this the order of arrangement relating to procurements of state, local government, major state owned company etc. are regulated, too. Public procurement is a tender prior to signing a contract in order to choose the winner offer (supplier, building contractor, or provider) with the specific characteristic that the purchasing agent – customer is buying for social interest, for public wealth from the money of taxpayer citizens.

The principles of public procurement are: Purenness of competition (fair) - Equal chances of bidders (equal treatments) - Public competition (full and open). - Foreign bidders are treated as nationals.

Public procurement has become totally general in business world, determinant part of business deals in Hungary. The Act establishes a threshold value in case of construction investments, above that threshold the procedure of public procurement shall be carried out. This was 115 thousand EUROS in 2000, which corresponds to a building

of some 200 square meters. Investments above 1 million EUROS requires pre-qualifying procedure (two stage tendering), too. The principals shall be kept as well in tendering under the threshold value.

Type of procedures: Unlimited tendering (open tender) – Limited tendering (tender with invitation) – Retaining competition (conference tender)

The principle is that unlimited tendering shall be applied in generally.

THE PROCESS AND SPECIAL PROBLEMS OF JUDGEMENT ON PLANNING

There are two legal options for judgement on technical planning in Hungary:

a) If it is planning of a new construction investment, or a reconstruction with relevant architectural intervention then during the procedure the prescription of Act on Architectural Plan Competition shall be observed. Plan competition shall be public in general. But this can be with invitation or simplified plan competition, too.

In case of plan competition by invitation at least 5 planner shall be invited.

Simplified plan competition can be announced only for special planning task, and judged based on references. One member of the local Chamber of Architects must be presented in the jury, and the announcer of the competition shall co-operate with the Chamber during the procedure of competition. For the architects who take part in the competition cost refund determined in the announcement shall be paid.

The winner can plan the planning task judged by this way for the fee stated in his/her bid in the competition, if it is corresponding to the planning fee recommendations of the chamber of architects.

This can be extended up to 1.5 % of the investment depending on plan phases.

b) If it is planning of a building construction where significant architectural planning is not necessary only manual planning, but the volume of planning is great (at the present time 30 thousand EUROS is this threshold value in Hungary) judgement can be carried out based on the public procurement act, according to the principle and rules of that.

Both judgements can have two basic problems:

a) Problem of incompatibility: If there was a plan study for reconstruction investment completed in the given phase of preparation for decision making in the amount below the value limit, then the investor can get the plan made with the planner chosen upon references. The planner plans that to the level of authority checking, then based on the decision of investor the investment procedure continues, additional planning phases (planning license, tender plans, plans for execution) are necessary. Preparation of these plans is above the value limit, hence it must be competed, but the previous planner can not take part in the competition because of its

competitive advantage compared to the others. However the essential part of the job was completed by him/her, therefore it would be logical that he or she could improve his/her plan. This is ambivalent we refuse functionalism because of 'fair competition'.

b) Problem of patent right: If a planner completed the study plan of a new construction or a construction licensing phase and in the additional phases he/she does not (cannot) take part investor will give those to other planner. In this case the winner planner shall contract with the previous planner in connection with patent right, and 'consultation fee' shall be paid. After all this increases the cost of investment.

THE UNIVERSITY AS CLIENT OF THE ENGINEERING FACULTY AS A PLANNING OFFICE

In our town and region, in the markets of real estate investments, and reconstruction the University is the greatest client. The majority of best professionals who are capable of offering the best solutions for university improvement are the educators of the Engineering Faculty, as we could realize from previously, and they are also the planners of a great planning office.

For the legal co-operation of this major client and those planners in this special situation a suitable solution has to be found for the special assignment problems described in the latter part. Because of the problems of disagreement, it is better for the university to order preparatory, development plan studies below the public procurement value limit from the Faculty, as this can be done without the public procurement procedures. With this, the Faculty - as a planning office - may be the contractor of all major university improvement plan studies, having a copyright for the execution.

Then if the planning of the given project reaches the phase of public procurement or tender, then there are two possibilities:

a.) The educators not participating in the preparation of the plan study may tender legally with their own companies, and in case they win, they may include the smaller companies of the Faculty as different professionals into the execution of the plan.

b.) If an external market competitor wins the tender, or plan tender, it will have to pay copyright fees for the preparer of the plan study, i.e. the Faculty as the planning office. In return of this the Faculty contributes to producing of planning license and contractor plans.

The copyright fees then shall be in part given to those participating in the preparation of the plan study as payment, a part is spent on development of the Faculty and the other part shall be given for launching the next preparatory planning of the Faculty, thus assuring continuous work for this special planning office.

Project management and design activities of the Faculty mean considerable income for the Faculty as well. This is exceptionally important because in Hungary the Ministry of Finance has emphasized that the Ministry of Finance does not finance the higher education, but subsidizes only. In Hungary the degree of this subsidy is about 70% of the university budget.

COMPLEX INVESTMENT MANAGEMENT AT THE ENGINEERING FACULTY

Our Faculty does not only pursue planning duties, as may be seen previously, but also assures the project management of investments (it means another income to the Faculty), joining the Investment Project-realization Organization of the University, in the suitable places of the following organization.

The inspection and responsibility system of the building investment project-realization organization of the UP is the following. The judgement and controlling level: Senate – Rector – Vice Rector for Development and Investment – Development and Investment Committee. The administrative level: Chief Engineer - Investment Management Project Leader - External Agent Service Offices - Manager Assistant - Public Procurement and Legal Professionals - Project Teams - Technical Supervisors (Construction, Mechanical, Electrical, etc.)

CONCLUSION

According to all this you may realize that a complex of all necessary professional fields of the Faculty of Engineering organized in the suitable structure for undertaking is capable of managing the investment projects of its own establishment from the beginnings to the end. This is done so that the educators'-planners' experience is continuously renewed with the most recent industrial applications, and all this knowledge may immediately be passed on to students, through the planning office experience of the Faculty.

REFERENCE

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