

## DESIGN AND BUILD PROCUREMENTS IN THE POLISH PUBLIC SECTOR

Agnieszka Leśniak and Krzysztof Zima\*

**ABSTRACT.** One of the possible systems of project delivery is design & build (D&B), which is widely used in many countries. In the Polish public procurement market, the D&B system has been applied for a relatively short time, only since 2004, and despite the possibility, so far public clients have applied the D&B system only occasionally. This paper describes the current status of using the D&B method in the public procurement sector in Poland. Five hundred and fifty eight completed public-sector projects have been subject to analysis. Items analysed include the design/builder method of award, and types and value of contracts. The results provide insights for owners, the advantages and disadvantages of the D&B system, and highlight the need to change the method of selecting the contractor for the D&B system.

### INTRODUCTION

Before commencing the investment, the client has to choose what kind of system will be implemented. Choosing a particular system is related to many factors, among which the most important are the following: type of capital (public and private), type of business (clients performing construction activities, or other activities), the scope of experience in performing construction projects (experienced

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\* *Agnieszka Leśniak, Ph.D., and Krzysztof Zima, Ph.D., are Assistant Professors, Section of Technology and Building Management, Cracow University of Technology. Dr. Leśniak's research interests include projects cost estimating, Artificial Neural Networks in construction management, partnering in construction process, public procurement of works and selecting contractors. Dr. Zima's research interests include construction cost estimation, building information modeling, design & build and integrated project delivery, evaluation of investment efficiency.*

clients, who frequently and repeatedly purchase construction services and inexperienced ones). One of the possible systems widely used in many countries is design & build (D&B). This system has appeared in the Polish law governing the public procurement market only recently, in 2004. This system has a much longer history in Western Europe and in the USA. The D&B system as it is understood today, was developed by contractors in the early 1960s when a number of building contractors began to offer a package deal (Rowlinson, 1988).

“Design & build,” reflected the concept that contractors offered clients a complete “package,” in contrast to the comparatively fragmented traditional arrangements of design-bid-build, whereby clients had separate agreements with a team of consultants for design and a contractor for “build” or construction (Boudjabeur, 1997). The first recorded case of D&B use in the United States was in 1968, and involved delivery of a number of school projects in the American Midwest. Since, it has become more and more popular in the public sector reaching the highest level in the 1990s, (Molenaar, Songer & Barash, 1999; Keith et al., 1999). The growth of the design and build method in the UK and elsewhere as an alternative procurement method to the traditional contracting system has been the result of the belief that design and build (construction), should be integrated, i.e. the commencement of construction before the design is fully completed (Kwakye, 1997).

In the traditional form of performance of a construction project, called the design-bid-build system, the “design” phase is separated from the construction phase. In this case, the design must be contracted first and then, following its completion, construction works are contracted. In the D&B system, a single contractor is entrusted both design works and implementation. In the case of public contracts the contractor is selected through a single tender procedure. It has been described by Ireland (1984) as a single financial transaction under which one person or organization designs and builds to the firm order of the client.

In the countries where the D&B system has been successfully used for many years, selection of the best team to carry out the project is particularly important. Because the team is chosen to carry out both design and construction works, the method of selecting the contractor has a huge impact on the final results. Wardani, Messner,

and Horman (2006) demonstrated the impact of the method of selecting the contractor on time and cost of the project. Many authors have agreed that the selection of the contractor with the lowest price is not a good solution in this case (Molenaar & Songer, 1998). A multi-criteria assessment of contractors increases the chances for successful completion of the project. In the literature there are many proposals of criteria (Palaneeswaran & Kumaraswamy, 2000) and mathematical models developed especially to support selection of the contractor in the D&B system (Potter, 1994; Molenaar & Songer, 1998; Palaneeswaran & Kumaraswamy, 2005; Al-Reshaid & Kartman, 2005; Xia, Chan & Yeung, 2011). In the countries where prequalification is commonly used (e.g. United States, Australia), in many cases there are different rules for the D&B system, including assessment of all the entities carrying out the project (designers, contractors).

Various studies have been conducted of the Design & Build system (for example, in Nigeria) concerning differences in the outcome of projects procured by traditional contract and those by design-build methods (Idoro, 2012). In China, Xia and Chan (2012) identified and compared the different operational variations of the D&B system and in the U.S.A Gransberg (2008) described requirements for design quality management in D&B projects (Gransberg & Windel, 2008).

In this paper the authors analyse the current situation related to the use of D&B in the public procurement market in Poland. Attention focused on the regulations for this procurement method, the modes used, the selection criteria, and the nature and value of the projects.

### **THEORETICAL BACKGROUND**

It is well known that the D&B system has many advantages. From the clients' point of view, the most important is probably a limitation of contacts to a single entity (contractor) and the contractor's sole responsibility for two major scopes of activities that constitute the construction project (design and construction). According to Ojo, Aina, and Adeyemi (2011) the design and build system is an integrated procurement approach in which a contracting organization takes responsibility for all aspects of the project. The system can shorten the project duration, because the design and construction may overlap in time (integration of design and construction) (Kosecki,

2003). A close co-operation between the project team and construction team enables co-ordination in solving problems in design and construction, and most importantly, reduces the risk of claims due to defective or incomplete documentation prepared by the client, which is often the case in the traditional design-bid-build system. When the two systems are compared, the D&B system comes out on top. The same conclusion was reached by Ojo, Aina and Adeyemi (2011). Their analysis of completed projects has shown that the average cost overrun was 42.6% in the traditional system whilst in design and build it was only half as much, i.e. 21.4%. The average time overrun in the case of traditional projects was 135.6%, while in the case of design and build the overrun was only 36.8%. In 78% of cases where the D&B system was used, the clients were satisfied with the quality, whilst in cases of a traditional system only 51% reaped satisfied clients. Another advantage is the preparation of only one procurement proceeding by the client. Also, the estimated price for the whole project is known relatively early. As indicated in Molenaar and Gransberg (2001) a design-build contract also has the potential to reduce the overall costs associated with design and construction. The D&B system is beneficial when used under specified conditions.

Potter and Sanvido (1995) stated that the D&B system should be selected as an appropriate delivery system when the project scope is well defined, when the design is industry standard or slightly complex, when time is of the essence, when quality can be industry standard or slightly higher, when cost is critical, and when the composite project risk is low to medium.

Despite so many advantages, the D&B system has disadvantages. There is a high risk that it may impair the quality of both design documentation and construction works. The client has no direct impact on the conduct and results of design and construction phases. The problems encountered in the D&B system were pointed out by Ling and Poh (2007). Very often, there is a lack of competitiveness in the structure of the contractor, which in turn makes the contractor satisfied with the first correct solution that meets the minimum requirements of the client.

A contractor preparing a project can also be restricted to use only the solutions that are familiar and comfortable to implement. Sometimes their use may improve execution, lower the cost and time

of completion, but the same use can increase costs of operation. Such increases are very important to the client. It is extremely important in this system that the client is able to prepare requirements (guidelines) for the project. A functional-utility programme, in which according to the Polish law (PPL Article 31 paragraph 3) the client provides the purpose of completed construction works and determines technical, economic, architectural, material and functional requirements, especially in more complex projects, makes it difficult to fully specify the client's expectations. During execution of the contract, changes introduced by the client are difficult to perform and they are associated with substantial costs. The client when deciding to choose the design and build system agrees that the subject of the contract fulfilled its function in a manner designed by the contractor, convenient for the contractor, and agrees to minimize the possibility of changing the scope of the project during the execution of the contract. It can be assumed that these defects of the system may discourage clients from its application, but the reasons are rather the lack of knowledge regarding the benefits of the D&B system, lack of experience of the clients, inability to develop the above-mentioned functional-utility programme, plus the lack of instructions and guidance supporting the performance of the project in this system.

#### **REGULATIONS RELATED TO SELECTING A CONTRACTOR IN THE PUBLIC PROCUREMENT MARKET IN POLAND**

The method of selecting a construction contractor in Poland in the public procurement sector is governed by the *Public Procurement Law* of 29 January 2004, as amended (*Public Procurement Law*, 2004). Article 2 specifies that the contract for construction works should be understood as either design or design and execution of works according to the Construction Law (Item 1118, as amended) of July 7, 1994 (*Construction Law*, 2006). Accordingly, a public client can perform the project in two ways: Design-Bid-Build or Design & Build system. The first one will require two separate contracts: a service contract, which will involve development of design documentation and a contract for construction works. In the second one, one contractor will be entrusted with both development of design works and construction works.

Selection of the contract award method (the method resulting in an agreement for a paid execution of construction works) depends on the conditions and restrictions introduced by the above referenced Law. The Law does not distinguish separate modes of selecting the contractor in the case of a works contract or a contract for design and execution of works, and in both cases it defines the same modes of proceedings:

- open tendering,
- restricted tendering,
- negotiated procedure with publication,
- negotiated procedure without publication,
- competitive dialogue,
- single-source procurement procedure, and
- electronic bidding.

The contract value both in the case of a works contract and D&B is determined based on an overall estimated remuneration, less VAT, as determined by the client. A works contract concerns the estimate remuneration for works, whilst in the case of D&B design works is additional. The client cannot divide the contract into lots or understate its value in order to avoid application of the provisions of the Law. The client must use one of the modes provided for in the *Public Procurement Law (2004)* for contracts exceeding EUR 14,000. If the amount defining the value of contracts and contests (i.e. EUR 5,000,000), which determines the obligation to submit notices to the EU Publications Office is exceeded, then the open or restricted tendering should be applied (Regulation, 2011). Open tendering is a bidding process, where all those interested and responding to a public contract notice are invited to submit a tender (Art. 39 of the *Public Procurement Law*). On the contrary, a restricted tendering is a mode in which, in response to a public notice, contractors submit applications to participate in bidding, whilst only those invited to tender may submit their tenders (in accordance with Art. 47 of the PPL). Negotiated procedure with publication is a mode, in which, after a public notice, the client invites contractors admitted to participate in the proceedings to submit initial tenders without prices, carries out negotiations with them, and then invites them to bid (Art. 11

paragraph 8 of the PPL). Yet another possible mode is a negotiated procedure without publication. In this mode, the client negotiates terms of the agreement with pre-qualified contractors and then invites them to bid. The client may award a contract by negotiated procedure without publication, if in the previous proceedings of open tendering or restricted tendering no tenders were submitted or in a case such as described in Article 61 of the *Public Procurement Law*. A competitive dialogue is another type of awarding a contract, in which the client carries out dialog with selected contractors, and afterwards invites them to bid. The client may award a contract in a competitive dialogue mode, if it is not possible to award the contract by open or restricted tendering because of the extremely complex nature of the contract. Single-source procurement is a type of awarding a contract, in which the client awards a contract after negotiations with one contractor (Art. 66 of the *Public Procurement Law*).

#### USE OF DESIGN AND BUILD SYSTEM IN PUBLIC PROJECT PERFORMANCE

To verify the popularity of D&B in the area of the public procurement market in Poland, the analysis of data on contracts awarded from the Public Procurement Bulletin was carried out. It was found that in 2008 only 272 public contracts for design and build were awarded. In subsequent years, the number has gradually increased. In 2011 there were already 602 contracts, which is more than twice that of 2008. It is worth noting that the rise in popularity of this system coincides with funding from the EU for 2007-2013.

Table 1 shows the number of contracts awarded every month in consecutive years. It should be noted that the small number of contracts awarded in the period from January to May is probably connected with the urge to include the project in the budget plan for the upcoming years and to prepare the contract itself. In the second half of each year the number of contracts is significantly increased.

The share of public works contracts in the design and build system compared to all construction works contracts awarded in 2008-2011 is shown in Figure 1. In 2011 a total of 49,441 works contracts were awarded. Among them the vast majority concerned construction works, i.e. 48,839, whilst 602 were the contracts for design and build, which is a little over 1% (1.22%) of all contracts awarded. The percentage comprising the design & build system in

**TABLE 1**  
Number of Monthly Procurement Contracts for Design and Execution  
of Works, 2008-2011

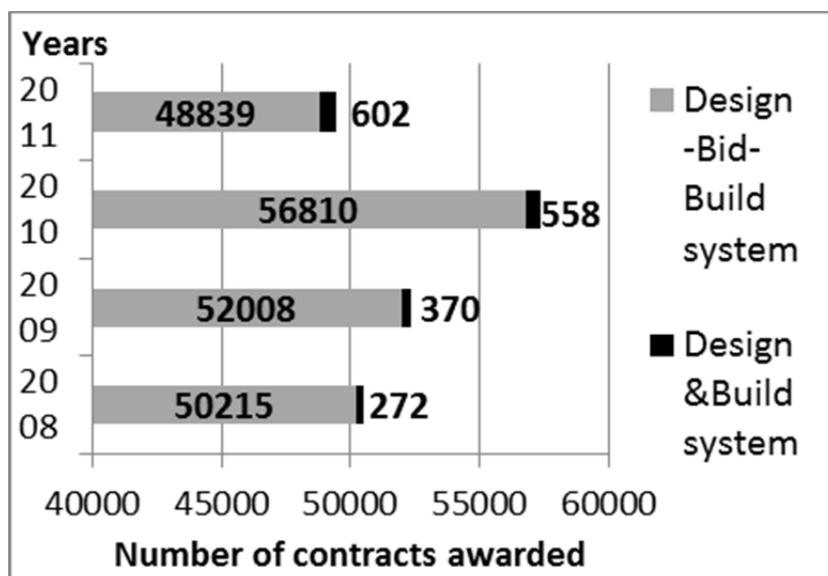
<b>Months</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>
January	6	20	18	15
February	10	10	25	19
March	16	18	38	20
April	12	21	34	35
May	20	20	34	56
June	26	44	41	53
July	31	45	75	75
August	26	58	75	70
September	41	42	83	85
October	28	37	51	80
November	27	37	42	54
December	29	18	42	40
<b>TOTAL</b>	<b>272</b>	<b>370</b>	<b>558</b>	<b>602</b>

Source: Data from the *Public Procurement Bulletin* (Various Years).

2011 in the Polish public sector is insignificant. In earlier years it was not better and amounted to 0.54% in 2008, 0.71% in 2009 and 0.97% in 2010, respectively. These data show that although D&B is not particularly popular, it is applied by the public clients more often each year.

Despite the fact that the D&B system has been for several years an officially adopted form of contract for construction works resulting from the Public Procurement Act, it is developing extremely slowly in Poland. The reason is that D&B has been little promoted and the level of knowledge about the benefits of the D&B system among public clients is low. Public clients and officials believe that the D&B system requires a lot of caution, and they pay attention to the difficulty of the terms of reference.

**FIGURE 1**  
**Share of Design and Build in Public Construction Works Contracts in 2008-2011**



The major disadvantages of the D&B system in the opinion of the public clients are as follows:

- No influence on the design, which is an only opportunity for the clients to clarify their precise quality requirements for both the products supplied and the works carried out. The only stage which allows for specification of the expectations is a stage of preparation of the Terms of Reference (the so called ToR).
- Risk of paying more for the contract than in the case of the tender announced on the basis of a pre-made design and estimate.
- High risk of receiving the contract in the form of a project with a lower quality standard.
- Risk of failing to complete the project when the design shows no possibility of building in a specific location and within budget, which would require re-enactment of tender.

- Risk of not including in the Terms of Reference all expectations regarding quality, functionality and aesthetics.

To sum up, public clients believe that the description of the contract contained in the functional and utility programme is difficult and time-consuming, and there is less control over the contract and higher cost of performance while at the same time there is a high risk of achieving lower quality. Such approach is due to little experience of public clients in the field of D&B and the lack of practical systemic solutions.

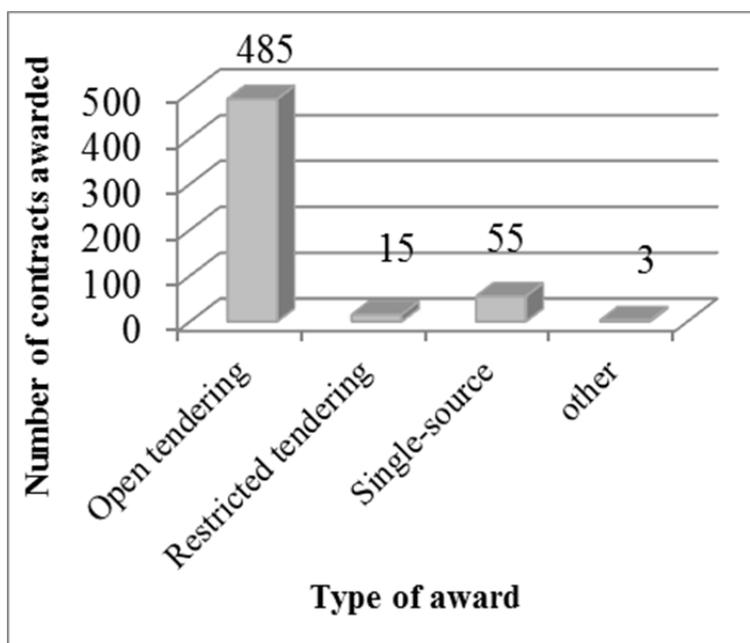
Poland has been for many years part of the so-called "Eastern Bloc" and the policy conducted by the establishment aimed at a centrally controlled economy. Only since the beginning of the 1990s, has Poland, in the course of the changes, entered on the path of development of the market economy. Therefore, relatively little experience additionally reduces the development of D&B.

#### **MODES AND CRITERIA OF SELECTING A CONTRACTOR IN THE DESIGN AND BUILD SYSTEM**

To examine methods for selecting contractors of construction projects implemented under the D&B system, 558 announcements of awarded contracts in 2010 published in the Public Procurement Bulletin were subject to analysis. The clients were the public sector entities classified in accordance with the *Public Procurement Law* as public clients and having their headquarters in Poland.

The modes applied by the clients for the contracts under analysis are presented in Figure 2. Figure 2 shows that in awarding public contracts in the design and build system, open tendering is the dominant mode. In 2010 it was used in 485 cases representing 87% of all contracts. This is a basic type of award, where in response to a public notice all interested contractors may submit their tenders (Article 39 of the *Public Procurement Law*). This mode is most often used in public procurement in Poland regardless of the system of project delivery. The analysis of data from the Public Procurement Bulletins shows that in 2010 it was applied in 84% of all awarded contracts for construction works. In 15 cases restricted tendering was applied (only 3%). This mode gives opportunity to assess competences of the team to be selected to perform the contract

**FIGURE 2**  
Modes of Selecting Contractors in Design & Build in Public Construction Contracts in 2010



(Stage I) and only from the best bidders, is the one selected who submits the best tender (Stage II). Under Article 51 of the *Public Procurement Law* not less than 5 and not more than 20 bidders should be invited to the second stage to ensure competition. In most of the 15 cases which were analysed, clients limited the number of contractors approved for the second stage, usually to a minimum (i.e. five). Only once a maximum number of twenty contractors were allowed and even then the number of submitted tenders was 3. Restricted tendering and open tendering are the main modes of awarding public works contracts in Poland. The law does not impose any requirements necessary to apply these modes, which means they can be applied in any case.

The clients used a single-source procurement mode in 55 cases (10%), which is more often than restricted tendering. This is the easiest and the fastest mode of award but because it has a non-

competitive nature, its use is restricted to circumstances provided for in detail in the PPL (Article 67). One of such circumstances is to award the present contractor with additional contracts not included in the basic contract and not exceeding a total of 50% of the total value. Out of 55 cases, 43 were related to such situation. It should be emphasized that the use of this mode requires justification.

The number of single-source contracts is due to the fact that the Polish *Public Procurement Law* allows for awarding of construction works at a single-source, in the following situations, for technical reasons of objective nature:

- Due to the unique situation not ensuing from the reasons attributable to the client, which could not have been foreseen and requires an immediate performance of the contract
- In sequentially conducted procurement procedures, of which at least one was conducted in an open tender or restricted tender, no bids were submitted or all bids were rejected because of their incompliance with the description of the contract
- In the case of provision of additional contracts to a hitherto contractor of services or construction works, which were not covered by the main contract and which do not exceed a total of 50% of the value of the contract, when for technical or economic reasons separation of the additional contract from the main contract would entail disproportionate costs or when the performance of the main contract depends on performance of the additional contract;
- In the case of awarding supplementary contracts in the period of 3 years from awarding the main contract to the hitherto contractor of services or construction works, which do not exceed 50% of the value of the main contract and involve the repetition of the same kind of contracts;
- In the case of awarding supplementary contracts in the period of 3 years from awarding the main contract to the hitherto contractor of services or construction works, which do not exceed 20% of the value of the main contract;
- When it is possible to award the contract for the supply of a particularly favourable conditions in relation to the liquidation of another entity, enforcement proceedings or bankruptcy.

So many situations in which it is possible to award single-source contracts result in frequent use of the simplified procedure by the public clients. Unfortunately, such a procedure often causes numerous abuses involving significant overcharging for additional works. Befriended companies can win the tender by placing a bid below the price achievable on the market, knowing that they will be able to make up for the losses with a surplus when they are awarded a single-source contract for additional or supplementary works.

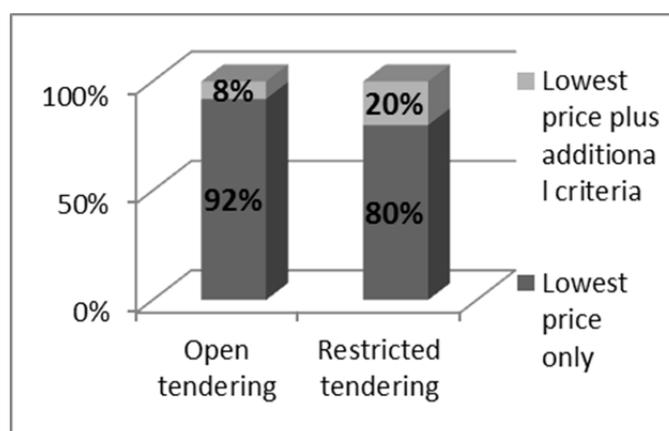
In the remaining three cases of awarded contracts for design and build in 2010 (indicated in Figure 2 as other contracts) negotiated procedure with publication, competitive dialogue and electronic bidding were applied. The use of these modes was due to the specific situations and as mentioned earlier required client's justification as to compatibility of such mode with the provisions specified in the Law (Article 55 and Article 60b).

In D&B a proper selection of the contractor is very important as the client entrusts both the design and implementation to the project team. In public procurement in Poland, as shown in Fig. 2, the selection of a contractor is usually based on the modes of tendering based on submitted tenders. The client selects the most advantageous tender based on the evaluation criteria specified in the terms of reference. The evaluation criteria in accordance with Article 91.1 of the *Public Procurement Law* shall be price or price and other criteria relating to the subject of the contract. In particular, they may be: quality, functionality, technical parameters, use of the best available technology in the scope of environmental impact, operating costs, maintenance and schedule of completion.

The analysis of the previously mentioned 558 contracts awarded in 2010 in the design and build system, confirms that in cases of open tendering, the clients in up to 92% apply only one criterion - the lowest price. Only in 39 cases (8% of the orders) were criteria other than price used (Figure 3). In cases of the second primary mode of procurement in Poland – restricted tendering, evaluation of contractors authorized to submit their tenders was based on the assessment of competence. In all 15 bids, main selection criterion was the experience. It was used as a sole criterion in 70% of cases; in the remaining cases clients applied additional criteria such as staff potential, liability insurance, revenue, financial and credit capacity. Up to three criteria were used. In assessing tenders of contractors

(stage II of the proceedings in this mode) price was also used as a main criterion. In as many as 12 proceedings (80%) the contractor was selected based on the lowest price. Only in three proceedings (20%) were additional criteria used (Figure 3).

**FIGURE 3**  
Criteria of Selecting Contractors in the Design & Build System



Additional criteria used to evaluate tenders in the choice of the contractor in the design and build system are summarized in Table 2.

**TABLE 2**  
Additional Criteria Used by Public Clients to Evaluate Tenders of Contractors in the D&B System

Additional criterion	Number of used criteria*	
	Open tendering	Restricted tendering
Defects Liability Period (in months)	20	2
Time for completion	10	-
Evaluation of a conceptual design	4	-
Out-of-warranty repairs	3	-
Evaluation of technical parameters	3	1
Economic effect - production cost 1G	2	-

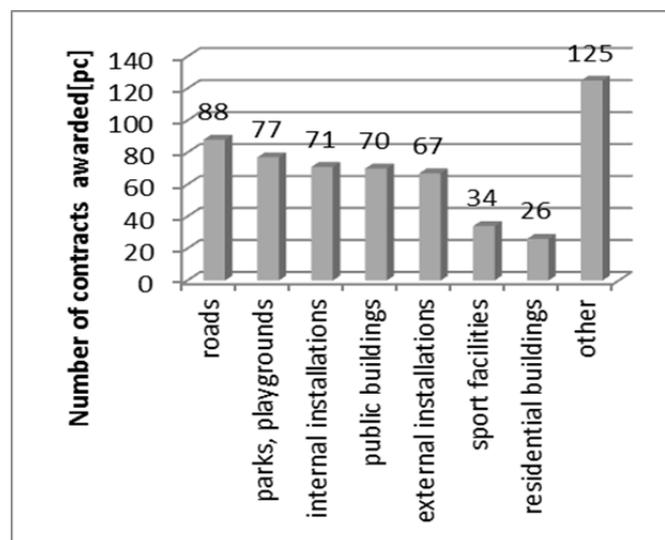
Note: \* in some proceedings more than one criterion was used.

Table 2 shows that the most commonly used additional criterion in the analysed proceedings is the Defects Liability Period. It was used in nearly half of all cases (48%), in which the client applied criteria other than price. A completion date is the second most often selected awarding criteria – it was used in 24% of cases. Other criteria are not used as often as the ones mentioned. Most often (74% of cases), the clients decide to use one additional criterion (in addition to the price criterion, which is always used). They use up to two additional criteria (26% of cases). It is worth noting that the criterion of technical parameters most frequently related to the noise level of the installation, power consumption, and the quantity of heat supplied.

#### CHARACTERISTICS OF PUBLIC PROJECTS EXECUTED IN D&B

As a result of analysis based on data of current procurement carried out in the D&B system, groups of civil structures and the type of the works commissioned in 2010 in Poland can be distinguished. Figure 4 shows the number of contracts for various construction works in the D&B system.

FIGURE 4  
Number of Contracts for Various Construction Works in the Design & Build System



Most of the projects completed in the D&B system in 2010, were the road projects (total 15.8%). The works involved mainly reconstruction of intersections or streets, repair of surface or construction of new overpasses, bridges and bypasses of the cities. The second group of structures includes parks and playgrounds (13.8%), outdoor installations (12%) and indoor installations (12.7%) and public buildings (12.5%). A large number of projects were related to construction of playgrounds within the programme A Joyful School planned for the years 2009 – 2014, which involved, among others, arrangement of a school playground.

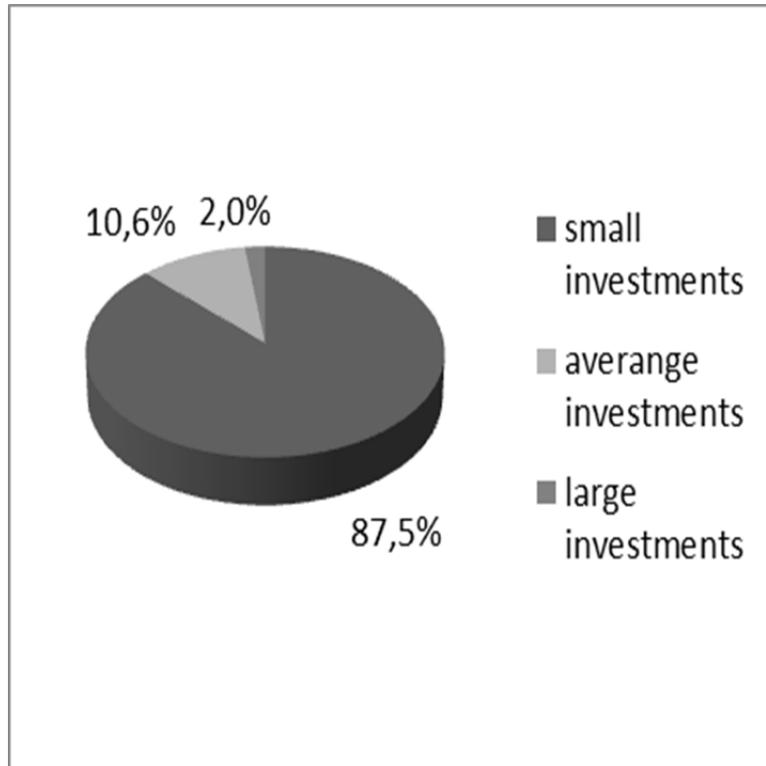
The overall cost of the program amounts to EUR 606,528,012.74 , of which EUR 317,942,083.79 will come from the state budget and EUR 288,585,928.95 will be a financial contribution of the leading authorities. Outdoor installations are mainly works related to the drainage system and lighting of roads and sidewalks (which involve the construction and reconstruction of the road network in Poland). Indoor installations mostly relate to modernization and equipping buildings with air conditioning and ventilation systems, monitoring and fire protection installations, telecommunication, and construction or replacement of elevators. Public buildings, in turn, are mainly schools and kindergartens, and would undergo upgrades, repairs, and new constructions.

Projects classified by authors as other projects, constituting 22.4% of all projects, include construction of masts, radar facilities, aerodromes and hangars, theme parks, facilities for the use of alternative energy sources, household sewage treatment plants, bicycle paths, etc.

Most of the projects carried out in the D&B system are small projects, the estimated contract value of which does not exceed EUR 1,250,000. They represent 87.4% of all awarded contracts for the design and execution of works in 2010 in Poland (Figure 5). Medium-sized projects, with an estimated total cost of EUR 1,250,000 – EUR 3,700,000 represent a little over 10% of contracts. Large projects of the estimated value exceeding EUR 3,700,000 represent only 2% of all contracts in the D&B system.

The largest contract involved design and construction of a waste disposal facility that meets the requirements of the best available

**FIGURE 5**  
**Percentage Structure of Public Contracts in D&B System, According to Size Criterion**



technology (BAT). Estimated value of the contract is EUR 14,799,669.22. However, it was an exception, in terms of the contract value, as other projects classified by the authors as large did not exceed EUR 6,200,000. These included contracts for reconstruction or modernization of roads and railways, earthworks in construction of highways, construction of municipal waste landfills, investment in sport infrastructure, or technology park. Medium-sized projects carried out in 2010 in Poland were road works, radio beacons and other airport systems, adaptation of public buildings, construction of multi-family social buildings or urban revitalization works.

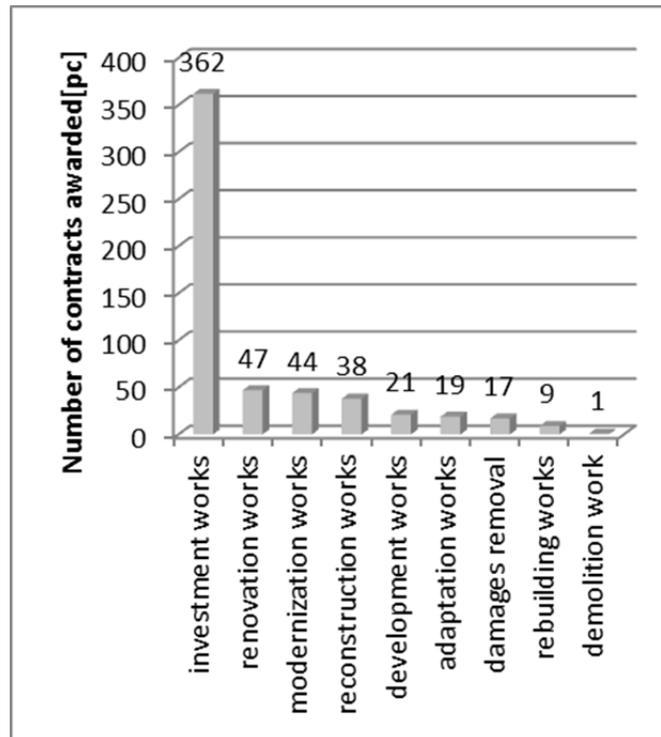
**TABLE 3**  
**Size of Projects Carried out in the D&B System in 2010**

Volume of Monthly Investments	Small invest-ments	Medium invest-ments	Large invest-ments	Total
	Below €1,250,000	€1,250,000-€3,700,000	above €3,700,000	
January	14	4	0	18
February	21	3	1	25
March	32	6	0	38
April	28	4	2	34
May	28	5	1	34
June	36	2	3	41
July	69	5	1	75
August	70	5	0	75
September	75	8	0	83
October	47	4	0	51
November	34	6	2	42
December	34	7	1	42
<b>Total</b>	<b>487</b>	<b>59</b>	<b>11</b>	<b>558</b>

Most projects in the D&B system were awarded in 2010, during the summer months between July and September (41.8% of all contracts); it is noticeable mainly in case of small projects (Table 3). The least of all public contracts awarded in this system were at the beginning of the year from January to March, only 14.5% of all contracts. Figure 6 shows the structure of the type of works. Most of carried out works (64.9%), which is not surprising, were the investment works, related to construction of new civil structures or installations.

Repair and modernization works were 16.3% of all contracts in total, and works of reconstruction, extension or conversion 14%. Works of reconstruction or removal of damage, represented 4.7% of all construction works and are associated with more and more frequent natural disasters in Poland (mainly hurricanes, whirlwinds, tornadoes and floods).

**FIGURE 6**  
**Structure of the Type of Works**



### CONCLUSION

The number of public contracts awarded in Poland in the Design & Build system gradually has increased every year. But it reached a little over 1% of all contracts awarded annually for construction works. This system is then little known to Polish clients and building contractors. There is a definite lack of instructions and practical guidelines in Poland for public clients who would like to apply this system. Polish public procurement law allows for performance of projects in accordance with the D&B formula, but the methods of selecting a contractor specifically adapted to this system have not yet been developed. The method of proceedings for awarding a contract does not depend on the system of performance and can be the same as in the traditional system (design-bid-build) and in the D&B system.

The analysis shows that the dominant mode in Poland is open tendering (87% of cases) and that clients typically use one selection criterion – the lowest price (92%). As the experience of many countries has shown, this method is not recommended for awarding contracts in the D&B system. Much better are the methods based on the criteria of both price and quality: restricted tendering, prequalification, and methods based solely on an assessment of the contractor's competence: single-source procurement procedure, qualification-based selection, where price is not a criterion for evaluation. Unfortunately, in Poland, in most cases they can be applied only by private clients. In public projects only restricted tendering is provided for the application without any restrictions by Law, which unfortunately, Polish public clients use very rarely (3% of cases). In Poland it is widely believed that D&B should be used for small, not complex projects. It most often refers to small projects (87.4%), not exceeding EUR 1,243,904.87. In the case of other medium and large-sized projects, the projects included are ones which are always easy to describe (using the functional-utility programme), such as roads, waste disposal facilities, swimming pools, simple residential buildings. As Polish public clients gain more and more experience the design and build method is likely to be successfully used also for large and complex projects.

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