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ISSUES OF TELEMATICS IN THE CONTEXT OF PUBLIC PROCUREMENT

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ABSTRACT

Thanks to financial support of the European Union for 2014-2023 PKP Polskie Linie Kolejowe S.A. (PKP Polish Railway Lines) will spend over 50 billion PLN on railway investments. The purpose of the present article is to show how important is the role of public procurements in the context of investments made by PKP PLK, particularly in the field of telematics. It is worth emphasising, that thanks to public procurements state-of-the-art practises can be implemented in: telecommunications, information and informatics forming concept of transport telematics. It is important to underline, that a large scale of investments demands, that continuous acquisition of knowledge among PKP PLK employees is required, not only in public procurement procedures but also in: construction, environmental protection and many other fields. It is necessary to underline how important is the selection of a contractor able to carry out an investment because it has a direct influence on the quality of service provided by PKP PLK. Experience shows, that the execution of works contract is often delayed because of the wrong choice of economic operator.

KEYWORDS

Telematics, public procurement

1. BASIC ISSUES CONCERNING TELEMATICS

It is worth bringing to mind a historical outline of the term „telematics". It derives from French (telematique) and was introduced into subject literature in 1978. We need to emphasise that it occurred in English vocabulary in 1980. We may state that telematics is a combination of two words „telecommunications" and „ informatics". Within the field

of science, however, it juxtaposes research related to automatic, telecommunications and informatics. The current term "telematics" is defined as: "telecommunication, information and computing solutions as well as automatic control solutions, adjusted to the needs of operated physical systems and integrated with them" [1].
Recently the term „telematics" is used in many different fields of economy. It usually occurs there in combination with the adjectives defining a field of use, e.g. transport, medical, building telematics, etc. In case of support from the financial perspective of the European Union for the years 2014-2023 we are interested in the issued of transport telematics, where PKP Polish Railway Company will allocate 50 bn PLN **(**see Figure 2**)** on railway investments. [2] „Transport telematics will refer to mobility of people and goods with the use of adequate means of transport. Combined with logistics and forwarding is included in the field of TFL (Transport – Forwarding – Logistics), where logistics comprises planning, conducting and controlling a smooth flow of goods and people. Logistic activities comprise, among others, customer service, flow of information, supply processes, transport and storage" [1]. Forwarding, on the other hand, concerns: „organisation of transport of goods and doing all or some activities related to it" [3]. What must be emphasized is that „transport telematics enables to influence the course of mobility processes, to increase transit capability, safety improvements, decrease of negative impact on environment and better transport planning" [1].

It is worth mentioning that PKP Polish Railway Company announced a tender procedure in 2015 amounting to several billion for the building of ERTMS/GSM-R system for over 13 600 km of managed lines (see Figure: 1, 3 i 4). We need to emphasise that it is a subsequent tender procedure of railway infrastructure management within Great Railway Investment Planning. The records in the tender documentation for the building of ERTMS/GSM-R system created by a panel of Polish Railway Company experts will secure the interests of both a national infrastructure management as well as they will allow to appoint a supplier, who will guarantee a required technical level for the offered solution [4]. While conducting a monitoring of tender procedures, we may notice that district cities announce tender procedures related to the implementation of a transport system, which comprises, among other, the solutions concerning operation control of public transportation, the implementation of metered zones in the city centres and obeying the traffic regulations.

2. PUBLIC PROCUREMENTS IN THEORETICAL APPROACH

Public procurements play a vital role in national economies of both Poland and other European Union countries. What is noticeable is that the value of public procurements completed in 2010 in the European Union amounted to 2 381 bn euro, which constituted 19.35% of EU GDP. This coefficient differed in particular countries from 10.59% for Cyprus to 31.15% in the Netherlands. In Poland the level of the size of amounts spent in the form of public procurements related to GDP slightly exceeded the European Union mean and amounted to 20.42% [5.].
The considerations related to the afore-mentioned issue should be initiated from defining the issue of public procurements in Poland. Public procurements are: "the element of public finance comprising detailed solutions concerning procedures of expending public funds (the ways of selecting contractors and the regulations of concluding contracts). These procedures frequently constitute forms of tender"[6] .
What should be emphasized is that pursuant to Polish law the regulations of awarding public procurements are specified in the act of 29th Jan 2004 Public Procurement Act. The regulations on public procurements must be used in particular by public finance

entities, as well as entities of a similar character or controlled in a specific way by the public finance sector units, if they acquire construction works, services and supplies. Procurements may be awarded in eight procedures described in the act: *open tender, limited tender, negotiations with announcement, negotiations without announcements, electronic auctions, competitive dialogue, procurements by a single-source procedure, request quotations.*

On the other hand, as far as public procurement system in one of the member countries of the European Union, that is Germany, is concerned, it is rather complex, which results from a federal character of a German country. "In accordance with the regulation of art. 74 section 1 item 11 of the German Basic Law, public procurement act – as a matter fitting in the issue of law related to economic relations – it belongs to the so-called competitive law, thus the law, within which competences are divided among federal authorities and federal states [In accordance with the regulation of art. 72 section 1 of Basic Law, in the fields constituted by a competitive law, federal states have legislative competences as long as federal states did not use their legislative competences based on this act. On the other hand item 2 of this article indicates that in the fields defined, among others in art. 74 section 1 item 11 (law concerning economic relations – including public procurements) federal authorities have their legislative competences if and when the constitution of identical living conditions within the territory of the Federation as well as preservation of law unity and economic unity lie in the interest of the whole country and require legal regulations from federal authorities] ". German public procurement law, within the scope comprising procurements of the value exceeding the European Union thresholds, is constructed in accordance with the so-called cascade system, ergo a three-tier regulation taxonomy, comprising the act, the regulation and the standardised conditions of the implementation of tender procedures [7.]. On the other hand, procurements of the value below the European Union thresholds are regulated, however in a rather restricted way, by German budget law.

The most significant legal acts within public procurements in Germany include [8].:

1. „Das Gesetz gegen Wettbewerbsbeschränkungen (GWB) – Act against Restriction of Competition, which in part IV (§ 97 to § 128b) refers to public procurements,
2. Die Vergabeverordnung (VgV)108 – Resolution in case of Public Procurements issued on the basis of GWB,
3. Die Verordnung über die Vergabe von Aufträgen im Bereich des Verkehrs, der Trinkwasserversorgung und der Energieversorgung (SektVO) – Resolution in case of industry procurements,
4. Die Verdingungsordnung für Leistungen (VOL) – Resolution in case of Tender Procedures for Supplies and Services,
5. Die Vergabe – und Vertragsordnung für Bauleistungen (VOB) – Resolution in case of Tender Procedures for Construction Works,
6. Die Verdingungsordnung für freiberufliche Leistungen (VOF) – Resolution in case of Tender Procedures for Services for Freelance Professions".

On the basis of the afore-mentioned legal acts we distinguish four procedures of awarding public procurements for supplies, services and construction works, namely open procedures (offen Verharen), limited procedures (nicht offenen Verfahren), negotiation procedures (Verhandlungsverfahren) and competitive dialogue (wettbewerblichen Dialog). On the other hand, in France the current regulations related to the afore-mentioned issue are regulated by Public Procurement Code. This Code distinguishes two kinds of public procurement procedures: *procedures (basic) and ad hoc procedures.*

The following public procurement procedures are distinguished among formal procedures:
1. calling out open offers,
2. calling out closed offers,
3. negotiation procedures,
4. competitive dialogue,
5. competition,
6. dynamic purchase system.

The implementation of ad hoc procedure de notes that we have the chance of conducting the procedure in a less formalised and more tolerant way. Such a procedure is dependent on the kind of subject matter of the contract (supply, service, construction works) as well as on the amount.

The following public procurement procedures are distinguished in Poland:
1. open tendering,
2. restricted tendering,
3. negotiated procedure with publication,
4. negotiated procedure without publication,
5. competitive dialogue,
6. electronic bidding,
7. request- for -quotation,
8. single source procurement,
9. innovation partnership procedure.

The above standard forms of public procurement represents fig. 5

In connection with the foregoing considerations we may not omit the issue related to the marginality threshold, namely the amount of procurement value initiating the obligation to use the procedures defined in Public Procurement Act. At the beginning a bit of statistics [9]. provided by Public Procurement Agency. In Bulgaria, Finland, France, Romania, Slovenia, Latvia and Cyprus the marginality threshold is at the order of 15 000 €, whereas in Ireland it amounts to 25 000 €, in Great Britain it amounts to 12 000 €. What should be emphasised is the fact that Germany with its threshold of 500 € and Lithuania with 3000 € are the most strict. In Poland below 30 000 € [9].here is no obligation to use the regulations of Public Procurement Act. In accordance with the calculations of Public Procurement Agency the mean European marginality threshold is at the order of 21 000 €, whereas the median for 24 countries of the European Union amounts to 15 000 €.

It is worth bearing in mind that the fundamental rules shaping the public procurement market in the European Union comprise, among others, transparency, competitiveness, openness of procedures, mutual recognition of qualifications, rationality of expenses and economy, etc. We need to emphasise that the procedures implemented in the countries of European Union are to serve a better and more effective use of public funds, which are a main source of financing investments and procurements related to them. Thus, thanks to such a broad scope of planned investments in Poland in railway transport, the most modern solutions within the scope of telecommunication, information and computing comprising the issue of transport telematics may be implemented via public procurements. We need to emphasise as well that such a broad scope of investments requires a lot of knowledge from the employees of PKP Polish Railway Company not only within public procurements, but also building industry, environment protection and many other fields.

Fig. 1. PKP are going to invest by 2020 – they want to spend pln 36 billion, of which pln 8.5 billion on telematics

Source: [2]
The above figure represents the work being carried out by PKP PLK towards improving the quality of services.

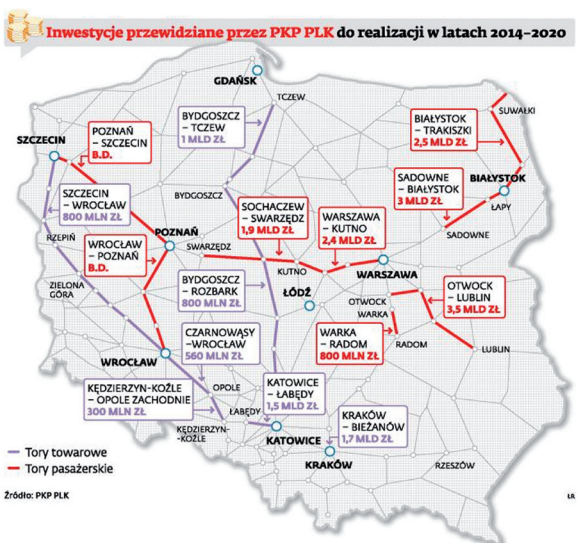

Fig.2. PKP Polskie Linie Kolejowe S.A. - Investments for 2014-2020

Source: [2]
The present map shows the investments planned by PKP PLK for the 2014-2020 period.

Fig.3. PKP PLK Investments – Cracow

Source: [2]

Fig.3. PKP PLK Investments – Cracow

Source: [2]
Fig.3 shows the ongoing work being carried out by PKP PLK Cracow, Fig. 4. shows represents one of the completed stages of the investment process.

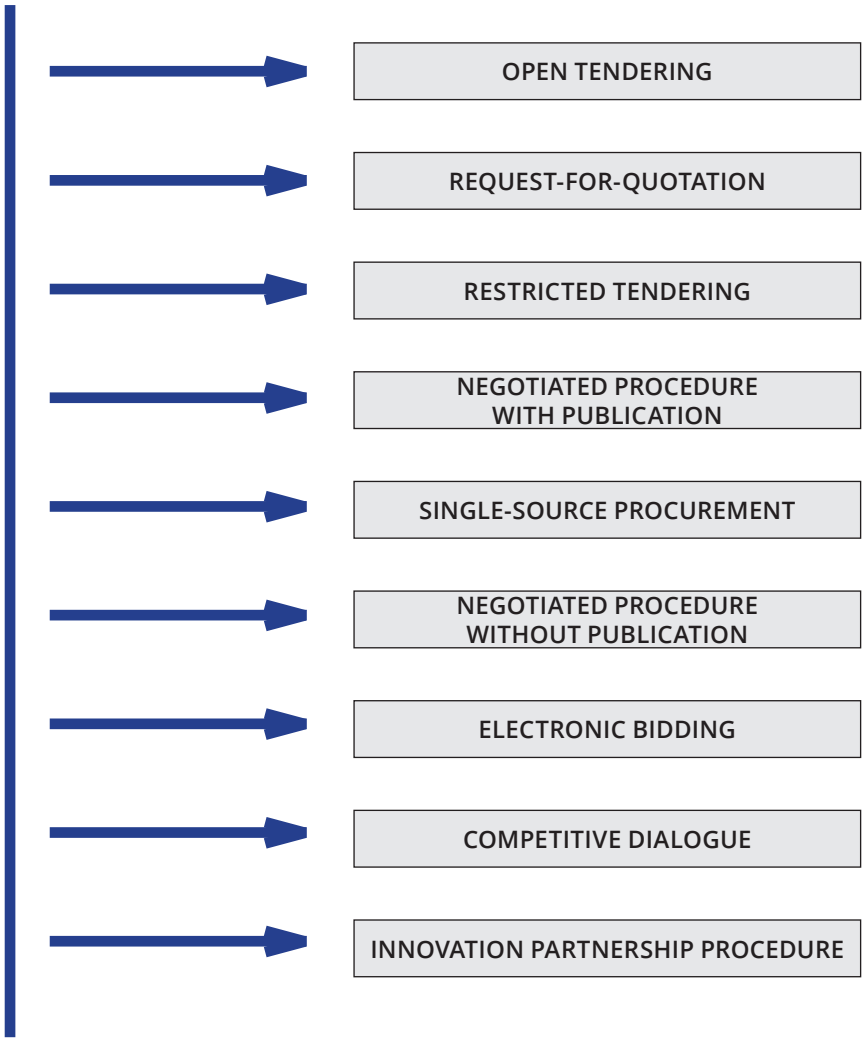

Fig. 5. Standard forms of public procurement

Source: Own study developed on the basis of Public Procurement Law.

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PROBLEMATYKA TELEMATYKI W ASPEKCIE ZAMÓWIEŃ PUBLICZNYCH

STRESZCZENIE

Dzięki unijnemu wsparciu z perspektywy finansowej Unii Europejskiej na lata 2014 – 2023 PKP Polskie Linie Kolejowe przeznaczą ponad 50 mld zł na inwestycje kolejowe. Dlatego też poprzez zamówienia publiczne można wdrożyć najnowocześniejsze rozwiązania z zakresu telekomunikacji, informacji i informatyki składające się na pojęcie telematyki transportu. Należy podkreślić, że tak duża skala inwestycji wymaga od pracowników PKP PLK ogromnej wiedzy nie tylko z zakresu zamówień publicznych, ale także telekomunikacji, informatyki, budownictwa, ochrony środowiska i wielu innych dyscyplin.

SŁOWA KLUCZOWE

telematyka, zamówienia publiczne