

## CHANCES AND HINDRANCES FOR THE REALIZATION OF THE PROGRAM FOR BUILDING MOTORWAYS IN POLAND

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### **Summary**

*In the introduction the reasons for importance of development of Polish road infrastructure were given. Afterwards, concepts and the present state of the program of motorways building in Poland were described. The possible options of financing motorways were also determined. The main part of the research paper presents factors which determine chances and hindrances for the realization of the program for building motorways in Poland. These enumerated synthetic factors are based on the up-to-now Polish experiences in building motorways. The paper is finished by Author's conclusions including propositions of modifications necessary for shorten time of duration of the road investment process in Poland.*

Keywords: motorway, expressway, road infrastructure, licensing system, financing of motorways

### **1. Introduction**

The condition of Polish communication infrastructure is undoubtedly one of the major problems of contemporary economy of Poland. Shortcomings of this matter pester Poles as well as foreigners visiting our country. Bad quality of roads is a negative factor which influences significance of Poland on the area of the European transit system. In an indirect way it also influences the pace of economic growth in our country.

One of the essential enterprises of national character which has been undertaken by Poland is organization of the World Cup Finals in 2012. Economists realize that success of this event may become an immense flywheel for the development of the country. At the same time everybody consents that one of the essential conditions of successful realization of such

a big logistic enterprise is building an efficient net of transport connections of the domestic and international range. The situation which started to exist after acknowledging Poland organization of the World Cup Finals urged the fact that the program of building of motorways has become priority in development plans of Polish economy.

Since the program of building of motorways is of such significance and is determined by the period of five years' time which is left for Poland till the organization of the international sports event it is worth analyzing chances and hindrances of realization of this program. The analysis which follows below is of macroeconomic character and has been conducted on the basis of accessible information from offices and institutions responsible for realization of the program of building of motorways, especially from the General Management of State Roads and Motorways (GDDKiA)

## 2. Concepts and the present state of the program of motorways building in Poland

Since the end of World War II there were several plans of building a net of road connections in parameters of motorways in Poland. Considering this, the results of the up-to-now achievements are not very optimistic. In the middle of the year 2007 there are about 680km of motorways in Poland and the longest stretch of the motorway on the line A-4 between Krzyżowa and Cracow is 364 kilometers long. According to the valid Decree of the Cabinet from 2004 the target lay-out of motorways in Poland was set for about 2000 km, out of which two motorways A-2 and A-4 running from the west to the east and one motorway A-1 running from the north to the south are the most important<sup>1</sup> (table 1).

Table 1.

Target lay-out of motorway net in Poland

No	Route of motorway	Target length	Presently exploited length
A-1	(Helsinki) Gdańsk–Toruń–Łódź–Piotrków Tryb.–Częstochowa–Gliwice–Gorzyczki–granica państwa (Ostrawa)	560,5 km	17,5 km
A-2	(Berlin) state border–Świecko–Poznań–Łódź–Warszawa–Biała Podlaska–Kukuryki–state border (Minsk)	652 km	250 km
A-4	(Dresden) state border–Jędrzychowice–Krzyżowa–Legnica–Wrocław–Opole–Gliwice–Katowice–Kraków–Tarnów–Rzeszów–Korczowa– state border (Lvov)	667 km	381 km
A-6	(Berlin) state border–Kołbaskowo–Szczecin (S3 junction „Rzęśnia”)	29 km	14 km
A-8	Motorway bypass at the stretch A-4–Psie Pole	27 km	-
A-18	(Berlin) state border–Olszyna–A4 Krzyżowa (Legnica)	75,5 km	17 km
TOGETHER		2011 km	679,5 km

Source: Office of Studies in GDDKiA, 2006.

<sup>1</sup> Regulation of the Council of Ministers from May 15, 2004 on the net of motorways and fast roads (Journal of Laws, no 128, item 1334).

The latest government program of motorway building was presented in 2006 and it predicts completion of the following stretches of motorways by the year 2013<sup>2</sup>:

- A-1 stretches: Gdańsk-Nowe Marzy (91km), Nowe Marzy-Toruń(61km), Stryków-Pyrzowice (198 km), Pyrzowice-Sońnica (41km) Sońnica- Świerklany (23km), Świerklany-Goryczki (27);
- A-2 stretches: Świecko-Nowy Tomyśl (105), Stryków-Warszawa (41km), Warszawa-Siedlce (75 km);
- A-4 stretches: Cracow-Tarnów (77km), Tarnów-Rzeszów Wsch. (79km), Rzeszów Wsch.-Korczowa (86km), Zgorzelec-Krzyżowa (50km);
- A-8 motorway bypass of Wrocław at stretch A4- Psie Pole.

All in all, it is planned to let 981km of motorways for public use within the next seven years, which is on average 140km a year. This is a very ambitious project taking into consideration the up-to-now accomplishments in this matter. The key to success is an efficient finance system of particular investments. Polish legislator, on the strength of the article 38 of *the Statute on payable motorways*<sup>3</sup> allowed two possible options of financing motorways:

- 1) from financial means obtained from the State budget which are yearly agreed for these aims, so called traditional aims,
- 2) from concessionaires' own means and from obtained bank loans so called financing in licensing system.

The first kind of financing consists in building payable motorways thanks to funds obtained as a result of Polish State actions. Investment capital is obtained from<sup>4</sup>:

- the budget means mainly coming from fuel excise, the means are estimated yearly in the budget statute;
- from the European means;
- from loans obtained from International Finance Institutions, e.g. the World Bank (BS), the European Investment Bank (EBI) as well as the European Bank of Reconstruction and Development (EBOiR).

The second kind of financing becomes more and more popular in Europe, especially in the situation when governments try to involve the private sector in financing and operating of elements of public infrastructure. The licensing system is characterized by the fact that financing is distinguished from the initiator's structures and finance transfers generated by the

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<sup>2</sup> Ministry of Infrastructure, GDDKiA, *Schedule of Construction of Motorways and Fast Roads for years 2007-2013*, Warsaw 2005, page 2.

<sup>3</sup> *Statute from October 27, 1994, on payable motorways* (Journal of Laws, no 127, item 627).

<sup>4</sup> Unpublished documentation of GDDKiA.

project are the source of paying debts and returns from individual capitals used for financing the project<sup>5</sup>. The hub of the licensing system is a company called special purpose vehicle whose shareholders are investors or because of other reasons they are interested in the project, e.g. a contractor or operator of the subject of investments. The government (named licensing authorities) admit license to the objective company which is the basis for the following agreements in the presented structure. The license usually entitles the objective company to realization of particular services in a particular period of time with the use of the infrastructure originated within it. After a period of time defined in the license the infrastructure which originated and belonged by the special purpose vehicle at the time under license becomes the property of the licensing organ<sup>6</sup>.

The up-to-now Polish experiences show that building of roads, especially motorways is not only a very costly enterprise but long-lasting and complicated because of organization. The very moment of appearing of machines at the construction site is only the beginning of the final stage of investments, which is usually the shortest phase of the mentioned process. Arranging the building stage is decidedly more time-consuming and it consists of laying out the course of the route, obtaining required permissions and agreements. Buyout of grounds is also long-lasting. Next stage are long bidding procedures which are due to bureaucracy and the lack of clear regulations of law. Apart from that there should be mentioned a slow process of confirming applications as well as delays in transfers of financial means from the Cohesion Fund for beneficiaries. The present law minimizes public expenditures, therefore according to its procedures the factor which determines attractiveness of potential concessionaries' offers is the price for a particular stretch of a motorway. Unfortunately a part of contractors artificially understates the level of costs to receive realization of the project. The mentioned phenomenon causes a series of negative consequences, among which decreasing the quality of contractors' services and the quality of building materials used. Money is saved also on the level of the management which influences the deadlines of the project realization.

These and other negative experiences from the realization of the up-to-now investments in roads in our country allow for estimation of a series of factors which have an essential influence on the success of the presently initiated program for the building of motorways.

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<sup>5</sup> The International Project Finance Association.

<sup>6</sup> Czerkas K., *Project Finance in Polish practice*, Twigger, Warsaw 2003, page 45.

### **3. Hindrances for realization of the program of building motorways**

The crucial factors which could hinder realization of the present program of the building of motorways involve:

- 1) Inconvenient for the State concession agreements.
- 2) The statute on public procurement which has been drawn up defectively.
- 3) Restrictions resulting from the law of environmental protection.
- 4) Bureaucracy.
- 5) Shortage of professional contractors.
- 6) Inefficiency of the GDDKiA administration.
- 7) Delays in preparation of projects.
- 8) Too much expanded machinery of political and administrative superintendence.

#### *Re 1) Inconvenient for the State licensing agreements*

Committing realization of the building of motorways to the hands of private investors was to solve all problems connected with the unsatisfactory number of these roads in Poland. It turned out, however, that administrators of roads took advantage out of this instead of the Treasury. What is more, inconvenient for the State agreements may cost the budget 22 billion zlotys by 2037 which will get into private investors' pockets<sup>7</sup>. The reason for this loss is putting the State under obligation to pay off specific compensations to concessionaries on the basis of lost returns, which happens because of the fact that in the name of law lorries of the weight of over 3.5 tons are not charged for passing along a motorway. Their owners purchase vignettes entitling to using all kinds of roads. Therefore, they cannot be charged twice for the same services that is for using motorways. Thus, it seems a logical idea to intend a part of the money from the mentioned vignettes for the development of transport infrastructure, particularly motorways. The major problem is estimating the number of lorries that use motorways, which automatically causes tendencies to increase of the mentioned sum by concessionaries. For example, the Wielkopolska Motorway just before releasing appendices sharply increased fares for lorries and because of that it secured higher surcharges from the Treasury for itself. Moreover, motorway companies are entitled to collect fares from drivers by 2027 (A-4) and 2037 (A-2). At that time the invested in building capital is to be returned. However, according to the appendices, if during that time private companies do not recover

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<sup>7</sup> Report of Supreme Chamber of Control, 2006.

all the money the budget will compensate for the missing sum. It is amazing that the State budget takes responsibility for the economical risk undertaken by the private company.

*Re 2) The statute on public demands which has been drawn up defectively*

Joining the European Union totally changed legislative milieu of infrastructure projects in Poland. A typical example is the change of the law regulating public procurement. Guiding principles for the countries – candidates to the European Union ceased to exist as far as orders for services and investment arrangements co-financed by the EU are concerned and the system of the law for public orders, which had been hurriedly prepared, became obligatory, unfortunately, along with decrees which withdrew Poland in comparison with other European Union countries as far as modern forms of contracting are concerned. The obligatory prohibition of variation orders in agreements, the introduction of overregulation referring to bidding of the subject of order have brought to the blockade of the motorway A-4 at the stretch Zgorzelec – Krzyżowa.

*Re 3) Restrictions resulting from the law of environmental protection*

A significant restriction for building motorways are regulations on the environmental protection, mainly the “Nature 2000” program. Ecologists’ protests may obstruct nearly every project of road building. A free choice of interpretation of the statute record, lack of suitable data about the “Nature 2000” system along with its imposition on formerly advanced investments cause enormous problems during the realization of investment. Introduction of new principles of the law of environmental protection and the necessity of backward investigation of studies for the already prepared projects extorts an unwise process in which the investigation objective is demonstration that the prepared project is appropriate for realization. All of these postpones the moment of starting the construction work. In such a way the construction of the beltway of Augustów and Wasilków has been obstructed and the building of the motorway A-1 crossing the border of the voivodship of Łódź and Mazowsze has been brought to a standstill.

*Re 4) Bureaucracy*

Construction of a motorway is lawfully a very complicated process. The moment of appearing of machines at the construction site is a beginning of the shortest stage of investment. Preparation for the construction work is a much more time-consuming process, which means laying out the course of the route along with obtaining all permissions and

agreements. In Polish conditions buyout of grounds for a motorway is usually a big problem. Reluctance of some proprietors towards to the sale leads to expropriation proceedings which, as a principle, are the finality allowed by the statute. Next stage is bidding procedure which is time-consuming and lasts even several months in some cases.

*Re 5) Shortage of professional performers*

Implementation stage of projects are badly influenced by changes of technical staff working for contractors. Shortage of well-qualified engineering staff is the greatest cause of realization delays. These are such difficult dilemmas because education of civil engineer along with acquiring appropriate experience and passing exams entitling to performing independent technical functions in construction lasts at least 8 years but in practice over 10 years. It should be observed that the outflow of staff influences contractors' possibilities of admission dramatically. For a few years shortage of a suitable number of qualified workers has been noticed. Most of them left for other countries of the European Union where they are able to obtain several times' higher pay for work in their profession.

*Re 6) Inefficiency of GDDKiA administration*

There is a sense of shortage of appropriately qualified civil servants who directly supervise particular road investments. The GDDKiA is a central organ of government administration adequate for the matters of domestic roads. It performs activities of the manager of domestic roads and realizes the State budget as related to domestic roads as a kind of the greatest road investor. This character of supervision duties specified as Procurement Agency requires qualified workers of specializations : project manager, budget specialist, purchase and procurement specialist, legal counsellors, experts for contracting, experts for commercial matters and management experts. The specializations are not common in the GDDKiA. One of the obvious reasons is discrepancy between offered remuneration and a potential responsibility and expectation of an active influence on enormous investments. A similar situation takes place on other levels of the road administration.

*Re 7) Delays in preparation of projects*

Preparation of an infrastructure project is usually several or even more than ten years long in Poland as well as in all countries which respect civil rights. Accessibility of appeals, participation of the society in preparation of the project, concern about the natural environment – these involve the necessity of assuming prolonged periods of preparation

necessary for appropriate management and coordination. Particularly when a road passes through a densely populated area (e.g. suburbs of Warsaw) or areas of significance for natural environment (e.g. beltway of Augustów).

*Re 8) Too much expanded machinery of political and administrative superintendence*

This is the reason connected with surroundings. The GDDKiA is presented in a role of performer of politics rather than its creator. The number of management instruments accessible for the GDDKiA is relatively small in comparison with the number of supervising centres of control and centres settling its work. Institutions which in one way or another examine “irregularities” or express their expectations and demands towards the activity of the GDDKiA are : Ministry of Transport, Ministry of Finance, Ministry of Regional Development, the Parliament and Senate of RP (interpellations), ABW, NIK, UKS, UZP, RIO, European Commission, and soon CBA. The list is surely incomplete. Such a pressure inevitably causes focusing on reporting, preparation of information and replies, etc. rather than on calm and systematic management of projects. In relation with continuous rotation of personnel and necessity of preparation of new employees for requirements at work, external pressure causes tendencies for caution, alert, not taking a decision, referring with problems to the highest level and looking for justification of once taken decisions instead of taking new ones.

#### **4. Chances for realization of program for motorway construction**

Fortunately, there are factors which may influence fast development of Polish road infrastructure and adapt it to European requirements and standards which involves realization of the present program of for motorway construction. The factors are as follows:

- 1) Usage of the structural funds from the European Union.
- 2) Fast economic development
- 3) Return to the traditional system of motorway construction.
- 4) Continuously shorter time of duration of the road investment process.

*Re 1) Usage of the structural funds from the European Union*

Poland is the main beneficiary of the European Union budget for the years 2007-2013. A subsidy of about 20 billion EUR out of 60 billion has been granted to our country for the adaptation in the scope of infrastructure and transport politics. Additional financing of road projects of about 80 % of their value will allow for their smooth and dynamic realization.



Year by year the usage of the EU funds improves and one may expect that the means allocated for investments in the scope of the Operational Program “ Infrastructure and Environment” will not be wasted.

#### *Re 2) Fast economic development*

Macroeconomic parameters influence development of all sectors of economy. Poland, thanks to export, consumption and inner demand, has started dynamic economic development which is favourable for the investment expansion, also the infrastructure investments. The Gross Domestic Product for the year 2006 reached the level of 5,3% and in opinion of most experts it is characterized by the trend of growth with the expected value for this year on the level 5.5-7.0%. Moreover the inflation on the level 1.4% in the year 2006 as well as the reduced budget deficit also contribute to improvement of investment climate.

The inflow of direct foreign investments as well as the EU means in shape of the structural funds make the economic growth rest on solid foundations in Poland at the same time warranting its stability in an average period. Simultaneously Foreign investments exert positive pressure on the development of road infrastructure in Poland determining further investments on its condition.

#### *Re 3) Return to the traditional system of motorway construction system*

The licensing system, though successful in western European economies, in Poland was an imperfect and ineffective idea. Motorway construction without concessionaries did not ensure a correct progress of the investment process, therefore the decision seems to be well-founded to return to the traditional system mainly based on the budget financing and also on the structural funds since the moment of Poland’s accession to the European Union.

The State and indirectly the European Union as a warranty of investments may enforce the appropriate implementation of infrastructure projects in technological and accounting aspects as well as implementation of schedules.

#### *Re 4) Continuously shorter time of duration of the road investment process*

A positive phenomenon is that the length of the investment process, beginning from the idea to its realization, becomes shorter systematically. Not very long time ago construction of a stretch of a motorway took about 11 years, presently it takes 8 years and the

government plans intend to limit this period to the maximum of 5 years<sup>8</sup>. Nowadays in Poland it is possible to realize road construction work very fast which is a successful final of a long-term preparation of investment. An excellent example is the stretch of the motorway A-2. From Konin to Łódź 103 km were built within 17 months. Such a pace is impressive also on European scale.

## 5. Conclusions

The conducted analysis of chances and hindrances of realization of the road construction program in Poland proves predominance of disadvantageous factors and compels to very careful forecasts referring to realistic deadlines of road investment realizations. All of this suggests that problems are not caused by the sources of financing. Thanks to the support of the EU funds all planned investments are of sufficient financial coverage. The basic problem is grounded in the area of the legislative and management operations. The implementation of clear legislative regulations along with the efficient management system of the investments financed from the structural funds is a necessary condition for the full realization of the motorway development program. The key to successful realization of the enterprise is leaving the licensing system which did not prove appropriate in Polish conditions. The up-to-now investments realized in that system should be completed and the role of the State should be increased immediately in further enterprises. The Treasury must take the role of a guarantor of correct spending of the money from the EU while the government institutions should administer physically in managing of the construction and exploitation of next stretches of motorways.

The institution which should have more management rights is the GDDKiA. A significant thing is to increase employees' competence of the government institution and finding a way to relieve the personnel from the necessity of service towards an enormous number of controllers. A program of implementation of road projects in Poland should be prepared for a long-range time than it is practiced nowadays to enable conducting the implementation process with assurance of proper coordination.

There are necessary amendments in government procurement statute which will make impossible its free interpretation by different institutions and which will obstruct investment

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<sup>8</sup> *Hope for Motorways*, Namiary na Morze i Handel 28.03. 2007.

blocking by long-lasting appeals from decisions of bidding commissions. Practice will show if the amendments to this statute made in 2007 will be sufficient<sup>9</sup>.

It is highly significant to reconcile the already existing and planned investments with various restrictions imposed by the environment protection program called "Nature 2000". The impasse situations originating from arguments about interpretation enhance public conflicts with participation of ecological organizations. Thus, unambiguous alterations should be made in agreement with the valid law of the protection of nature. In situations where it is necessary to settle public arguments democratic instruments as for example referendum or local government commissions should be skillfully used.

The question whether the plan of motorway construction will be successful by the year 2013 stands open. Surely, since the year 2007 one can observe a distinct revival in realization of motorway investments for the time being at the stage of preparation for the construction work. What is important there is a favourable social atmosphere for such investments mostly because of the mobilization in the face of the approaching the World Cup Finals. This atmosphere should be a positive impulse for settling public conflicts about some stretches of motorways. In case of successful realization of the present and future plans of road investments by the year 2025 Poland will cease to be a white spot on the map of Europe and it will become a lawful supplement of the Trans European net of road connections (figure 1).

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<sup>9</sup> *Statute from April 13, 2007, on the Statute alteration- Public Procurement Law and other acts* (Journal of Laws from 2007, No 82, item 560).

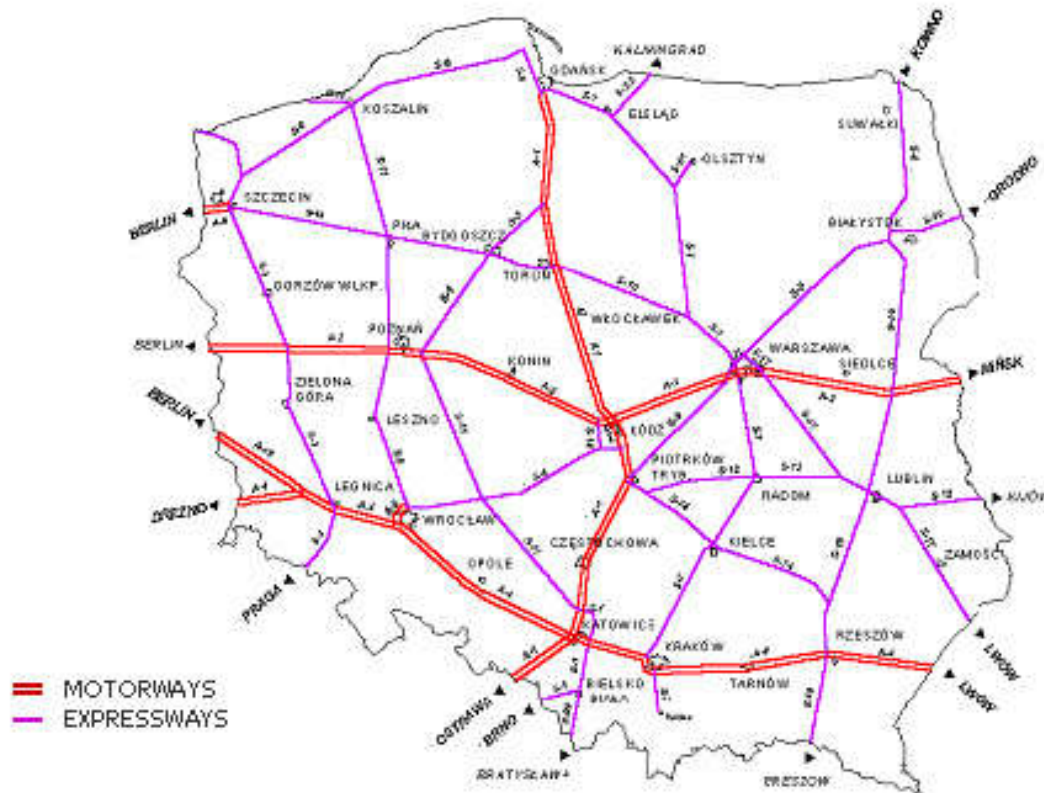


Figure 1. Lay-out of motorways in Poland in 2025

Source: GDDKiA, the Office of Studies, 2006.

### Literature:

1. Czerkas K., *Project Finance in Polish practice*, Twigger, Warsaw 2003.
2. *Hope for Motorways*, *Namiary na Morze i Handel* 28.03. 2007.
3. Ministry of Infrastructure, GDDKiA, *Schedule of Construction of Motorways and Fast Roads for years 2007-2013*, Warsaw 2005.
4. *Regulation of the Council of Ministers from May 15, 2004 on the net of motorways and fast roads* (Journal of Laws, no 128, item 1334).
5. *Statute from April 13, 2007, on the Statute alteration- Public Procurement Law and other acts* (Journal of Laws from 2007, No 82, item 560).
6. *Statute from October 27, 1994, on payable motorways* (Journal of Laws, no 127, item 627).

### Szanse i zagrożenia dla realizacji programu budowy autostrad w Polsce

#### *Streszczenie*

*We wstępie podano powody dla których tak ważne jest rozwijanie infrastruktury drogowej w Polsce. Następnie opisano założenia i stan obecny programu budowy autostrad w Polsce. Określono również możliwe warianty finansowania inwestycji autostradowych. Zasadniczą część pracy stanowi charakterystyka czynników stanowiących szansę i zagrożenie dla realizacji programu budowy autostrad w Polsce. Czynniki o charakterze syntetycznym zostały zestawione w podpunktach i opierają się w dużej mierze na dotychczasowych doświadczeniach z realizacji programu budowy autostrad. Pracę kończą autorskie wnioski dające propozycje zmian koniecznych dla przyśpieszenia dotychczasowego tempa realizacji inwestycji drogowych w Polsce.*

Słowa kluczowe: autostrady, drogi ekspresowe, infrastruktura drogowa, budowa autostrad, finansowanie autostrad.

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