

# The regulation and role of state subsidies in domestic automotive investments in Hungary<sup>1</sup>

*Péter Novoszách<sup>2</sup>*

**Abstract:** In this study I present on the one hand the Hungarian National Investment Incentive Framework System, the regulation of Subsidies under Unique Government Decision, and evaluate them in the case of automotive industry investments based on various viewpoints. The Hungarian subsidy system is most effective in the area of incentivizing new investments. From the expenditure-benefit aspect, the system has been most advantageous from the viewpoint of unemployment related cost reduction. However, currently the system doesn't facilitate Hungarian companies becoming suppliers and their strengthening, it much rather supports the settlement of foreign suppliers of multinational companies in Hungary. Before 2017, a further serious deficiency of the Hungarian state subsidy system was that it primarily supported capacity expansion and job creating investments by large companies, while it only minimally supported R & D activities, technology intensive investments and the development of Hungarian owned micro, small and medium size companies.

## 1. Introduction

In this study I search for the answer to the question of how effective it is to provide considerable state subsidies, benefits and advantages to foreign investors in the competition to obtain foreign investment in the case of automotive industry investments. This question has been strongly on the minds of policy makers, on the local, regional, national and global level respectively. Three ranges of issues were in the focus of attention for our current research, which are closely related to each other: attracting new foreign investments (crowding in), taking the expenditure-benefit aspects into consideration, as well as the quality of investments and projects. I was searching for the answer to questions in the case of Hungary, such as how much does the current system of Subsidies under Unique Government Decision help or hinder the distribution of the limited resources of a specific country, and how optimal is this system, as well as how to develop it further? Can small and medium size businesses in Hungarian ownership and majority Hungarian owned companies access these resources equally with, for instance, such multinational companies as Audi, Mercedes or BMW?

In the first part of my study, I take a look at the main effects of multinational enterprise groups on the main effects on host countries. Then I present the current legal regulations on state aid in Hungary. In the analysis section, I present in detail the current Hungarian system of submitting and accepting state aid claims. Then, over the past 15 years, I appreciate the key parameters of 233 projects that have been supported from the beginning to the present.

## 2. Literature Review – various groups of multinationals

For decades the question of how effective it is to provide considerable state subsidies, benefits and advantages to foreign investors has been strongly on the minds of policy makers, on the local, regional, national and global level respectively. Among others see, for example: the works of Dunning 1993; Lall 1996; Narula and Dunning 2000; Blomström and Kokko 2003; UNCTAD 2003; as well as UNCTAD 2005; Szentés 2006; Novoszách 2007a as well as 2007b; Cazorra 2012; Hennart 2012, Kothabe and Kothari 2016.

In the countries of Central-Eastern Europe, prior to 1990 foreign investment could exclusively appear in the form of joint ventures, as partners of local government owned companies. The nearly three decades that have passed since that time brought considerable and fast changes in this area, today these countries are competitors in the race to attract foreign investment just as any other country, including developed and developing countries. Special techniques are not required, the same methods are sufficient and offer similar profit for the host country in the field of international technology transfer, which are applied by any other country, including developed and developing countries. In fact, this was the most important aspect, which even currently is in the center of investment incentive programs initiated by Central-Eastern Europe countries that aspire to attract foreign investors. (Anderson 2001; Daw 2002; Hirvensalo 2000; World Bank 2002)

During the 1990s, simultaneously with the expansion of world trade, similarly fast growth occurred in the area of foreign investments as well. Within this, the long term investments of private corporations grew the most dynamically. In this process, almost exclusively such companies participated, which operated in industrialized, developed countries and established subsidiaries for the manufacturing of various products and to provide services outside of their native country. One of the most significant results of this process was that numerous

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<sup>1</sup> This study is based on realized research at the Research Institute of Public Finance, National University of Public Service supported by the Center for Higher Education and Industrial Cooperation at Széchenyi István University, project GINOP -2.3.4-15-2016-00003 under the subproject "Developing services for the international competitiveness of SMEs"

<sup>2</sup> Associate Professor of Research Institute of Public Finance, National University of Public Service, Budapest, Hungary

multinational companies were established operating with multiple production units, which globally coordinated their factories and production activities. The growth of multinational companies exerted considerable influence on the development of specific countries as well as the entirety of the world economic system (Novosz ath 2007a). As a result of this, multinational companies perform a significant portion of the trade of developed, industrialized countries, and an increasing portion of this trade occurs within multinational companies. This primarily happens in the form that the parent company ships various products and valuables to its foreign subsidiary, or the foreign subsidiary ships various products and valuables to the parent company, or the parent company's foreign subsidiary ships various products and valuables to another connected company of the parent company. This process is called intra-company trade. Approximately one third of the trade between developed, industrialized countries occurs in this form. In the case of some countries this ratio is considerably higher, for example in the case of the United States, and the general trend in industrially developed countries is the fast increase in the weight of trade conducted in this form. (Novosz ath 2007b). To explain this fast growth Dunning and Norman emphasized the role of three factors in relation to foreign investment: the opportunity to acquire and exploit property specific and locality specific advantages, as well as the advantages originating from the domestication of products and services (Dunning – Norman 1987).

In the business considerations of large investors – primarily multinational companies – generally longer term profitability aspects dominate: the size of producible and exportable profit, acquiring the desired market share are more important than tax and trade policy advantages related to short term investment. Their presence in the Hungarian economy was principally aimed at market acquisition – meaning acquiring markets in communist countries –, but even within this we could observe various attitudes. Most frequently, which is the least favorable for host countries, the unquestionable target of multinational companies is to get rid of unpleasant competitors. This is when the buyout of the market and production capacity is accompanied by the stoppage or displacement of domestic production. In the case of Central-Eastern Europe countries, thus also in the case of Hungary, we could frequently see that the multinational company purchased the production and appeared on the Hungarian and Central-Eastern European markets by further developing its own “obsolete” technology. It was significantly less common that the multinational investor purchased the market, then this was accompanied by the domestication of modern and innovative production technologies as well as business expansion (Novosz ath 2007b). At the time, when Audi settled in Hungary, in 1993, new and modern production technologies were domesticated. From the beginning Audi aspired to produce premium products at its facility in Gy or, on premium quality standard, and to make the Gy or facility the best even in comparison with the competition, as well as to make it Audi AG's most flexible and most cost-efficient company (Horv ath 2011).

In the case of multinational companies that settled in Hungary, it was even more rarely observed that the modernization of production and the renewal of the product spectrum were followed by a significant expansion of Hungarian suppliers. Even in the case of Audi, the significant expansion of Hungarian suppliers only commenced more than 10 years subsequently to their settlement, after 2012. Before 2010, in Hungary we could very rarely observe an example, when the investors also relocated their production development, product development as well as R & D activities to Hungary, or developed previous such capacities. In the case of Audi, the partial domestication of R & D activity occurred considerably later than their 1993 settlement, with the commencement of the engine development center in 2001.

Since international competition has become increasingly intense, multinational companies are strongly inclined to relocate even their most knowledge-intensive company functions, such as R & D activity, to developing countries. Previously, this trend was almost exclusively limited to developed countries. Nowadays, multinational companies are establishing R & D units in a number of developing countries in sectors such as automotive manufacturing, electronics, biotechnology, and the pharmaceutical industry. They do all of this to improve their efficiency, to increase the number of researchers and engineers working for them, and to better satisfy the demands of increasingly complex markets with refined tastes.

All of these trends have a significant effect on the changes in the previous international system of roles. According to the traditional approach, exclusively developed countries were the domain of more complex production activities, while less developed countries were specializing in more simple assembly type activities, nowadays this approach is less reflective of reality. Those companies that previously viewed less developed, developing countries as the inexhaustible source of cheap labor, are today increasingly starting to consider them as the unlimited storehouse of expertise, technical knowledge and new technologies. Multinational companies play a defining role among the creators of new technologies, thus the main question is where they perform their R & D activities. Currently a number of less developed, developing countries play an increasingly significant role in the outsourcing of R & D activities and they are increasingly attractive target locations for this. At the same time, today the majority of low income countries are not part of the global R & D networks yet, consequently they don't receive a share from their benefits. Thereby, the R & D activities of multinational companies becoming international, force various local, regional and national economic strategic thinkers and national economic policy makers to face increasing challenges. It's becoming clear for a growing number of countries that without an adequate and coherent national policy, especially in the investment incentivizing fields

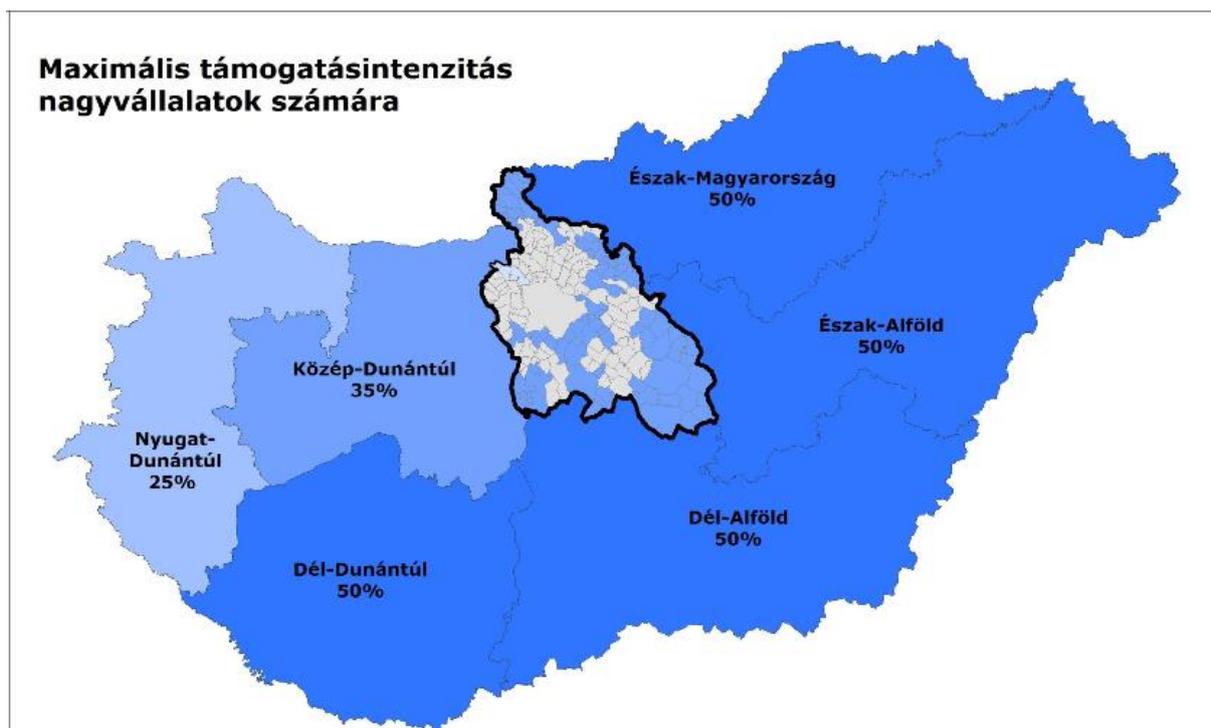
of sciences, technologies, innovation and education, they cannot enjoy the benefits originating from this economic development. (Novosz ath 2007a). It can be considered as a marked and important achievement of this process that on the 25<sup>th</sup> anniversary of its establishment, the Hungarian subsidiary of the automotive manufacturer Audi announced that it will create a new R & D center, using HUF 6.15 billion, one fifth of the sum from government subsidies.

We can also observe considerable differences between multinational investors from the aspect of the markets where they sell the products of the companies established or controlled by them. Their majority exclusively focuses on domestic markets, this was primarily characteristic of the companies, for the products of which advertisements and commercials play a decisive role in competition. It's in their interest to get as close to the consumers as possible, so they can adjust their products and related advertisements the most favorably to local tastes and the specific features of the national market (e.g. beer manufacturers, soap and detergent producers, commercial chains, etc.). For some groups of multinational companies, closeness to the consumers was not necessarily and not exclusively the primary aspect. For them not the Hungarian market, rather the Central-Eastern European region represented the most important attractive force. While a third group of multinational investors is comprised of companies that expect the general improvement of their market position in developed countries from outsourcing their production, manufacturing, possibly their development activities to Hungary. However, to this date the latter have settled in Hungary in the lowest number. In the first part of our research we presented that Audi is among this group. During the site selection of multinational companies labor cost is just one factor, and it's far from being the most important. Particularly in industry sectors that require technically higher quality, skilled labor force, it's also essential how well the specific country is prepared for the tried-and-tested production culture. The productivity and competitiveness of foreign sites is determined not only by the technology applied in the factory, but also by the quality of the economic environment. These are various service activities, such as financial, telecommunications, data processing and logistics services, as well as the quality standard and reliability of suppliers, the quality of the infrastructure. The business friendly nature of economic policies and public administration are not insignificant either (Novosz ath 2018a).

## 2. Theoretical Framework

The regional aid map is a regulatory decree that determines the maximum amount of states subsidy allowed as investment incentive for companies investing in Hungary's specific regions, and in the case of developed regions smaller area units (Figure 1).

Figure 1: Maximum subsidy intensity for large companies, by region



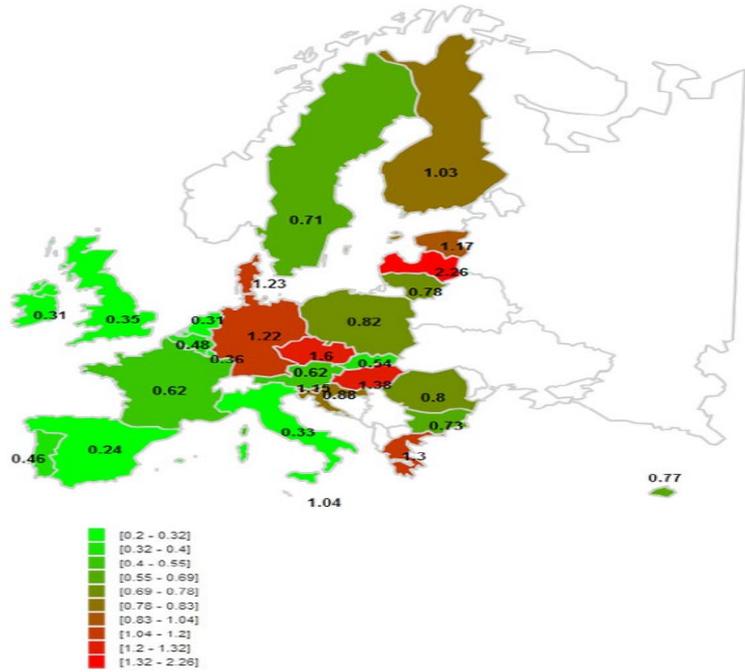
Source: Maximum subsidy intensity for large companies, 2017

The European Commission with its Decision N 487/2006 approved the Hungary Regional Aid Map applicable starting on 1 January 2007, based on EU guidelines for regional aid for 2007–2013. The map is applicable for regional investment subsidies available/provided from 1 January 2007 to 30 June 2014, or in the case if the pertaining EU or Hungarian regulation references this. The Regional Aid Map was announced in the form of Section 25 of Government Decree No 37/2011 (22 March) on the Procedures Relating to State Aid Measures and Regional Aid, in accordance with the European Union’s competition laws.

The European Commission approved on 11 March 2014 the SA.37718 State Aid N 487/2006 – Hungary Regional Aid Map, applicable from 1 July 2014 to the end of 2020. The map is applicable during 2014-2020 and contains the maximum subsidy intensity in specific locations based on EU guidelines for regional state aid in determined areas. The Regional Aid Map was announced in the form of Section 25 of Government Decree No 37/2011 (22 March) on the Procedures Relating to State Aid Measures and Regional Aid, in accordance with the European Union’s competition laws. In comparison with the map effective in the period of 2007-2013, the amount of intensity is reduced by 5% each in the Central-Transdanubia and the Western-Transdanubia regions. In Budapest investment subsidy may not be provided to large companies. While only a portion of Pest-County may be subsidized. In 82 municipalities of Pest-County the amount of intensity grows to 35%, in comparison with the 30% according to the map effective in the period of 2007-2013.

On 11 October 2016, the European Commission Directorate General for Competition approved the amendment of the State Aid Hungary Regional Aid Map. Based on Section 5.6.2 of EU guidelines for regional state aid applicable during 2014-2020, in June 2016 there was an opportunity to conduct a halftime review of regional state subsidy maps. In the framework of this, based on the submission related to the review of Hungary’s regional state subsidy maps, discussed and approved by the Economic Cabinet on 23 August 2016, the European Commission approved the amendment of the State Aid Hungary Regional Aid Map on 31 August 2016. According to the proposed amendment, Pilisvörösvár and Solymár were deleted from the list of subsidized regions, and their place was taken by Göd and Sződliget. The amended Hungary’s regional state subsidy map is effective from 1 January 2017 to 31 December 2020. (European Commission 2016a).

Figure 2: total state subsidies of EU member states as a percentage of GDP, railways excluded



Source: European Commission 2016b

According to the reports of member states regarding their 2015 national budgets, all the member states on the European Union level spent 98 billion Euros, meaning 0.67% of their total GDP, on state subsidies, which represents an approximately 0.04% reduction in comparison with 2014. This nominally means a reduction of about 465 million Euros (0.5%) in comparison with the 2014 values. It’s evident from Figure 3 that as a percentage of GDP four countries provided the largest amount of state subsidies (Latvia (2.26%), the Czech Republic (1.6%), Hungary (1.38%) and Germany (1.22%) in 2015 (European Commission 2016b).

### 3. The Hungarian subsidy system and its evaluation

In the past 15 years in Hungary, for the purpose of increasing its international competitiveness and the creation of new jobs, several targeted state subsidy systems have been created. Supplementing each other, these systems provide state subsidies to companies operating and settling in Hungary, along specific national economy interests. Hungary's European Union accession fundamentally changed the state subsidy system that was characteristic in the nineties. As a result of this, on the one hand, the state subsidy system had to be adjusted to the subsidy options defined by the European Commission, by which the previous subsidy systems in Hungary were terminated, and their place was taken by new subsidy opportunities. On the other hand, the range of available subsidies significantly expanded by the financial resources provided by the European Union. Currently, Hungary's subsidy system is mostly based on financial resources provided by the European Union, however for the purpose of achieving certain national economic goals (facilitating the inflow of foreign operating capital, regional and municipal development goals, facilitating education and training, facilitating job creation) these are supplemented by government subsidy systems financed from Hungarian state budget resources. Under the professional supervision of the Ministry for National Economy and in the management of the Ministry of National Development, the achievement of the "One million new jobs" program goal of the National Cooperation Program is served by Subsidies under Unique Government Decision in the case of significant investments, financed by the budget's Earmarked Scheme for Investment Promotion, which is one of the most important tools available to the government to motivate investment. From the budget's Earmarked Scheme for Investment Promotion, for investment of at least 10 million Euro accountable cost nonrefundable subsidies can be provided based on Unique Government Decisions, the goal of which is to facilitate large investment projects in Hungary by offering a subsidy structure that is competitive in comparison with the countries in our region.

In Hungary this form of subsidy is called Subsidy under Unique Government Decision (EKD), for which companies submit their subsidy applications directly to the Hungarian Government. In these cases, the Hungarian Government makes a unique decision regarding the subsidy applications directly every time. The name may be confusing, because the decision is always unique and direct, at the same time this form of subsidy is based on Hungarian legal regulations developed during the European Union's harmonization of laws:

- Section 25 of Commission Regulation (EU) No 651/2014 in the application of Articles 107 and 108 of the Treaty on the European Union. Communication from the Commission 2014/C 198/01. Article 107 (3) b) and c) of the Treaty on the Functioning of the European Union.
- Act CCXXX of 2013. Government Decree No 2010/2014 (27 August) Government Decree No 426/2016 (15 December) Government Decree No 119/2017 (29 May) Government Decree No 346/2017 (20 September).

In the operation of this form of subsidy the prevailing Minister of Foreign Affairs and Trade proceeds on behalf of the Hungarian Government, with the participation of HIPA, the Hungarian Investment Promotion Agency that was established for this purpose. The submission of company applications, their administration and the conclusion of subsidy contracts is performed through this agency.

Obtaining a Subsidy under Unique Government Decision (EKD) is a 9 step process, the administration of which generally takes 90 days (Glósz and Co. 2017):

1. Preliminary consultations. Preparatory negotiations with HIPA, fitting and optimizing the project to eligibility conditions
2. Submitting the application. Preparing the application and its annexes, submitting it to HIPA
3. Letter of endorsement. Inspection and endorsement of the application. Sending a letter of endorsement to the applicant. Official commencement of the development project.
4. Subsidy offer. Issuance of the Government's subsidy offer and forwarding it to the applicant (effective period 3 months).
5. Accepting the offer. Accepting the subsidy offer, forwarding an official notification to HIPA and the Government.
6. Preliminary inspection. Collecting the information required for contract conclusion based on the list of HIPA. Onsite inspection on the planned scene of implementation, with an official registry.
7. Contract conclusion. Preparing the draft contract. Commenting on the draft contract, finalizing the contract. Official signing of the contract.
8. Taking effect. Issuance of official documents (90 days). Starting the payout of the subsidy.
9. Subsidy accounting. Compiling the project dossier. Keeping the project documentation updated. Inspection of invoices. Preparing payout requests. Preparing technical reports. Arranging the onsite inspection.

The EKD subsidy system commenced its operations in 2004. From among these, a summary list related to the concluded contracts from 1 January 2018 to be provided by Subsidy under Unique Government Decision connected to the budget's Earmarked Scheme for Investment Promotion, is in the Appendix, in Table. From the total of 44 subsidized investment project contracts concluded in the framework of EKD in 2018, 16 were directly connected to the automotive industry. In 2018 the grand total of all subsidies was HUF 86.6 billion, of which HUF 46.2 billion was received by the automotive industry. From this it's evident that the automotive industry was given a significant portion, 53.4%, of all approved EKD subsidies, at the same time among these there were only 2 Hungarian owned companies. On 11 October 2018, Csaba Metál Öntödei Zrt received HUF 1.3 billion for the capacity expansion of their aluminum casting factory, and ECM-Clean-Hungary Kft for the establishment of an automotive industry supplier center. From all of this it's obvious that the Hungarian Government is rather stingy with Hungarian owned automotive industry companies when approving subsidies.

All of this is especially troubling because according to the analysis of experts examining the position of the automotive industry, within the Hungarian national economy the automotive industry is outstandingly productive, at the same time Hungarian small and medium size companies in the industry are less productive than large companies, and in the region this difference is the largest in Hungary (Rechnitzer –Hausmann – Tóth 2017). On the other hand, it's widely known that multinational companies don't like to be involved in a multitude of matters: they purchase increasingly more integrated products from a diminishing number of suppliers. This means however that more companies could be engaged in the additional (lower) supplier levels. But so far in Hungary this has not facilitated Hungarian companies becoming suppliers and their strengthening, it has much rather supported the settlement of foreign suppliers of multinational companies in Hungary (HIPA 2016).

This is unfavorable because in Hungary soon there will be less medium size businesses than large companies, and considerably less small and micro businesses. Currently Hungary's corporate structure cannot be regarded ideal at all. The primary problem is that there are few medium size businesses in Hungary. If we take as the basis the truly competitive economic models that are characteristic of developed countries, we can see that for example in Germany's Baden-Württemberg province approx. 14 thousand medium size businesses operate in an extraordinarily innovative and creative manner, and these companies represent the backbone of its economy. In contrast, in Hungary there are only approx. 4,600 well-functioning medium size businesses. If we managed to increase the number of medium size businesses in Hungary 2.5-3 fold, then Hungary's GDP could also grow 2-3 fold in the future. The question is rightfully asked, why there are significantly fewer medium size businesses in Hungary than in the regions and countries which are more developed and competitive than us. Principally because Hungarian small businesses, although today they are present in the economy in a sufficiently large number, they are widely known to cease very early. There is no doubt that this is a natural characteristic of small businesses worldwide as a result of highly intense competition, it's still conspicuous that in Hungary much fewer small businesses can strive and become medium size business compared to other countries that are more developed than us, moreover, much fewer medium size businesses become large companies. The overwhelming majority of Hungarian large companies are currently in foreign ownership, and it's hard to find one among them that developed from a small business into a large company, and there even less Hungarian multinational companies among them.

In the course of about 15 years from the total amount of EKD subsidies HUF 466 billion supported 238 investment projects implemented in the Hungarian processing industry, and this is where the most jobs have been created as well. In exchange for the subsidies, Hungarian processing industry companies undertook to hire a total of more than 74 thousand new employees (Hungarian Ministry of Foreign Affairs and Trade 2018). Within this, companies operating in the automotive industry realized over one quarter (27%) of investments projects that won subsidies. They were followed by companies involved in the manufacturing of computers, electronic or optical products (14%), outperforming companies involved in the manufacturing of rubber and plastic products (12%), as well as pharmaceutical manufacturers (8%). 7.7% of subsidies were received by businesses engaged in the areas classified among professional, scientific or technical activities, information communication activities were granted 2.3%. At the same time, from the aspect of average subsidy amount per each job position, these two latter sectors were ranked behind (Pomogyi 2017).

In total, between 2004 and 2019, among automotive industry companies Mercedes-Benz Manufacturing Hungary Kft received the largest amount of government subsidy, the sum of which was HUF 35 billion 31 million 738 thousand. Audi was granted EKD financed subsidy a total of 6 times between 2008 and 2019, which represented a subsidy sum of over HUF 29 billion 713 million. Only the various interests of Robert Bosch received government subsidy more times than Audi, a total 36 times, which represented a grand total of almost HUF 26 billion for various Hungarian subsidiaries of the company. While so far BMW has been granted Subsidy under Unique Government Decision once, in 2018, when it received HUF 12.3 billion for automotive manufacturing (Novoszáth 2018b).

Before 2017, a further significant deficiency of Hungarian the EKD subsidy system was that it primarily supported the capacity expansion and job creating investments by large companies, while it only minimally

supported R & D activities and technology intensive investments and the development of Hungarian owned micro, small and medium size companies.

Less than 5% of EKD-projects were aimed at R & D activities. Support for regional service providing and analysis centers, call centers, or subsidy for the development of some kind of legal, business, IT or financial service were more frequent, 15 % of subsidies were granted to these. The remaining 80% was aimed at the construction of new factories, sites, production facilities as well as other capacity expansion investment projects (Pomogyi 2017).

For this reason it was a significant and favorable change that from 1 January 2017 the application opportunities for nonrefundable subsidies were extended to R & D activities and technology-intensive investment projects, based on Government Decree No 426/2016 (15 December) on updating Government Decree No 210/2014 (27 August) on the use of the Earmarked Scheme for Investment Promotion. For the purpose of transforming the Hungarian economy from one of Europe's „production centers" increasingly into one of the Continent's defining „industrial and innovation centers ", from 1 January 2017, new, nonrefundable forms of subsidies were introduced with the goal of motivating company R & D activities and the realization of technology-intensive investment projects. This type of subsidy became accessible in the framework of the Subsidy under Unique Government Decision system („EKD") (Government Decree No 210/2014 (27 August)), through the Hungarian Investment Promotion Agency (HIPA. By the use of this form of subsidy

- 25 % direct capital subsidy is available in the Subsidy Under unique Government Decision system for large and multinational companies
- 35-65 % direct capital subsidy is available in European Union co-financing for micro, small and medium size businesses
- 65-100 % direct capital subsidy is available with university consortium agreements irrespective of company size

The decision preparatory submissions prior to the conclusion of EKD subsidy contracts are restricted access, confidential documents, thus those cannot be freely reviewed. The subsidy decision preparatory submissions contain the data and cost-efficiency impact calculations required to demonstrate basis for the subsidy. The subsidies of companies in the EKD subsidy system as well as the decision regarding the amount of subsidy is circumspectly examined by the process participants, the Ministry for National Economy and the Ministry of National Development, with the involvement of the Hungarian Investment and Trade Agency (HITA), in the case of every project. They sum up the expected amount of state budget revenues based on national economic background calculations and by forecasting the company's activities, and compare these with the state budget expenditures involved in providing the state subsidy. One of the cornerstones of cost-efficiency impact background calculations is the return of investment from a national economy aspect, regarding the cash-subsidy provided to companies during the project's sustainability period (monitoring period). In the recent period the operation of the EKD subsidy system as well as the subsidies provided to specific companies have been audited several times by the Government Control Office and the State Audit Office of Hungary.<sup>3</sup>

The sites of multinational large companies that have settled in Hungary still employ mostly the tried-and-tested companies from their range of foreign suppliers. On the other hand, Hungarian small and medium size businesses still rarely satisfy the high standard technological, quality and efficiency requirements expected from suppliers. At the same time as a result of government incentives, in recent years the ratio of increasingly large Hungarian suppliers has grown in the supply chain of large companies located in Hungary.

The highlighted goal of the Hungarian Government is to facilitate Hungarian small and medium size businesses in becoming engaged as competitively as possible in the supply chain of large companies that have manufacturing capacity in Hungary. This goal is assisted by the supplier department of the Hungarian Investment Promotion Agency, with the involvement of large companies and by contact maintenance with professional organizations. They aspire to gain a larger role for Hungarian small and medium size businesses in the supply chain of integrator companies that have settled in Hungary. In Hungary, in 2015, the number of automotive industry companies was approx. 700, the number of employees reached 145,000. Furthermore, the facts indicate the significance of the automotive industry that in 2015 this sector represented 28.6% of all industrial production, moreover 21.6% of all Hungarian product exports, which amounted to over EUR 19.5 billion. In the past three years Mercedes-Benz Manufacturing Hungary Kft has increased its Hungarian supplies from 21% to 23%, while in 2015 Siemens Zrt increased it from 82% to 83%. The ratio of Hungarian suppliers is also high at Magyar Suzuki Zrt, depending on the model 30-40% of parts originate from Hungarian companies. At Audi Hungaria Kft, currently the ratio of Hungarian supplies is 7%, while in 2015 the Bosch Group purchased 18% of its parts from Hungarian production companies. BMW also cooperates with a considerable

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<sup>3</sup> For example, see: State Audit Office of Hungary report number 12102 Audit on Investment-Related Tax Allowances and Subsidies, or report number 15091 Audit on Regulation Compliance in Employment-Related Tax Allowances and Subsidies

number of Hungarian suppliers, based on the latest data from HIPA, this represents 63 companies. The number of Hungarian suppliers to Opel Szentgotthárd Autóipari Kft also shows constant increase, it currently has 20 of them. (HIPA 2016).

There is also a great need for strong Hungarian companies, but for the time being the products and services are missing, whereby Hungarian companies could be competitive abroad as well. In the longer term it should be achieved that the profit of Hungarian companies operating abroad be at least as much as the profit of international companies operating in. there should be balance in this aspect as well. However, today it doesn't even amount to one tenths.

In the current workforce shortage, today instead of quantity deficiencies we much rather need to focus the subsidy system on the reduction of high quality workforce shortage. Particularly on the elimination of training and skill deficiencies, furthermore it would be especially important to keep highly trained and skilled young people in Hungary, as well as to adjust the training and skills of young people more to market demands than currently, to continuously ensure workforce supply in the future. At the same time, we must not disregard that in certain underdeveloped regions of Hungary, job creation may remain to be an important factor from the aspect of the specific region's or area's social and economic cohesion. Therefore, it would be favorable if in the future the EKD subsidy system would focus even more intensely on equalizing regional differences. Specifically, the current subsidy system fails to effectively manage the problem of workforce shortage, and it also fails in reducing regional differences within Hungary, it much rather increases them.

#### **4. Conclusion**

The regional aid map is the legal regulation that determines the maximum amount of state subsidy allowed as investment incentive for companies investing in Hungary's specific regions, and in the case of developed regions smaller area units. On 11 October 2016, the European Commission Directorate General for Competition approved the amendment of the State Aid Hungary Regional Aid Map.

According to the most recent reports of member states regarding their national budgets, all the member states on the European Union level spent 0.67% of their total GDP on state subsidies. Four countries provided the most state subsidies as a percentage of their GDP, Latvia, the Czech Republic, Hungary and Germany.

Since 2004 in Hungary, for the purpose of increasing its international competitiveness and the creation of new jobs, several targeted state subsidy systems have been created. Supplementing each other, these systems provide state subsidies to companies operating and settling in Hungary, along specific national economy interests. In the recent period the operation of the EKD subsidy system as well as the subsidies provided to specific companies have been audited several times by the Government Control Office and the State Audit Office of Hungary.

The Hungarian subsidy system is most effective in the area of incentivizing new investments. According to the OECD Hungary's FDI last year was \$ 6,389 billion, almost double the \$ 3,260 billion a year earlier (OECD 2019).

The automotive industry was given a significant portion of all approved EKD subsidies, at the same time among these there were only 2 Hungarian owned companies. The Hungarian Government is rather stingy with Hungarian owned automotive industry companies when approving subsidies. This is unfavorable because in Hungary soon there will be less medium size businesses than large companies, and considerably less small and micro businesses. The currently system doesn't facilitate Hungarian companies becoming suppliers and their strengthening, it much rather supports the settlement of foreign suppliers of multinational companies in Hungary. Before 2017, a further serious deficiency of the Hungarian state subsidy system was that it primarily supported capacity expansion and job creating investments by large companies, while it only minimally supported R & D activities, technology intensive investments and the development of Hungarian owned micro, small and medium size companies. A significant and favorable change was that from 1 January 2017 the Hungarian EDK system was extended to R & D activities and technology-intensive investment projects. The current Hungarian subsidy system fails to effectively manage the problem of workforce shortage, and it also fails in reducing regional differences within Hungary.

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Appendix 1 Unique Government Decision based grants in 2018

Company name	Relation	Activity	Number of new jobs	Amount of support thousand HUF	Signing the contact day-month-year
1."Termelés-Logistic-Centrum" Kereskedelmi Korlátolt Felelősségű Társaság	Germany	cranes and front loaders for the production of steel structural elements of material handling vehicles	80	1 274 535	10-12-2018
2.MOM Sensors Korlátolt Felelősségű Társaság	Hungary	regional (R&D) service center	50	160 000	19-11-2018
3. Robert Bosch Automotive Steering Korlátolt Felelősségű Társaság	Germany	components and parts manufacturing plant expansion	200	4 524 493	10-11-2018
4.Itron Labs Korlátolt Felelősségű Társaság	USA	research and development in the field of energy measuring instruments and measuring systems	60	412 039	08-11-2018
5.SK Battery Hungary Gyártó Korlátolt Felelősségű Társaság	South-Korea	battery cell production	410	8 174 775	08-11-2018
6.Ten Pao Electronics Hungary Korlátolt Felelősségű Társaság	China	manufacture and assembly of electronic units	300	1 022 879	30-10-2018
7. BMW Manufakturing Hungary Korlátolt Felelősségű Társaság	Germany	automobile manufacturing	645	12 322 500	12-10-2018
8. Csaba Metál Öntödei Zártkörűen Működő Részvénytársaság	Hungary	capacity expansion of aluminum casting plant	100	1 304 520	11-10-2018
9. Ceva-Phylaxia Oltóanyagtermelő Zártkörűen Működő Részvénytársaság	France	vaccine production	-	1 633 756	11-10-2018
10.Poppe + Potthoff Hungária Gépgyártó Korlátolt Felelősségű Társaság és a Poppe + Potthoff Hungária Real Estate Ingatlanhasznosító Korlátolt Felelősségű Társaság	Germany	capacity expansion of vehicle engine component manufacturer	75	562 590	09-10-2018
11.evosoft Hungary Számítástechnikai Korlátolt Felelősségű Társaság	Germany	software development	75	1 110 644	28-09-2018
12.Linamar Hungary Autóipari és Gépgyártó Zártkörűen Működő Részvénytársaság és a SEISSENSCHMIDT Precision Components Fémmfeldolgozó Korlátolt Felelősségű Társaság	Canada	lifting machine manufacturing and capacity expansion	200	1 550 083	24-09-2018
13.Hübner-H Gumi és Műanyagipari Kft.	Germany	manufacture of industrial rubber products	125	844 051	10-09-2018
14.Denso Gyártó Magyarország Korlátolt Felelősségű Társaság	Japan	capacity increase of vehicle engine component manufacturer	-	1 496 532	03-09-2018
15.ZALACO Sütőipari Zártkörűen Működő Részvénytársaság	Hungary	capacity expansion of the bakery	150	835 801	23-08-2018
16.Viessmann Technika Dombóvár Korlátolt Felelősségű Társaság	Germany	service center	50	106 644	23-08-2018
17.SMR Automotive Mirror Technology Hungary Betéti Társaság	India	production of rearview mirror	315	624 965	21-08-2018
18.MAHLE Compressors Hungary Korlátolt Felelősségű Társaság	Germany	manufacture of compressor	57	544 703	21-08-2018
19.K&P Chem Korlátolt Felelősségű Társaság	United Arab Emirates	chemical raw material production	55	449 744	21-08-2018

Appendix 1 continued: Unique Government Decision based grants in 2018

Company name	Relation	Activity	Number of new jobs	Amount of support thousand HUF	Signing the contact day-month-year
20.BP Business Service Centre Korlátolt Felelősségű Társaság	United Kingdom	service center (financial, customer service, and operative procurement)	500	1 897 521	21-08-2018
21.ECM-Clean-Hungary Korlátolt Felelősségű Társaság	Hungary	automotive supplier center	352	3 915 426	21-08-2018
22.Robert Bosch Power Tool Elektromos Szerszámgyártó Kft.	Germany	business service	205	357 792	19-06-2018
23.AUDI Hungária Zrt.	Germany	R & D: internal combustion engines	30	1 169 564	13-06-2018
24.Zoltek Vegyipari Zártkörűen Működő Részvénytársaság	Japan/USA	carbon fiber production	357	8 141 809	08-06-2018
25.ADA Hungária Bútorgyár Kft. és NOVA BÚTORGYÁR Kft.	Austria	furniture production	100	1 049 783	30-05-2018
26.ContiTech Fluid Automotive Hungária Kft. és ContiTech Magyarország Kft.	Germany	automotive subassembly, railway suspension component	897	2 834 149	22-05-2018
27.Knaus Tabbert Termelő és Kereskedelmi Kft.	Germany	caravan and camper van	150	774 425	24-04-2018
28.QP Qualitative Production Gépipari és Kereskedelmi Zrt.	Hungary	metalworking, assembly plant	120	1 548 850	20-04-2018
29.Edelmann Hungary Packaging Zrt.	Germany	manufacture of packaging material	100	786 914	10-04-2018
30.Metyx Hungary Kft.	Turkey	component production	182	902 507	29-03-2018
31.Quality Poultry Baromfifeldolgozó és Kereskedelmi Kft.	Hungary	poultry processing	260	543 444	23-03-2018
32.MASTER GOOD Termelő és Kereskedelmi Kft.	Hungary	technological development of capacity-building for food processing	-	3 364 435	19-03-2018
33.BYD Electric Bus & Truck Hungary Korlátolt Felelősségű Társaság	China	electric vehicle manufacturing	150	925 407	09-03-2018
34.Magnus Aircraft Zrt.	Hungary, China	manufacture of composite sports aircraft	105	2 066 417	09-03-2018
35.Hydro Extrusion Hungary Kft.	Norway	metalworking	120	1 152 566	08-01-2018
36.Krones Hungary Kft.	Germany	manufacture of bottling machines	500	5 541 134	08-01-2018
37.Leier Hungária Építőanyaggyártó Kft.	Austria	construction material production	101	1 282 024	08-01-2018
38.Oerlikon Eldim (HU) Gyártó és Kereskedelmi Kft.	Switzerland	aircraft parts manufacturing	90	512 828	08-01-2018
39.SICTA Gyártó, Kereskedelmi és Szolgáltató Kft.	France	auto parts manufacturing	115	436 848	08-01-2018
40.SIIX Hungary Kft.	Japan	electrical parts manufacturing	300	1 275 367	08-01-2018
41.Sona BLW Hungary Kft.	India	auto parts manufacturing	130	633 535	08-01-2018
42.Valeo Siemens eAutomotive Hungary Kft.	France, Germany	manufacture of parts for power transmission systems for electric and hybrid vehicles	300	3 249 241	08-01-2018
43.Valeo Siemens eAutomotive Hungary Kft.	France, Germany	manufacture of parts for power transmission systems for electric and hybrid vehicles	400	3 697 412	08-01-2018
44. thyssenkrupp Presta Hungary Kft.	Germany	spring and stabilizer manufacture	250	3 776 267	04-01-2018

Source: Hungarian Ministry of Foreign Affairs and Trade. 2018. EKD effective contracts. 11 December 2018. Retrieved 2019-03-03 <http://www.kormany.hu/hu/dok?page=15&type=204#!DocumentBrowse>