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EUROPEAN ASSESSMENT OF GLOBAL PUBLICLY FUNDED AUTOMOTIVE RESEARCH

Publicly funded automotive research in Poland



Authors:

Jerzy Merkisz, Poznan University of Technology, Institute of Combustion Engines and Transport
Fabian Schmitt, Christian Burkard, RWTH Aachen, Institut für Kraftfahrzeuge (ika)

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1 Introduction

1.1 Background

The FP7 project EAGAR benchmarks the current public automotive vehicle research activities at international level, in particular the European Union with Brazil, Canada, China, India, Japan, Malaysia, Russia, South Korea, the United States and 13 EU Member States. EAGAR identifies the national road transport visions and roadmaps, research priorities, supported key topics, technology pathway, as well as the level of investment. This enables a direct comparison of national automotive R&D policies relating to the environment, safety and congestion. The EAGAR study provides a key perspective on global investments designed to improve automotive vehicle technologies for a greener, safer and smarter road transport system.

1.2 Objectives

This deliverable report summarises the situation of the RTD funding system in Poland with respect to published vision statements, research targets and roadmaps, the national funding programmes of the past 4 years and the governance of automotive RTD funding in Poland.

The report is basis for the subsequent benchmarking analysis, which delivers the key results of EAGAR addressing the following issues:

- Overview of national road transport visions, research agendas and roadmaps
- Comparison of automotive research priorities and investments focused on vehicle technologies, namely passenger cars, commercial vehicles and motorised two-wheelers.
- Characteristics of national automotive research funding systems and approaches
- Potential international cooperation areas from a European perspective

This study benefits the competitiveness of Europe and enables the stakeholders to adjust its visions & plans for the future. Date of publication: September 2010. It is available from the EAGAR website WWW.EAGAR.EU

1.3 Methodology

This country report is based on comprehensive investigations via desk research, information from the responsible programme managers and individual feedback from experienced project managers and researchers. The methodology used was developed in the first months of the project. It is consistent for all target countries. The data collection was mainly done from May to November 2009. The four main categories are:

- General and automotive data about the country
- Published challenges, visions, targets for automotive research
- Funding organisations and hierarchies for automotive research
- National public funding programmes with dedicated calls or permanently open between in the years 2006 to 2009.

1.4 Disclaimer

This document presents quantitative and qualitative data from various sources. Due to the complexity of the project and the large amount of sources of data, regularly changing during the duration of the project, it was not possible to thoroughly validate all details. The EAGAR project partners cannot guarantee that the data presented is either complete or correct. The value of some of these data is mainly explorative, as a first step in an indicators development process. In conclusion, the data provided here may be difficult to interpret, are not exhaustive and may need further development. Comments by stakeholders on the coverage, relevance and interpretation of the indicators provided, as well as observations on new indicators that could be employed to improve the analysis of publicly funded automotive research are welcomed by the EAGAR project consortium. Any quotation of the data in this document should make reference to the above disclaimer. The EAGAR project partners and EC accept no liability for any issues that arise from actions that may be taken as a result of reading this report.

2 Description of the main WP results

2.1 General Information and Automotive Data

Poland is a country located in central Europe. It covers an area of 312,678 km² and inhabits 38,135,000 people¹. In 2004 Poland became a member of the European Union. The Polish economy has experienced a large growth in recent years and has strong trade links with Germany.

In 2008 the total GDP was € 285.466 billion, which was the 22nd largest GDP in the world.²



Figure 1: flag of Poland

The role and importance of road transport in Poland and significance of domestic automotive industry

The Polish automotive industry is playing an increasingly important role in the national economy: its share in GDP creation was around 4 % in 2007, and it represented 11.2 % of total industrial production. The country produced nearly 785,000 cars, trucks, and buses in 2007 giving it a 1.1 % share in the worldwide production of passenger cars and a 4 % share in the European auto industry. The Polish automotive industry consists of approximately 270 registered companies, the majority of which (80 %) produce spare parts and accessories.

About 97 % of the Polish car industry's output is exported. Automotive exports are dominated by passenger cars, spare parts, components and diesel engines. The total value of automotive exports in 2007 reached an estimated € 16.6 billion, representing 16.4 % of total national exports. Germany is the biggest purchaser of Polish automotive components (over 40 %), followed by Italy, France, Belgium and the Czech Republic.³

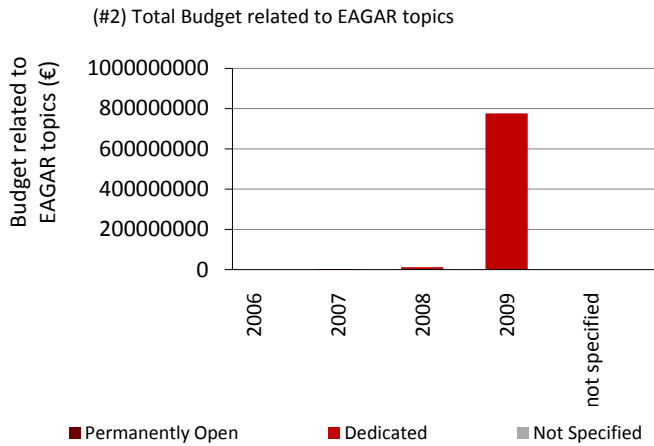
Poland's automotive industry has attracted more than € 4 billion of foreign investment to date. Foreign investors including cars and automotive parts producers such as Fiat, GM, Volkswagen, Toyota, Fiat-GM Powertrain, Delphi, Faurecia, Isuzu, Eaton, Lear and Volvo have flocked to Poland. Foreign investors are attracted by Poland's strong performance in the components sector. Indeed, the country is a leading manufacturer of items such as tyres, car seats and upholstery, car electronics, electric cables and car braking systems. Components manufactured in Poland are installed in a wide variety of brands such as Mercedes, Nissan, Opel, Porsche, Toyota, Volkswagen, Isuzu, Fiat, Citroen, Honda, Peugeot, Volvo, BMW, Rolls-Royce, Lamborghini and Ferrari. Engines in particular are slowly becoming a "Polish specialty", with annual production of engines exceeded 2 million in 2007.

¹ As of 2006; source "Auswärtiges Amt"

² Polish Government Concise Statistical Yearbook of Poland

³ EA; European Automobile Industry Report 09/10

National spending and funding for research and technological development



The most calls were issued in 2009, which corresponds to the allocation of the money. € 770 million were allotted in 2009 (see chart #2). The high budget corresponds to the issued “operational programme”, which was launched in September and October 2009. This call aims at improving the research structure in the automotive industry.

Figure 2: Total budget related to EAGAR topics

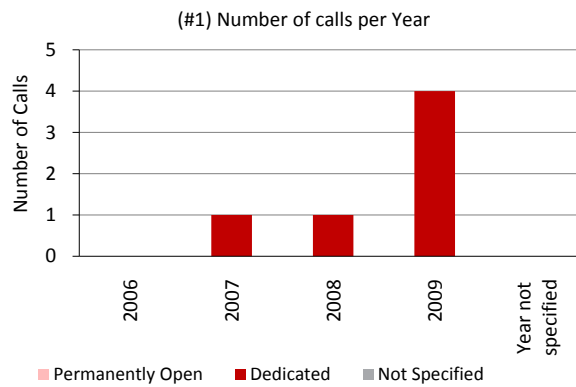


Figure 3: number of calls per year

2.2 National Funding Organisations and Hierarchies for Automotive Research

The structure and governance of the national funding system

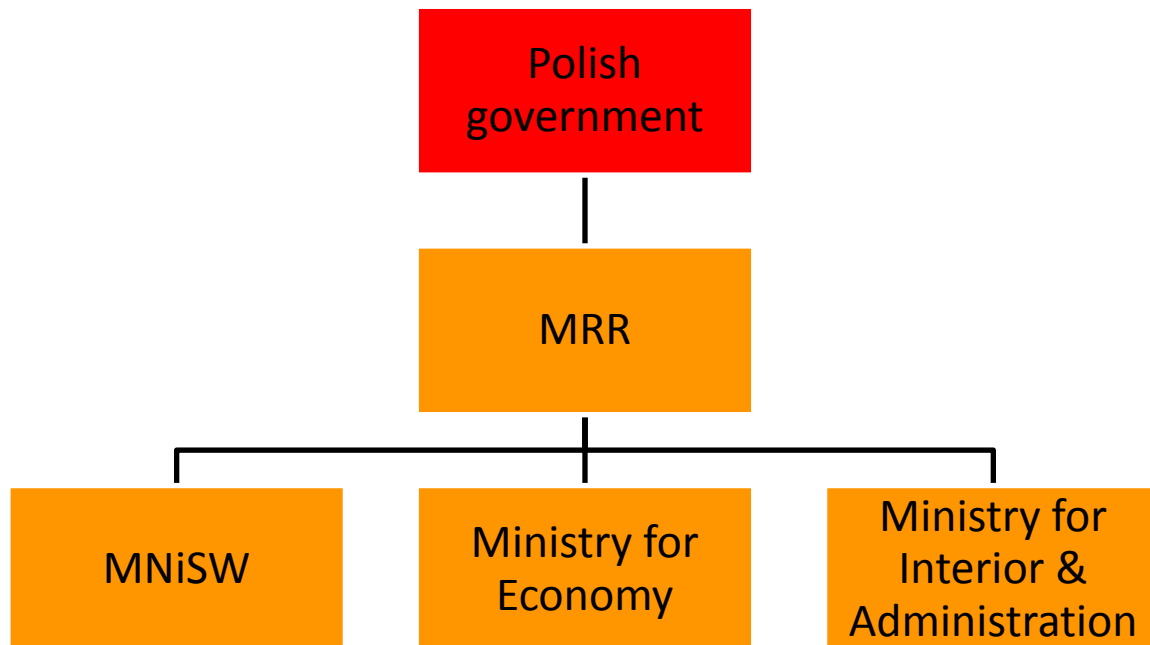


Figure 4: funding structure in Poland

Funding organisations and key players

Ministry of Science and Higher Education (MNiSW)

The department of Science and Higher Education administrates the main public funding budget for research, including transport. In Poland, except for military R&D projects, all government support for separately budgeted research is channelled entirely through the Ministry of Science and Higher Education.

Ministry of Regional Development (MRR)

The objective of the Ministry of Regional development is to use the European Union's funds that are available to Poland in the most efficient way. The Ministry is responsible inter alia for:

- Establishment of a system for managing the EU funds, which guarantees the proper and timely implementation of programmes financed from the European Union's funds.
- Preparation of the National Development Strategy 2007-2015, with the particular consideration of regional development.
- Preparing Poland for the European Union's budget period 2007-2013; preparation of the National Cohesion Strategy and Operational Programmes 2007-2013.
- Co-operation with the European Commission.

The National Centre for Research and Development (NCBiR)

The National Centre for Research and Development is a specialized and professional governmental institution identified by scientific and business communities as the main organizer of applied research programmes, whose results will be used by the economy and the public sector. The Centre

provides support to Polish scientific institutions and enterprises for developing their capabilities to create applications and solutions based on R&D results in order to boost the economy and for the benefit of society as a whole. The main task of the National Centre for Research and Development is to manage and implement strategic scientific research and development programmes that translate directly into innovation development.

Foundation for Polish Science (FNP)

The Foundation for Polish Science, formed in 1991, is an independent, self-financing, non-profit, non-governmental organization, with a mission of supporting science in Poland. It is the largest source of science funding in Poland outside the state budget. The main objectives of FNP are:

- To support excellent scientists and research teams,
- To facilitate technology transfer,
- To support various investment initiatives serving science in Poland.

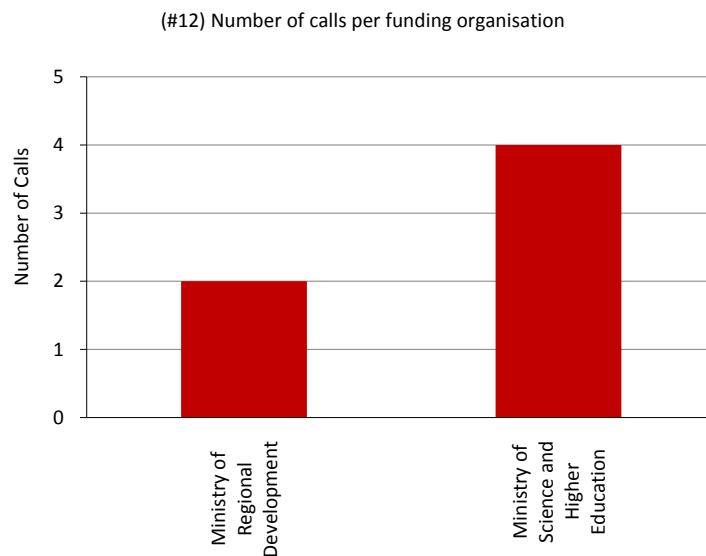


Figure 5: number of calls per funding organisation

The named departments fund all programmes and calls. The other organisations support the funding process and have a rather advisory function.

Remit for organisations & calls: overlaps or conflicts

In Poland, all the programme calls for R&D in the automotive sector have a dedicated call window. There are no calls that are permanently open to applications.

2.3 Automotive Visions and Strategic Research Agendas

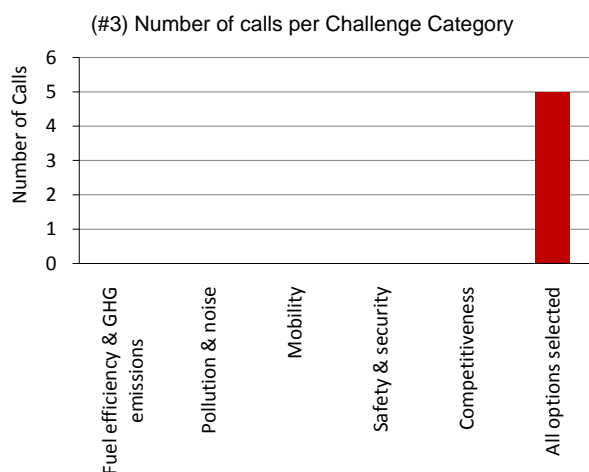
Visions & focused targets for road transport

There are two visions issued by the Polish government, one focusing on the reduction of GHG emissions and the search for renewable fuels and the other on the improvement of road safety and security. The main goal of the renewable energies vision is the development of bio fuels as an alternative to the traditional fossil fuels a series of targets have been set covering the next 10 years. For example: by 2014 more than 7.55 % of all used fuels should have alternative sources.

The road safety vision aims at significantly reducing fatal car accidents by 2020.

An overview of the targets and interim steps of both visions is outlined in the table below:

Target	Description including addressed research themes and, technologies
Biofuels	<i>Increased share of biofuels in transportation fuels each year, from 2.30 % in 2007 to 7.55 % in 2014 and, 10 % in 2020</i>
Renewable Energy	<i>15 % renewable energy by 2020, 20 % renewable energy by 2030</i>
Radical Reduction of Fatalities	<i>Minus 50 % fatalities until 2013 (based on 2003 figures) and transitional aims no more than 4300 fatalities in 2010, 2800 in 2013 and 1500 in 2020</i>
Reduction of GHG emissions	<i>30 % reduction in GHG emissions by 2020 (based on 1988 figures)</i>

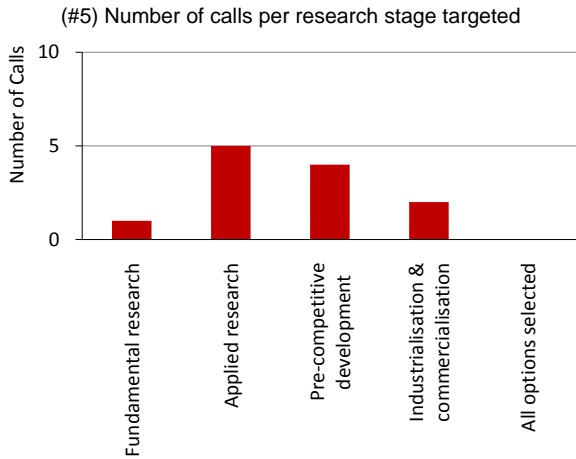


All challenge categories are targeted. However, for one call a challenge category could not be identified.

Figure 6: number of calls per challenge category

2.4 Funding Programmes

Funding programmes and states of RTD as well as different types of instruments



Applied research is the main targeted research stage (see chart #5). Fundamental research is only in one call considered. This allocation meets the ambitious goals of the Polish government especially in the field of fuel efficiency and GHG emissions (look at issued targets and visions). Until 2020 high goals are supposed to be met. Those shall be reached through a strong and quick implementation of exploratory results into industrial products.

Figure 7: number of calls per research stage targeted

Furthermore, the most calls aim at RTO and academic organisation types (see chart #4). This corresponds with the chart above, showing that applied research is the favoured research stage. Collaboration between the academic research and the industry is desired. There is no call addressing all options. Therefore, a specification is always made prior to the release of the call.

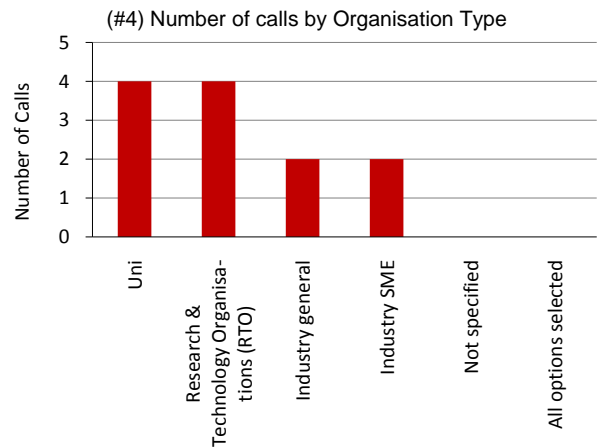


Figure 8: number of calls by organisation type

(#9) Project partnership targeted

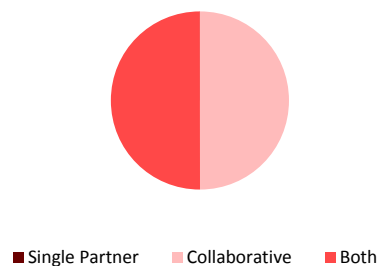


Figure 9: project partnership targeted

A collaborative partnership is targeted in 50 % of the cases. A collaborative and single partnership is favoured in the other half of all reviewed calls.

Overview of technology specific programmes for automotive RTD

(#7) Number of calls per Technology Category

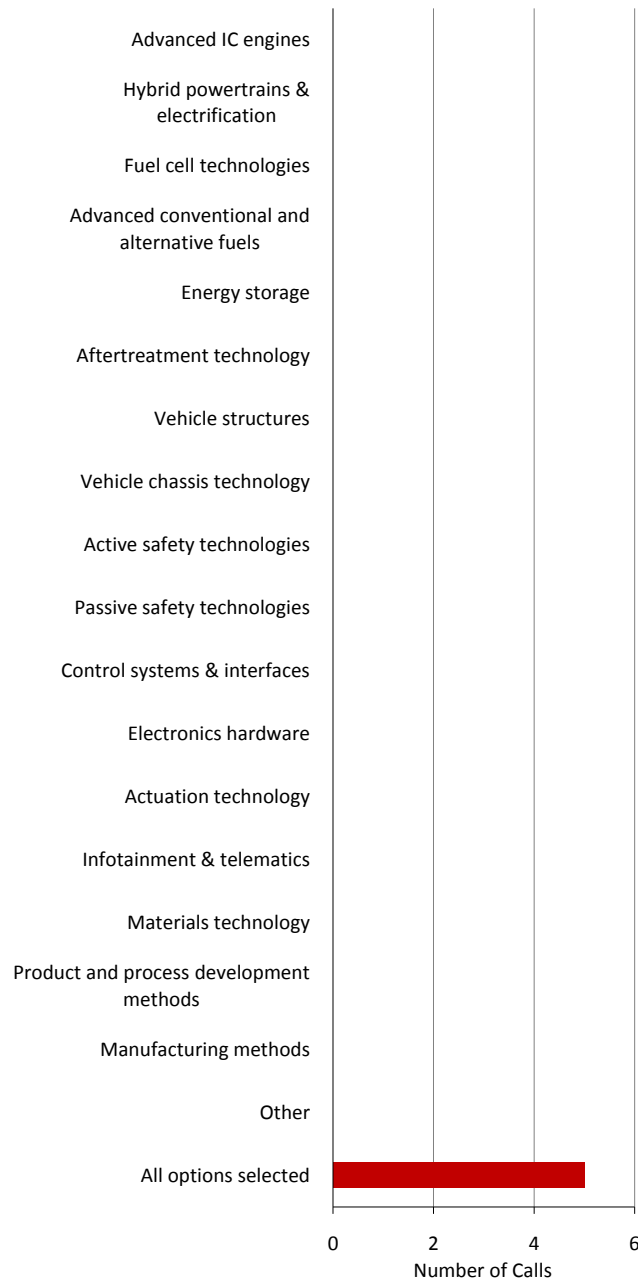


Figure 10: number of calls per technology category

All technology categories are targeted by the issued calls. A differentiation in the calls could not be found.

2.5 The efficiency, flexibility, and experienced bureaucracy of the funding process

Foreign collaboration

The reviewed Polish research programmes are not open to foreign organisations.

3 Discussion and Conclusion

The automotive industry in Poland is becoming increasingly important. In 2007 about 4 % of the European automotive parts were manufactured in Poland. With a share of more than 10 % of the total Polish industrial production it has become essential for the economy in Poland. The majority of the produced parts are exported with Germany being the largest buyer.

The largest funding programme was launched in 2009 with more than € 750 million. This huge amount is distributed among 4 calls. The large initiative aims at improving the research structure in the automotive industry in Poland.

This corresponds with the high dedication towards Universities and RTOs. Most calls are available to these two organisation types. The preferred research target, however, is applied research, as well as pre-competitive development. A Single and collaborative partnership is targeted in most cases, allowing the quick foundation of a collaboration.

Three departments administer the applications and distribute the available funds. The Polish funding system is structured in a hierarchical way. Enclosed institutes carry out the initiatives and supervise them while the projects are running.

There are two existing visions in Poland. One aims at the GHG reduction and one at improving the safety and security of the road transport. The issued challenges meet these targets. The Polish funding system favours a collaboration of academic and industrial research. A better bonding between these two branches is desired and supported. Furthermore, the funding of a greater use of alternative fuels shall be increased in the next years to meet the future emission standards.

4 References

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5 Annex

Overall programme name	Programme call name	Call description	Funding organisation	Date	Reference
Operational Programme Innovative Economy 2007-2013. Priority Axis 1. Research and development of new technologies.	1.3. Support to R&D projects carrying out by scientific entities at the request of enterprises 1.3.1. Development projects	Research projects which results are aimed at direct application and responding to the needs of specific sectors of the economy or sectors of particular social importance.	Ministry of Regional Development (managing authority), Ministry of Science and Higher Education (intermediate body)	the next call: 30.09.2009	http://www.poig.gov.pl/Dokumenty/Lists/Dokumenty%20programowe/Attachments/109/uszczegolowienie_POI_G_z_errata.pdf
Operational Programme Innovative Economy 2007-2013. Priority Axis 1. Research and development of new technologies.	1.4. Support to development project	Projects that cover technical, technological or organizational undertakings (applied industrial research and development works) carried out by enterprises, groups of enterprises or other entities that are able to directly apply the results of projects in practice.	Ministry of Regional Development (managing authority), Ministry of Science and Higher Education (intermediate body)	the next call: 15.10.2009	http://www.poig.gov.pl/Dokumenty/Lists/Dokumenty%20programowe/Attachments/109/uszczegolowienie_POI_G_z_errata.pdf
Individual Projects	no specific name, only consecutive numbers	The subject matters of projects are not limited (including transport, vehicles, fuels, infrastructure, etc.) and are submitted by a proposer.	Ministry of Science and Higher Education	31th of January and 31th July each year	http://www.nauka.gov.pl/
Development Projects	no specific name, only consecutive numbers	The subject matters of projects are not limited (including transport, vehicles, fuels, infrastructure, etc.) and are submitted by a proposer.	Ministry of Science and Higher Education	latest call: 30.09.2008	http://www.nauka.gov.pl/
Goal-oriented Projects	no specific name	The subject matters of projects are not limited (including transport, vehicles, fuels, infrastructure, etc.) and are submitted by a proposer.	Ministry of Science and Higher Education	latest call: 21.04.2009	http://www.nauka.gov.pl/
Ministry Proposed Projects	no specific name	The subject matter of projects is exactly defined by Ministry	Ministry of Science and Higher Education	latest call: 20.10.2007	http://www.nauka.gov.pl/