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EUROPEAN ASSESSMENT OF GLOBAL PUBLICLY FUNDED AUTOMOTIVE RESEARCH

Publicly funded automotive research in Belgium

Authors:

Herman Van der Auweraer, LMS International

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 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 Belgian RTD funding system 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.

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
- 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. It is available from the EAGAR website WWW.EAGAR.EU as deliverable D.5.1 from September 2010.

1.3 Methodologies

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 initial months of the project, which ensures the common approach for analysis of 23 countries. The data collection occurred 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
- 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

General data

Belgium is a federal monarchy bordering the North-Sea between France and The Netherlands. It furthermore borders Germany and Luxembourg. Belgium covers an area of 30,528 km² with a population of 10.667 million (2007), making it with 349 inhabitants per square km one of the most densely populated countries in Europe. 60 % of the Belgians speak Dutch and 40 % French. 74,000 Belgians speak German as mother-tongue.



Figure 1: flag of Belgium

Belgium is a Federal State composed of 7 autonomous, but related entities: The Federal State, the three Regions (Flemish, Walloon, Brussels-Capital Region) and three Communities (Flemish, French and German speaking Communities). Regions are responsible for location related matters such as economy and agriculture (and innovation); the communities are responsible for personal related matter such as education and culture. In practice, the Flemish Region and Community have merged their government and institutions.

The GDP per capita equals € 334 billion, with GDP/capita slightly above the EU-27 average (1.18 in 2007) [1].



Figure 2: map of Belgium



The role and importance of road transport and automotive industry in Belgium

Belgium is at the cross-road of Europe and hence receives a very intensive traffic. In 2007, 130.9 billion passenger kilometres were travelled by road and 42 billion tonne-km of goods were transported by road [1]. Despite its small size, Belgium has a dense road network of over 150,000km roads, of which 1,723 km highways.

Belgium also has an important internal market. In 2007, 524,800 passenger cars were registered, 81,664 commercial vehicles and 51,560 motorised two-wheelers. 473 passenger cars are registered per 1,000 inhabitants. The average fuel consumption of the vehicles is decreasing, in CO₂ emission reaching 148 g/km in 2008 [153 g/km in 2007]. Road safety is steadily improving, but with 1,067

people killed and 7,051 seriously injured in 2007, this is slightly higher than the EU-27 averages counted per inhabitant, per 10 billion passenger km and per million passenger cars [1, 3].

Historically, the automotive industry has been very strongly rooted in Belgium [4]. The Belgian automotive industry has been characterised in the past by a high volume of production (assembly) of passenger cars and heavy trucks for foreign OEM. In 2008, 724,500 vehicles were produced (of which over 90 % for export), which makes Belgium one of the highest-per-capita automotive manufacturing countries. The main assembly companies are Ford, Volvo, VW, and Opel. Despite its very high productivity (amongst the world best), this assembly industry is currently under very heavy pressure. Renault closed its assembly plant in 1997, VW changed its production to a smaller volume of Audi and GM has decided to close Opel Antwerp. The most recent evolution is the announced take-over of Volvo by Geely (China), which might give an extra impulse to the Volvo-Gent assembly plant which is a major producer within Volvo. Inversely, OEMs such as Toyota are expanding their European Headquarters in Belgium, expanding into an engineering and manufacturing management centre. Furthermore Belgium has a worldwide reputation for its development and production of buses, trucks, trailers, and agricultural automotive equipment, among which Van Hool and VDL Jonckheere (buses) and CNH (agriculture).

In addition to the OEM assembly, and in close relation to this, a significant supplier industry with over 300 companies has developed, including all tier-levels. Different to the OEM assembly plants, several supplier companies design and develop their products locally and invest heavily to develop their offering into a worldwide brand. Important supplier companies are Tenneco Automotive, Bosal, Bosch, but also many other industries in materials, mechanical components, electric systems, navigation, micro-electronics etc. also including a full range of logistics, engineering, ICT and services companies.

The majority of this automotive industry is located in the Flanders region. To support this industry, Flanders has set up the competence and research centre "Flander's Drive" which supplies engineering and testing facilities and which is at the core of a significant Automotive Research and Innovation cluster and research programme. Research organisations which have an important link to the automotive domain are furthermore VITO (focus on environment and energy) and IMEC (world-leading micro-electronic research).

In total, the automotive industry directly employed over 45,000 people in 2007 [5] (with at least an equal indirect employment), generating a turnover of € 19.43 billion [3] (counting only manufacturing, excluding trading).

As a consequence of the major economical impact of this industry sector to the Flemish Region, the automotive industry is highly relevant for the Flemish government, which has made it a key element of its economic and innovation strategy towards the future ("Pact 2020", "Vlaanderen in Actie" [6]).

National spending and funding for research and technological development

In 2007, the total RTD spending in Belgium was € 6,356 million, which corresponds to 1.89 % of the GDP. The private spending (BERD) takes up about 1.32 %, public spending 0.57 %.

The automotive industry turnover in 2007 was € 19.4 billion, which is 5.8 % of the total GDP. "Business R&D in Europe"[8] lists the total BERD spending for transport in Belgium as only € 150 million (72 Mio Motor Vehicles, rest other transport industries), which represents about 3.4 % of the BERD. On public side, specific automotive related RTD spending is hard to assess as only a limited number of specific automotive programmes exist (cfr below). About € 11 million of annual public funding can this way be directly associated to the automotive industry, while indirect funding through non-automotive earmarked programs may add up to this.

2.2 National Funding and stakeholder Organisations for Automotive Research

The structure of the national funding system

Belgium is a Federal State composed of 7 autonomous, but related entities: The **Federal State**, the **three Regions** (Flemish, Walloon, Brussels-Capital region) and **three Communities** (Flemish, French and German speaking community). Regions have authority in fields which can be broadly associated with their territory, such as economy, employment, agriculture, energy, transport, environment, foreign trade, etc. Communities exercise their authority only within linguistically determined geographical boundaries, originally oriented towards the individuals of a Community's language: culture, education and with extensions to personal matters less directly connected with language such as health policy etc. In practice, the Flemish Region and Community have merged their government and institutions. The Belgian policy for scientific research is distributed across all federated and federal entities.

The main impact of the Federal State on innovation is through tax measures, including a R&D tax deduction scheme and exemptions on advanced tax payment on wages for researchers in enterprises, research institutes and universities. At federal level, the Belgian Federal Science Policy Office is furthermore responsible for the 10 federal scientific institutes, for inter-university basic research programmes (inter-university attraction poles), for space related research and for specific topics such as standardization.

The Communities have the main responsibility for education and fundamental research at universities and other higher education institutes. Next to the direct funding of the universities, grants for fundamental research are provided through the agencies FWO (Flemish Community) and FNRS (French Community).

The Regions have the main responsibility for the funding of strategic and applied R&D and innovation.

Cooperation and consultation between the federated entities is organised through the Interministerial Commission for Science Policy (ICSP). The various entities also agree on representation towards International Cooperation programs such as EUREKA, ERANet, and FP7 etc.

The main channels for automotive related research funding hence are these of the Regions and any priority setting happens in accordance with the Regional Government's Policy Programs and Visions. In each Region, one Regional Ministry is responsible for Innovation, but it obviously defines its priorities as part of the Regional Government Coalition Agreement and in-line with the needs from other Ministries such as Environment, Economic Policy and Health.

Funding organisations and key players: Flanders Region

IWT Vlaanderen

In Flanders, the main concerned research funding agency is IWT Vlaanderen, which has specific programmes for industrial R&D, strategic R&D, cooperative R&D and specific types of research grants for universities and higher education institutes. The industrial R&D programme allows continuous submission of projects, which can be defined for any topic (no calls, no top-down priorities).

The yearly budget for the Industrial R&D programme is about € 120million. Research projects are assessed by multiple independent reviewers for their scientific value and their valorisation potential, the latter must have a significant share in terms of added value for Flanders. Industrial R&D is funded between 15 % and 40 %; with a 10 % policy bonus for automotive and aerospace research (other bonuses such as for SME may also apply).

<http://www.iwt.be>

Strategic Research Centres and Competence Poles

Next to this agency, research policy is implemented through a number of Strategic Research Centres and Competence Poles. Operational budgets for these centres come directly from the Ministry for Innovation (and increasingly from bilateral contracts with industry). Some of them also have an important activity in relation to funding targeted research programmes; this activity is supervised by IWT.

The strategic research centres **IMEC** (Inter-University microelectronics research centre) for microelectronics, **IBBT** (Inter-disciplinary Institute for Broadband Technologies) for ICT and **VITO** for energy and environment related research may address some automotive application and hence develop some automotive related activities, but have no specific automotive programmes.

<http://www.imec.be>

<http://www.ibbt.be>

<http://www.vito.be>

Of the Competence Poles, **Flanders Drive** has as specific and direct mission the support of the automotive industry. Only Flanders Drive hence has an explicit programme for automotive research and launches an annual call for proposals in well-specified priority areas (funding between 25 % and 80 % depending on the nature of the project). Projects have to answer the priorities of dedicated calls. They are assessed by independent reviewers.

<http://www.flandersdrive.be>

Funding organisations and key players: Walloon Region

In the Walloon Region, the unique funding agency for applied research is the DGO6, Direction générale opérationnelle de l'Economie, de l'Emploi & de la Recherche. The programme allows bottom-up research projects for the industry (large enterprise and SME), research institutes and universities. For industries, it provides research funding (50 to 80 %) or recoverable loans depending on the type of project and type of company. Projects are assessed by independent review panels

DGO6 supports bottom-up projects as well as several topical programmes. No dedicated automotive funding programme exist, but in one specific programme WIST3 on ICT, items on energy efficiency and safety of transport can be submitted.

Automotive research is supported though through a sector Cluster Organisation which receives support by the government: **Cluster Auto-mobilité Wallonie-Belgique**. This cluster brings together automotive actors from industry, research centres and university, represents their interests and acts as interface to national and regional agencies.

<http://recherche-technologie.wallonie.be/fr/instituts/dgo6.html>

<http://clusters.wallonie.be/automobilite/fr/>

Funding organisations and key players: Brussels-Capital Region

The third region, Brussels-Capital, organises RTD funding through its agency, the IRSIB-IWOIB. A regional innovation plan has been adopted in December 2006, which sets the basis for the regional policy. Enterprises can submit projects for funding as subsidies (50 % + some bonuses may apply) or as recoverable loans. For large enterprises, there is an annual call, SME can submit in an open scheme. No specific automotive programmes exist.

<http://www.irsib.irisnet.be>

Funding organisations and key players: Federal State

The Belgian Federal Science Policy Office (BELSPO) is responsible for implementing the research responsibilities of the Federal State. Amongst other tasks, it supports the 10 federal Scientific Institutes, it is in charge of implementing the Space Research policy and representation with ESA and

coordinates large "inter-university attraction poles" programme (IAP), which falls within the framework of a co-operation agreement between the Federal Government and the Communities. No specific automotive programmes exist.

<http://www.belspo.be/>

Other organisations and stakeholders

The following organisations also contribute to the automotive scene in Belgium:

- BIVV, Belgian institute for Road Safety, <http://www.bivv.be/index.jsp>
- FEBIAC, Belgian Federation of the Automotive Industry, <http://www.febiac.be>
- Agoria Automotive, Federation of the technology industry (and member of CLEPA), <http://www.agoria.be/automotive>

2.3 Automotive Visions, Strategic Research Agendas and Policies

The main challenge for the automotive industry in Belgium (and essentially located in Flanders) is to retain its competitiveness in the globalised world. Strategic programmes for innovation have been developed in all Belgian Regions (Flanders: Pact 2020 [9]; Wallonia: Plan Marshall pour la Wallonie [10] and Brussels-Capital: Regional Plan for Innovation [11]).

In Flanders, a specific Automotive Round Table has led to a 10-points action plan, including innovation, and which is now being further transformed in actions under the new Flemish government (2009-2014). The main actor to give shape to the automotive innovation action plans is the Competence Centre Flanders' Drive (further discussed below). Furthermore, the Flemish government is evaluating strategic programmes towards electric vehicle technology, including the support of field testing. These plans have yet to be further concretised at the date of this report.

Challenges related to environment are less explicitly related to the Belgian automotive industry as such (more to the car buyers and traffic users), and are rather an intrinsic part of the national and regional environment policy which follows to a major extent the EU policies. Part of this environment policy addresses road transport, but rather on the level of homologation legislation, standards, tax policy, traffic control, and law enforcement. This is essential because a major part of the automotive industry concerns the assembly of products, where the impact of policy makers on the actually developed products is small.

The national and regional environment policy is materialised in 5-years plans such as the "MINAPLAN3+" [12]. Detailed analysis and evolution of Transport related environmental indicators can be found in [13]. Some targets relate (although often not exclusively) to transport are:

- CO₂: Maximum 120 g/km in the year 2015, 95 g/km by 2020
- Fine particles (global, not only transport): (PM10) reduced in 2020 by 25 % wrt. 2007
- Ozone: reduce the number of days per year with 8-hour average above 120 µg/m³ O₃ to 25
- Traffic noise: by 2020 reduce seriously affected population (65 dBA exterior house) to 15 %
- Number of road deaths should be decreased by 50 % (from 1500 towards 750 persons) between 2007-2010 and further by 33 % (to 500) in 2015.
- Less than 5 % loss-hours on highways by 2020

To quantify the ecological impact of vehicles, an "ECOSCORE" methodology was developed which takes into account the vehicle impact to climate change (Global Warming Potential), air quality (including fine Particles PM10) and noise pollution as damage to humans and to the environment [14, 15].

2.4 Automotive Research Funding Programmes

As discussed, most research funding programmes in Belgium, which may be applicable to automotive innovation, reside with the Regions. In the three Regions, research funding is project-based, for bottom-up defined topics, so not according to specific programmes and calls. In the Flemish Region, some tracking of automotive related projects can be done since these projects receive a 10 % policy bonus on their funding. An average value of 4 to 5 million Euros funding (about 4 to 5 % of the total industrial R&D project portfolio) is taken up by such automotive funding.

The only actual Automotive Research programme is the one by the Flemish Competence Pole Flanders' Drive. This programme was initiated in 2008, for a 4-year period, with a total budget of € 28 million. The 4 main focus themes of this programme are:

- Product Innovation: Green Propulsion
- Product Innovation: Active Safety
- Product Innovation: Lightweight Materials
- Production Innovation

Three calls have taken place between Dec. 2007 and Dec. 2009.

Call	Closing date	Topics
1	31-01-2008	Manufacturing: Integrated in-line quality systems for operators Product innovation: Integrated light weight door concept, vehicle dynamics server, intelligence and integration in clean powertrains
2	14-10-2008	Manufacturing: In-plant logistics Product innovation: Weight reduction design & production solutions for TBI, intelligence and integration in clean powertrains
3	14-12-2009	Manufacturing innovation Product innovation: light weight materials, clean powertrain, active safety

The evaluation process is supervised by IWT Vlaanderen; Submitted proposals are assessed by an independent review panel. Typical delays between submission and availability of evaluation decisions are less than three months.

Examples of projects that have been and are supported in this programme are (<http://www.flandersdrive.be>):

- Lightweight Door
- Joining Techniques for Trucks, Buses and Industrial Vehicles
- Durability Testing
- Energy Storage
- Research Vehicle for Active Safety
- Automotive Safety Integrity Level
- Direct Access Information Support Systems
- Internal logistics Improvements through RFID technology

Towards the future, a new brainstorm exercise regarding long term automotive industry vision and the related concrete business cases is currently being held.

(#1) Number of calls per year

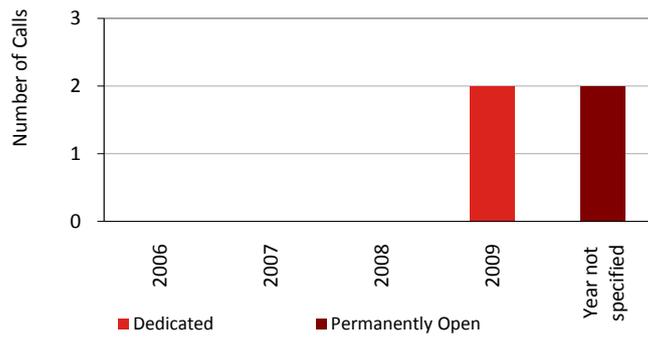


chart data set: 4

Figure 3: Number of calls per year

(#5) Number of calls per research stage targeted

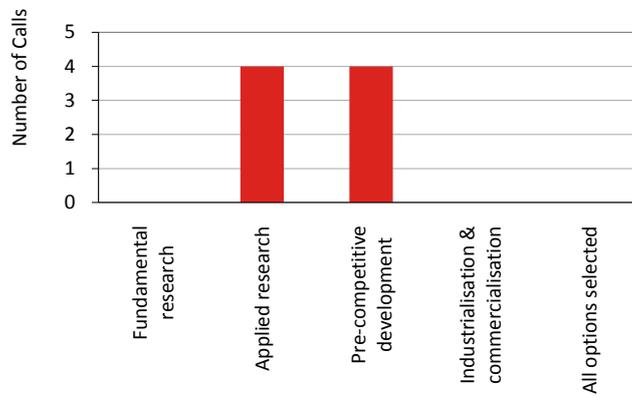


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Figure 4: Number of calls per research stage

(#3) Number of calls per Challenge Category

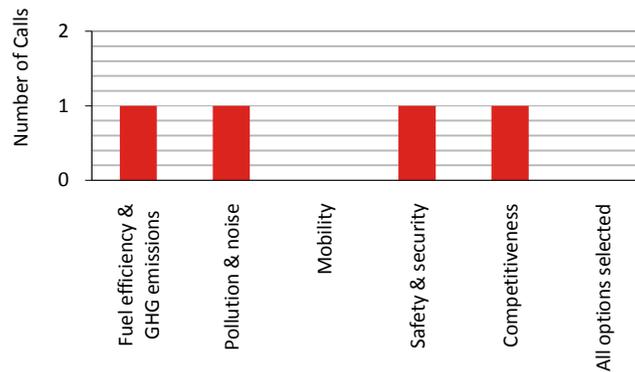


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Figure 5: Number of calls per challenge category

Overview of technology specific programmes for automotive RTD

(#7) Number of calls per Technology Category

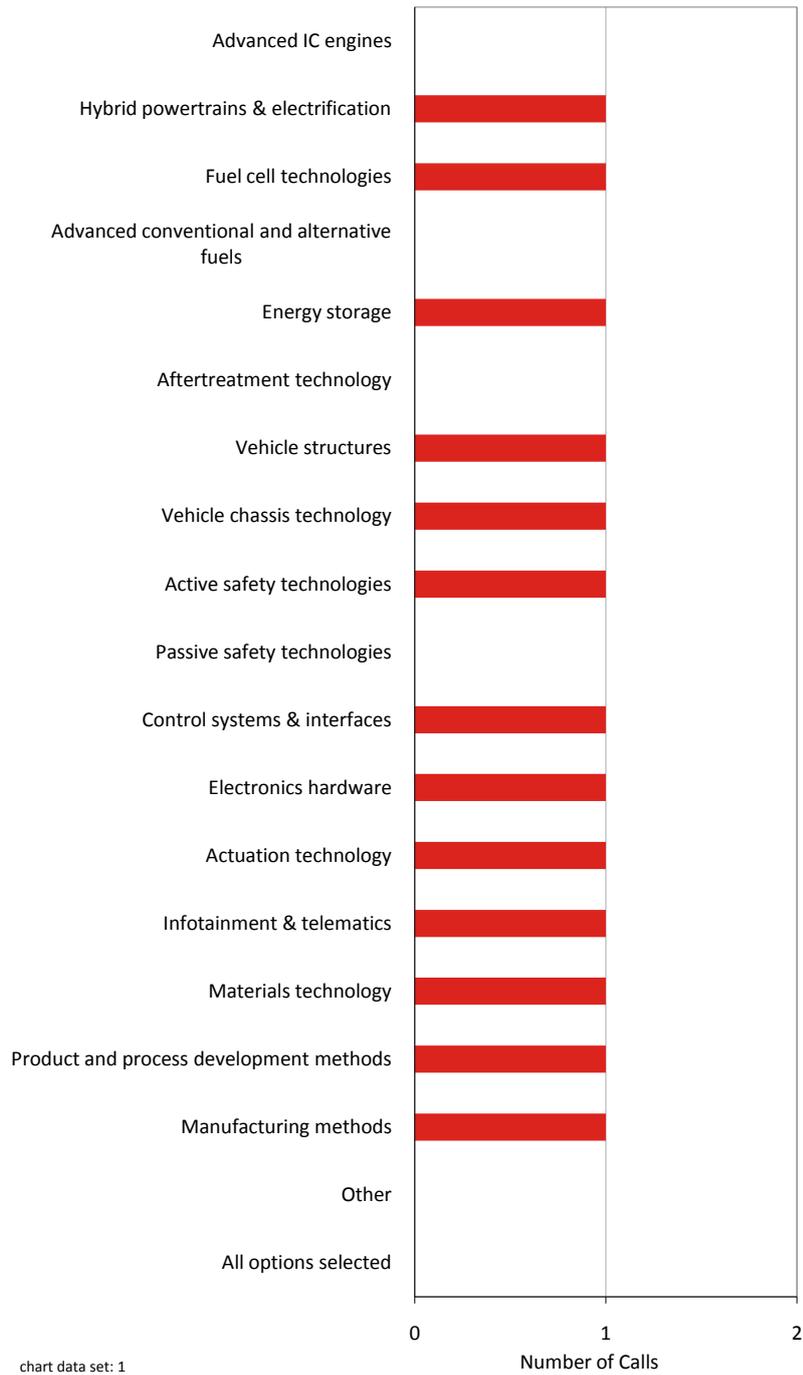


Figure 6: Number of calls per technology category

2.5 Assessment of the funding process

The application process

Only the Flemish funding programmes have been assessed through practical experience by the author. For both, the standard IWT and the dedicated Flanders' Drive project proposals, it usually takes less than 3 months between the proposal submission (or the call end date in case of FD) and the notification of acceptance or rejection. This includes a completeness check, an instruction meeting with possibility to include feedback into the proposal, the final submission, assessment by an external review panel and final decision by the board (of IWT resp. Flanders' Drive). IWT targets as internal rule 75 working days as maximum processing time. Contract procedures take little time, so that projects can start nearly immediately after the notification. In some programmes the project can start with the date of proposal submission, of course at the own risk of the applicant in case the project would not be funded.

For Flanders' Drive the submission is according to a call for proposals, which had an interval of less than one year.

Characteristic for the evaluation process in both cases is the evaluation which occurs according to two equally important axes: a technical-scientific axis and a valorisation axis. Scientific value, strategic relevance, originality of the methodology and approach are determining the technical axis. The valorisation potential for the applicants must be expressed in a quite detailed way, not only in terms of global strategic potential and post-project route towards valorisation, but also showing at least an exploitation potential in terms of direct added value (as investments and/or employment) over the next 10 years equal to at least 25 times the requested funding to have a chance to get funding. So project proposals require a solid preparation, not only in relation to the scientific excellence, but also by having a clear and convincing business case for the requested project.

For all collaborative programmes it is mandatory to have a Consortium Agreement concluded between all involved organisations. Only then the funding organisation signs the contract to support the project.

For multi-annual project (3 years maximum), a more detailed work plan has to be set-up for the first two years and a formal evaluation milestone at 24 months is assessed by the funding authorities to decide on the release of the third year funding.

Project Implementation

Projects may typically start as from submission of the proposal (at own risk), or at an agreed starting date after the project approval. Eligible project costs include salaries (of the individually involved people, no average rates) and general direct and indirect costs. These costs can be budgeted in the application at a fixed rate on top of the labour cost, but must always be controllable and justified. Furthermore, major research subcontractors can be included in the budget.

Administration and reporting during the project execution remains limited, with focus on adherence to the main technical goals and the valorisation objectives. Changes in the work plan and the detailed technical objectives are possible within this framework.

After the signing of the contract the advance payment is transferred within a few weeks directly to the project partners. The contract already details the subsequent payments, when and what amount, anticipating that the progress of the project and reporting are as planned.

Foreign partners may be included in the project at own budget, but can also be included as major subcontractors on condition that exploitation of the corresponding results by the Flemish applicant is ensured.

Funding process - exploitation

As mentioned, demonstrating a clear and quantified exploitation potential is an important element during project evaluation and follow-up. For companies which also exploit results abroad, a sufficient exploitation potential towards the Flemish region (exploitation in Flanders) must be demonstrated. At the project end, the achievement of the technical results as well as a reconfirmation of the concrete exploitation potential is verified. Depending on the exploitation risks and exploitation potential, further reporting in the years after the project ending may be required.

Funding process – feedback

After the project decision is communicated, a formal request for assessment of the submission process is issued by the funding authorities.

Transparency & openness

The process is very transparent, all information are available online. There are no pre-defined guidelines for public dissemination of the results; this is left to the participating organisations as a function of their objectives.

Foreign collaboration

Foreign partners may be included in the project at own budget. International collaboration in a structured framework (EUREKA, ITEA...) is encouraged and receives a funding bonus of 10 %. Foreign research partners (universities, research institutes, service providing companies, foreign subsidiaries of the applicants...) can also be included as –funded- major subcontractors on condition that this share remains limited and that the exploitation of the corresponding results by the Flemish applicant(s) is ensured. Foreign partners with an own exploitation rationale (in particular industries) are critically investigated, but can be acceptable on condition that the IPR of the results is at least shared and open for exploitation for the Flemish partners.

(#8) Number of Calls Open to foreign organisations

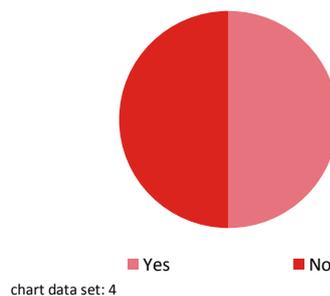


Figure 7: Number of calls open to foreign organisations

3 Discussion and Conclusion

Mobility is a very important topic in Belgium due to its location in Europe. Situated at the crossroads of Europe many passenger cars need to pass through the Benelux country. Besides the high importance of mobility the automotive industry has been historically strong rooted in Belgium. In the past years high volume production of passenger cars has been conducted in the Belgian plants, mainly for the export. However, with the recent development on the automotive market the Belgian industry has suffered severely. For example GM closed a major plant in Antwerp and Volkswagen reduced its production massively.

The Belgian government and the regional departments have realised these problems and have increased their financial aid programmes. In 2007 the RTD totalled up to € 6 billion. In 2010 a larger dedication especially by the Flemish government is estimated, since the Flemish region is strongly committed to the automotive industry.

The Belgian funding is mainly conducted by the different regional governments. The federal state has an impact on innovations through rather passive channels, like tax measures. Therefore many projects are funded with the help of tax reductions and other measures. Besides this funding the Belgian government is responsible for the 10 federal scientific institutes as well as inter-university basic research programmes.

The main challenge the Belgian automotive industry faces at the moment is the drain of large production plants. Therefore strategic initiatives have been released in all Belgian regions to retain the competitiveness in the global automotive market. For example the 10-points action plan of the Flemish government has been released to establish new technologies in the Belgian market as well as strengthening the competitiveness. Besides handling these essential problems of the Belgian industry, the government has released several visions and targets to reduce the GHG emissions, improve the security and safety, decrease the traffic noises, and to improve the mobility.

Applications for Belgian funding programmes are assessed very quickly. The approval process of a submission takes usually less than 3 months – in most cases even quicker. After the acceptance of a project, it can start immediately. The project can even start with the submission of the proposal, however at own risk. These short latencies in the project processing imply only a small bureaucratic effort. A detailed exploitation plan is always required by the conducting research facility.

The funding process is very transparent, since all information are available online. The dissemination of results is not regulated and lies in the responsibility of the funding conductor. A foreign collaboration in Belgian projects is encouraged and rewarded with an additional funding. However, an exploitation potential towards the Belgian regions need to be demonstrated in order to receive a funding.

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5 Annex

<i>Overall programme name</i>	<i>Programme call name</i>	<i>Call description</i>	<i>Funding organisation</i>	<i>Call End Date</i>	<i>Reference</i>
IWT O&O Projects	Continuously open call	Bottom-up, all topics, but automotive research gets 10% funding policy-bonus	IWT Vlaanderen	Open call	http://www.iwt.be
Flanders' Drive	Second Call closed 14 oct 2008	Call for research projects in relation to Manufacturing (incl. quality and logistics) and Product Development (lightweight design, vehicle dynamics and active safety, clean powertrains)	Flanders' Drive on behalf of the Flemish government	31-01-2008 14-10-2008 14-12-2009	http://www.flandersdrive.be
DGO6	Continuously open call	Bottom-up, all topics	DGO6,	Open call	http://recherche-technologie.wallonie.be/fr/instituts/dgo6.html
IRSIB Industry R&D projects	Industrial projects call closed 22 dec. 2009	Bottom-up, all topics	IRSIB	22.12.2009	http://www.irisib.irisnet.be