



RESEARCH AND DEVELOPMENT TAX INCENTIVE PROGRAMME REPORT TO PARLIAMENT 2018-19



science & innovation

Department:
Science and Innovation
REPUBLIC OF SOUTH AFRICA





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Research and Development Tax Incentive Programme

Report to Parliament 2018/19

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PREFACE

The government introduced the research and development (R&D) Tax Incentive programme to support private sector R&D in South Africa and enhance economic growth. The R&D tax incentive is offered in terms of section 11D of the Income Tax Act. The incentive reduces the after-tax cost of R&D for beneficiary companies, thus encouraging further investment. The aim is to help local companies to develop capabilities and innovations by creating new products, processes, devices and techniques, and/or to significantly improve existing ones.

In 2018/19, the programme improved on the administrative efficiencies reported in previous years. Almost 97% of valid applications were adjudicated and final decisions were provided for 89% of these applications. The average turnaround time for providing decisions on the 2018/19 applications improved to 94 days from the 115 days reported in the previous year.

A report on the impact evaluation of the R&D tax incentive has been produced and, at the time of compiling this annual report, the Department of Science and Innovation and the National Treasury were developing a position paper on the way forward. As in the recently published reports on government incentives by the Davis Tax Committee and the Department of Planning, Monitoring and Evaluation, this report indicates the benefits of the R&D tax incentive and highlights areas requiring attention. The government will make use of the above studies and other relevant information to inform policy decisions about the incentive going forward, including the possibility of adjustments and the continuation of the programme beyond October 2022.

Business R&D is a key driver of innovation and productivity gains in a country, and increased investment in R&D by companies will boost competitiveness. I therefore encourage the business sector to participate in the R&D tax incentive programme.



DR BE NZIMANDE, MP
MINISTER OF HIGHER EDUCATION, SCIENCE AND TECHNOLOGY

EXECUTIVE SUMMARY

Section 11D(17) of the Income Tax Act, 1962 (Act No. 58 of 1962), requires the minister responsible for science and technology to report to Parliament on the direct benefits of the research and development (R&D) activities encouraged by the R&D tax incentive programme in contributing to economic growth, employment and other broader government objectives.

This report presents information in cumulative terms to show the overall uptake and contribution of the incentive since 2006. It outlines information obtained from the applications received by Department of Science and Innovation, such as uptake in terms of economic sectors and size of company, R&D expenditure supported, provincial distribution, and the contribution to R&D in national Industrial Policy Action Plan (IPAP) focus areas.

In 2018/19, a total of 91 companies submitted 115 applications containing 388 projects to the Department, with total expenditure estimated at R3,3 billion. Of the companies that submitted applications, 50 were first-time applicants. The seven-year average of first-time applicants from 2012/13 to 2018/19 is 76. Since November 2006, the Department had received 3 008 applications (this figure includes 1 575 applications received under the retrospective system and 1 433 applications received under the pre-approval system) for 6 564 projects from 941 companies. About R50 billion in R&D expenditure has been supported by the incentive since November 2006. The Manufacturing sector has the highest expenditure on R&D in the approved applications with R14 billion (57,7%). This Mining and Quarrying sector follows with R4,7 billion (19,2%).

In 2018/19, the majority of applications (61 or 53%) were received from the Manufacturing sector, followed by the Financial Intermediation, Real Estate and Business Services sector with 23 applications (20%). Five applications (5,7%) were received from the Mining and Quarrying sector.

Since October 2012, the Department has received a total of 1 433 applications, of which 1 349 (97%) were adjudicated and finalised by the R&D Tax Incentive Adjudication and Monitoring Committee ("the Committee"). Out of the adjudicated applications, 1 235 (89%) received final decisions from the Minister. In comparison to the 2017/8 reporting period, 92% were adjudicated and 80% had received final decisions from the Minister. This reflects the significant progress made in improving administrative efficiency in terms of the turnaround times.

Of the 1 141 companies that participated in the incentive since November 2006, 521 (46%) were small or medium enterprises (SMEs) (with latest annual turnover of R40 million and below), and 366 (32%) were very large companies (with annual turnover of R100 million and above). Large companies (with annual turnover between R41 million and R100 million) made up 13%, while 10% did not disclose their turnover size.

The 2018/19 to 2020/21 Industrial Policy Action Plan (IPAP) focuses on two sectoral areas. Of the approved applications, 571 (67,5%) were in these areas and accounted for an estimated R32,9 billion (65,9%) of the total supported R&D expenditure.

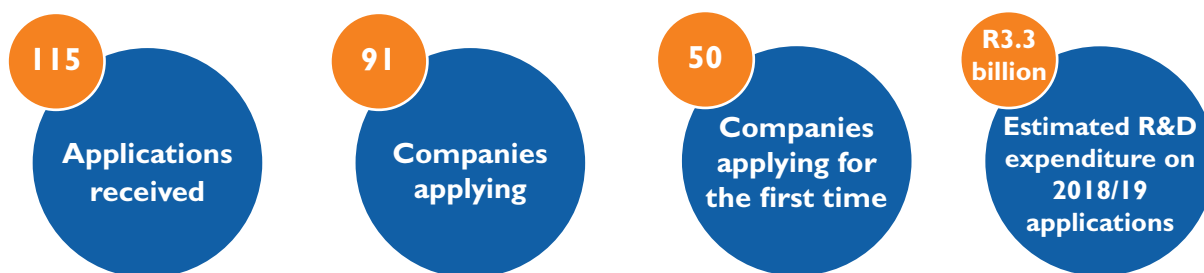


The incentive is an indirect approach by government to encourage business to conduct scientific and technological R&D in South Africa and achieve technological advancement. The evaluation of the R&D tax incentive's impact shows evidence of increased R&D spending by firms owing to the incentive. The evaluation was not as comprehensive as initially thought, as it was hampered by data gaps and ended up using a smaller size of the sample. At the time of compiling the 2018/19 R&D Tax Incentive Annual Report, the Department was working with National Treasury to develop a position paper that will inform policy decisions about the incentive going forward, including any possible adjustments and/or its continuation beyond October 2022.

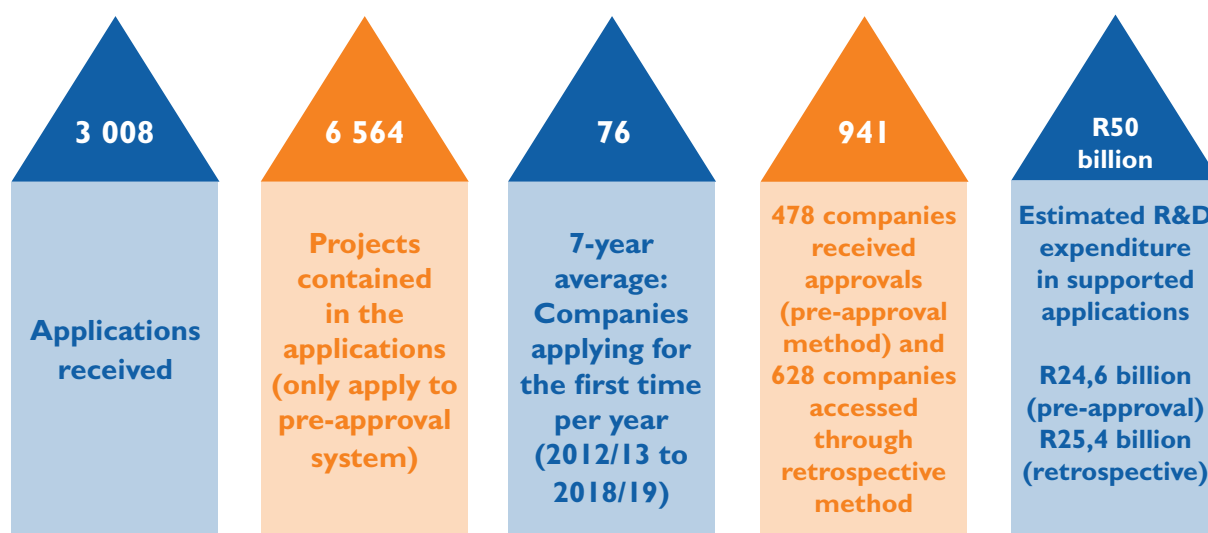


2018/19 IN NUMBERS

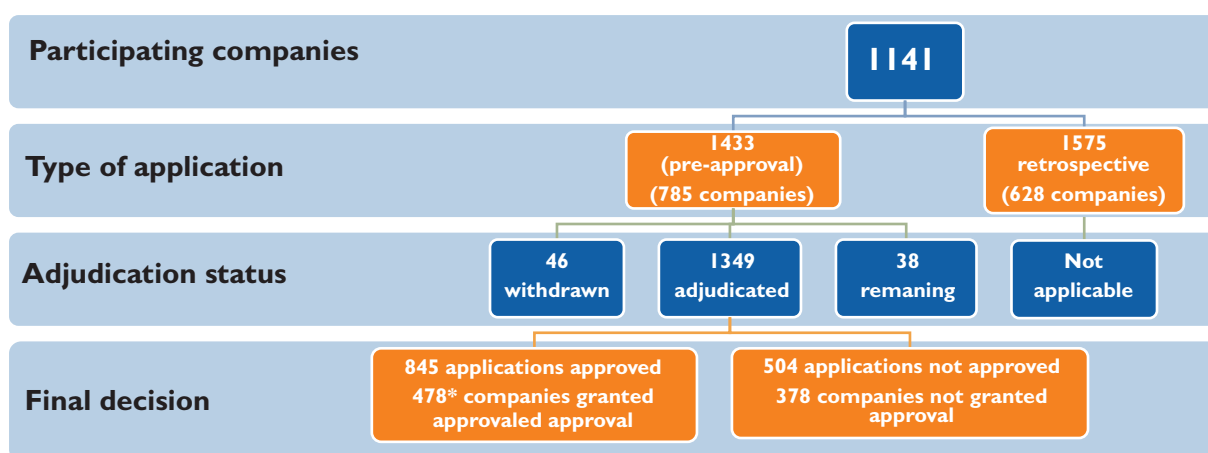
Contributions for 2018/19 in numbers



Cumulative contributions (November 2006 to February 2019)



Overall status in processing applications (November 2006 to February 2019)



* This number does not account for the 628 companies that accessed the incentive under the retrospective system.

Provincial distribution of companies supported between Nov. 2006 and Feb. 2019



1 (0,1%)
LIMPOPO

18 (1,9%)
MPUMALANGA

2 (0,2%)
NORTHERN CAPE

4 (0,4%)
NORTH WEST

14 (1,5%)
FREE STATE

19 (2%)
EASTERN CAPE

545 (57,9%)
GAUTENG

101 (10,7%)
KWAZULU-NATAL

237 (25,2%)
WESTERN CAPE

I. INTRODUCTION

I.1 Background

The R&D tax incentive programme, introduced in November 2006, is administered by the Department of Science and Innovation in conjunction with the South African Revenue Service (SARS) and National Treasury (NT) to encourage innovation and advance scientific and technological research in South Africa.

Section 11D of the Income Tax Act was established to offer an incentive consisting of a deduction of 150% in respect of expenditure on eligible scientific or technological R&D undertaken by enterprises or individuals within South Africa. Enhancements to the tax incentive process (including the pre-approval process effective from 1 October 2012) were made in the Taxation Laws Amendment Act, 2011 (Act No. 24 of 2011), which required companies to obtain approval for R&D activities from the minister responsible for science and technology before claiming a deduction from SARS.

New amendments to section 11D of the Act were introduced and became effective on 1 January 2014, in terms of the Taxation Laws Amendment Act, 2013 (Act No. 39 of 2013). Further refinements were made to section 11D, including adjustments to the definition of R&D to streamline and simplify the regime and ensure that only genuine R&D is supported. In 2015, refinements were made again to section 11D, including amending the definition of R&D in respect of qualifying “innovative” functional designs, and including multisource pharmaceutical products and clinical trials in the definition of R&D. These amendments became effective on 1 January 2015, in terms of the Taxation Laws Amendment Act, 2014 (Act No. 43 of 2014). In 2016, new amendments to section 11D were introduced in terms of the Taxation Laws Amendment Act, 2016 (Act No. 15 of 2016). Subsection (20) was added to allow companies to catch up on their deduction, which became effective on 1 January 2017.

I.2 Information required when making an application

The nature of information required in making an application for the R&D tax incentive is kept to a minimum. The information required is (a) the specific administrative information that assists in identifying the company, its contact details and the consultant involved in making the application, etc., and (b) information on the R&D activities that assist in determining the eligibility of the intended project.

To qualify for the tax incentive, the following is required:

- The R&D activities must meet the definition of R&D in section 11D(1) of the ITA, which states that, “For the purpose of [section 11D], “research and development” means systematic investigative or systematic experimental activities of which the result is uncertain.”
- The company must to indicate in which of the following categories an application is made:
 - Discovery of non-obvious scientific and technological knowledge.
 - Creating or developing an invention, functional design, computer program or knowledge essential to their usage.

- Making significant improvement to any of the above for the purposes of new or improved function, improvement of performance, reliability or quality.
 - Creating or developing a multisource pharmaceutical product.
 - Conducting a clinical trial.
- The company should give a description of the systematic investigative or systematic experimental activities being undertaken (in order to achieve what is indicated above). To be considered R&D, the outcomes of such activities must be uncertain, i.e. non-obvious.
 - The company should describe how the intended activities will advance the existing base of scientific and technological knowledge in the relevant field.
 - With respect to “significant and innovative improvement”, the application must describe the innovative aspects involved as compared to the existing base in order to explain the scientific or technological advancement their activities are aimed at.



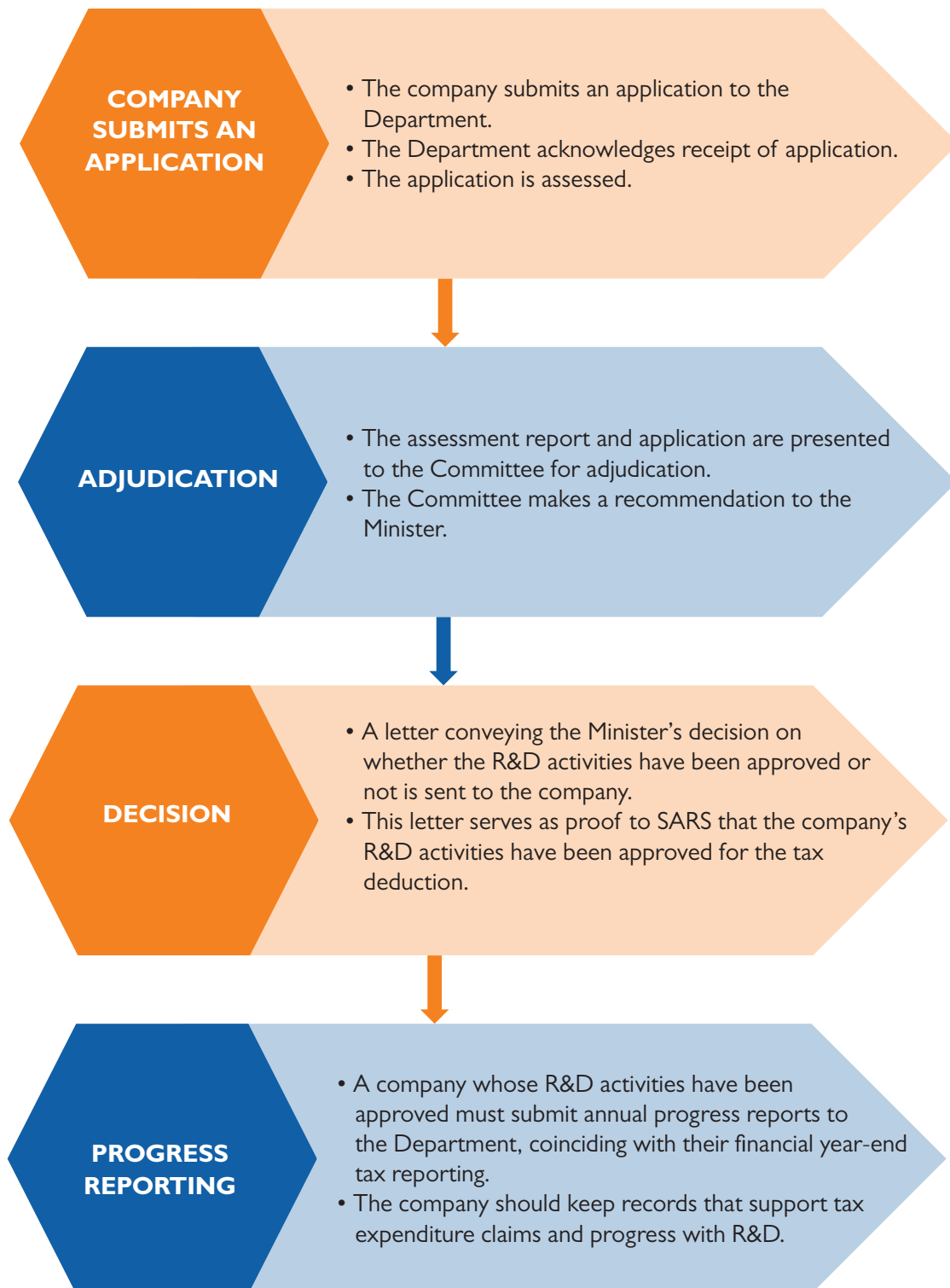


Figure 1: The application process

2. UPTAKE AND PROCESSING OF APPLICATIONS FOR THE R&D TAX INCENTIVE

This section provides a summary of the uptake of the R&D tax incentive for the specific period in terms of company size and economic sector. It also provides the status in terms of processing of applications and turnaround times. These indicators cover the period of 2018/19, applications from October 2012 to February 2019, and cumulative estimates since November 2006.

2.1. Number of applications received by the Department

In the 2018/19 reporting period, 115 applications were received, involving 388 projects (Figure 2). Of the 91 companies that applied in the 2018/19 period, 50 were first-time applicants.

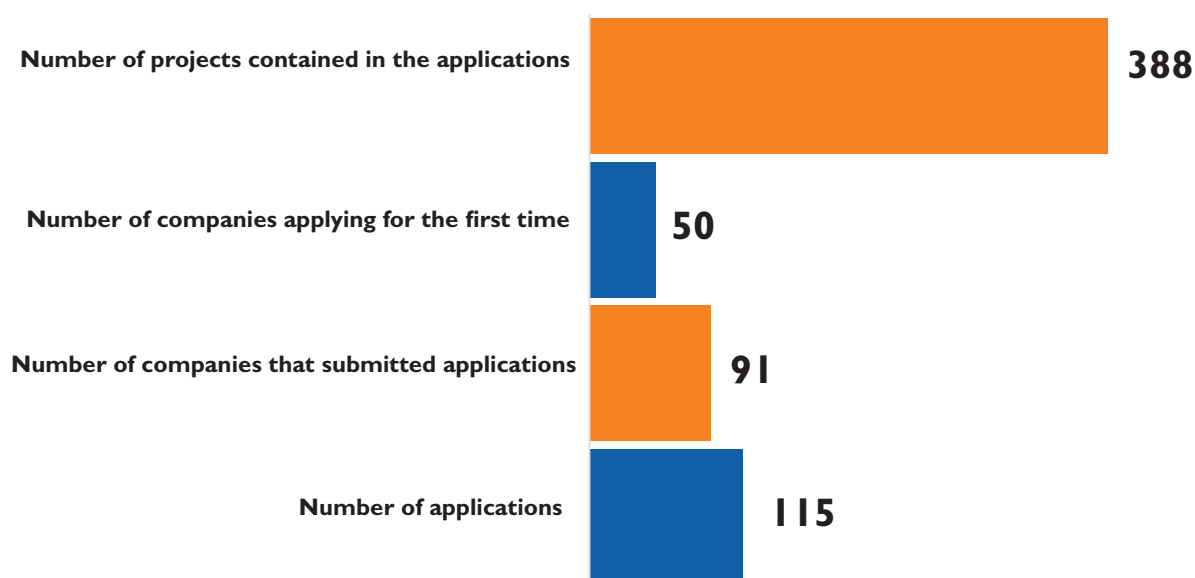


Figure 2: Uptake of applications received by the Department in 2018/19

From November 2006 to February 2019, 3 008 applications were received (1 433 applications under the pre-approval system and 1 575 under the retrospective system), with 6 564 projects (the projects only apply from 2012 when the pre-approval system was introduced). The average per annum number of first-time applicants from 2012/13 to 2018/19 is 76. The programme supported 941 companies (including companies approved under the pre-approval system and companies accessed through the retrospective method).



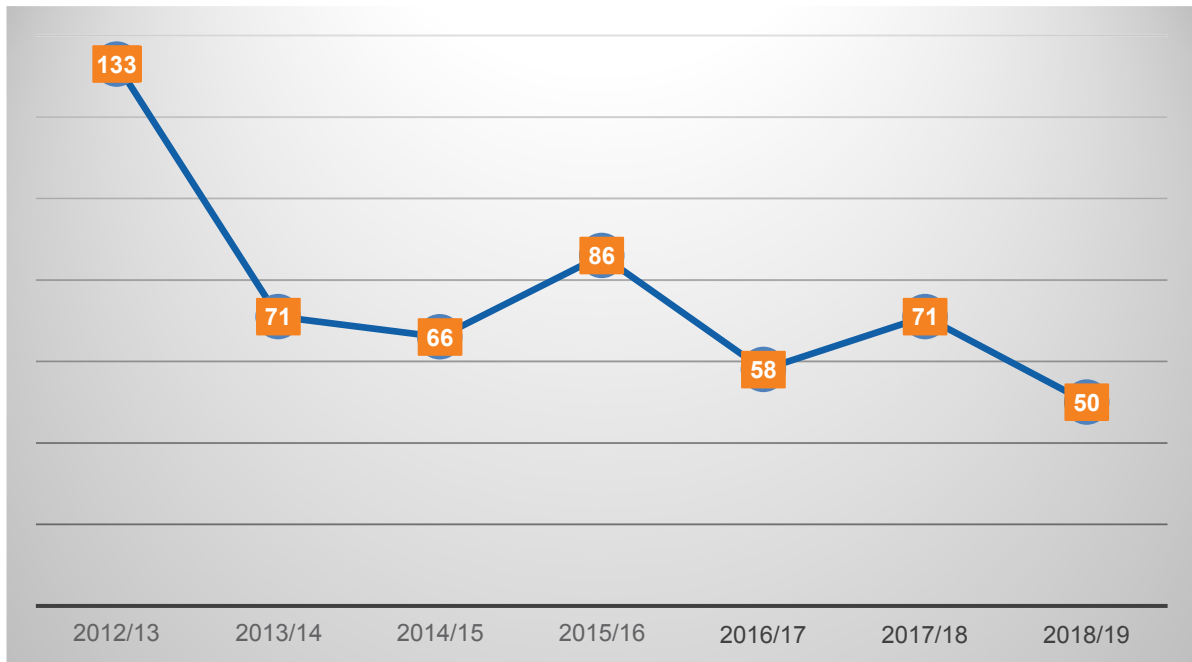


Figure 3: First-time applicants during the period of 2012/13 to 2018/19

Figure 3 reflects the number of first-time applicants per year of reporting. In 2012/13, the programme had 133 first-time applicants compared to the 50 in 2018/19. The decrease in the number of first-time applicants over the years may be due to the number of applicants with multi-year projects, which applicants do not have to reapply for every year. Instead, applicants should submit progress reports every year until the projects are completed. Applicants are only required to submit applications for new projects and not for projects that have already been approved.

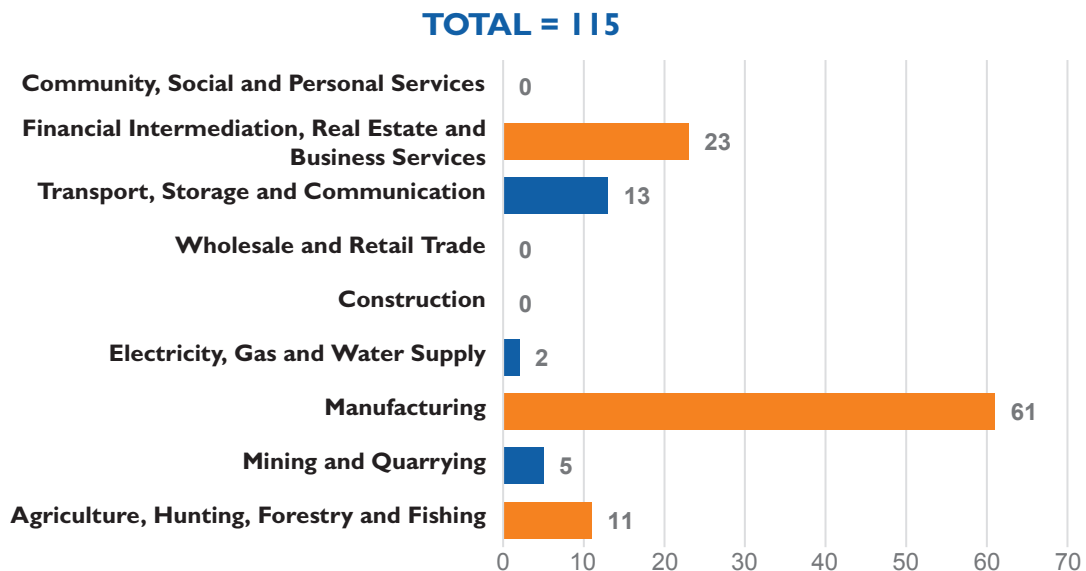


Figure 4: Number of applications per economic sector (2018/19)

Figure 4 shows the distribution of applications received in 2018/19 per industrial sector. A total of 61 (53%) applications have been received from the Manufacturing sector alone, followed by the Financial Intermediation, Real Estate and Business Services sector (companies in ICT and banking) with 23 applications (20%). Five applications (5,7%) were received from the Mining and Quarrying sector, but no application was received from the Community, Social and Personal Services sector, Construction sector, or Wholesale and Retail Trade sector in the 2018/19 period.

TOTAL = 1433

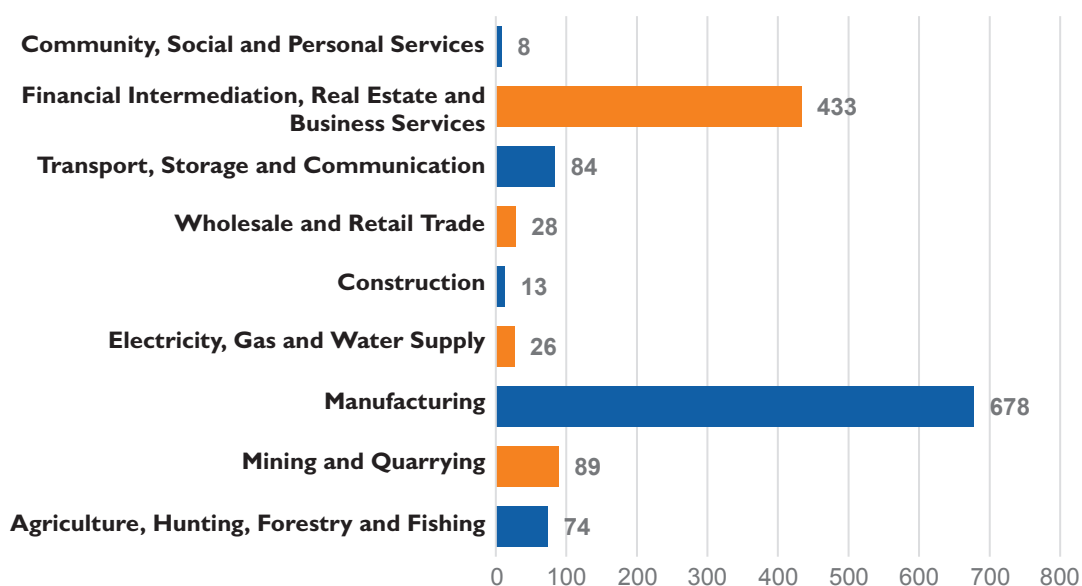


Figure 5: Number of applications per economic sector (Oct. 2012 to Feb. 2019)

Figure 5 depicts the number of applications received from October 2012 to February 2019. The trend is similar to that observed in 2018/19, with the highest number of applications (678 or 47,3%) from the Manufacturing sector, followed by 433 applications (30,2%) from the Financial Intermediation, Real Estate and Business Services sector. These two sectors dominate the applications, making up 77,5% of all applications received since October 2012. The remainder of applications (22,5%) comprise applications from other sectors, including the Mining and Quarrying sector, the Transport, Storage and Communication sector, and the Agriculture, Hunting, Forestry and Fishing sector.

2.2. Profile of participating companies

This section provides a profile of participating companies by turnover size and economic sector. A total of 91 companies participated in the R&D tax incentive programme in 2018/19. There were 835 companies that participated in the pre-approval system from October 2012 to February 2019, while the cumulative figure (both the pre-approval and retrospective systems) was 1 141 from November 2006 to February 2019.

Table 1 shows the number of participating companies per economic sector in 2018/19, the total for the whole pre-approval period and the cumulative figures from November 2006. The Manufacturing sector has the largest percentage of companies for all three periods (47,3%, 56,3% and 45%, respectively) and is followed by the Financial Intermediation, Real Estate and Business Services sector (24,2%, 18,3% and 32,7%, respectively).

Table 1: Number of participating companies per economic sector

Sector	Received in 2018/19		Pre-approval (Oct 12 to Feb 19)		Cumulative (Nov. 2006 to Feb. 2019)	
	Number of companies	% of total	Number of companies	% of total	Number of companies	% of total
Agriculture, Hunting, Forestry and Fishing	10	11,0%	51	7,1%	66	5,8%
Mining and Quarrying	5	5,5%	51	7,3%	64	5,6%
Manufacturing	43	47,3%	364	56,3%	513	45,0%
Electricity, Gas and Water Supply	2	2,2%	19	2,1%	24	2,1%
Construction	0	0,0%	10	0,9%	15	1,3%
Wholesale and Retail Trade	0	0,0%	20	1,5%	19	1,7%
Transport, Storage and Communication	9	9,9%	47	5,8%	54	4,7%
Financial Intermediation, Real Estate and Business Services	22	24,2%	266	18,3%	373	32,7%
Community, Social and Personal Services	0	0,0%	7	0,5%	13	1,1%
TOTAL	91	100%	835	100%	1 141	100%

Table 2: Number of participating companies per turnover size

Turnover size (million)	Received in 2018/19		Pre-approval (Oct 12 to Feb 19)		Cumulative (Nov. 2006 to Feb. 2019)	
	Number of companies	% of total	Number of companies	% of total	Number of companies	% of total
Turnover not indicated	12	13,2%	73	8,7%	110	9,6%
10 and below (SMEs)	10	11,0%	198	23,7%	298	26,1%
10-15 (SMEs)	3	3,3%	43	5,1%	70	6,1%
15-20 (SMEs)	3	3,3%	35	4,2%	48	4,2%
20-30 (SMEs)	5	5,5%	55	6,6%	69	6,0%
30-40 (SMEs)	1	1,1%	31	3,7%	36	3,2%
40-50 (large)	3	3,3%	27	3,2%	37	3,2%
50-100 (large)	11	12,1%	82	9,8%	107	9,4%
100 and above (very large)	43	47,3%	291	34,9%	366	32,1%
TOTAL	91	100,0%	835	100,0%	1 141	100,0%

Table 2 shows the number of participating companies per turnover size in 2018/19, the total for the whole pre-approval period and cumulative figures from November 2006. Of the 1 141 companies that have participated since November 2006, 521 (46%) had an annual turnover of R40 million and below. These companies can be classified as small and medium enterprises (SMEs), and obviously have limited resources, which places them at a disadvantage when it comes to funding R&D activities. About 366 (32,1%) of participating companies were very large (with annual revenue of R100 million and above) (Figure 6).

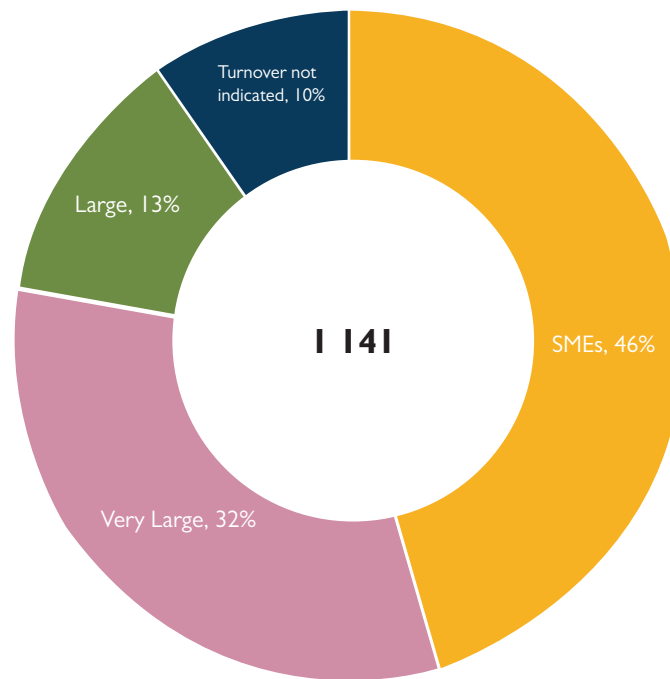


Figure 6: Uptake of companies that submitted applications per turnover size (Nov. 2006 to Feb. 2019)

A total of 835 companies have participated since October 2012, with 91 companies participating in 2018/19. In 2018/19, 22 SMEs participated (41%). Between October 2012 and February 2019, and between November 2006 and February 2019, more small and medium companies participated than any other turnover category, at 362 (43,4%) and 521 (45,6%), respectively. This is followed by 291 (34,8%) and 366 (32,1%) for very large companies participating since 2012 and 2006, respectively. Of the companies that participated in the programme in 2018/19, there were 12 (13,2%) that did not indicate their latest turnover. Since 2012, 73 (8,7%) have not disclosed their annual turnover, and since 2006, 110 (13,2%) have not done so.

2.3. Processing of applications

2.3.1. Turnaround times

The target stipulated in the Department's 2018/19 Annual Performance Plan (APP) is to provide decisions within 90 days of date of receipt for 80% of applications for the R&D tax incentive received between 1 January 2018 and 31 December 2018. Of the 131 applications received between 1 January 2018 and 31 December 2018, only 51 (39%) received decisions within 90 days. The above APP target has therefore not been met. Overall, of all the 131 applications received over the same period, 95 (73%) have been provided with decisions in that period. Much progress has, therefore, been made in improving the turnaround time for providing decisions on applications.

In 2018/19, significant progress has been made in improving administrative efficiency in terms of the turnaround times. Of the 1 433 pre-approval applications received between 1 October 2012 and 28 February 2019, 1 349 (97%) were adjudicated and finalised by the Committee, and 1 235 (89%) received final decisions from the Minister (Figure 7).

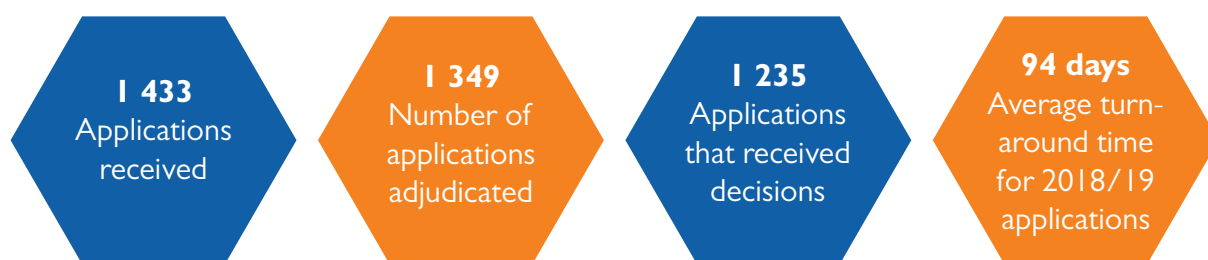


Figure 7: Overall status in processing applications as at Feb. 2019

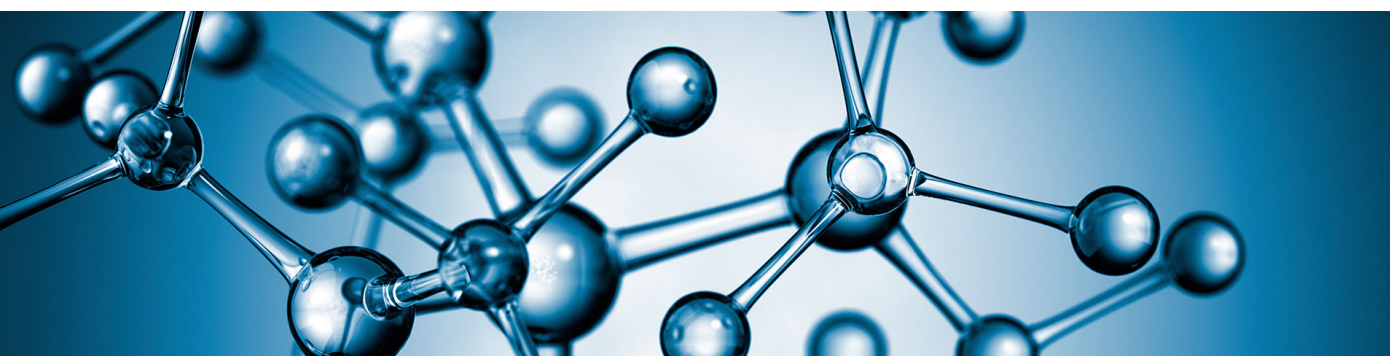
The average turnaround time for processing applications received during the 2018/19 reporting period (i.e. from 1 March 2018 to 28 February 2019) improved to 94 days (reported on 59 applications that were provided with decisions within the same period), from the average of 115 days reported for applications reported in 2017/18. Whereas significant progress has been made in terms of improving the turnaround times, more still need to be done in order to consistently provide decisions on applications within 90 days.

The turnaround time depends to a large extent on the quality of information provided in the applications. Applications that have the required information are processed and finalised more quickly. Ways to further simplify the process are continually being explored.

2.3.2. Status of pre-approval applications as at 28 February 2019

A total of 1 349 applications have been adjudicated, of which 845 (62,6%) have been approved, and 504 (37,4%) not approved. To improve the administration of the programme and ensure compliance with section 3 of the Promotion of Administrative Justice Act, 2000 (PAJA), some new steps were introduced. Where there is a likelihood of non-approval, applicants are given an opportunity to submit representations before the Committee makes a recommendation, in accordance with the PAJA. The applicant is given 15 days to make further representations, after which the application follows the adjudication process and the Minister makes the final decision.

Figures 8, 9 and 10 show the proportions of approved and non-approved applications per economic sector. The Financial and Business Services sector has a high proportion of unsuccessful applications (61,8%), followed by the Wholesale and Retail Trade sector (53,6%) and the Community and Social Services sector (50%). With 67 adjudicated applications, the Agriculture, Hunting, Forestry and Fishing sector has the highest rate of approval (89,6%), followed by the Electricity, Gas and Water Supply sector (78,3% out of 23 applications adjudicated), Manufacturing sector (74,3% out of 641 applications adjudicated) and the Mining and Quarrying sector (73,8% out of 84 applications adjudicated). Table 3 shows the breakdown of adjudicated applications per economic sector.



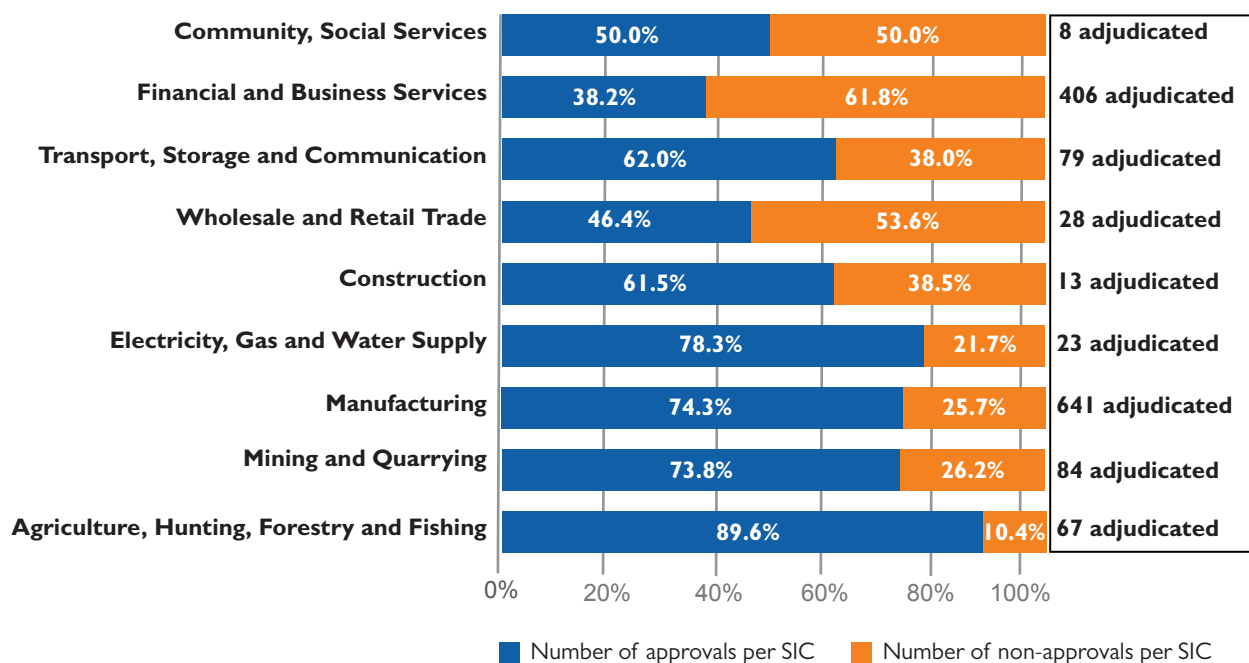


Figure 8: Breakdown of application approvals and non-approvals per economic sector (Oct. 2012 to Feb. 2019)

Table 3: Number of adjudicated applications per economic sector (Oct. 2012 to Feb. 2019)

Sector	Number of applications received	Adjudicated and finalised per Standard Industrial Classification (SIC)	Number of approvals per SIC	Number of non-approvals per SIC
Agriculture, Hunting, Forestry and Fishing	74	67	60	7
Mining and Quarrying	89	84	62	22
Manufacturing	678	641	476	165
Electricity, Gas and Water Supply	26	23	18	5
Construction	13	13	8	5
Wholesale and Retail Trade	28	28	13	15
Transport, Storage and Communication	84	79	49	30
Financial and Business Services	433	406	155	251
Community and Social Services	8	8	4	4
TOTAL	1 433	1 349	845	504

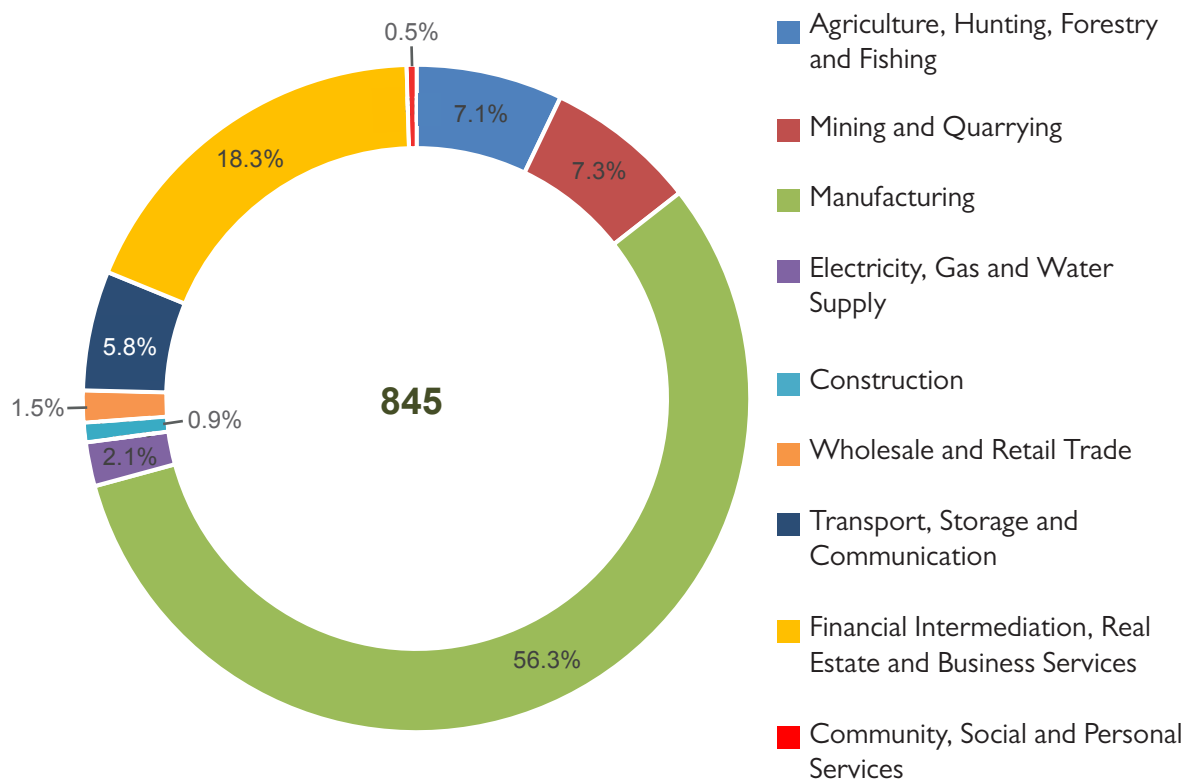


Figure 9: Approved applications per economic sector (Oct. 2012 to Feb. 2019)

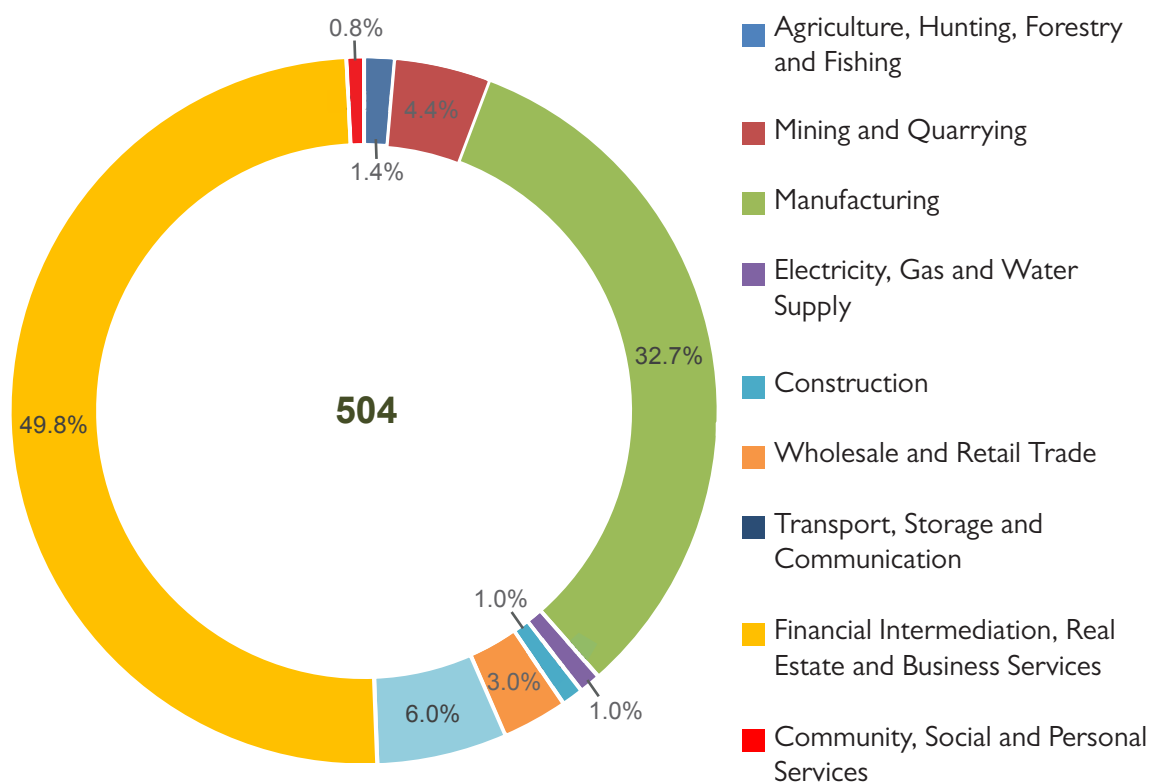


Figure 10: Non-approved applications per economic sector (Oct. 2012 to Feb. 2019)

3. COMPANIES SUPPORTED BY THE R&D TAX INCENTIVE PROGRAMME

This section provides a profile of companies that have participated in the incentive since its inception in November 2006. Figure 11 shows the distribution of supported companies per turnover size. Of the 941 companies that received support from the programme between November 2006 and February 2019, the majority (41,8%) were SMEs, followed by very large companies (36,2%) and large companies (12,6%). Although large and very large companies are the main drivers of innovation and productivity gains in advanced economies, it is interesting to note that the majority of companies that have been supported through this programme are SMEs. The remainder (9,4%) did not disclose their annual turnover.

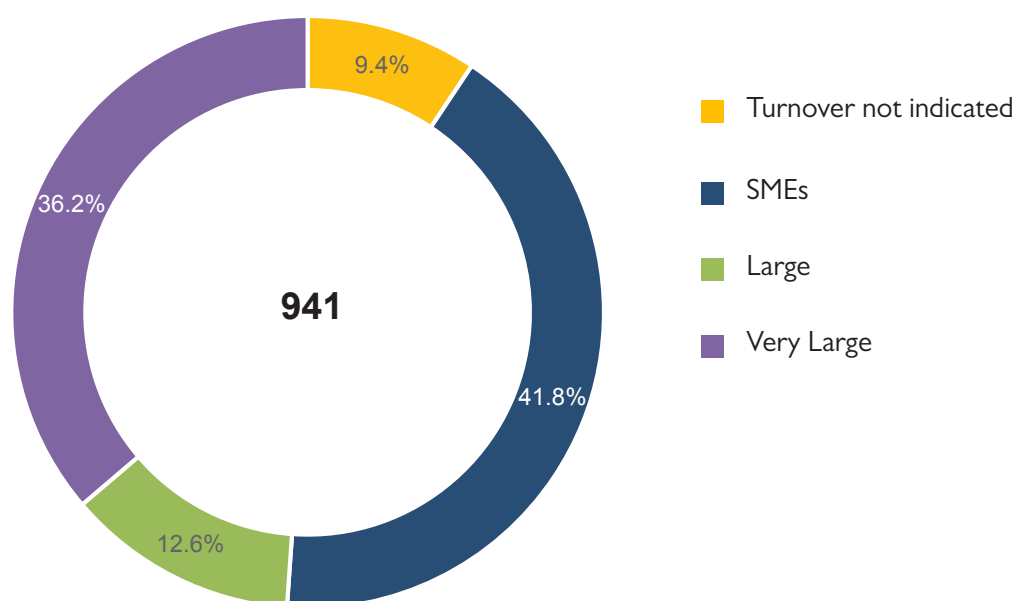


Figure 11: Number of supported companies per turnover size (Nov. 2006 to Feb. 2019)

3.1 Provincial distribution of supported companies (Nov. 2006 to Feb. 2019)

The provincial distribution is deduced from the physical addresses indicated by the companies in the R&D tax incentive application forms. In some cases, the physical addresses provided on the applications is not necessarily where the R&D activities are conducted.

Figure 12 illustrate that most of the supported companies are based in Gauteng (545 or 57,9%), followed by the Western Cape with 237 (25,2%) and KwaZulu-Natal with 101 (10,7%). The incentive supports only two companies in the Northern Cape (0,2%) and one in Limpopo at (0,1%).



Figure 12: Provincial distribution of companies supported between Nov. 2006 and Feb. 2019

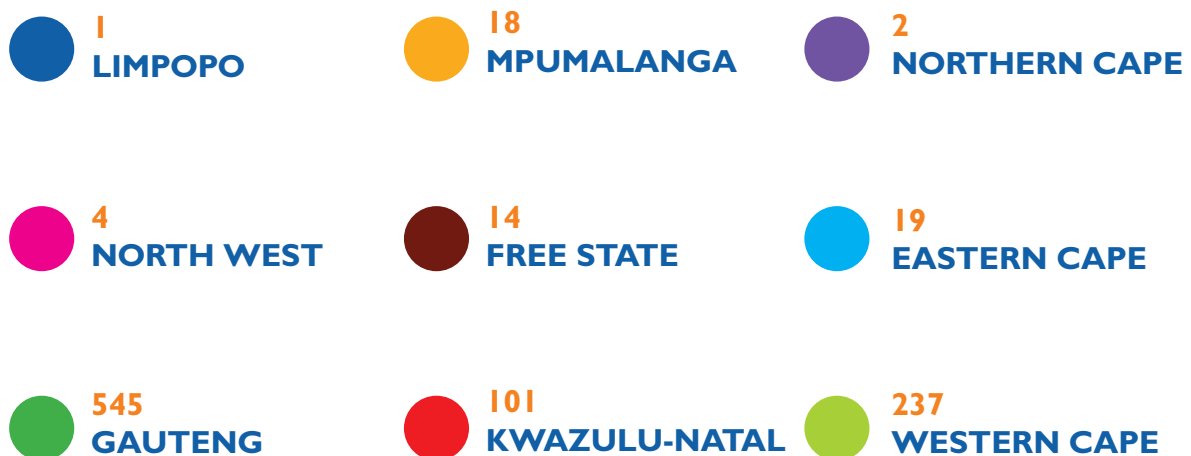


Table 4 shows the provincial distribution of companies that have participated in the programme with the economic sectors of R&D activities. Gauteng submitted the majority of applications (664 or 58,2%), followed by the Western Cape (298 or 26,1%) and KwaZulu-Natal (113 or 9,9%), with companies in all three provinces representing nine economic sectors. Limpopo and the Northern Cape have the lowest rate of participation with one (0,1%) and two (0,2%) companies, respectively, with each province representing one sector.

Table 4: Provincial distribution of participating companies with economic sectors of R&D activities

Province	Sectors	Number per sector	Number of companies Nov. 2006 to Feb. 2019
Mpumalanga	Agriculture, Hunting, Forestry and Fishing	4	21*
	Mining and Quarrying	4	
	Manufacturing	10	
	Construction	1	
	Financial Intermediation, Real Estate and Business Services	2	
Eastern Cape	Manufacturing	13	20*
	Financial Intermediation, Real Estate and Business Services	7	
Northern Cape	Manufacturing	2	2
Western Cape	Agriculture, Hunting, Forestry and Fishing	25	298
	Mining and Quarrying	5	
	Manufacturing	140	
	Electricity, Gas and Water Supply	6	
	Construction	1	
	Wholesale and Retail Trade	5	
	Transport, Storage and Communication	19	
	Financial Intermediation, Real Estate and Business Services	95	
	Community, Social and Personal Services	2	
Gauteng	Agriculture, Hunting, Forestry and Fishing	20	664
	Mining and Quarrying	49	
	Manufacturing	276	
	Electricity, Gas and Water Supply	17	
	Construction	10	
	Wholesale and Retail Trade	11	
	Transport, Storage and Communication	33	
	Financial Intermediation, Real Estate and Business Services	242	
	Community, Social and Personal Services	6	
North West	Agriculture, Hunting, Forestry and Fishing	1	7
	Mining and Quarrying	1	
	Manufacturing	2	
	Construction	1	
	Financial Intermediation, Real Estate and Business Services	2	
Free State	Agriculture, Hunting, Forestry and Fishing	4	15
	Mining and Quarrying	1	
	Manufacturing	7	
	Financial Intermediation, Real Estate and Business Services	1	
	Community, Social and Personal Services	2	

Table 4: Provincial distribution of participating companies with economic sectors of R&D activities (Contd)

Province	Sectors	Number per sector	Number of companies Nov. 2006 to Feb. 2019
KwaZulu-Natal	Agriculture, Hunting, Forestry and Fishing	11	113*
	Mining and Quarrying	4	
	Manufacturing	63	
	Construction	1	
	Wholesale and Retail Trade	3	
	Transport, Storage and Communication	2	
	Financial Intermediation, Real Estate and Business Services	24	
	Community, Social and Personal Services	3	
Limpopo	Agriculture, Hunting, Forestry and Fishing	1	1
Total			1141

*Numbers adjusted from previous year

4. R&D EXPENDITURE SUPPORTED BY THE INCENTIVE

The figures reported under this section is based on the data declared to the Department by companies at application stage, at approval stage and on the claims submitted to SARS on retrospective claims. Data on claims processed at SARS was unavailable for this report, and therefore information presented in this section does not include data on R&D claims that have been processed at SARS. This information is presented in an aggregated format in the National Treasury budget review publications and SARS tax statistics.

4.1 Estimated R&D expenditure on approved applications

Table 5 indicates the dominance of R14,2 billion (57,7%) in terms of estimated R&D expenditure on approved applications from the Manufacturing sector, implying that R&D projects in this sector are relatively larger. The Manufacturing sector is dominated by companies from sub-sectors such as chemicals, pharmaceuticals, plastics, electronics, electric machinery, food and beverages, etc. The Mining and Quarrying sector has an estimated R&D expenditure of R4,7 billion (19,2%) on approved applications. R&D activities in the Mining and Quarrying sector are related to pumping technologies, drilling technologies, casting materials, safety performance, deep-level mining technology, robotics, sensors and radar technology, mineral extraction and processing, transportation systems, capital equipment and components and environmental performance.

Figure 13 indicates that an estimated R50 billion in R&D expenditure has been supported by the incentive since November 2006 (when the incentive was introduced). This amount includes R24,6 billion in estimated R&D expenditure indicated on approved applications (under the pre-approval system) and R25,4 billion reported under the retrospective system. These figures are revised annually on the basis of the actual value of claims that companies declare to SARS when they claim the deductions.

Table 5: Estimated R&D expenditure on approved applications per economic sector (Oct. 2012 to Feb. 2019)

Sectors	Estimated R&D expenditure on approved applications
Agriculture, Hunting, Forestry and Fishing	734 623 473
Mining and Quarrying	4 728 983 220
Manufacturing	14 225 245 501
Electricity, Gas and Water Supply	85 989 187
Construction	75 550 000
Wholesale and Retail Trade	165 226 622
Transport, Storage and Communication	1 741 840 732
Financial Intermediation, Real Estate and Business Services	2 798 062 350
Community, Social and Personal Services	94 573 920
Total	24 650 095 004

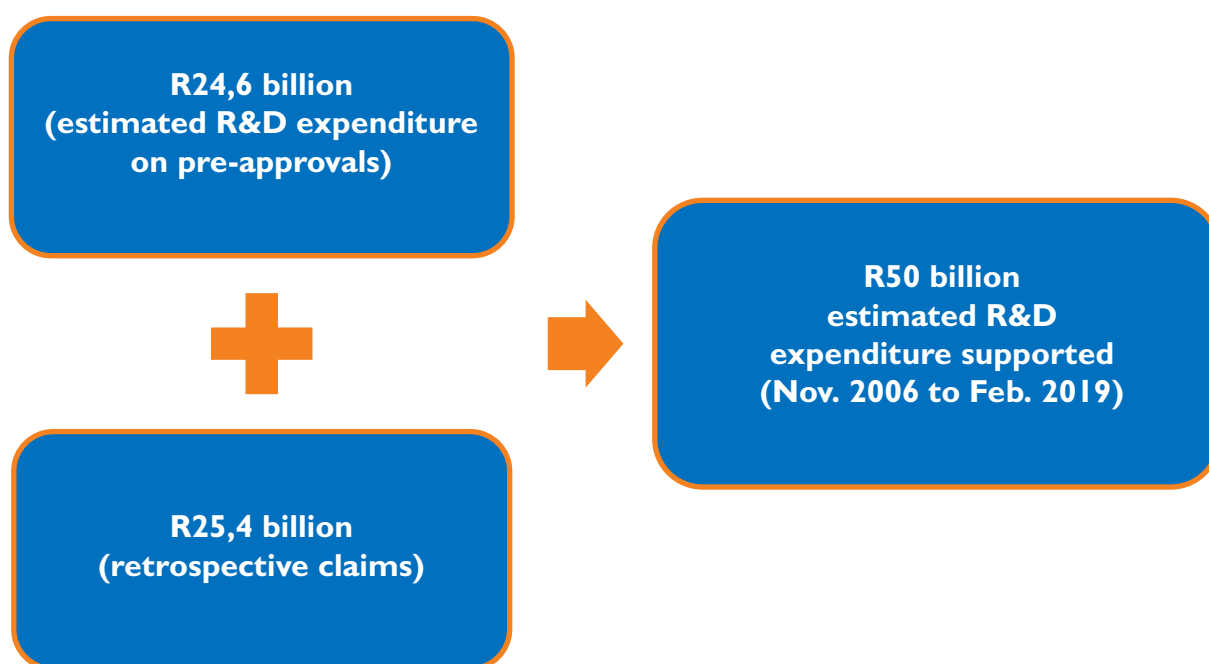


Figure 13: Overall R&D expenditure supported (Nov. 2006 to Feb. 2019)

4.2 Contribution to IPAP sectoral focus areas

To increase the economy's ability to produce complex and high value-added products with greater efficiency, the 2018/19-2020/21 Industrial Policy Action Plan (IPAP) identifies sectoral focus areas 1 and 2. Of the total approved applications, 571 (67,5%) contribute to these two focus areas, with an estimated R32,9 billion (65,9%) of the total supported R&D expenditure since November 2006. Table 6 shows that the top four IPAP sectors in terms of cumulative estimated R&D expenditure supported are Chemicals, Cosmetics, Pharmaceuticals and Plastics; Electrotechnical and ICT; Mineral Beneficiation; and Automotive sector.

Table 6: Contribution to IPAP sectoral focus areas (Nov. 2006 to Feb. 2019)

IPAP sector description	R&D expenditure under retrospective system (in R'000)	R&D expenditure for approved applications under pre-approval system (in R'000)	Cumulative Nov. 2006 to Feb. 2019 (in R'000)
Electro-technical and ICT	3 873 476	3 419 827	7 293 303
Chemicals, Cosmetics, Pharmaceuticals and Plastics	3 909 221	5 024 779	8 934 000
Automotive	3 321 901	251 501	3 573 402
Metal Fabrication, Capital and Rail Transport Equipment	1 217 985	1 579 190	2 797 175
Business Process Services	1 172 476	58 789	1 231 265
Aerospace, Defence	497 888	1 423 965	1 921 853
Agroprocessing	384 937	508 696	893 633
Forestry, Paper, Pulp and Furniture	256 300	668 002	924 302
Green Industries	35 057	0	35 057
Marine Manufacturing and associated services	0	37 200	37 200
Clothing, Textiles, Footwear and Leather	355	3 800	4 155
Mineral beneficiation	1 175 953	4 141 400	5 317 353
Total	15 845 549	17 117 149	32 962 698

Tax expenditures are estimates of tax revenue foregone due to preferential tax treatment. The 2019 National Treasury Budget Review estimated that the tax revenue foregone due to the R&D tax incentive for the period 2005/06 to 2016/17 was R5,2 billion. These figures represent deductions allowed by SARS on claims by companies for each particular tax year. The figures also include claims made under section 11B of the Income Tax Act, which was used before November 2006. These figures are revised annually as companies submit their claims.

Table 7: Tax revenue foregone due to the R&D tax incentive

Reporting period	Tax revenue forgone (R'000)
2005/06	183 000
2006/07	449 000
2007/08	358 000
2008/09	594 000
2009/10	966 000
2010/11	1 216 000
2011/12	361 000
2012/13	197 000
2013/14	219 000
2014/15	209 000
2015/16	268 000
2016/17	218 000
2017/18	Information not available
2018/19	Information not available
Total	5 238 000

5. CONCLUSION

This report has presented the uptake of the incentive in terms of the number of applications received, the profile and number of participating companies, the estimated R&D expenditure, the provincial distribution of supported activities and the tax revenue foregone.

Business R&D is a key indicator of the innovation performance of a country, and an environment conducive to stimulating private sector R&D investment is therefore needed. The R&D tax incentive programme is used as a part of various policy instruments to encourage private sector companies in all sectors of the economy to conduct R&D in South Africa, which will lead to global competitiveness and positive economic growth.

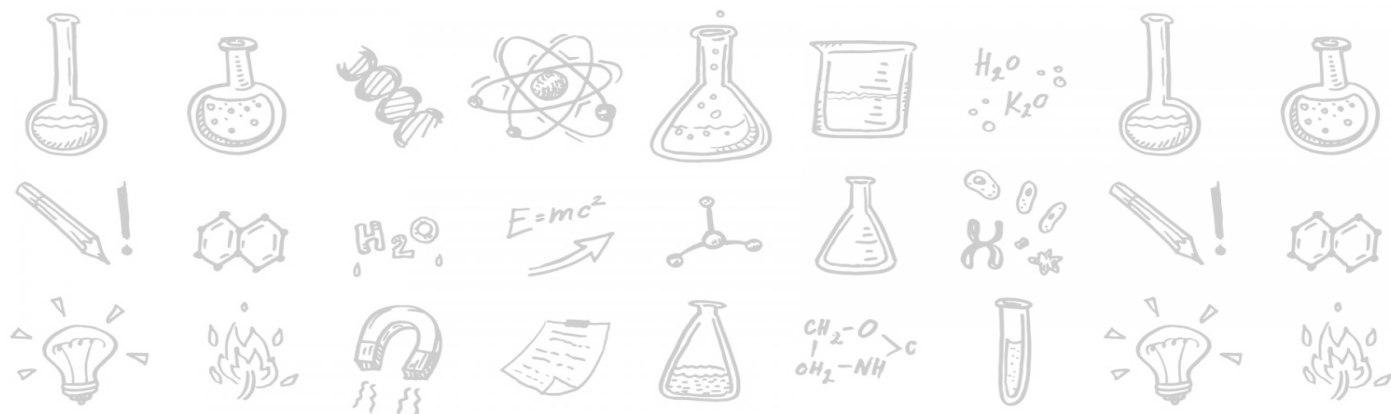
There is an improvement in administrative efficiency in which 97% of valid applications have been adjudicated and 89% having received final decisions. Although the Department has not met the target of a 90-day turnaround time, there has been a significant improvement in terms of turnaround times. External technical experts have been appointed to assist with assessment of applications received by the Department in order to improve administrative efficiency.

At the time of compiling this report, the report of the impact evaluation of the R&D tax incentive that was initiated by the National Treasury had been produced, and the Department and National Treasury were developing a response on the findings as well as an action plan on the R&D tax incentive going forward. As in the recently published reports on government incentives by the Davis Tax Committee and the Department of Planning, Monitoring and Evaluation, the benefits of the R&D tax incentive have been suggested. The report also indicates some of the incentive's limitations, which need greater attention from government, such as awareness promotion, administrative processes and efficiency, eligibility criteria, and support for specific industrial and small medium enterprises. The impact evaluation process was constrained by the small sample of respondents. SARS data needs to be included in the analysis to obtain a clearer picture on the effect of the incentive in terms of claimed R&D expenditure, productivity and employment. However, the available evidence, from both the impact evaluation study and other sources, is adequate to inform certain policy decisions about the incentive going forward, including possible adjustments and/or the continuation of the programme after October 2022.

Total number of applications received per company turnover size (Oct. 2012 to Feb. 2019)

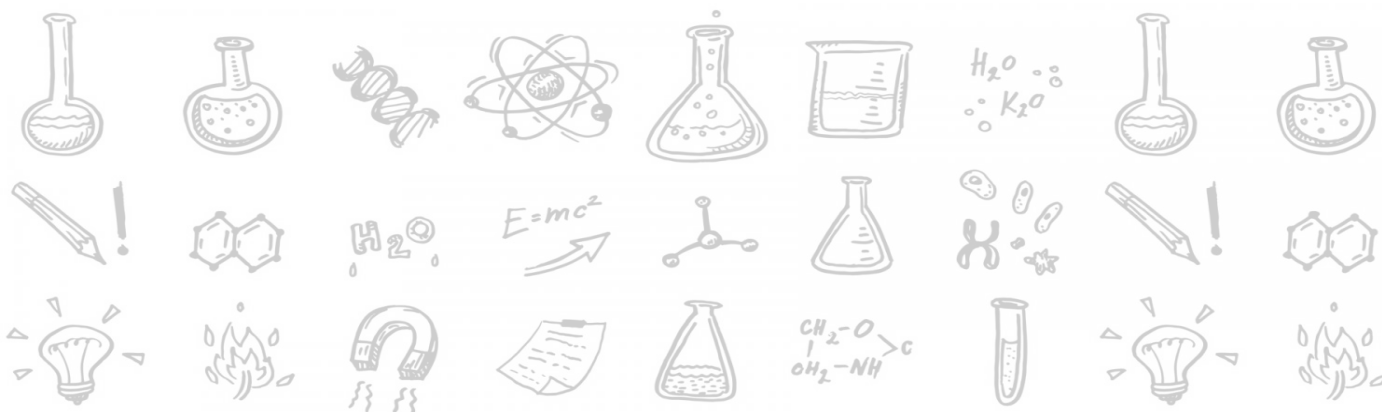
Total number of applicant companies per company turnover size (Oct. 2012 to Feb. 2019)

Sector	R10m and below	Between R10m and R20m	Between R20m and R40m	Between R40m and R50m	Between R50m and R100m	Above R100m	Turnover not indicated	Total
Agriculture, Hunting, Forestry and Fishing	14	5	5	1	4	20	2	51
Mining and Quarrying	8	3	3	0	4	28	5	51
Manufacturing	72	24	35	10	40	146	37	364
Wholesale and Retail Trade	7	1	2	2	1	7	0	20
Transport, Storage and Communication	11	4	5	1	4	17	5	47
Financial Intermediation, Real Estate and Business Services	76	39	34	11	24	65	17	266
Electricity, Gas and Water Supply	7	1	1	1	2	2	5	19
Construction	2	0	0	1	2	4	1	10
Community, Social and Personal Services	1	1	1	0	1	2	1	7
TOTAL	198	78	86	27	82	291	73	835



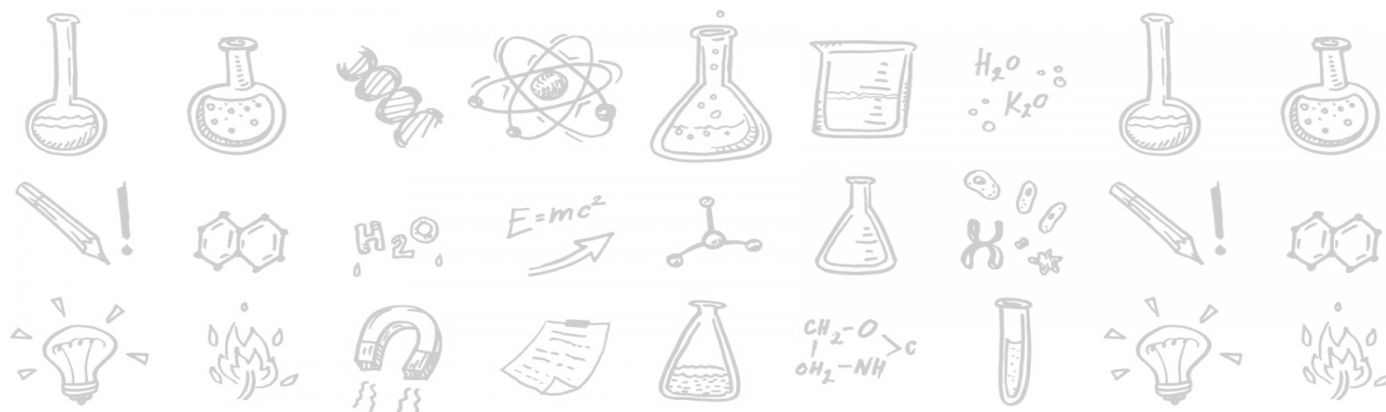
**Total number of approved applications per company turnover size
(Oct. 2012 to Feb. 2019)**

Sector	R10m and below	Between R10m and R20m	Between R20m and R40m	Between R40m and R50m	Between R50m and R100m	Above R100m	Turnover not indicated	Total
10000 - Agriculture, Hunting, Forestry and Fishing	15	4	5	2	5	28	1	60
20000 - Mining and Quarrying	4	4	3	0	4	40	7	62
30000 - Manufacturing	54	13	28	23	48	266	44	476
60000 - Wholesale and Retail Trade	2	1	1	0	0	9	0	13
70000 - Transport, Storage and Communication	6	1	5	1	11	20	5	49
80000 - Financial Intermediation, Real Estate and Business Services	33	17	13	7	17	57	11	155
40000 - Electricity, Gas and Water Supply	6	2	1	0	2	5	2	18
50000 - Construction	1	0	0	0	1	5	1	8
90000 - Community, Social and Personal Services	0	0	1	0	1	2	0	4
TOTAL	121	42	57	33	89	432	71	845



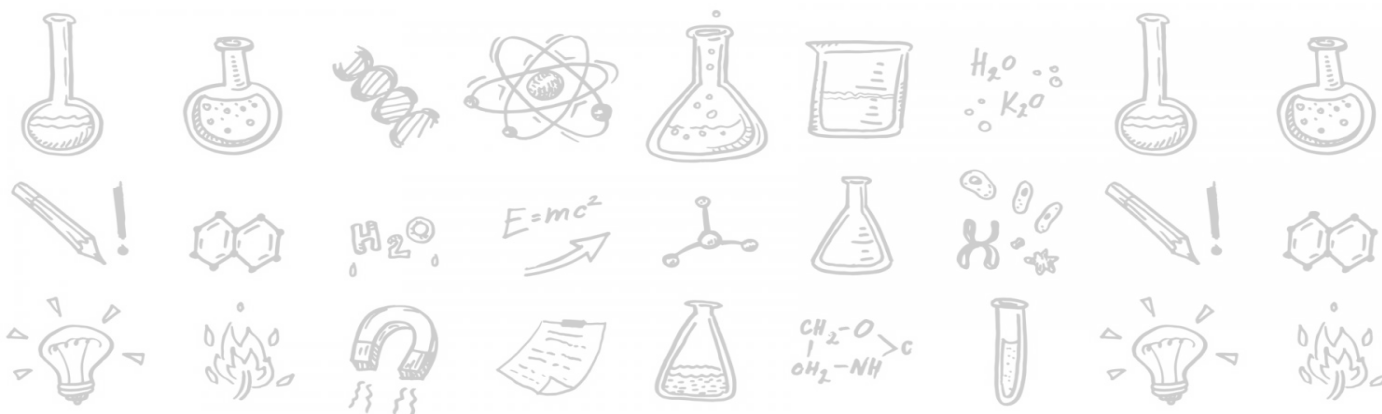
Total number of approved companies per company turnover size (Oct. 2012 to Feb. 2019)

Sector	R10m and below	Between R10m and R20m	Between R20m and R40m	Between R40m and R50m	Between R50m and R100m	Above R100m	Turnover not indicated	Total
10000 - Agriculture, Hunting, Forestry and Fishing	11	4	3	2	3	20	1	44
20000 – Mining and Quarrying	3	1	2	0	3	23	5	37
30000 – Manufacturing	39	7	22	4	26	110	27	235
60000 – Wholesale and Retail Trade	2	1	1	0	0	6	0	10
70000 – Transport, Storage and Communication	4	1	4	1	2	6	4	22
80000 – Financial Intermediation, Real Estate and Business Services	25	11	10	5	12	34	9	106
40000 – Electricity, Gas and Water Supply	6	1	1	0	2	2	2	14
50000 – Construction	1	0	0	0	1	3	1	6
90000 – Community, Social and Personal Services	0	0	1	0	1	2	0	4
TOTAL	91	26	44	12	50	206	49	478



Estimated R&D expenditure on approved applications

Sector	R10m and below	Between R10m and R20m	Between R20m and R40m	Between R40m and R50m	Between R50m and R100m	Above R100m	Turnover not indicated
10000 - Agriculture, Hunting, Forestry and Fishing	17 230 040	5 240 000	56 847 429	18 450 000	14 554 500	618 901 503	3 400 000
20000 – Mining and Quarrying	33 450 000	103 500 000	52 698 038	0	27 400 000	4 394 200 607	117 734 575
30000 – Manufacturing	234 435 794	72 190 857	155 924 107	572 892 193	1 053 855 894	11 350 961 146	784 985 510
60000 – Wholesale and Retail Trade	7 970 000	2 000 000	3 650 000	0	0	151 606 622	0
70000 – Transport, Storage and Communication	28 839 710	10 000 000	43 626 543	15 000 000	368 000 000	1 134 880 259	141 494 220
80000 – Financial Intermediation, Real Estate and Business Services	90 953 101	437 049 108	72 450 101	92 931 043	197 267 584	1 863 213 932	44 197 480
40000 – Electricity, Gas and Water Supply	6 350 000	700 000	1 778 018	0	4 523 439	72 087 730	550 000
50000 – Construction	4 100 000	0	0	0	1 250 000	30 200 000	40 000 000
90000 – Community, Social and Personal Services	0	0	2 486 773	0	6 822 287	85 264 860	0
TOTAL	423 328 645	630 679 965	389 461 009	699 273 236	1 673 673 704	19 701 316 659	1 132 361 785



APPENDIX B: DEFINITIONS OF SCIENTIFIC FIELDS

Agricultural science is a broad multidisciplinary field that encompasses parts of exact, natural, economic and social sciences that are used in the practice and understanding of agriculture.

Animal science can be described as a study of the biology of animals that are under the control of humankind.

Biological science is a branch of science that is defined as the study of life. It provides the fundamental study for the biotechnology industry. Biological science has a great impact on our lives and stands to have an even bigger impact in the future.

Chemical science consists of a diversity of disciplines in pharmaceuticals, polymers, paints and coatings, and household and personal care products, etc.

Environmental science is an interdisciplinary academic field that integrates physical and biological sciences (including but not limited to ecology, physics, chemistry, biology, soil science, geology, atmospheric science and geography) into the study of the environment and the solution of environmental problems. Environmental science provides an integrated, quantitative and interdisciplinary approach to the study of environmental systems.

Food science is concerned with all the technical aspects of food, beginning with harvesting or slaughtering and ending with cooking and consumption (“from field to fork”).

Forestry science is the scientific management of forests for the production of lumber and other resources. It is the science of cultivating, maintaining and developing forests.

Geographical information systems (GIS) science includes the design of systems to capture, store, manipulate, analyse, manage and present all types of geographically referenced data.

Geological science is the science comprising the study of the Earth, the rocks of which it is composed and the processes by which it evolves. It is commercially important for mineral and hydrocarbon exploration and for evaluating water resources.

Industrial science is made up of multidisciplinary fields, e.g. combining information technology, physical science and the science of machinery to advance industries.

Materials science is an interdisciplinary field that applies the properties of matter to various areas of science and engineering. It investigates the relationship between the structure of materials at atomic or molecular scale and their macroscopic properties. It incorporates elements of applied physics and chemistry.

Mathematical science refers to disciplines that are mathematical in nature. It includes fields like computer science, computational science, statistics, theoretical physics and actuarial science.

Metallurgical science includes disciplines concerned with the science and technology of metals and alloys. It includes fields such as process metallurgy, physical metallurgy and mechanical metallurgy.

Physical science is any of the sciences, such as physics, chemistry, astronomy and geology, which analyse the nature and properties of energy and non-living matter.

APPENDIX C: DESCRIPTION OF STANDARD INDUSTRIAL CLASSIFICATION CODES

Sic For Economic Activities		Description
Major division	Sub-division	
10 000	10 000	Agriculture, Hunting, Forestry and Fishing
	11 000	Agriculture, hunting and related services
	12 000	Forestry, logging and related services
	13 000	Fishing, operation of fish hatcheries and fish farms
20 000	20 000	Mining and Quarrying
	21 000	Mining of coal (hard) and lignite (brown coal)
	22 000	Extraction of crude petroleum oils and natural gas; service activities incidental to oil and gas extraction, excluding surveying
	23 000	Mining of gold and uranium ore
	24 000	Mining of metal ores, except gold and uranium ore
	25 000	Other mining and quarrying activities
	29 000	Service activities incidental to the mining of minerals
30 000	30 000	Manufacturing
	30 000	Manufacture of food products, beverages and tobacco products
	31 000	Manufacture of textiles, clothing and leather goods
	32 000	Manufacture of wood and products of wood and cork except (furniture); manufacture of articles of straw and plaiting materials; manufacture of paper and paper products; manufacture of publishing, printing and reproduction of recorded material
	33 000	Manufacture of coke, refined petroleum products and nuclear fuel; manufacture of chemicals and chemical products; manufacture of rubber and plastic products
	34 000	Manufacture of non-metallic mineral products
	35 000	Manufacture of basic metals, fabricated metal products, machinery and equipment and of office, accounting and computing machinery
	36 000	Manufacture of electrical machinery and apparatus (not elsewhere classified)
	37 000	Manufacture of radio, television and communication equipment and apparatus for medical application, precision and optical instruments, watches and clocks
	38 000	Manufacture of transport equipment
	39 000	Manufacture of furniture; manufacturing (not elsewhere classified); recycling
40 000	40 000	Electricity, Gas and Water Supply
	41 000	Electricity, gas, steam and hot water supply
	42 000	Collection, purification and distribution of water
50 000	50 000	Construction
	50 000	Construction
60 000	60 000	Wholesale and Retail Trade; Repair of Motor Vehicles, Motor Cycles and Personal and Household Goods; Hotels and Restaurants
	61 000	Wholesale and commission trade, except of motor vehicles and motor cycles

	62 000	Retail trade, except of motor vehicles and motor cycles; repair of personal household goods
	63 000	Sale, maintenance and repair of motor vehicles and motor cycles; retail trade in automotive fuel
	64 000	Hotels and restaurants
70 000	70 000	Transport, Storage and Communication
	71 000	Land transport; transport via pipelines
	72 000	Water transport
	73 000	Air transport
	74 000	Supporting and auxiliary transport activities; activities of travel agencies
	75 000	Post and telecommunications
80 000	80 000	Financial Intermediation, Insurance, Real Estate and Business Services
	81 000	Financial intermediation, except insurance and pension funding
	81 000	Insurance and pension funding, except compulsory social security
	83 000	Activities auxiliary to financial intermediation
	84 000	Real estate activities
	85 000	Renting of machinery and equipment, without operator, and of personal and household goods
	86 000	Computer and related activities
	87 000	Research and experimental development
	88 000	Other business activities
90 000	90 000	Community, Social and Personal Services
	91 000	Public administration, compulsory social security and defence activities
	92 000	Education
	93 000	Health and social work
	94 000	Sewage and refuse disposal, sanitation and similar activities
	95 000	Activities of membership organisations (not elsewhere classified)
	96 000	Recreational, cultural and sporting activities
	99 000	Other service activities



APPENDIX D: METHODOLOGY

The report presents information on the performance of the R&D tax incentive programme for the period March 2018 to February 2019. It is based on the information submitted to the Department by companies that participated in the programme.

The data used to compile this report is based on retrospective forms (prior October 2012), pre-approval applications (from 1 October 2012) and the 2019 national budget review by National Treasury. Data on tax revenue foregone due to the R&D tax incentive programme is estimated by the National Treasury on the basis of the deductions made against the claims for the R&D tax incentive submitted to SARS. These figures are updated annually and published in the National Treasury's budget review.

There is no data that was sourced from SARS. Data is collected in accordance with the requirements of section 11D(11) of the Income Tax Act through an application form and progress report form (for approved activities) prescribed by the Department. The taxpayer completes the application form and progress report form manually or electronically and submits it to the Department. Data is captured in the R&D tax incentive programme database at the Department.

For the applications, companies have to report on their annual R&D budget and the estimated R&D planned expenditure, which in many companies span a period of two to three years. The R&D tax incentive database is arranged in a manner that enables reporting according to Statistics South Africa's Standard industrial Classification codes (SIC codes).

Annual data stated in the report represent the totals that were available at the time of compiling the report.

Application and progress report forms collect information on the following:

- Particulars of the taxpayer, including the principal industrial activity in which they are involved.
- Summary of projects and R&D activities, i.e. the nature of the R&D, its classification in terms of fields of science, SIC, and supporting information such as R&D documentation and research outputs for the projects.
- R&D expenditure and which components of R&D activities are contracted out.
- Information on sources of funds for R&D activities, the nature of government grants received, and the personnel involved in the R&D projects.

The Income Tax Act requires that the information be presented in an aggregated and anonymous form. The Department makes certain that the tables and figures in the report do not unintentionally reveal the details of individual companies and their R&D activities.





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