PUTTING JOBS FIRST

Investing in productivity is investing in Québec.

QUÉBEC'S INDUSTRIAL POLICY 2013-2017

UN QUÉBEC POUR TOUS

Québec

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MESSAGE FROM THE MINISTER

The manufacturing sector is vital to the Québec economy. While it accounted for just 14.1% of Québec's gross domestic product in 2012, this figure does not convey its true importance. The sector is responsible for 88% of exports, over half of business spending in research and development and $5 billion in investment, and it is the driving force of economic vitality in many regions of the province.

If it adapts too slowly to developments in the global economy, however, the manufacturing sector that is so vital to our future will be left behind. Today's economy is one of globalized production and trade. Businesses are a part of international supply chains, advanced technologies play a key role and are creating a revolution in production methods, and the increased use of clean technologies and renewable energy is crucial.

Québec's manufacturing sector needs to make the shift. The time has come for us to make increased productivity a national economic priority by modernizing our businesses and greening our economy. The achievement of this priority involves major consequences: attracting and keeping a qualified work force, increasing exports, and being able to innovate, in other words, boosting to our competitiveness and quality of life.

Promoting green, modernized business while supporting the continued training of our work force: this is the only path to creating and maintaining quality jobs; this is how to put jobs first. Our Industrial Policy meets this challenge head-on by helping businesses integrate information and communications technologies, cutting-edge technologies and environmentally responsible modes of production; by turning today's most promising SMEs into tomorrow's success stories; by promoting the green qualities of our products; and by fostering innovation in our businesses so they can become the champions of tomorrow's technologies.

Our manufacturing sector has everything it needs to succeed: we have talent and creativity, a qualified work force, and proud and innovative entrepreneurs in all sectors and regions. The Industrial Policy relies on these strengths to take us even further, to join together in building a more productive and competitive economy, a more prosperous Québec, a Québec for all.

Sincerely,

Élaine Zakaïb

Minister for Industrial Policy
and the Banque de développement économique du Québec

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SUMMARY

The manufacturing sector is one of the keys to Québec's prosperity. It accounts for over a third of productivity gains in the Québec economy, over half of total business spending in research and development, and the vast majority of exports. The sector is up against significant challenges, however: globalization, the growing role of ICTs and automation in modes of production and environmental requirements.

The Québec manufacturing sector has traditionally been slow to address these challenges. Productivity is still too low compared to our main competitors, for two main reasons: we are not investing enough in equipment and materials, and our economy is mostly made up of small businesses, whose average productivity is lower than that of large businesses. In addition, the level of manufacturing exports needs to be redressed.

The government already provides major support to the manufacturing sector. Based on current credits, this support amounts to over $1 billion between 2013 and 2017. Under the new Industrial Policy, the government will add an additional $1 billion to this amount by 2017 to create the shift we need for the new economy. This amount is made up of:

— $461 million to modernize and green businesses

— $254 million for the emergence of new flagships, by feeding the growth of competitive and promising SMEs and supporting strategic sectors

— $328 million to support innovation, from concept to market

This amounts to a total of over $2 billion for the manufacturing sector in the coming years.

TABLE 1

Financial framework of Québec's Industrial Policy 2013-2017
(in millions of dollars)

		Additional funding 2013-2017			
	Current programs	Industrial policy/MFEQ	Other departments	Sub-total	Total
Priority 1: Green, modernized businesses	349.9	274.8	186.3	461.1	811.0
Priority 2: Emergence of new flagships	566.4	221.0	33.4	254.4	820.8
Priority 3: Innovation, frome concept to market	133.4	189.0	138.9	327.9	461.3
TOTAL	**1,049.7**	**684.8**	**358.6**	**1,043.4**	**2,093.1**

TABLE 2

Financial framework of Québec's Industrial Policy
(in millions of dollars)

	Current programs	Additional funding 2013–2017							Total current programs and additional funding
		Industrial policy/MFEQ					Other departments	Sub-total	
	2013–2017	**2013–2014**	**2014–2015**	**2015–2016**	**2016–2017**	**Sub–total**	**2013–2017**	**2013–2017**	**2013—2017**
Priority 1: Green, modernized businesses	349.9	11.0	56.8	102.1	104.9	274.8	186.3	461.1	**811.0**
Priority 2: Emergence of new flagships	566.4	17.1	59.7	66.7	77.5	221.0	33.4	254.4	**820.8**
Priority 3: Innovation, from concept to market	133.4	4.6	49.4	67.5	67.5	189.0	138.9	327.9	**461.3**
TOTAL	**1,049.7**	**32.7**	**165.9**	**236.3**	**249.9**	**684.8**	**358.6**	**1,043.4**	**2,093.1**

1. THE STATE OF THE MANUFACTURING SECTOR IN QUÉBEC AND THE NEED FOR A TRUE INDUSTRIAL POLICY

Since the birth of the first industrial revolution in England in the 18th century with the mechanization of the textile industry, the manufacturing sector has occupied an increasingly important role in advanced economies. In fact, the manufacturing sector was central to growth in industrialized countries over the last century following the second industrial revolution, which began in the United States with the advent of assembly lines and heralded the age of mass production. Québec is no exception.

The situation has changed recently, however. The manufacturing sector has seen a decline in most industrialized countries in the past two decades. This slowdown was exacerbated by the global economic recession of 2008 and 2009. But we cannot delude ourselves: restoring prosperity, in Québec like in other industrialized nations, requires more than simply recovering from the crisis and readopting our old familiar model. This model is now outdated.

We have entered the third industrial revolution. Around the world, governments are trying to adapt their country's economy to this emerging advent, which is fundamentally transforming the context in which our economy and our industry are evolving. We are currently experiencing a transition that has serious repercussions on production methods and economic competitiveness.

New information and communications technologies (ICTs) are omnipresent and make way for the emergence of innovative technologies and procedures related to robotization and automation, which are revolutionizing the way products are designed and manufactured.

Moreover, this revolution is further accentuated by globalization. Businesses are increasingly involved in supply chains and international production networks that they must make the most of. They are also faced with unrelenting international competition, where only the most productive, innovative and flexible come out on top.

Due to the advantages of low-cost labour in emerging countries and their growing middle class in relatively protectionist markets, several manufacturing businesses in industrialized countries have relocated production activities, particularly those with little value added, to these countries.

Nevertheless, there exists today a real opportunity to maintain, even increase, manufacturing activities, particularly those with significant value added, in industrialized countries. In fact, the convergence of many advanced technologies (intelligent software, advanced robots, additive manufacturing, etc.) that promote increased automation and the digitization of manufacturing reduce labour costs, facilitate the production of niche-market products and make offshoring less attractive. A certain relocation movement is beginning to develop. Moreover, the smart use of these technologies can permit the regionalization of certain types of value-added production.

In other respects, the unprecedented environmental challenges that are global warming and the inevitable depletion of reserves of fossil fuels and certain raw materials have made the transition to a green economy necessary.

To respond to the environmental challenges and the public's expectations, governments have adopted increasingly stringent environmental regulations. Additionally, many large businesses, keen to accommodate their customers' preferences and needs, are imposing similar requirements on their suppliers and subcontractors, and this trend is only going to grow in the years to come.

In the face of these new challenges, Québec manufacturing businesses must modernize their production equipment and processes and their business processes, and rely more on clean technologies and renewable energy sources. It is a necessity we cannot overlook—businesses in all sectors and across all regions must innovate and significantly increase their productivity while positioning themselves on the world stage with efficient marketing that highlights the environmental characteristics of their products, among other things.

Québec also has the opportunity to carve itself a prime place in certain niche markets related to clean technologies and renewable energy, such as electric transportation.

In this context, the government believes it is essential to adopt an industrial policy that will allow Québec to benefit, to the extent of its aspirations and capacities, from this new model of economic growth rooted in continuous innovation and sustainable development.

1.1 A key sector for Québec's prosperity

Like Québec, all of the main industrialized countries have seen the influence of their manufacturing sector decrease over the past 25 years. Manufacturing accounted for a 14.1% share of Québec's GDP in 2012,[1] which was still higher than in Ontario (13.3%), in Canada (10.9%) and in United States (12.4%) during the same period.[2]

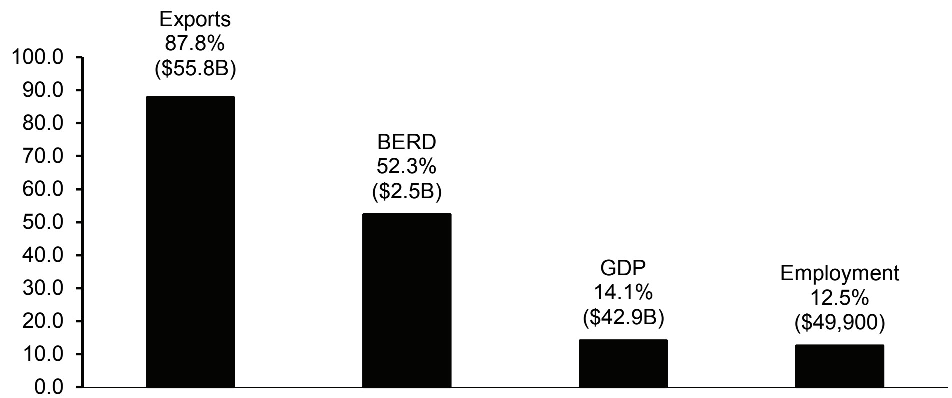
Despite this decline, manufacturing businesses in Québec continue to play a vital role in the economy.

1 As methodological changes have recently been made to the way GDP is calculated by Statistics Canada, figures predating 2007 are not directly comparable to the one indicated here from 2012. A significant downward trend is nevertheless apparent when looking at the track following the old methodology. Using the previous method, manufacturing's share of the GDP was 23.6% in 2000 and 16% in 2011.

2 Sources: Statistics Canada and the U.S. Bureau of Economic Analysis.

GRAPH 1

Relevance of the manufacturing sector by component of Québec's economy
(as a percentage of the total for each component)



Notes: BERD: Business enterprise intramural expenditure on R&D, 2010 (perspectives).
GDP: real GDP for 2012, expressed in 2007 dollars.
Sources: Institut de la statistique du Québec and Statistics Canada. Tabulated by the Ministère des Finances et de l'Économie.

In 2012, the manufacturing sector was also responsible for:

— 88% of exports. Nearly 40% of manufacturing production in the province was exported.

— 14.1% of economic activity, as measured by the GDP. Manufacturing is the second most important sector, after the public sector.

— Hiring 1 in 8 workers, whose average weekly pay was about 14% higher than the economic average

— More than 50% of total expenditures on research and development (R&D) by businesses (BERD) in 2010[3]

— A total of $5 billion in investments, three quarters of which were in machines and equipment

— The economic liveliness of several regions in Québec

[3] Latest year available.

1.2 A sector with flagging vital signs

While the manufacturing sector remains an essential component of Québec's economy, it must contend with productivity that is still too low, insufficient investment and exports needing to be redressed.

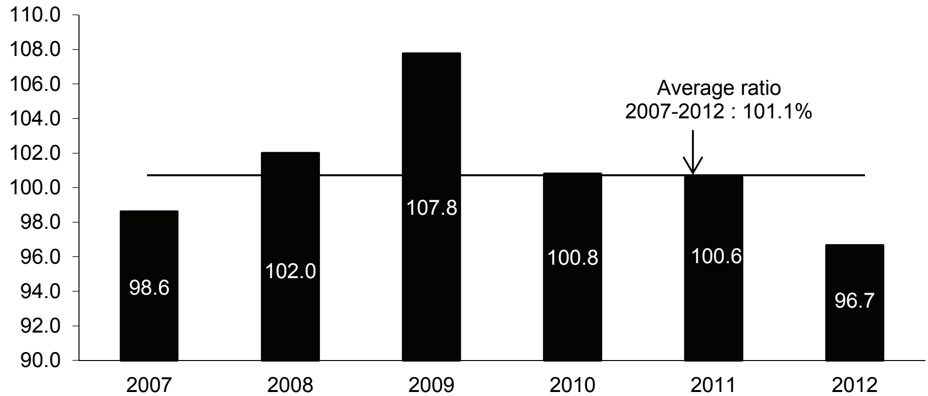
1.2.1 Productivity still too low

While Québec has recorded progress on the productivity front, it lags in the manufacturing sector compared to its main trade partners.

In 2012, manufacturing productivity in Québec sat at 96.7% of that in Ontario. Between 2007 and 2011, the manufacturing sector in Québec made great strides and caught up to Ontario. It must be mentioned, however, that this catch-up occurred during a time of major restructuring in the automotive industry in Ontario, and seems to have been only temporary.

GRAPH 2

Québec/Ontario labour productivity ratio(1) in the manufacturing sector
(as a percentage)



(1) GDP per hour worked in the manufacturing sector.
Sources : Statistics Canada. Tabulated by the Ministère des Finances et de l'Économie.

Several factors explain this situation, including the structure of our manufacturing industry. Following the example of the other areas of activity, it is mainly composed of SMEs; nearly 95% of active producing establishments in this sector belong to businesses with less than 200 employees. SMEs, particularly small businesses, generally have limited means and resources, are less productive on average, export less and have less growth-generating impacts on the industrial structure (less suppliers, subcontractors, etc.). As such, all SMEs in the manufacturing sector generate only about a third of all manufacturing value added produced in Québec.[4]

[4] Source: Statistics Canada, Annual Survey of Manufactures and Logging (ASML). Tabulated by the Institut de la statistique du Québec, Service des statistiques sectorielles et du développement durable.

According to many experts, Québec's economy lacks a critical mass of businesses with 100–500 employees. Currently, these businesses represent only 4% of all businesses in Québec.

1.2.2 Insufficient investment in machines and equipment

Another important factor that explains why productivity is low in our manufacturing sector is insufficient investment in machines and equipment.

Québec businesses have not made use of the strong Canadian dollar to invest more in modernizing their equipment or plants, or acquiring better-performing equipment. Despite the appreciation of the dollar, investments in machines and equipment in the manufacturing sector have fallen 30% since their peak in 2000. That year, investments totalled more than $5.3 billion and represented nearly 19% of all non-residential investments. In 2012, they represented only 8%, totalling approximately $3.7 billion. Furthermore, non-residential investments in Québec represented only 17% of all such investments in Canada.

Among these investments in machines and equipment, those promoting greater use and better integration of ICTs in logistics as well as business and manufacturing processes are among the most crucial for competitiveness. In this area, Québec is considerably behind the rest of Canada and other countries in the Organization for Economic Co-Operation and Development (OECD).[5]

The situation is of equal concern when it comes to automation. According to a 2011 study jointly conducted by the Centre de recherche industrielle du Québec (CRIQ) and the Centre de robotique et de vision industrielles (CRVI) among 501 manufacturing businesses,[6] Québec is considerably behind in all areas of automation and computerization.

1.2.3 Exports needing to be redressed

One of the trends having the greatest impact on the competitiveness of Québec's manufacturing sector is without a doubt the increasing strength of the Canadian dollar. Between 2000 and 2012, the Canadian dollar appreciated 48.6% compared to its U.S. counterpart.

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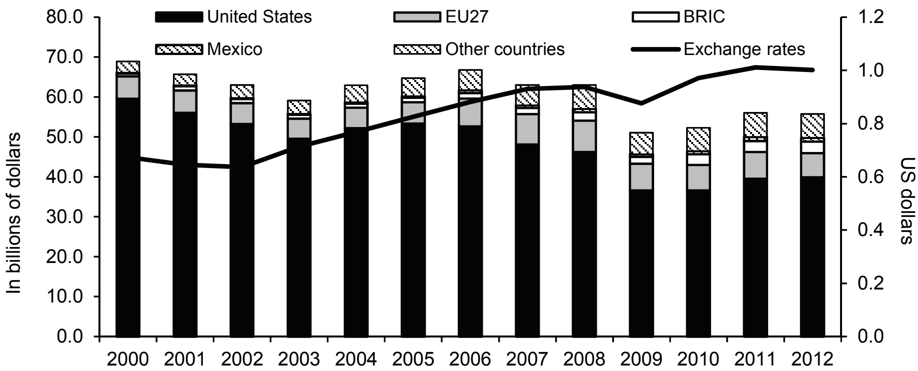
5 Centre for Productivity and Prosperity, *Productivité et technologies de l'information,* HEC Montréal, September 2009.

6 Centre de recherche industrielle du Québec (CRIQ) and Centre de robotique et de vision industrielles (CRVI), *Résultat de l'enquête sur l'utilisation des technologies robotiques des manufacturiers québécois*, September 2011.

The high value of the Canadian dollar and especially its swift increases were particularly felt in terms of exports of Québec products. For example, Québec manufacturing exports to the United States fell 33% from their peak in 2000. This decrease in our main market was only partially offset by increases observed in other markets. Most analysts predict that in the next decade, at least half of global economic growth will come from so-called emerging countries.

GRAPH 3

Variation in Québec's manufacturing exports by destination, 2000–2012



Sources : Institut de la statistique du Québec. Tabulated by the Ministère des Finances et de l'Économie.

Despite efforts to diversify, particularly to China, Brazil and India, the American market remains by far our primary export market. The recession of 2008 and 2009, coupled with the strength of the Canadian dollar, seriously affected our performance in that market. And the effects are still being felt, as the American economy is slow to recover from that recession; and it's even more the case for the European economy, our second most important export market.

The plunge in manufacturing exports since 2000 has led to a decline in the overall trade balance. This figure, which was a surplus at the beginning of the decade, has continued to shrink. In 2012, there was a deficit of $27.5 billion.

1.3 A sector with considerable assets

Despite the problems it faces, our manufacturing sector does have considerable assets.

1.3.1 An abundant, competitive and sustainable energy supply

The low cost of energy in Québec, and its abundance, cleanliness and renewability are assets for Québec's industry. These assets can also be used to attract major foreign investments in targeted sectors, particularly if we take into account that Québec has large electricity surpluses for many years to come.

In the energy transition that is developing on a global scale, we hold the master card in the development of the electric network. We must play this card to improve the quality of life of Quebecers, particularly in terms of transportation modes, but also to design new exportable technologies and promote Québec products with a low carbon footprint.

1.3.2 A significant store of natural resources

We have considerable natural resources, the vast majority of which are exported without being processed. Undeniable potential exists for second- and third-stage processing industries, particularly when we take into account our energy supply assets.

1.3.3 A network of high-calibre universities and colleges

Research being conducted at universities in Québec is recognized around the world. Its excellence is a pillar for innovation in Québec. In many fields, however, the shift from basic research to industrial innovation leaves much to be desired despite major efforts from numerous organizations, including college centres for technology transfer.

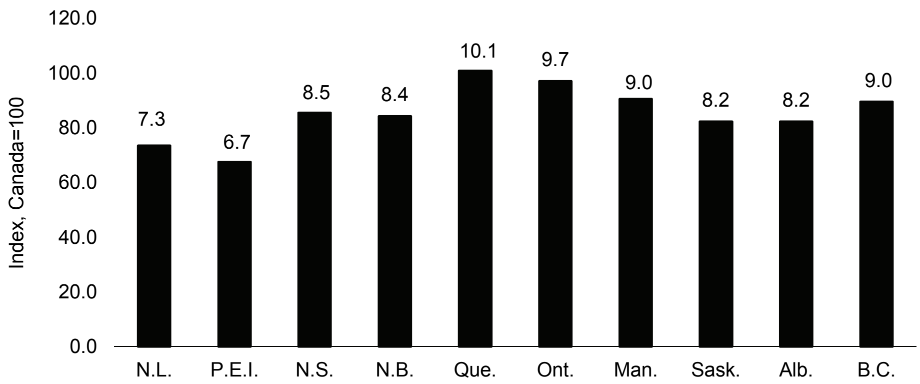
The National Research and Innovation Policy recommends specific actions in this area, which will contribute to achieving the objectives of the Industrial Policy.

1.3.4 A diversified and resilient industrial structure

Québec's industrial structure is more diversified than that of the rest of Canada.

GRAPH 4

Industrial diversity index(1) by province, 2012



(1) Index that takes into account the number of industries present in a province and the uniformity of distribution of jobs across these industries.
Sources : Tabulated by the Ministère des Finances et de l'Économie from Statistics Canada's Business Register.

The diversity of Québec's industrial structure has enabled the province's economy to better weather the recession of 2008–2009, and it must be preserved.

1.3.5 Well-established strategic sectors

The expansion of strategic sectors like aeronautics, life sciences, ICTs and clean technologies contributes to Québec's global economic reach. Even though there are relatively few of them, major contract givers have the potential to consolidate their sector by reinforcing supply chains and contributing to improving the performance of their suppliers. In 2012, 44% of businesses that participated in Sous-traitance Industrielle Québec's (STIQ's) Baromètre industriel reported that at least 25% of their sales were to major contract givers, compared to 36% in 2011.[7]

[7] Sous-traitance Industrielle Québec, *Baromètre industriel 2012*, 2012.

1.3.6 Significant regional mobilization of industry players

Regional mobilization of industry players through industrial clusters and ACCORD niches of excellence as well as the network of local development centres, contributes to growth in many sectors and regions in Québec by promoting the development of an innovation and collaboration ecosystem and increasing productivity.

Québec has eight industrial clusters concentrated mainly in the Greater Montréal area, as well as 38 niches and one hub of excellence located throughout the regions.

1.3.7 A qualified labour force

Despite very real problems with matching training to employment needs and the threat of a labour shortage resulting from a decrease in demographic, Québec is not starting from scratch. It has a qualified labour force,[8] which represents a considerable potential pool of qualified labour for businesses. This pool includes older, more experienced workers who, with some refresher training, can certainly continue to contribute to the prosperity of Québec's economy.

[8] In 2009, the proportion of Québec's population aged 25-64 years old having a university degree exceeded that of many OECD countries like France, Spain and Germany. Taking only men of the same age into account, Québec's proportion was also superior to that of Finland and Sweden.

2. CLEAR, GROWTH-ORIENTED OBJECTIVES

The Industrial Policy contributes to the achievement of the ambitious objectives that the government has set in its Economic Policy. The defined targets are intended to make the following possible:

- Increase growth in labour productivity in order to exceed the Canadian average
- Greater business investment in machines and materials per worker in order to exceed the Canadian average
- Investment in research and development of more than 3% of GDP
- Exports exceeding 55% of GDP

3. TOWARDS A MORE COMPETITIVE MANUFACTURING INDUSTRY IN QUÉBEC

In order to rise to the challenges of the manufacturing sector and achieve the objectives we have set, it is essential to focus on increased investment in modernizing the means and processes of production, strengthening our industrial structure and stepping up innovation and commercialization of new products. Small businesses will no doubt continue to be one of the Québec manufacturing sector's strong suits, but it will still be necessary to foster growth among the most promising small businesses; having a significant number of medium businesses has far reaching effects, especially on productivity.

We must encourage the design, manufacturing and use of clean products and technologies. In addition, we must increase and publicize the green qualities of all Québec manufacturing; this must become one of the main trademarks of the Québec economy. Finally, we must act to revitalize and even increase our pool of entrepreneurs and ensure that they have the financial support they need to start up businesses all across Québec.

The Banque de développement économique du Québec would be the ideal tool for accomplishing these aims. By bringing together the expertise and effort of Investissement Québec (IQ) and the regional branches of the MFEQ in a single organization, the Banque would ensure the effectiveness and consistency needed to offer personalized coaching for businesses all over Québec, especially our SMEs, as they strive to be more competitive.

Given that the Banque de développement économique du Québec has not yet been created, the government took steps to consolidate the work of IQ, the regional and sectoral experts of the MFEQ and local development centres to increase synergy and encourage the growth of manufacturing businesses in all regions of the province.

The government uses its Economic Policy in general and its Industrial Policy in particular to take major steps for economic development and competitiveness in Québec. The Industrial Policy is reinforced by other government policies and strategies: the Transportation Electrification Strategy, the National Research and Innovation Policy and the External Trade Development Plan. The initiatives of the Industrial Policy in turn support the objectives of these other government initiatives.

3.1 Major financial support from the government

The government already provides major support to the manufacturing sector. Based on current credits, this support amounts to over $1 billion between 2013 and 2017.

The Economic Policy, published on October 7, 2013, announced fiscal measures of $205 million. The purpose of these measures is to encourage productive investment of manufacturing SMEs, in addition to a lower threshold of eligibility for investments to obtain the tax holiday for major projects, at a cost of $2 million for the government.

Under the Industrial Policy, the government will put up an additional $478 million for the Québec manufacturing sector by 2017.

In addition to these measures, a new fund will be created and capitalized at $50 million. The fund will assist in business start-up through venture capital, as announced in the 2013–2014 Budget Speech.

Other than their more indirect effects, the National Research and Innovation Policy and the External Trade Development Plan will support $172 million worth of initiatives that will directly strengthen the Québec manufacturing sector. The Ministère des Ressources naturelles will put an additional $186 million towards energy efficiency in businesses.

This adds up to over $1 billion in extra government funding to support the manufacturing sector by 2017, for a total of over $2 billion.

All these actions will increase the productivity and competitiveness of the Québec manufacturing sector, thus contributing to a more prosperous Québec for all.

TABLE 3

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(in millions of dollars)

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TOTAL	**1,049.7**	**684.8**	**358.6**	**1,043.4**	**2,093.1**

3.2 An advisory committee of industry partners

In order to keep abreast of the status, concerns and priorities of the Québec manufacturing sector, the government will put in place an advisory committee of industry partners. The committee will include manufacturers' associations, union representatives, representatives from research centres as well as representatives from IQ and the MFEQ. It will be chaired by the Minister for Industrial Policy and the Banque de développement économique du Québec.

4. Priority 1 – Green, modernized businesses

❑ Automation and ICTs are key to competitiveness

The Québec economy is up against increasingly strong international competition. If it is to improve its standing in world markets, the Québec manufacturing industry must produce goods at more competitive prices, meet consumers' expectations and adopt clean technologies.

In a context where ICTs are used more and more in manufacturing, not to mention the use of automation and advanced manufacturing technologies, our future prosperity will depend on the speed with which our businesses adopt new technologies and maximize their potential.

Much is at stake: reduced operating and energy costs, innovation in product design and production, greater access to major contract givers, greater ability to attract and retain a qualified work force and increased productivity.

Ultimately, focusing on modernizing our businesses is the only way to create and keep quality jobs. All countries that have recently adopted industrial policies or their equivalent have modernization through ICTs and automation at the core of their new policy. Québec should be no exception.

In addition, Québec is in a good position to benefit from the worldwide trend towards a green economy. To begin with, 97% of our electricity needs are already met by renewable energy, the vast majority in the form of hydroelectricity. This means our products have a relatively small carbon footprint from the start. On top of this, if we add the greening of manufacturing technologies used by our businesses, the sustainability of our production methods could be recognized worldwide. The way to achieve this is to promote green manufacturing through standards and certification. We have already seen progress in this area with the launch of a project to create a Québec carbon footprint certification.

Despite these strides, however, our manufacturing sector is still significantly behind in terms of adopting and effectively using advanced and clean technologies. The time has come for modernization and green business to become Québec-wide economic priorities.

To this end, the government will put up an additional $461 million by 2017, including $205 million in tax credits.

4.1 Major support for investment in advanced technologies, from diagnosis to process optimization

Increased productivity in the Québec manufacturing industry will be achieved through automation and robotization of manufacturing processes. With this in mind, the Québec government already offers businesses a tax credit of 10 to 40% for investments depending on the region. IQ already has $278 million in credit available for 2013–2017 through the ESSOR program; this is slated for loans to businesses, including for cooperatives and social economy enterprises, with a planned investment of at least $250,000 (including modernization of processes and equipment).

Also, increased productivity in manufacturing SMEs is achieved through greater integration of ICTs in logistics and business processes. Because it is so important to support SMEs in this process, the government is making $6 million available through a pilot program called PME 2.0. Under PME 2.0, the CEFRIO has been contracted to work closely with 30 SMEs in the fashion and aerospace sectors to integrate ICTs, in order to draw lessons that could benefit manufacturing SMEs in all sectors.

To increase investment in the manufacturing sector, thereby increasing productivity, the government will implement two temporary increases in the Tax Credit for Investment (CII) for manufacturing SMEs with less than $20 million in paid-up capital. For investments made before the end of 2017, these SMEs will benefit from a 10-percentage-point increase in the CII. In addition, eligible investments will be expanded to include purchases of computer equipment for production and investments in building construction or renovation, up to certain amounts for total expenses.

Also, in order to encourage manufacturing SMEs to integrate high-value software into their business processes, the government will create a 25% tax credit that applies to expenses involved in acquiring and installing a management software package or contract for usage of such software via cloud computing. The new credit, which will be available to manufacturing SMEs with less than $20 million in paid-up capital, will also cover service contracts for software integration and optimization by a specialized company.

The total value of these additional tax credits amounts to $205 million, which complements the financial assistance offered by IQ through the ESSOR program.

However, investing in ICTs and other advanced technologies need not be limited to simply acquiring equipment or technology; ideally, it involves an integrated approach that includes diagnosing the business's problems and needs, finding solutions, developing a plan, choosing a technological architecture and a provider, purchasing the selected equipment and technologies, implementing them (e.g., training workers or reorganizing work processes) and even optimizing business strategies (marketing, etc.) based on the newly implemented technologies.

SMEs that encounter specific problems with ICTs or production technologies can approach their regional MFEQ branch. The branch will be able to quickly refer them to expert advisors who will study the situation and recommend a course of action.

Through grants, regional branches will cover up to 50% of the cost of these expert advisors for services including diagnosis, developing a plan and choosing a technological architecture. These regional branches will also serve as the entry point for SMEs that have modernized their management- and production-related equipment and processes and that wish to optimize their business strategies in line with the implemented technologies. A grant to cover up to 25% of consulting fees will be available.

The government will dedicate $24 million to supporting SMEs before and after their investments.

Finally, the government will inject $6 million to extend the PME 2.0 program to 60 additional manufacturing SMEs, including 10 in the area of electric transportation.

Expected outcomes:

— 4,000 SMEs benefiting from the new tax credits

— Support for 1,500 SMEs before and after investment

A job mobilization strategy

Training and coaching workers is complementary to private investment. In fact, we must invest in training to update workers' knowledge so as to optimize the return on investment. Moreover, we must also ensure that Québec businesses have a pool of workers to draw on to meet their needs.

So that all Quebecers may participate in Québec's prosperity, the mobilization strategy **Tous pour l'emploi: une impulsion nouvelle avec les partenaires** was launched February 8, 2013.

With this concerted strategy, the government is taking on the challenge of acting on several fronts to give the job market new momentum, helping employers as they strive to adapt to the new job market realities and supporting workers in seeking work and getting training.

Within the framework of **Tous pour l'emploi**, the government has set out measures to foster the inclusion of people from groups that are underrepresented in the labour market.

Again as part of **Tous pour l'emploi**, the Commission des partenaires du marché du travail (CPMT) strives to develop workforce competencies so as to help make businesses more competitive by supporting workforce training.

In 2013–2014, more than $1 billion will be invested in the **Tous pour l'emploi : une impulsion nouvelle avec les partenaires** mobilization strategy, including:

- $880 million in Emploi Québec services and programs
- $170 million from businesses in consideration of Emploi Québec grants
- $77 million from the CPMT

4.2 A new centre of excellence in advanced manufacturing technologies

To meet the challenge of increasing productivity and greening the economy, manufacturing businesses must shift towards the digital economy and automation. This involves promoting new manufacturing technologies and, if necessary, adapting them to the realities of the manufacturing sector, especially in SMEs.

To this end, the government will support the creation of a centre of excellence in manufacturing innovation.

■ The Centre d'excellence en innovation manufacturière

The École de technologie supérieure (ETS), in collaboration with McGill University, college centres of technology transfer and with Manufacturiers et exportateurs du Québec, answered a federal government call for proposals in summer 2013 as part of the Centres of Excellence for Commercialization and Research (CECR) program. The ETS and its partners proposed the creation of a centre of excellence in manufacturing innovation. The purpose of the Centre will be to increase the use of advanced technologies and processes in the manufacturing sector by making available, at competitive rates, qualified staff and specialized equipment to support businesses in choosing technologies and in demonstrating innovative products and technologies. Other objectives of the Centre will be to develop strategic capacities and to promote new national and international business partnerships. To do so, the Centre is hoping for a contribution of venture capital. The directors will mostly be recognized industry players.

The Centre will focus its efforts on sectors that are strategic for Québec and that leverage existing strengths, specifically transportation, energy, medical equipment and biomaterials. This will complement the actions of the Centre de recherche industrielle du Québec (CRIQ), which offers specialized services for businesses in a variety of strategic fields, including green technology, forestry products and agri-food. In addition, the Centre will collaborate with the Bureau de normalisation du Québec (BNQ), which comes under the CRIQ, to implement standards for new technologies in order to help guide businesses in their choice of technologies.

The Québec government proposes to give the Centre $30 million, to which the federal government could add $15 million, as part of the proposal made under the CECR program. These funds will go to hire qualified staff, supplement the available equipment and, by 2020, to support close to a thousand Québec SMEs in choosing and integrating advanced technologies.

Expected outcome:

— 500 projects to integrate advanced technologies in SMEs by 2017 (1,000 by 2020)

4.3 A new program dedicated to environmental performance in businesses

The Ministère des Ressources naturelles will launch a new program, ÉcoPerformance, designed for businesses wishing to reduce their energy consumption and improve their environmental record. For projects to be eligible, they must maximize the reduction of greenhouse gas (GHG) emissions per dollar of financial assistance.

ÉcoPerformance will provide financial support of up to 50% of eligible expenses for research and development, demonstration, precommercialization and dissemination of emerging technologies to improve energy efficiency, as well as for analysis of GHG emission reduction potential in businesses. ÉcoPerformance will also provide financial assistance of up to 75% of eligible expenses for projects to implement energy efficiency measures.

The government will allocate $186 million to this program by 2017.

4.4 Fostering of environmentally responsible business practices and acquisition of recognized green certification

There are many environmental standards and certifications that vary in credibility and value, which makes consumers and industrial purchasers wary.

In general, businesses (especially SMEs) are not experts in environmentally responsible practices, nor do they have the ability to advertise the environmental characteristics of their products. Also, the most innovative producers, which often hold credible certifications, deplore the fact that business claims and green marketing are not better regulated and controlled in Québec.

The MFEQ has partnered with the Interuniversity Research Centre for the Life Cycle of Products, Processes and Services and the BNQ to run a pilot project to certify the carbon footprint of Québec products. The aim of this project is to determine the best practices with respect to carbon footprint certification and develop the necessary skills and expertise to implement it Québec-wide.

The government will invest $6 million to:

- Continue with the “Empreinte carbone” experimental pilot project and potentially allow the BNQ to develop a proven method for certifying the carbon footprint of our products
- Document and assess other green standards and certifications in order to select the best ones
- Inform consumers and businesses about the selected standards and certifications
- Provide financial assistance to SMEs that comply with the recognized certification criteria so that they can obtain certification
- Promote the most effective environmentally responsible practices and encourage businesses to adopt them

If necessary, businesses will be able to modify their production processes to come into compliance with these standards by means of the aforementioned increase for SMEs in the tax credit for production equipment, and by means of financial assistance available through the ESSOR and ÉcoPerformance programs.

Expected outcomes:

- A majority of consumers informed of government-recognized certifications
- A majority of manufacturing businesses aware of environmental best practices
- 50 businesses on their way to obtaining government-recognized green certification

4.5 Integration of sustainable development requirements into calls for proposals by public bodies

The *Act respecting contracting by public bodies* (R.S.Q. chapter C-65.1) states that the conditions under which contracts are awarded are intended to promote “the use of effective and efficient contracting procedures, including careful, thorough evaluation of procurement requirements that reflects the Government's sustainable development and environmental policies”. Yet, a very small percentage of calls for proposals by public bodies include these requirements.

In order to increase their purchasing of environmentally responsible products and services, public bodies will be required to put in place environmentally responsible purchasing practices starting in the 2014–2015 fiscal year. Beyond just the cost of purchasing, these practices could take into account the costs involved with installation, operation, energy consumption, maintenance and disposal at the end of the product’s useful life.

The government will contribute nearly $4 million to help public bodies implement such purchasing practices and raise awareness in the business community.

Expected outcome:

- Double the percentage of calls for proposals from public and parapublic bodies with environmentally responsible purchasing practices

4.6 Applying the principle of ecoconditionality in government-run financial assistance programs for businesses

The government will progressively review its procedures for granting financial assistance to businesses in order to favour those with environmentally responsible means of production and management and those taking steps in this direction (e.g., by purchasing equipment or implementing processes that have a better environmental performance). The approach and the criteria will be adapted to each of the financial assistance programs while ensuring the consistency of approaches used in all departments and bodies.

The government will invest $0.5 million to assist public bodies in this endeavour.

Expected result:

— 100% of programs reviewed by April 2017

TABLE 4

Financial framework of Québec's Industrial Policy – Green, modernized businesses (Priority 1)

(in millions of dollars)

	Current programs	Additional funding 2013-2017							Total current programs and additional funding
		Industrial policy/MFEQ					Other departments	Sub-total	
	2013–2017	2013–2014	2014–2015	2015–2016	2016–2017	Sub-total	2013–2017	2013–2017	2013–2017
Major support for investing in advanced technologies									
Tax credits	—	6.7	39.9	77.3	80.9	204.8	—	204.8	204.8
Support program	277.6[1]	4.0	6.0	7.0	7.0	24.0	—	24.0	301.6
PME 2.0	4.7	—	2.0	2.0	2.0	6.0	—	6.0	10.7
Centre d'excellence en technologies manufacturières de pointe	67.6	—	6.5	11.5	12.0	30.0	—	30.0	97.6
ÉcoPerformance program	—	—	—	—	—	—	186.3[2]	186.3	186.3
Fostering of environmentally responsible practices and green certification	—	0.3	0.7	2.0	3.0	6.0	—	6.0	6.0
Integration of sustainable development requirements into calls for proposals by public bodies	—	—	1.5	2.0	—	3.5	—	3.5	3.5
Principle of ecoconditionality in government financial assistance programs	—	—	0.2	0.3	—	0.5	—	0.5	0.5
TOTAL	**349.9**	**11.0**	**56.8**	**102.1**	**104.9**	**274.8**	**186.3**	**461.1**	**811.0**

(1) Current credits in the ESSOR program.
(2) Ministère des Ressources naturelles.

5. PRIORITY 2 – EMERGENCE OF NEW FLAGSHIPS

❑ Supporting growth for strong and promising SMEs

The diversity of its industrial fabric is one of the factors that have allowed Québec to survive the Great Recession of 2008-2009 much better than other economies. This diversity is reflected in industrial clusters and ACCORD niches of excellence, which can be found in all regions, and it must be maintained and strengthened.

One of the main advantages of Québec's manufacturing sector is the presence of several major contract givers at the head of supply chains for strategic sectors of our economy. These supply chains must be consolidated. There are many dynamic and promising SMEs across Québec that, with the right amount of support, could come to reinforce the weaker links on the chain while increasing their own sales.

Moreover, Québec's economy lacks medium-sized manufacturing businesses capable of energizing the industrial fabric. At the moment, businesses with 100 to 500 employees make up only 4% of manufacturing businesses. It is therefore important to promote the development of medium-sized businesses that will become our flagships in the future.

We also need to focus on our comparative advantages to promote the development of tomorrow's sectors, thereby paving the way for the emergence of businesses that will be world leaders in these key sectors, particularly in the electrification of transportation.

To attain these goals, we must also be ready to overcome the significant challenges posed by the retiring of thousands of entrepreneurs over the coming years and the lack of support for business start-ups that we see in some industrial sectors and in certain regions.

The government intends to spend an additional $254 million to strengthen our strategic sectors in each region: to support our promising SMEs so they can become key economic players; to encourage the development of tomorrow's key sectors such as transportation electrification, which have the potential to produce global business leaders; and to support entrepreneurship and the start-up of new businesses.

5.1 Increased financial support for growth-generating projects in industrial clusters and ACCORD niches of excellence, and creation of three new clusters

The government currently provides $10 million in funding per year for existing clusters and ACCORD niches. This funding will be increased, with support for the creation of three new clusters in electricity, industrial design and fashion. The government will inject an additional $22 million for niches and $18 million for clusters.

The majority of this additional funding will be used to carry out growth-generating projects proposed by clusters or groups of clusters, and by niches or groups of niches.

Expected outcomes:

- Creation of 3 new clusters
- 40 growth-generating projects

5.2 A personalized approach for promising small businesses, in order to create new flagships

Small businesses make up the majority of Québec's manufacturing sector. This has significant effects on Québec's industrial fabric, which has not reached its full potential in terms of productivity, innovation, growth and exports. These effects are felt on Québec's economy as a whole, and also at the level of regional economies.

The government therefore proposes to implement regional action plans and to mandate expert bodies to provide specialized support to the most promising small businesses, with the goal of creating new flagships in each region and, within 10 years, 20 new businesses with $200 million in sales.

■ Regional business action plans

The MFEQ and IQ, through their regional offices, and the Association des centres locaux de développement du Québec have agreed to pool their resources and build on the resulting synergies to develop and implement regional business action plans. These plans will incorporate three elements:

- A portrait of regional economic vitality, which will describe the strengths, weaknesses and growth potential for each region, with particular focus on its niches or clusters. A map of the supply chain will be made for around 20 of these niches or clusters.
- Selection of promising businesses ("gazelles") from the region based on a number of precise criteria, such as belonging to an industrial cluster, an ACCORD niche or a strategic emerging sector, such as electric vehicles, and the potential to fill a gap in a strategic supply chain. Each promising business will be assigned a project manager to assist them throughout the process.
- An integrated offer from these three organizations for the businesses selected. This offer, for each business, will consist of making a diagnosis, developing an action plan that includes determining the financial assistance best suited to its needs, and supporting it in implementing this plan, with the assistance of other departments or bodies where appropriate (for example, the Ministère de l'Agriculture, des Pêcheries et de l'Alimentation du Québec (MAPAQ) and Export Québec).

The government will allocate an additional $30 million for this process.

Expected outcomes:

- 20 maps of established supply chains
- 300 businesses supported under the regional action plans

- An average increase in sales of 20% over five years for businesses that have completed the process
- 6 businesses reaching $200 million in sales by 2017 (20 after 10 years)

Specialized support from expert bodies

Several of the businesses selected for the regional action plans will be given specialized support, according to their needs, as will promising businesses in emerging sectors such as transportation electrification. Other forms of support will be aimed at a broader range of SMEs.

For this purpose, the MFEQ will partner with associations and expert bodies that offer diverse and complementary services, for example:

- **The Institut de développement de produits** may provide support to a few hundred SMEs, by:
  - Helping them integrate best business practices in the area of product development
  - Encouraging them to choose products to manufacture that have the highest value for export markets, and to integrate performance criteria for these markets starting from the product design stage
  - Determining their industrial needs with regard to technology, and supporting the implementation and management of their research and innovation projects
  - Supporting them in their efforts to reduce their products' environmental impact through eco-design
- **Manufacturiers et exportateurs du Québec** will support managers of manufacturing businesses, through the Programme compétitivité et développement durable, in an approach aiming to help these businesses integrate sustainable development into their business strategy and implement strategic continuous improvement projects that will promote an increase in their exports over three years:
  - By facilitating networking activities and opportunities for the transfer of knowledge among a greater number of manufacturing businesses
  - By providing a toolkit covering the business's various activities from a sustainable development perspective (continuous improvement, responsible procurement, energy efficiency, etc.)
  - Through support and training conducted or coordinated by Manufacturiers et exportateurs du Québec
- **The new Centre d'excellence en innovation manufacturière, the Institut du transport électrique or the Centre de recherche industrielle du Québec**, as appropriate, will assist businesses that require guidance in choosing and integrating advanced technologies and support for their demonstrations of innovative products and technologies.

- **The Croissance Québec Techno program** will provide 50 businesses with focused training and highly personalized support from successful Québec entrepreneurs, supplemented by a week of intensive training offered by the Massachusetts Institute of Technology in the presence of entrepreneurs from other countries.

- **Export Québec** will cooperate with the MFEQ so that the most promising businesses will be the subject of a targeted offensive on export markets

The government plans to devote $34 million to these specialized support measures, $8 million of which will be taken from the External Trade Development Plan.

Expected outcomes:

- An average increase of 10% per year in the number of businesses supported by expert bodies

- An average increase in sales of 10% per year over five years for businesses that have received support

5.3 Measures for supporting the integration of SMEs in strategic supply chains

Most established or emerging strategic sectors have missing links: they lack suppliers located in Québec. In addition to supply chain mapping for industrial clusters and niches of excellence as part of regional business action plans, the government will support the mapping of supply chains in emerging sectors, particularly electric transportation, to determine the gaps and find which SMEs in Québec could potentially fill them.

Following the example of Aéro Montréal's MACH initiative, actions will be undertaken to adapt targeted SMEs' offerings to the needs of major private and public contract givers. This entails a reciprocal commitment from contract givers and targeted SMEs within the context of an evaluation, training and support process for these SMEs. According to the selected priorities for action, external experts will be mandated to work with each SME on specific improvement projects.

With this in mind, the government will extend and improve its support to Sous traitance Industrielle du Québec (STIQ), which is committed to this type of process. In addition to aeronautics, STIQ will focus on the energy and electric transportation sectors, and on the resources sector (aluminum processing, for example). STIQ will organize visits between members of Québec and foreign SME alliances, notably French alliances, among its other additional activities.

In addition, in a number of sectors where markets are more global than national, development of Québec expertise must involve the progressive integration of our businesses in established global supply chains. For example, Québec has increasing expertise in the manufacture of components for electric vehicles. To support this new sector, it must enter the global chain of electric vehicle manufacturers so it can maximize its potential.

Under the External Trade Development Plan, export support for strategic sectors from Export Québec and the network of Québec delegations abroad will increasingly focus on establishing sustainable links between Québec suppliers and foreign contract givers, particularly multinational corporations.

In addition, Export Québec will partner with major contract givers that are established in Québec and active on export markets so that they support businesses in their sector through actions that will help open their network outside Québec.

Finally, the MFEQ will subsidize part of the costs for studies on the feasibility and relevance of grouping SMEs for sharing infrastructure, equipment and human resources in order to strengthen their competitiveness and bolster their position in Québec and foreign supply chains.

The government plans to commit $16 million over four years to various measures aimed at a better integration of SMEs in strategic supply chains, $1 million of which will be under the External Trade Development Plan.

Expected outcomes:

— 200 SMEs engaged with contract givers in a process of integration into a chain

— 100 visits per year between members of Québec and foreign SME alliances

5.4 The Institut du transport électrique: a centre of excellence for industrial research and innovation

In connection with the Transportation Electrification Strategy, the government will invest $35 million in creating the Institut du transport électrique, including $15 million in additional credits.[9]

Using a multidisciplinary approach, the Institut's mission will be to find solutions to the challenges of integrating the technology needed for electric vehicles, including both light vehicles and heavy vehicles (vehicles used in public transit, for example).

It will be associated with the Institut de recherche d'Hydro-Québec (IREQ), which is recognized as a world leader in research in the field of electricity production, transmission and storage.

Equipped with an experienced team, the Institut will also draw on the current expertise, equipment and technology of IREQ and other organizations, and will have complementary cutting-edge equipment at its disposal.

The Institut will have the following mandates:

— To advise the government on research and innovation direction and priorities in electric transportation

[9] Of this amount, $4 million will be allocated under the National Research and Innovation Policy. The Ministère de l'Enseignement supérieur, de la Recherche, de la Science et de la Technologie will also provide $20 million from its regular programs.

- To unite research teams and businesses for future projects in various areas related to the electrification of transportation: batteries, electric motors, smart grids, design, light materials, etc.
- To create technological bridges between businesses or institutions that are active in the sectors of ICTs and advanced manufacturing equipment and technologies and their transportation counterparts
- To establish links with similar foreign research centres
- To offer consultation, design, prototyping and field test services at a reasonable cost

To allow businesses of all sizes to benefit from the expertise of the Institut and its partners, it will offer development opportunities based on open innovation.

The Institut will become the true centre of expertise and representation for electric transportation in Québec, and will nurture the growth of Québec flagships in this sector. It will also showcase Québec expertise in electric transportation abroad and will seek to attract key global players in the industry, with the support of the Economic Development Fund, when needed.

Expected outcomes:

- Creation of the Institut
- Start-up of three industrial innovation projects

5.5 Increased support for major investment projects to strengthen our international position and foster the success of new flagships

In addition to a tax environment favouring investment, Québec offers many advantages to investors, such as access to clean and affordable electric energy, the presence of several industrial niches of excellence and a beneficial geographical location between Europe and the U.S. market. In addition, a ministerial action group for implementing private investment projects, chaired by the Premier, has been established to coordinate the monitoring of major projects at the highest level and to optimize government intervention.

The government had already planned to inject over $500 million between 2013 and 2017 through the Economic Development Fund to support major investment projects. The ministerial action group will step up its efforts to attract major investments in the sectors of tomorrow, which can give rise to new national and even international flagships.

These investments will strengthen the supply chains for sectors such as aeronautics where Québec is one of the world leaders, or they will capitalize on our abundance of natural resources and our significant energy surplus available at competitive rates in order to produce goods for which significant business opportunities (present or future) exist on export markets. This is the case for second- and third-stage resource processing.

The government will reduce the minimum investment threshold required to be entitled to a tax holiday for major investment projects (announced in the 2013-2014 budget). At a cost estimated at $2 million, this threshold will be reduced from $300 million to $200 million in order to attract more investments for the future of Québec's economy.

The government will also allocate an additional $50 million to the Economic Development Fund to attract investments in the transportation electrification sector. This is a sector in which, with the creation of the Institut du transport électrique, we will have everything it takes to be a world leader.

Expected outcome within 10 years:

— More than $5 billion in private investments

5.6 More support for business start-ups everywhere in Québec

Entrepreneurship is a major driver of economic growth, and it is one of the main challenges that Québec will have to face to increase its individual and collective prosperity. Entrepreneurship stimulates the use of new technologies, introduction of new business models, marketing of innovative products and services and increased productivity. To do this, however, entrepreneurs must have sufficient financial support to start their business.

The government therefore plans to inject an additional $97 million to continue supporting entrepreneurship, and also to go further by providing better financial support for business start-ups in all regions.

■ Continued support for entrepreneurship

According to the Fondation de l'entrepreneurship's 2013 entrepreneurship index, the entrepreneurial intentions of Quebecers—i.e., the desire to create or acquire a business—amounted to 14.8%, compared to 21.2% in the rest of Canada. According to the Fondation, despite the gap with the rest of Canada, the rate for Québec shows real potential for business development in the years to come, which would improve the outlook for Québec entrepreneurship.

To this end, an additional budget of $47 million will be provided to support entrepreneurship in Québec. These funds will be used to continue the development of a network of entrepreneurial schools, to support organizations promoting entrepreneurship and helping entrepreneurs and to implement regional action plans for entrepreneurship.

The full measures of the new Entrepreneurship Action Plan will be announced at a later time.

■ A new fund for start-ups: Capital Émergence

Québec is a Canadian leader in venture capital financing, thanks in part to the government's significant and continuous involvement in tax-advantaged funds and in the development of the venture capital industry. The government launched a number of venture capital funds in partnership with major stakeholders, including the Caisse de dépôt et placement du Québec and the three tax-advantaged funds—the Fonds de solidarité FTQ, Fondaction CSN and Capital régional et coopératif Desjardins.

The effort has produced concrete results. Over the last few years, the shares of private and foreign capital investments have nearly doubled; in 2012, investments totalled $409 million and fundraising rose to $924 million in Québec, representing 52% of the Canadian total.

However, Québec's venture capital industry is highly concentrated in high-technology industries, whose businesses are mainly located in the metropolitan areas of Montréal and Québec, and it often intervenes downstream of business start-ups.

As announced in the 2013–2014 budget speech, the government will create a new fund, Capital Émergence, with a capital of $50 million. The goal of Capital Émergence will be to facilitate the start-up of businesses that have strong growth potential in all sectors and regions, mainly in collaboration with tax-advantaged funds.

Expected outcome:

— 70% of Capital Émergence funds committed by 2017

TABLE 5

Financial framework of Québec's Industrial Policy – Emergence of new flagships (Priority 2)

(in millions of dollars)

	Current programs	Additional funding 2013–2017							Total current programs and additional funding
		Industrial Policy/MFEQ					Other departments	Sub-total	
	2013–2017	2013–2014	2014–2015	2015–2016	2016–2017	Sub-total	2013–2017	2013–2017	2013–2017
Funding for industrial clusters and ACCORD niches of excellence and creation of new clusters	40.4	5.6	10.9	11.9	11.9	40.3	—	40.3	80.7
Personalized approach for promising small businesses							—		
Regional business action plans	—	—	9.0	9.0	11.7	29.7	—	29.7	29.7
Support from expert bodies	—	1.5	7.0	8.0	9.5	26.0	8.3[(1)]	34.3	34.3
Integration of SMEs in strategic supply chains	—	1.0	4.0	4.2	5.8	15.0	1.1[(1)]	16.1	16.1
Institut du transport électrique	—	0.0	3.8	3.6	3.6	11.0	24.0[(2)]	35.0	35.0
Increased support for major investment projects							—		
Economic Development Fund	522.9	8.0	14.0	14.0	14.0	50.0	—	50.0	572.9
Tax holiday	—	—	—	1.0	1.0	2.0	—	2.0	2.0
More support for business start-ups everywhere in Québec							—		
Support for entrepreneurs	3.1	1.0	11.0	15.0	20.0	47.0	—	47.0	50.1
Venture capital fund: Capital Émergence[(3)]	—	—	—	—	—	—	—		
TOTAL	**566.4**	**17.1**	**59.7**	**66.7**	**77.5**	**221.0**	**33.4**	**254.4**	**820.8**

(1) External Trade Development Plan of the Ministère des Relations internationales, de la Francophonie et du Commerce extérieur.
(2) Includes $20 M in credits under the programs of the Ministère de l'Enseignement supérieur, de la Recherche, de la Science et de la Technologie.
(3) A $50 M investment fund.

6. Priority 3 – Innovation: from concept to market

❑ Significant support at every stage

In the dynamic environment created by the changing tastes of consumers, the appearance of new key players at the international level and the intensive use of constantly evolving advanced equipment and technology, our future prosperity depends on our ability to innovate and to market our innovative products to conquer markets. This will require a close partnership between the government, businesses, universities and other public research organizations.

The government is already doing a great deal in this respect. In addition to the components of the 2010–2013 Québec Research and Innovation Strategy that deal with industrial research, including the six ongoing mobilization projects, the Innovation Support Program, run by the MFEQ, provides support for industrial projects in innovation and commercialization.

Québec's performance is respectable, as R&D expenditures represented 2.41% of its GDP in 2010, higher than that of Ontario and Canada (2.18% and 1.80%, respectively). Still, we need to rise to match the highest levels in today's global business environment. That's why the government plans to support businesses, universities, colleges and other public research centres so that R&D expenditures are higher than 3% of GDP and translate into more products, technology and concrete business projects. This will help boost the productivity and competitiveness of Québec businesses, and will increase their exports.

The government therefore plans to inject an additional $328 million, $139 million of which will be under the National Research and Innovation Policy, to strengthen its support for businesses, universities and other public organizations for research and technology transfer across the innovation chain, from the innovative concept to the marketing of the new product.

6.1 New industrial research clusters and increased participation from SMEs

Industrial research clusters bring together businesses, universities, college centres for technology transfer and other public organizations sharing a common technological interest. Collaborative research projects are developed in the context of these clusters, combining the needs of businesses and solutions proposed by public body researchers and industrial researchers.

As part of its National Research and Innovation Policy, the government will inject $77 million to continue supporting the eight existing clusters and will establish, through a competitive process, three new clusters, for infrastructure for transportation electrification, nanotechnologies and biofood.

In addition, $16 million will be made available by the MFEQ to these clusters for the funding of projects characterized by a higher overall level of technological maturity—projects whose results are more directly applicable to the industrial reality and are therefore closer to the marketing stage. This will help increase the participation of SMEs, which are generally seeking a quicker return on investment than larger businesses with respect to their R&D activities.

Expected outcome:

- Creation of three new industrial research clusters

6.2 Support for the creation of major private research centres

One of Québec's strengths is its ability to carry out and attract world-class research activities from major private stakeholders, thanks to its highly skilled work force and advantageous government incentives for establishing the necessary infrastructure.

To build on this strength, $20 million will be allocated under the National Research and Innovation Policy to private Québec and foreign businesses that seek to establish and equip research laboratories in Québec.

Expected outcome:

- Creation of new private research laboratories

6.3 New mobilizing projects for the development of innovative technologies and products

Through the concept of mobilizing projects, the government provides financial support to businesses so that they can pool their efforts and carry out projects to develop innovative technology or products by working with universities, public research centres and SMEs. Six mobilizing projects are now underway, including the greener aircraft project.

While these projects have only recently been implemented, a number of them have already produced tangible results that have helped strengthen innovation and supply chains. To build on this momentum, the government will support the second phase of the greener aircraft mobilization project and will make calls for proposals for other projects, reserving a budget of $50 million for transportation electrification. The government will invest a total of $100 million in projects worth $200 million, if we include contributions from the private sector.

Expected outcomes:

- Start of the second phase of the greener aircraft project
- Implementation of two to four other new projects (depending on the size of the projects selected), particularly in the field of transportation electrification
- At least 30 SMEs taking part in the projects

6.4 Québec Innove: an open platform for innovation that encourages participation from SMEs

Québec Innove will be a Web platform that ensures the optimal sharing and dissemination of information to facilitate the transition from an innovation ecosystem made up of many loosely connected stakeholders to an open, collaborative innovation network.

The platform will be structured based on the needs of businesses and on research organizations' offerings, and will help users quickly find the expertise they seek, thanks to expertise directories and a search engine that indexes information by region, industrial sector, technological field and type of service. It will also feature a collaboration tool that members and clients can use to exchange information online about their needs, experiences and best practices.

One million dollars will be spent on the implementation of this platform as part of the National Research and Innovation Policy.

By enabling businesses and other players to interact remotely, Québec Innove will facilitate SMEs' contributions in the innovation ecosystem by SMEs located in more remote regions. It will also serve as a means of showcasing Québec innovation for foreign businesses.

Expected outcome:

— Creation of an expanded innovation platform for networking between businesses and researchers

6.5 Increased support for technological business start-ups to encourage the marketing of promising technologies

Researchers and innovators face many challenges when they consider starting a technology business. One of the major challenges is finding adequate funding. This funding is essential to support the transition from basic research to the commercialization of technologies. And in addition to financing, researchers who are starting a business often need specialized support to succeed.

The National Research and Innovation Policy provides $9 million for improved financial support for technology start-ups, to help them establish a management team. In addition, $3 million is allocated for specialized support services (incubators, accelerators, university entrepreneurship centres and other competent organizations) for technology start-ups, to allow more developers to access these services and to expand the range of recognized organizations that can provide them.

6.6 Increased and more structured support for industrial projects in innovation

The goal of the MFEQ's Innovation Support Program is to give financial support at all stages to businesses with no more than 200 employees for the development and demonstration of an innovative product or technology. Based on current credits, the program has a budget of approximately $43 million for 2013–2017.

Given the important need for Québec businesses to create innovative products, the government will invest an additional $45 million in this program. This will allow a significant increase in the number of SMEs working on processes of innovation. Of these additional funds, $24 million will be devoted to products or technology relating to the electrification of transportation.

Because most SMEs do not have all the expertise they need to carry out advanced innovation activities, the conditions of the program will be improved by pushing the financial support ceiling and the reimbursement percentage of certain eligible expenses for SMEs coached by an eligible external resource, such as a college technology transfer centre, a university organization or a public or private research centre that has in-depth knowledge of the technology sector in question. This approach will help maximize an innovation project's chances of success and enhance the innovation management competencies of the business.

Furthermore, to encourage SMEs to obtain various technical services they might need (for example, advice on intellectual property, business strategy and law, product development, technology watch, etc.), the government will spend $14 million under the National Research and Innovation Policy on an Innovation Passport that will give them access to a bank of services at preferential rates provided by Québec research and innovation network organizations.

Expected outcome:

— Support for 250 industrial innovation projects under the Innovation Support Program.

6.7 Major stimulus for the marketing of innovative products

One of the biggest challenges faced by innovative businesses, especially young ones, is marketing their product or technology. To help with this, the innovation support program provides financial assistance for planning and implementing a marketing project that could include the services of specialists in the field, acquiring intellectual property rights, designing promotional material and demonstrating the product or process in a real-life scenario to one or more partners.

Not enough people in business are familiar with this component of the program. A promotion campaign will be organized to raise awareness about it. The government will also contribute an additional $28 million over four years into the marketing component of the innovation support program; this amount will support the marketing efforts of Québec businesses that have developed an innovative product or process. In this envelope, $11 million will be allocated to products and processes involved with transportation electrification.

The government will allocate $4 million of this additional envelope to departments and bodies in the public and parapublic sector for them to partner with businesses that wish to test their innovative products or processes.

Filing for intellectual property rights (patents, trademarks, copyright, industrial designs, etc.) for the first time can be daunting for entrepreneurs who are unfamiliar with the rules governing intellectual property. The government will address this difficulty by providing financial and technical assistance for SMEs wishing to take steps towards filing their first application for intellectual property rights with the Canadian Intellectual Property Office. To this end, a budget of $15 million has been planned under the National Research and Innovation Policy.

Expected outcomes:

— 200 business projects supported to market innovative products and processes

— 30 innovative business products or processes tested by the public and parapublic sectors

TABLE 6

Financial framework of Québec's Industrial Policy – Innovation: from concept to market (Priority 3)
(in millions of dollars)

	Current programs	Additional funding 2013–2017							Total current programs and additional funding
		Industrial policy/MFEQ					Other departments	Sub-total	
	2013–2017	2013–2014	2014–2015	2015–2016	2016–2017	Sub–total	2013–2017	2013–2017	2013–2017
New industrial research clusters	—	2.0	4.0	5.0	5.0	16.0	76.6(1)	92.6	92.6
Support for the creation of private research centres	—	—	—	—	—	—	20.0(1)	20.0	20.0
Mobilizing projects	90.5	—	25.0	37.5	37.5	100.0	—	100.0	190.5
Québec Innove: an open platform for innovation	—	—	—	—	—	—	1.3(1)	1.3	1.3
Support for technological business start-ups	—	—	—	—	—	—	12.0(1)	12.0	12.0
Support for industrial projects in innovation	42.9	2.6	12.4	15.0	15.0	45.0	14.0(1)	59.0	101.9
Marketing of innovative products	—	—	8.0	10.0	10.0	28.0	15.0(1)	43.0	43.0
TOTAL	**133.4**	**4.6**	**49.4**	**67.5**	**67.5**	**189.0**	**138.9**	**327.9**	**461.3**

(1) National Research and Innovation Policy.

7. CONCLUSION

The Industrial Policy that we propose to Quebecers has all that is needed to revive and consolidate our manufacturing businesses. Our vision is integrated, strategic and forward-looking, and our guidelines and actions will allow manufacturing businesses to flourish and make their mark. Our Industrial Policy will strengthen the manufacturing sector as a whole by placing the focus on innovation, excellence, technological and environmental progress and close collaboration between businesses, researchers and government. It will strengthen our strategic sectors and also lead to the development and expansion of new cutting-edge niches, with a special focus on the exciting project to electrify our transportation.

The proposed actions will make the Industrial Policy a powerful force in achieving the clear and ambitious objectives that the government has set in its Economic Policy. The major support planned for investments in machinery and materials will encourage businesses to increase their investments, which will support the objective of exceeding the Canadian average in investments of this type. Providing personalized coaching for the most promising businesses, emphasizing the green qualities of Québec products and supporting the marketing of innovative products will help push our exports above 55% of GDP. And the many measures encouraging industrial research and development will support the objective of devoting more than 3% of GDP to spending in research and development.

The Industrial Policy will be one of the main tools at the government's disposal to push labor productivity in Québec above the Canadian average.

Québec has everything it needs to succeed: talent and creativity, one of the most qualified labour forces in the world, internationally recognized researchers and, above all, proud and innovative entrepreneurs in all sectors and regions.

Like the Economic Policy as a whole, the Industrial Policy lays the groundwork for sustainable wealth and quality jobs. It is a tremendous collective undertaking. to build a greener and more competitive Québec, a prosperous Québec, a Québec that will make our children and grandchildren proud, a Québec for all.

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