



# 2019 Barometer of financing R&D in Belgium

June 2019

2nd edition



Laurie Pilo

Managing Director

Ayming BeNeLux

In 2018 our first Belgian R&D barometer revealed that the enterprises were most optimistic about their innovation portfolios. This year that optimism is somewhat eroded. We wanted to know the reasons. Is it the pressure of international competition that makes the transition of our innovating enterprises to Industry 4.0 inevitable? Is it a case of the stricter tax controls on the various incentives discouraging implementation of the measures, deemed generous but also difficult to execute? Is it due to the political situation in our country, whereby an election period as if by nature would induce a sort of wait-and-see attitude?

Our country is doing well nonetheless: we have full employment for scientific professions, our scale-ups are internationalizing at great speed, the biotechnological companies are developing well and, at macro-economic level, Belgium is coming up from behind as regards budgets<sup>1</sup> allocated to R&D by the state. According to the Federal Science Policy the budget that the state sets aside for R&D has now even overtaken that of the American, Japanese and French champions. However, some caution is in order as regards this last point: it is, after all, a matter of intention to grant, rather than any actual hard cash allocation.

With this 2019 Barometer Ayming, this year too, polls the opinions of the innovating enterprises. And perceptions sometimes differ. Fuelling the debate, giving companies points of reference: that is the purposes and the value of this now annual study. Our experts remain at your disposal to explain this 2019 edition if required.

Meanwhile, happy reading!

<sup>1</sup> Source: *Belga*, based on *De Tijd* 3 June 2019 “België hinkt niet meer achterop in onderzoek en ontwikkeling” “Belgium no longer a back-marker in research and development”



## Foreword

### The major financing instruments for R&D in Belgium



Nadège Bonny

Innovation Performance  
Manager

Ayming Belgium

To assist its R&D a Belgian company can avail itself of a range of regional, federal and European support measures. With subsidies and tax incentives these measures are both of a direct and an indirect nature. Ayming's 2019 R&D Barometer concentrates mainly on five of them:

- With the **partial exemption from the withholding tax on wages for researchers** (WT Researchers) the employer may keep 80% from the withholding tax for eligible diplomas and R&D projects.
- The **increased investment deduction on the tax credit** makes it possible to deduct up to 13.5% of R&D investments from the tax assessment basis.
- The **deduction for income from innovation** allows the deduction of income from patents or inventions (i.e., copyrights for software) from the tax assessment basis.
- The **regional subsidies**, available in Flanders via Vlaio, in Wallonia via DGO6 and in Brussels via Innoviris give - like all subsidies - financial support for innovating projects in whole or in part even before the investments start up.
- The **European subsidies** under H2020, also including the **SME Instrument**, support our future European champions in financing their innovative and often collaborative projects on an international scale.

The 2019 R&D Barometer analyses the use and impact of each of these measures, seeks to understand the way the enterprises that benefit from them perceive them, and explains why these instruments are even now underused.

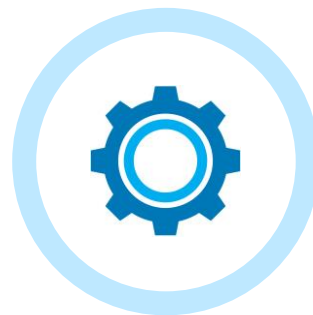
#### About Ayming

Ayming is a leading international business performance consulting group. Ayming has 1300 employees in 15 countries and booked a turnover of 157 million euro in 2018. For 16 years Ayming Belgium has been offering strategic and operational expertise and helps more than 600 clients to improve their performance over the long term and to increase the value of their general activities and optimize their results in 3 areas: human resources, finances and innovation.



### Objectives

- To analyse trends among the managers of Belgian enterprises compared with the 2018 Barometer on the following themes:
  - perception of R&D-related **challenges** in Belgian enterprises
  - the level of **optimism** in R&D for the coming years among the innovating enterprises
  - The implementation of the various **financing instruments** for R&D
  - the **generosity** and applicability of the incentives and subsidies that help to finance R&D projects.
- Evaluation of the knowledge and implementation of the digital transition process in the enterprises: **Industry 4.0**



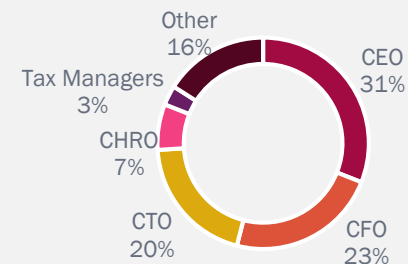
### Control method

- Online survey
- Conducted from 19 February to 14 May 2019
- By independent survey agency iVox ([www.ivoxpanel.be](http://www.ivoxpanel.be))

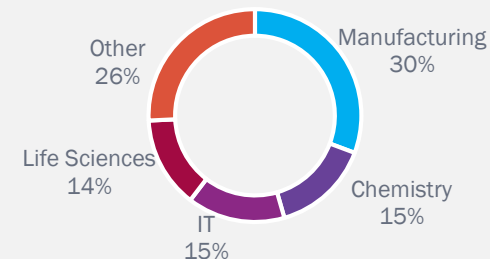


### Random sample

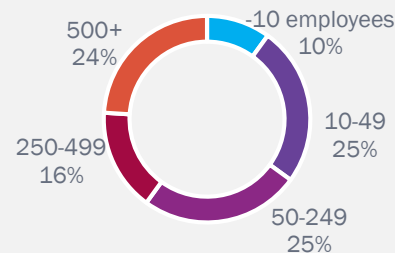
- 193 managers of innovating enterprises interviewed
- Different types of decision-makers interviewed



- Enterprises from all sectors



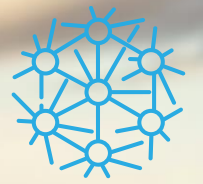
- Enterprises of all sizes





- **Downturn in optimism between 2018 and 2019:** 76% of the interviewed managers are optimistic about their innovation portfolios compared with 88% in 2018.
- 66% of the managers speak of **R&D activities that could have benefitted from optimization of identification and reporting.**
- 61% of the companies neglect innovation in the production process.
- More than one third of the managers of innovating enterprises say they have never heard of Industry 4.0, while 57% of them regard financing the transition as a real challenge.
- **81% of the companies regard optimization of R&D financing as a priority,** but the various measures remain underused.
- Although 7 out of 10 companies apply the **exemption from payment of the withholding tax for researchers** fairly well and do appreciate its generosity, they find it too complex to apply. And **an incorrect application** means that **44% of companies inspected by the tax authorities must then be corrected.**
- **7 companies out of 10 also find the regional subsidy mechanisms complicated.**





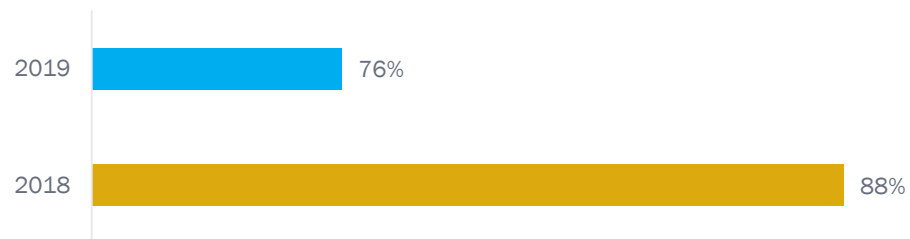
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Belgian R&D  
in 2019:  
what challenges for  
enterprises?

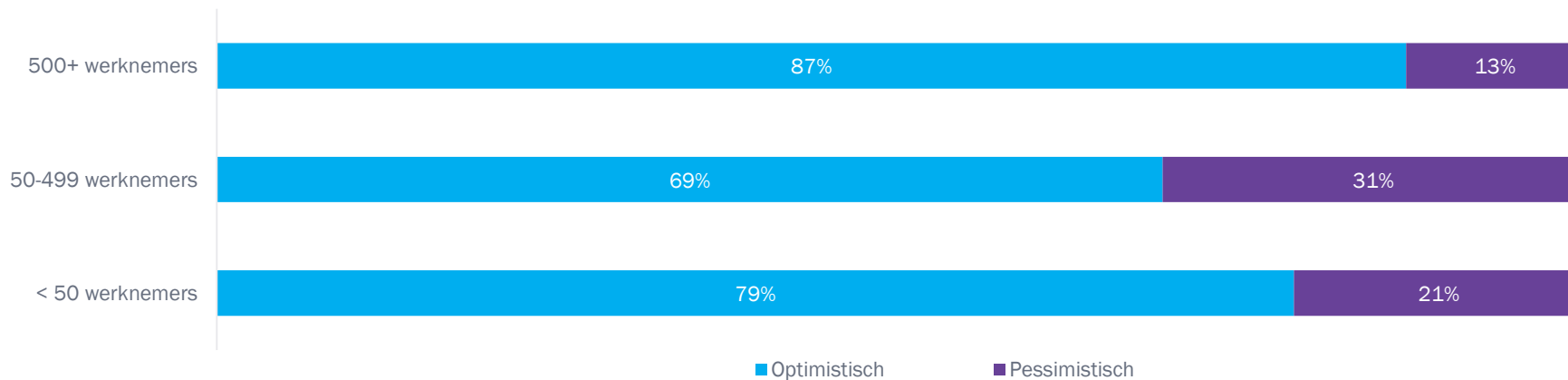
# The main R&D challenges for companies in 2019

## Is optimism waning?

- 76% of interviewed managers are optimistic about their innovation portfolios compared with 88% in 2018.



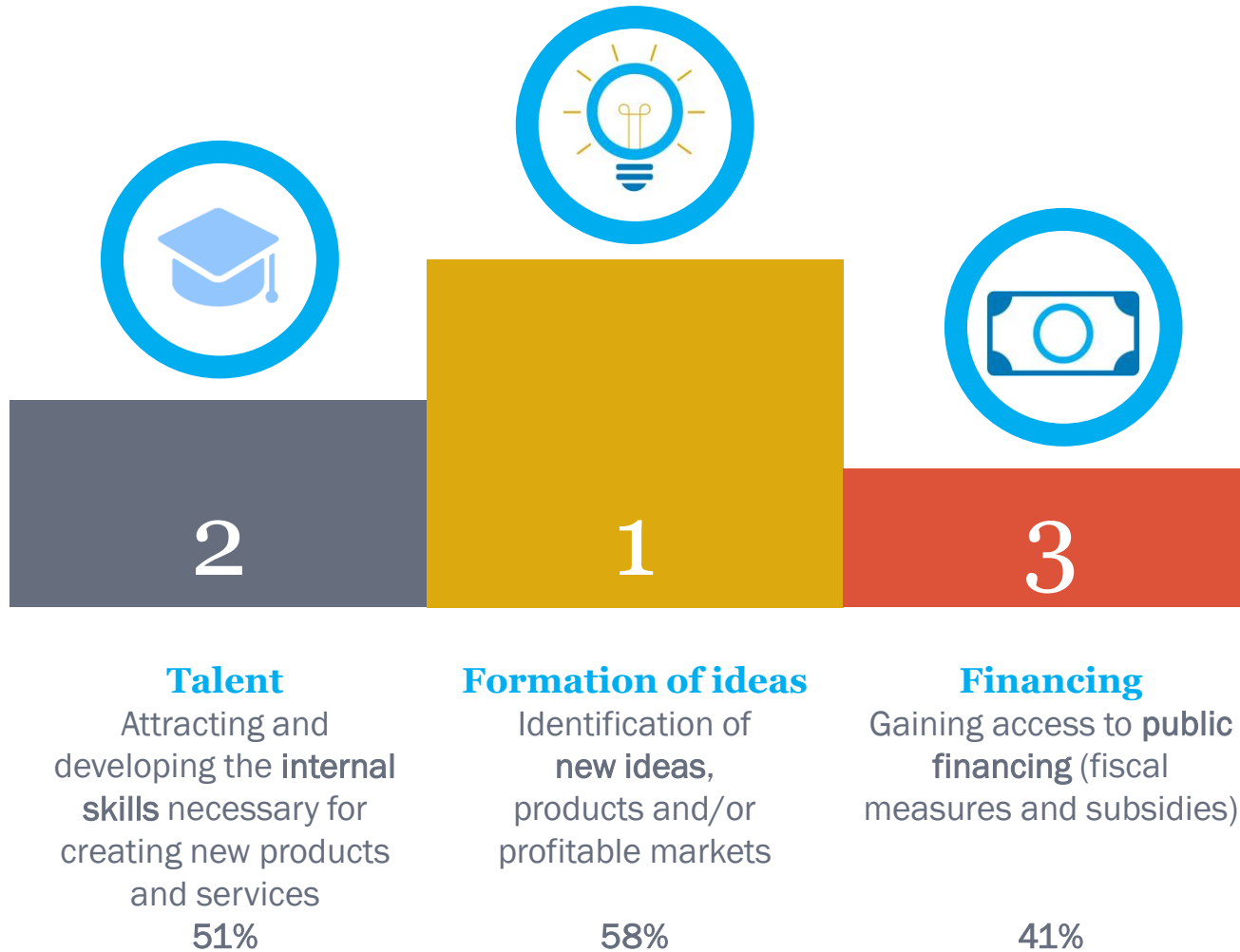
- Anno 2019: the smaller the enterprise, the less optimistic. Nearly one manager in three says the medium-sized enterprises are the least optimistic.



# The main R&D challenges for companies in 2019

## Formation of ideas, talent, financing

- In 2019, just as in 2018, these are the main challenges according to managers:



### COMMENT:

It is interesting to note that the main challenges follow the chain of innovation in the correct sequence:

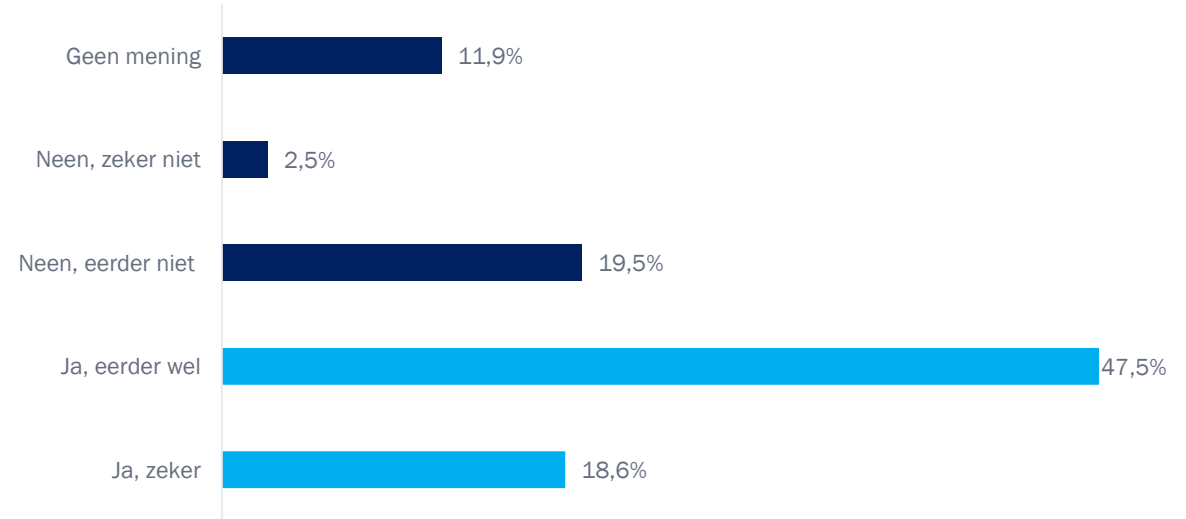
- 1) formation of ideas,
- 2) actual execution - ditto for all the Belgian innovating enterprises - entailing a real personnel problem regarding the staffing of the projects;
- 3) project financing via public subsidies and incentives, as private financing limps behind by as much as 9%.

This is followed by tests for the feasibility of the R&D projects, the protection of intellectual property and reduction of development times.



## The main R&D challenges for companies in 2019 Focus on identification and reporting of R&D activities

- 2 companies out of 3 think that the identification and reporting of their R&D activities should be optimized.
- This figure rises to 3 companies out of 4 where optimization of financial resources in R&D is regarded as being a priority because these two approaches are simultaneous (see below).



### COMMENT BY THE EXPERT:

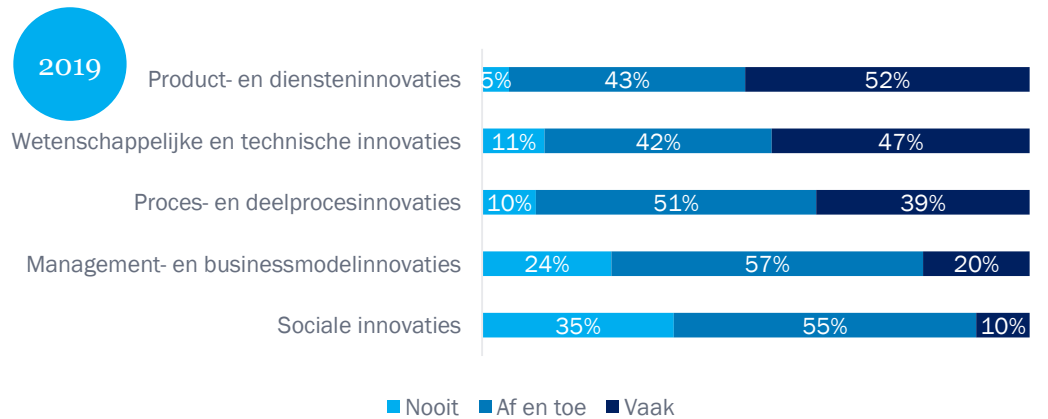
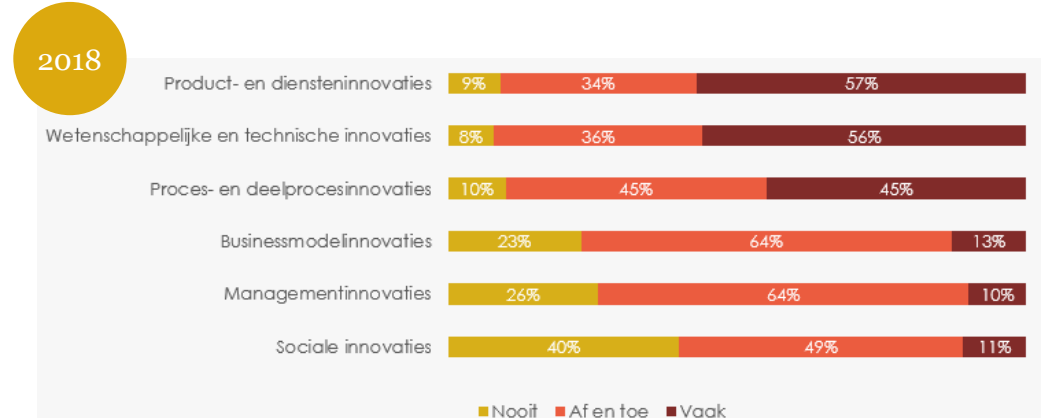
Laurie Pilo: “The identification and reporting of research and development activities requires scientific mapping, which isn’t easy if you don’t have the necessary perspective. Hence the importance of seeking assistance in this procedure. This helicopter view is essential, because it sharpens the long-term vision for innovation in the company and at the same time it boosts optimism among the management.”

# The main R&D challenges for companies in 2019: Focus on intensity and rate of innovation

- In 2019 the rate of innovation is generally not quite as robust as in 2018 (the answer “frequently” is given less often).
- Intensity, however, would appear to have increased (the answer “never” is given less often), although the differences between 2018 and 2019 are not significant.

### COMMENT BY THE EXPERT:

Nadège Bonny: “The main conclusion is that innovation in products and services, in just the same way as scientific and technical innovation, comes before innovation in production processes. The crossover to Industry 4.0, which is designed to keep Belgium competitive in the future, is - by extension - a major issue in these particular sectors. There’s still a long way to go in this regard.”

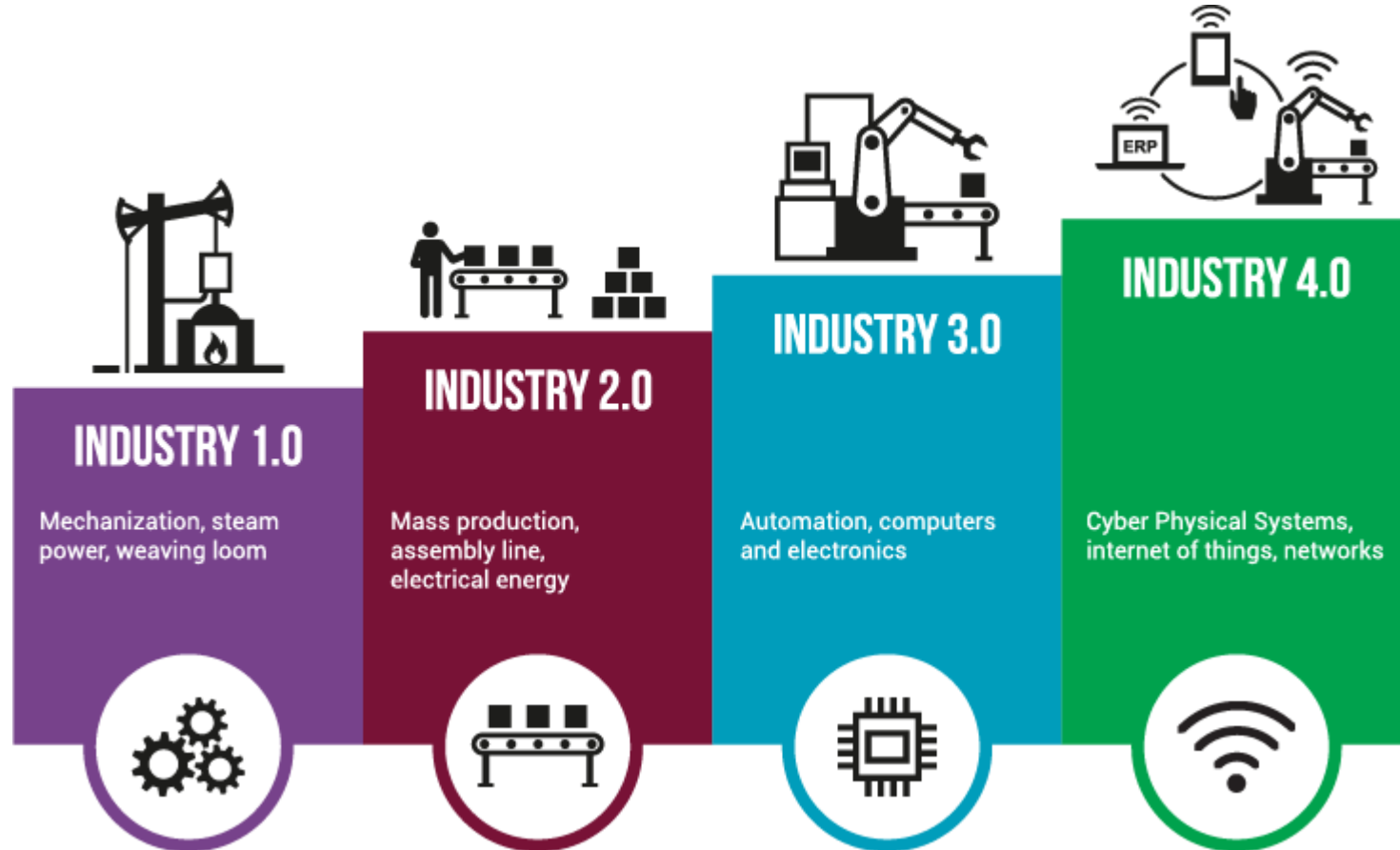




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Industry 4.0:  
which priorities,  
what urgency to  
finance the transition?

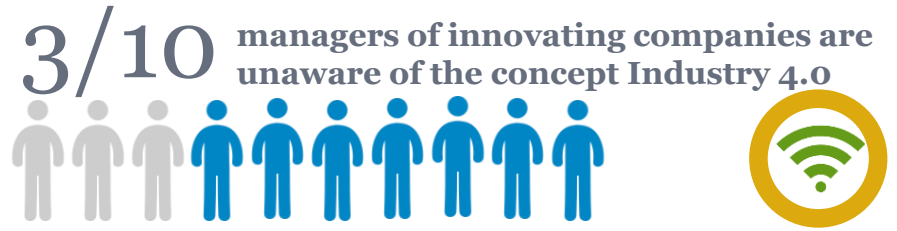
- Industry 4.0 corresponds with the 4th industrial revolution, driven by data, connected objects, virtual reality and augmented reality. It is the emergence of big data applied to the transformation of industrial instruments.



A “smart factory” is an intelligent factory, characterized by a highly digitized, connected production. A “smart factory” makes use of technologies such as artificial intelligence (AI), robotics, big data, virtual reality, augmented reality and connected objects (IoT). It can work autonomously and has the capacity to correct itself. That is the most important outcome of the Industry 4.0 revolution.

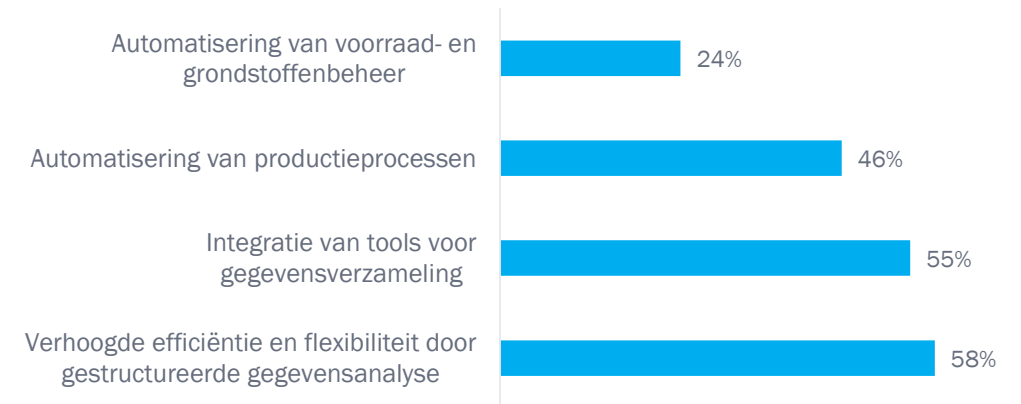


- More than one third of managers of innovating enterprises have never heard of the concept 'Industry 4.0'.



- The more personnel involved in R&D in an enterprise, the more its managers seem familiar with the concept 'Industry 4.0' - which comes as no great surprise.

- Data management is central to the concerns of enterprises, with respectively 58% and 55% for the steps seen as essential for transformation to *Smart Factory*.

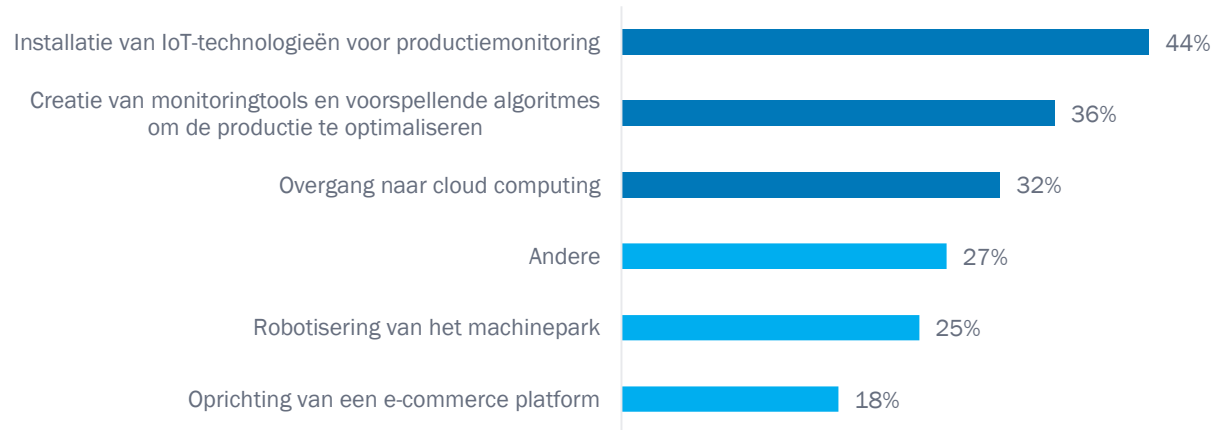
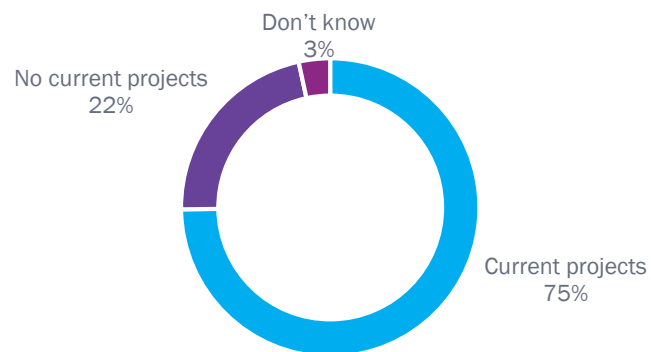


**COMMENT BY THE EXPERT:**

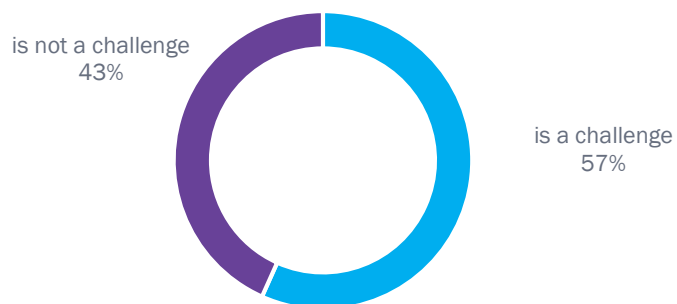
Laurie Pilo: “Automation of the production processes with data input comes only third (46%), and that while three out of four enterprises have automation or digitization projects for their industrial processes. This contradiction is all the more striking because the **key to a successful transition to a Smart Factory** is precisely there. ”



- 3 out of 4 enterprises say they work on automation and digitization projects, especially the biggest enterprises. In most cases the projects concern instruments for optimization of production.



- For 6 enterprises out of 10 the transition to Industry 4.0 means a real challenge in terms of financing.



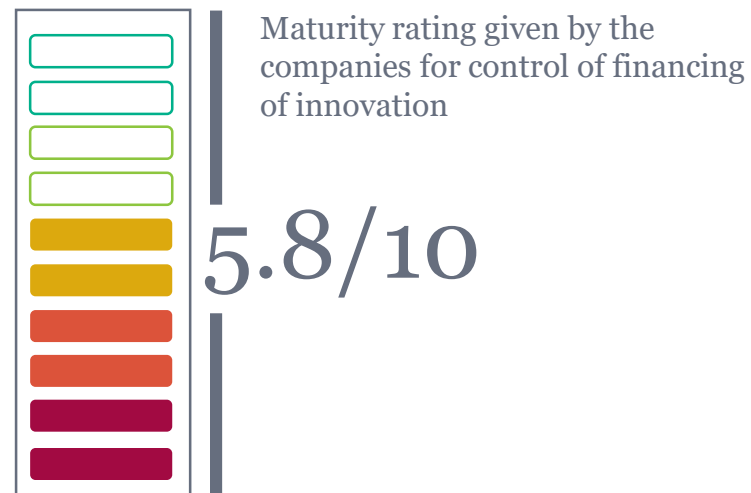
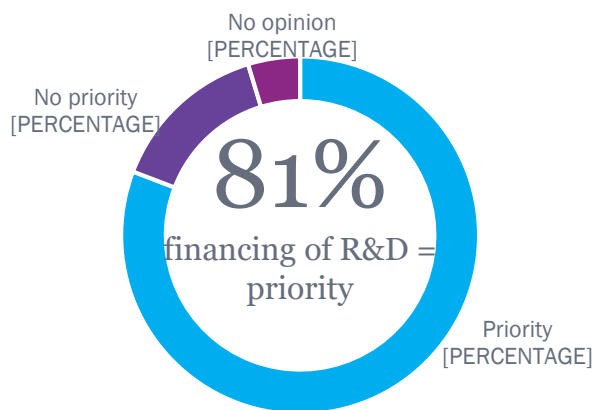


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Financing  
of R&D:  
what do enterprises  
think anno 2019?

## Financing their R&D Priority for enterprises, but only averagely controlled ...

- Although 8 enterprises out of 10 regard optimization of financial resources for R&D as a priority ...



- ... with a score of 5.8/10 the enterprises rate themselves as being of average maturity as regards control of financing their innovation. This score increases 1) when an enterprise considers it as a priority (6.0/10) or, 2) among enterprises employing more than 50 researchers (7.0/10).



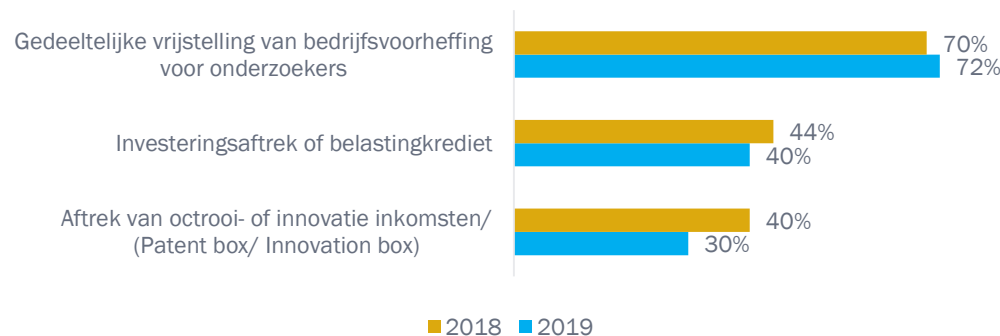


# Financing their R&D

## Which tax incentives and subsidies were taken up in 2019?

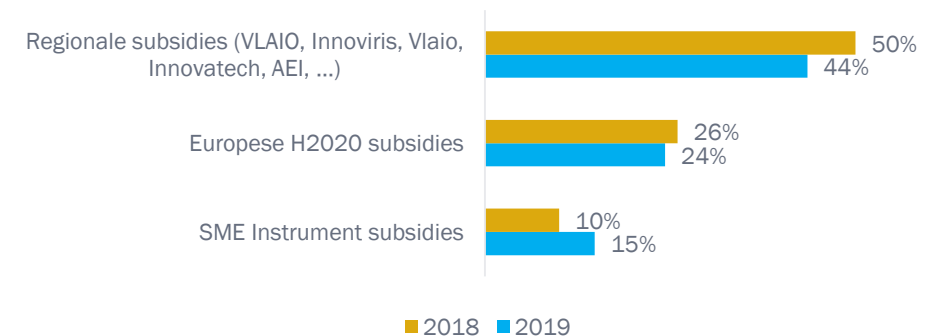
### THE TAX INCENTIVES

- The use of the **partial exemption from payment of the withholding tax on wages for researchers** saw a slight increase in 2019, but **3 out of 10 innovating companies still do not apply the measure.**
- The **deduction for investments** in R&D and the **deduction for innovation income** were used less than in the previous year. Various hypotheses: 1) an applied deduction concerns different years and 2), after the headlong rush of the first years enterprises will now perhaps no longer take the step, particularly since the tax authorities have tightened the conditions for application.



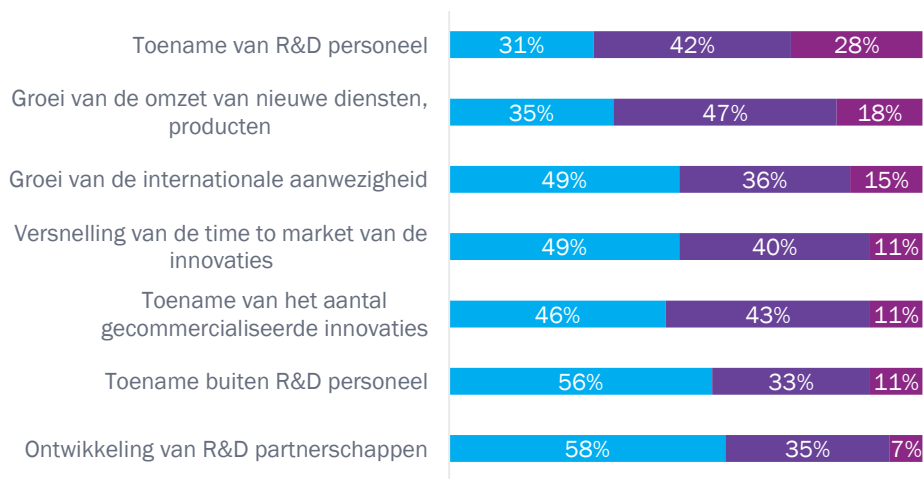
### THE SUBSIDIES

- Although still very popular - because winner in their category - the **regional subsidies** were used less in 2018 than in 2019.
- With one quarter of the interviewed companies saying that they made use of them, the **European H2020 subsidies** present a relative stability.
- Note also the steady progression of the **European SME Instrument subsidy** between 2018 and 2019. This subsidy will however continue to evolve between now and the end of 2019.



### WHAT IMPACT?

- According to the interviewed companies this incentive has the most impact on **the increase of employment in R&D**. However, 71% of the companies take the view that the impact on the increase of employment in R&D remains only “limited” or “average”.
- The measure is also **to be accelerated on the time-to-market to a limited extent only**: one might have thought that the available cash would have made it possible to spread more resources around.



■ Beperkt ■ Gemiddeld ■ Important

### COMMENT BY THE EXPERT:

**Laurie Pilo:**

**“The withholding tax for researchers, an outside chance effect?”**

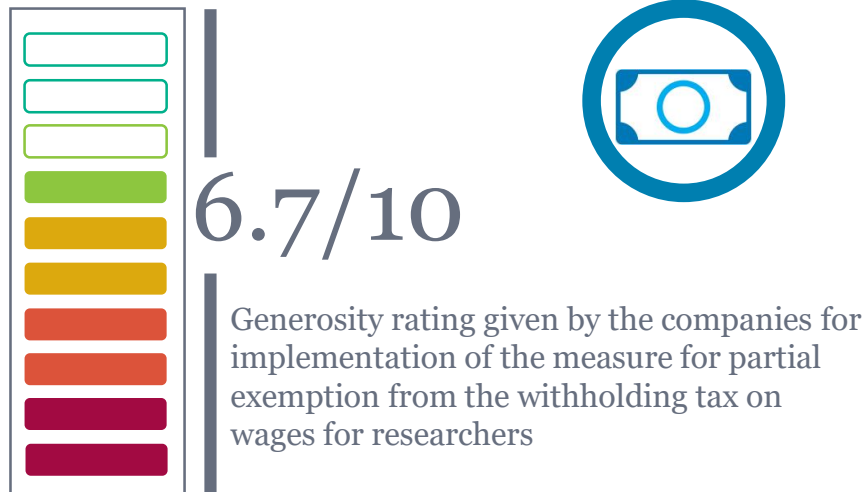
The companies say that the measure has had only a limited effect among an average of 48% of them in terms of intensification of R&D, on employment and on acceleration of sales. So has the measure missed its mark?

Let’s go back to the basis: the original idea of this measure was - and still is - to reduce the labour costs in Belgian R&D so as to make it competitive. That objective was attained through this measure, which allowed the company to keep 80% of the withholding tax. The company is also free to dispose of this operational subsidy that, lest we forget, is a factor in calculation of the assessment basis for corporation tax. It’s quite probable that seeking this operational subsidy is not (or not sufficiently) recognized among small and medium-sized enterprises. Have the big enterprises taken it up as a source of income? Then again, it are the big enterprises that also activate and feed the ecosystem of the small and medium-sized enterprises and thus, in their turn, stimulate their R&D”



**A GENEROSITY RATHER WELL APPRECIATED**

- With an average score of 6.7/10 the interviewed companies are inclined to regard the measure as generous. Almost half of them gave a score between 7 and 8/10 .
- The more personnel involved in R&D in the company, the greater the satisfaction with the generosity.



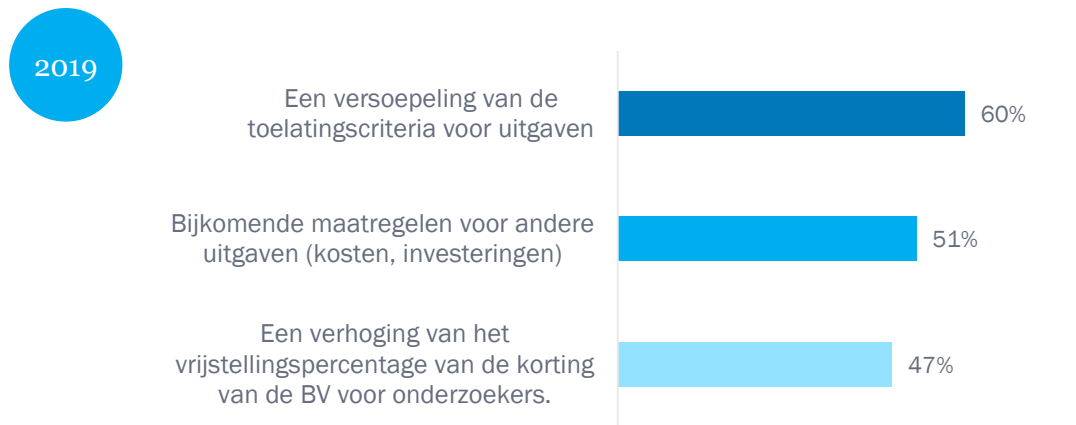
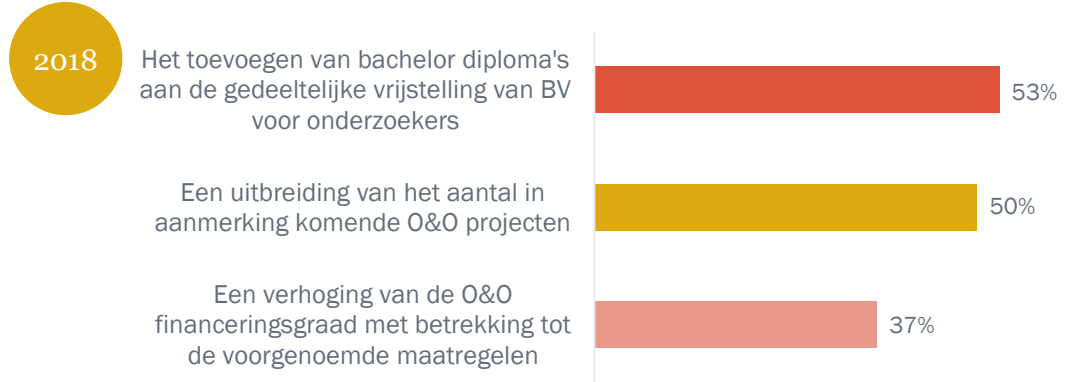
**BUT PROCEDURES CONSIDERED COMPLEX**

- With an average score of 3.9/10, 83% of the companies consider the measure complex.
- The size of the company has no bearing on the score, as there is no appreciable difference.



**PROPOSALS FOR IMPROVEMENT**

- In 2018 the main proposal for improvement was executed: the extension of the measure to bachelors. In 2019 the main proposal for improvement concerns **the relaxation of the subsidiability criteria for expenditures**, that is to say, a lower administrative taxation: 6 out of 10 companies thought that these criteria should be made more flexible.
- The following two proposals concern the generosity of the measure that, according to the interviewed companies, can be optimized. For **additional subsidial expenditures** (Opex, Capex) for 51% of them, but also through an **increase of the exemption percentage** (47%). The latter is more prominent in 2019 than in 2018.

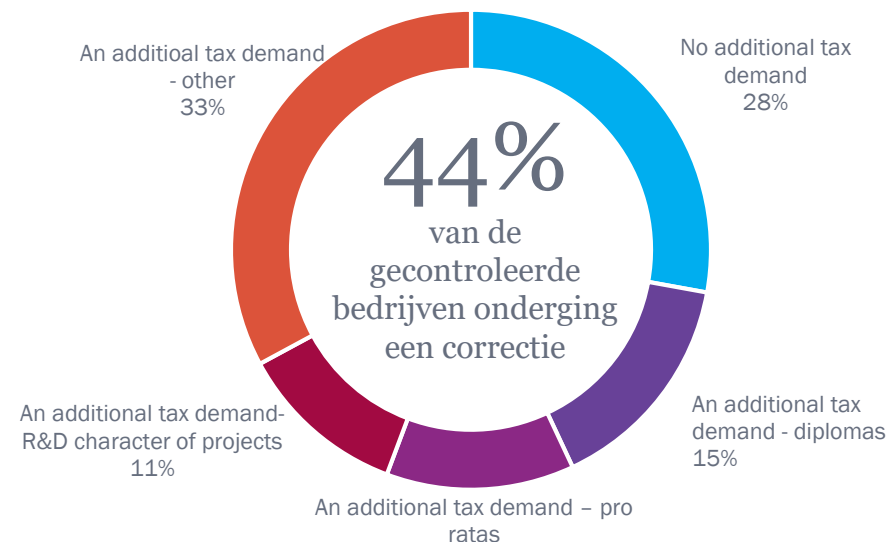




**MORE CORRECTED COMPANIES IN 2019**

- In 2019, 7 out of 10 companies were audited for the application of the tax incentive, just as in 2018.
- In 2018, 34% of the companies inspected by the tax authorities were corrected.
- This percentage increases by 10 points because, **in 2019, 44% of companies inspected for application of the measure were corrected.** The validity of diplomas - perhaps because easiest for tax authorities to control - is the primary cause of corrections. Then there is an incorrect application of the **pro ratas** and a **wrong interpretation of the R&D character of the projects.**

**7/10** companies were inspected by the tax authorities in 2019



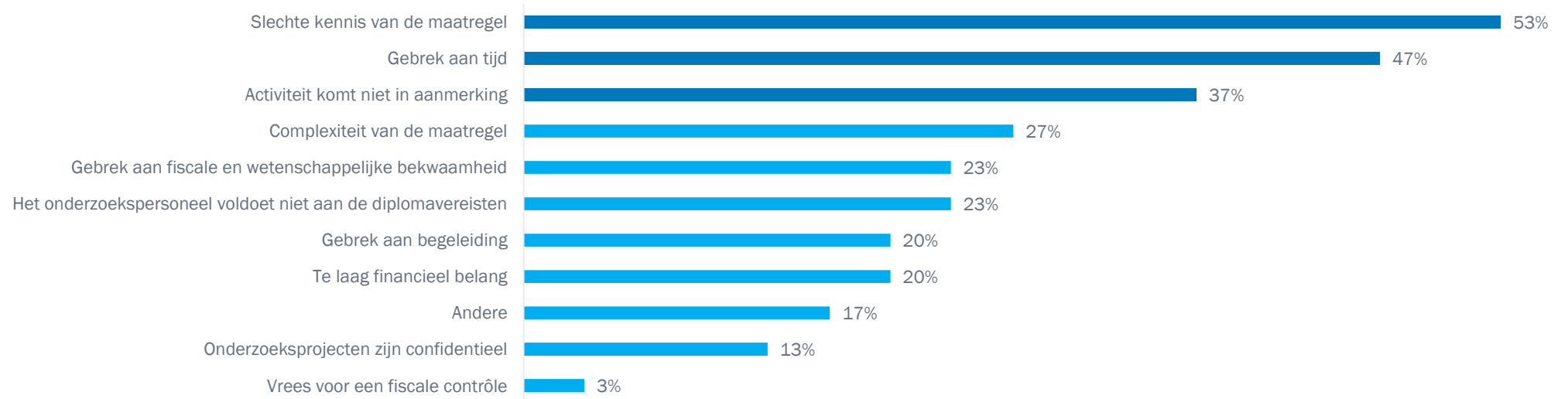
**COMMENT BY THE EXPERT**

Laurie Pilo: “A fiscal correction can rarely be ascribed to the ill will of the tax-payer. The directors apply the rules with all due care and attention. But the measures are not always that clear for the tax-payer, or even for the inspectors.”



### REASONS FOR NON-APPLICATION

- In 2019 **ignorance of the measure** is the main reason for non-application by 3 out of 10 companies. **Lack of time** comes second, followed by the mistaken belief that the activity fell outside its scope.

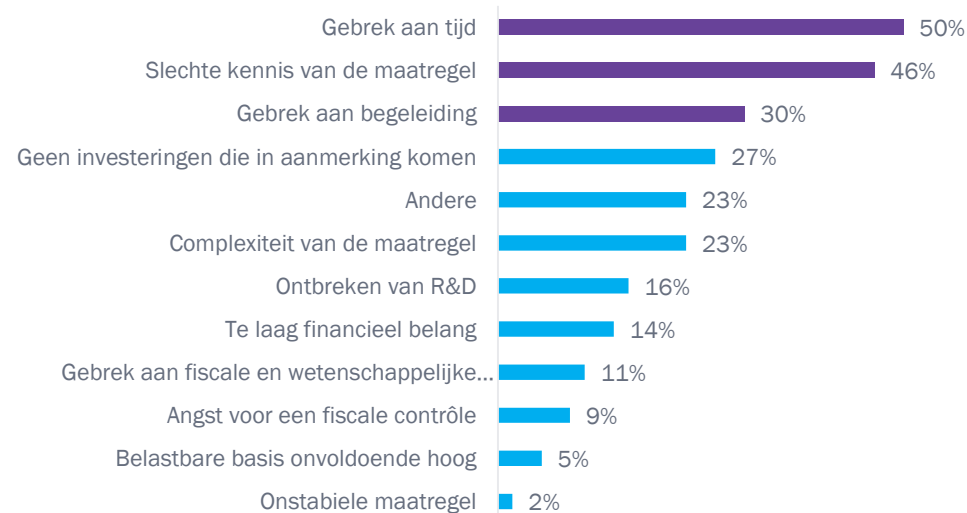


- In 2018 the reasons were the same but in a different order.

# Financing their R&D: Focus on the tax deduction for R&D investments / innovation income

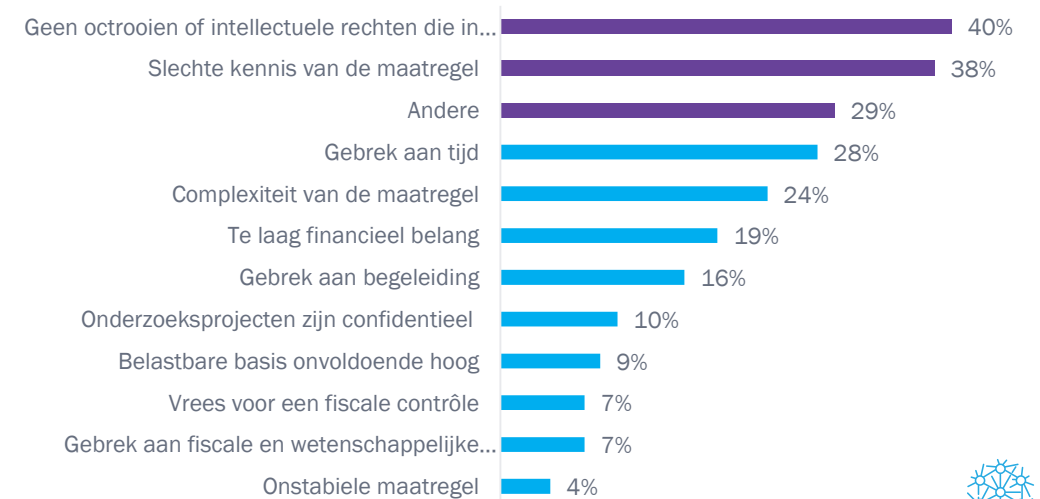
## INCREASED DEDUCTION FOR INVESTMENTS

- Reminder: in 2019 **4 out of 10 of the interviewed innovating enterprises applied the increased deduction** for investment / tax credit for research.
- The other 6 did not apply it for the following reasons: **lack of time and ignorance of the measure**, as with the WT Researcher.
- But a **lack of support** for this measure, seen as too complex by 23%, is also a reason for non-application.



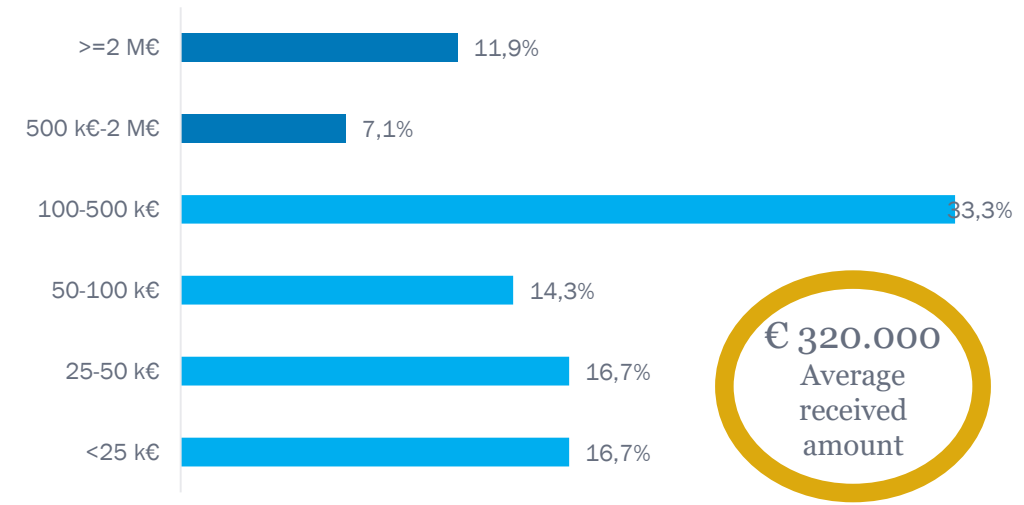
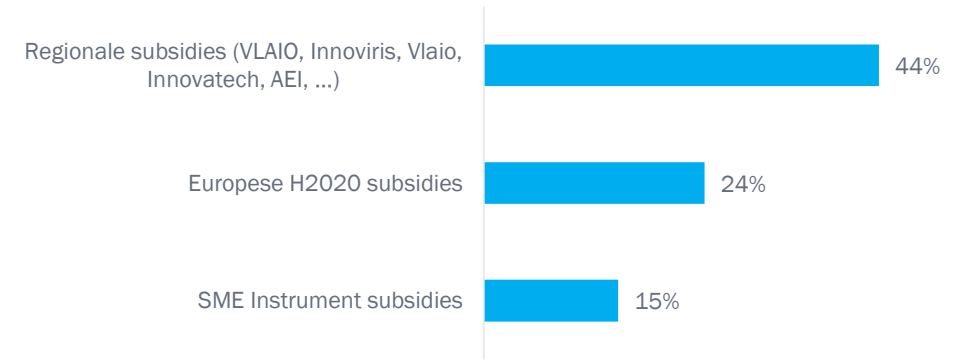
## DEDUCTION FOR INNOVATION INCOME *(Innovation box)*

- In 2019 3 out of 10 of the interviewed enterprises applied the new deduction for innovation income.
- The other 7 did not apply it for the following reasons: **no patents or innovations taken into consideration for the income and ignorance of the measure**, as with the WT Researcher.



### THE SUBSIDIES REMAIN UNDERUSED

- In 2019 44% of the interviewed enterprises received **regional subsidies** from the regional agencies: VLAIO for Flanders, DG06 for Wallonia and Innoviris for the Brussels Capital Region.
- 24% of the interviewed enterprises said that they had received European subsidies in connection with the **H2020 programmes** (themed cooperation projects, Eurostars, etc.).
- **SME Instrument**, a measure under the H2020 programme for innovative SMEs, was granted to 15% of the enterprises: that is up on 2018 (10%). Between now and the end of 2019 the SME Instrument will become the Accelerator; the conditions of application will be thoroughly revised.
- Only 20% of the enterprises on subsidies - whether European (H2020, incl. SME Instrument) or regional - receive an amount of more than € 500 000; **in 2019 the average received amount was € 320 000.**



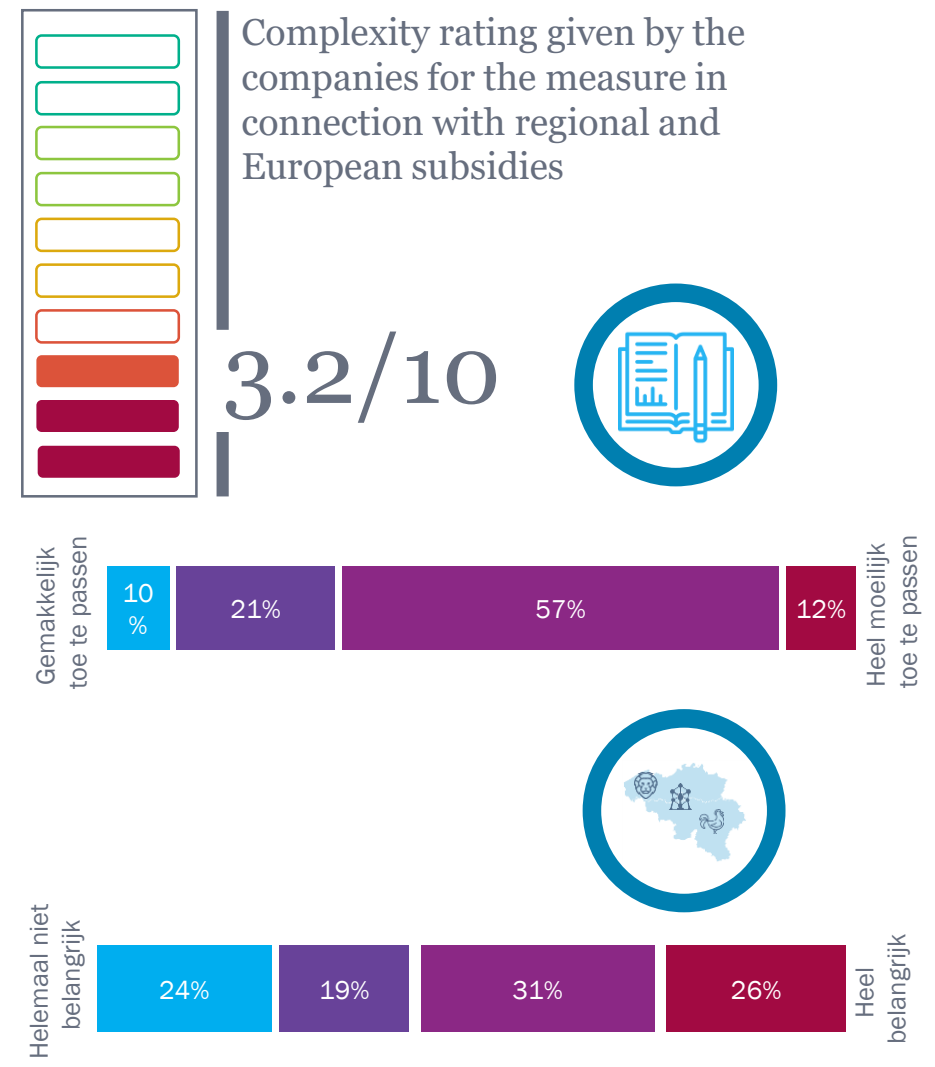
**€ 320.000**  
Average received amount





**THE SUBSIDIES REMAIN UNDERUSED**

- Nearly 7 enterprises out of 10 (69%) consider the composition of files difficult to very difficult to execute. With the more than 500 regional subsidies now available in Belgium, the first challenge is to identify what applies to the situation of the enterprise (size, location, the phasing of investments, etc.). The second challenge is the administrative composition of the file: on this point the enterprises award an average score of 3.2/10 for simplicity when applying for the subsidies.
- However, 57% of the enterprises find it important to gain a better idea of measures in regions other than the region where they happen to be established. That may possibly determine their choice to invest across regional borders.





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# Innovation performance

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