Belgians' perceptions on the contribution of the chemicals, plastics and life sciences sector to sustainable development

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With the support of

Content

Acknowledgments

We would like to thank ***Laurent Anseeuw*** (Master student in Management) for his active contributions in the development of the questionnaire; ***Sylvie Baudine*** (Administrative Coordinator of the Louvain Research Institute in Management and Organizations, UCL) for the proofreading and ***Isabelle Sion*** for the graphical layout of this report.

Finally, we are grateful to ***all respondents*** for the time and effort they dedicated to answering this questionnaire.

1/ Study context

The innovative products of the chemicals, plastics and life sciences industry play an essential role in the ongoing transition towards a better and more sustainable future for our children and grandchildren and for our planet. The chemical and pharmaceutical industry is, and will be, the solution provider to reach most of the ambitious Sustainable Development Goals the United Nations have put in place, and remains one of the driving forces behind the movement towards a circular economy. essenscia and the companies of the chemicals, plastics and life sciences industry in Belgium are strongly committed to play their part in reaching these goals. Together with governments, social partners, NGOs and civil society, the sector is determined to make a large contribution to a better and more sustainable future.

In March 2017, essenscia, the Belgian association for chemistry, plastics and life sciences, signed a 3-year partnership with the Louvain School of Management to support CSR (Corporate Social Responsibility) activities organized at UCL.

As part of this collaboration, essenscia mandated Valérie Swaen (Professor, LSM) to carry out a survey to determine how the public perceives the contribution of the sector to sustainable development. A special focus on young people was requested as the ageing of the sector's workforce coupled with its steady growth means there is a constant need for junior talents with a scientific or technical higher-level degree. Better understanding the perception of the young public will thus help the sector shape its activities to raise young people's awareness of the importance of choosing to study Science, Technology, Engineering and Mathematics (STEM subjects) and to promote the sector as an employer of choice.

On 12th October 2017, essenscia will publish its 5th sustainable development report (www.essensciaforsustainability.be) on the progress and ambitions of the chemicals, plastics and life sciences industry regarding sustainable development. At this occasion, the results of this survey will be presented to a large audience.

Corine Petry, Head of Communication, essenscia
Saskia Walraedt, Senior Advisor Sustainable development, essenscia

Saskia Walraedt & Corine Petry

After obtaining a PhD in Chemistry from the University of Ghent in 1996, Saskia Walraedt held various roles in research and development, technical services, marketing, and procurement in large international companies such as Huntsman, Honeywell and Total. Saskia joined essenscia in 2009 as a project manager in regulatory affairs and product policy. Since 2012, she has been holding the position of sustainable development senior advisor as well as the coordinator of essenscia's sustainable development report, which is published every two years.

Corine Petry holds a Master's Degree in Translation (German-English) from ISTI and holds a DES in Management from the Solvay Brussels School of Economics and Management. After spending a year in Austria, she started her career as an account manager in various communication agencies. In 2008, she became Communication Advisor for Westinghouse Electric, a company specializing in nuclear power. Corine joined essenscia in 2012 as a Communication Advisor before becoming essenscia's spokesperson and communications director in 2014. With her team, she provides communication support in the publication of the essenscia Sustainable Development Report.

essenscia in a nutshell

essenscia, the Belgian association for the chemicals, plastics and life sciences industry, is one of the most important branches of industry in Belgium, and a **driving force of its economy**.

The association represents the interests of **750 companies** which together account for more than 95% of the sector's total turnover. These member companies cover a wide range of activities ranging from biopharmaceutical products, paints, varnishes, glues, cosmetics, detergents and plastics to products for agriculture and many others. It also offers information, specialized training and customized advice to its member companies and organizes numerous actions towards young people.

2/ Target group

This report is based on an online survey carried out between April and June 2017. We gathered 963 responses coming from the three regions of Belgium, the Flemish region provided 32.9% of the answers, Brussels 29.9%, and Wallonia 37.2%.

The sample is representative in terms of gender (51.5% of women and 48.5% of men), while we organized a slight over-representation of younger audiences, as our priority was to collect the views of future generations about the sector. Moreover, 53.8% of respondents have a higher level of education (i.e, post-graduate); 35.6% an intermediate level (upper secondary) and 10.6% a low level of education (i.e., none, primary, lower secondary).

The sample gives us an interesting indication of the way the sector is perceived by the Belgian population.

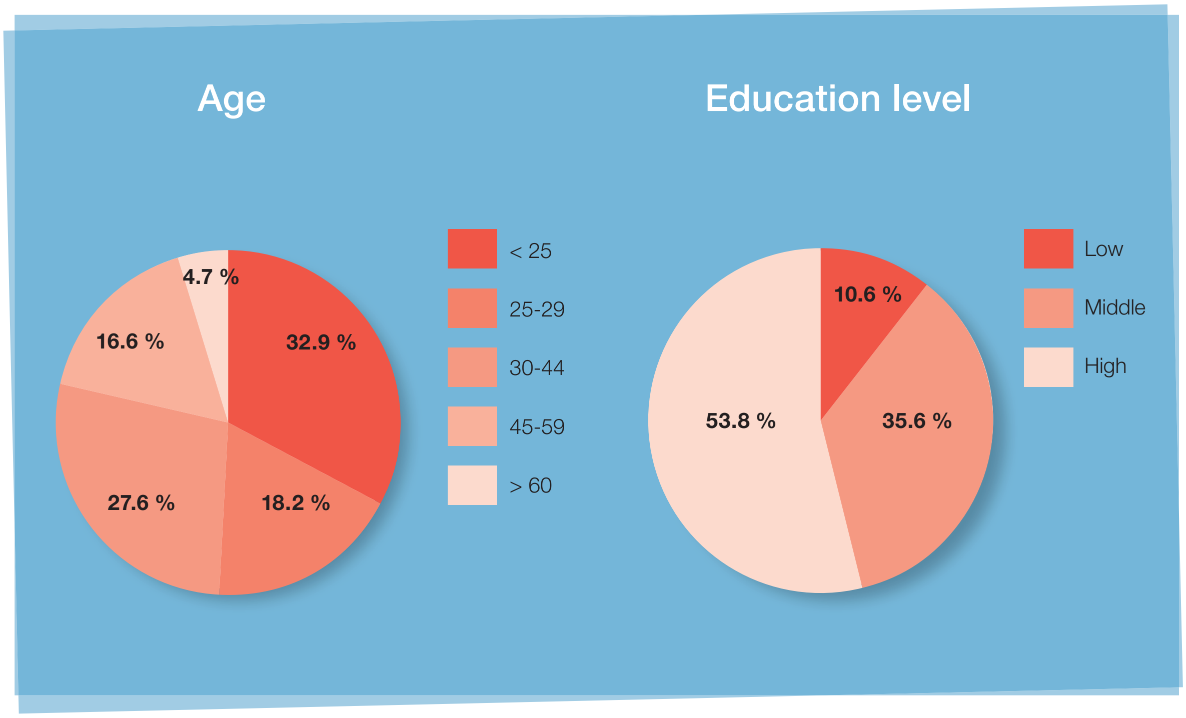

Figure **1** > ***Respondents' age and education level***

3/ Which are the industries and products associated with the sector?

The first part of the questionnaire asked participants about the industries they consider as part of the chemicals, plastics and life sciences industry. Respondents could choose as many industries as they wanted on the list. The purpose of this question was to establish the perimeter of the sector studied in the minds of the participants.

Taken together, our results indicate a correct demarcation of the sector by the public.

As illustrated in Figure 2, the pharmaceutical industry (75.6% of respondents) and the plastics industry (71.4% of responses) are among the most frequently chosen industries. Next come the cosmetics, petrochemical and biotechnology industries with 60.5%, 60.3% and 58.2% of responses, respectively.

Respondents wrongly identify industries such as telecommunications (7.3% of observations) and metallurgical industry (17.3% of observations) as part of the sector, which still indicates a certain lack of knowledge.

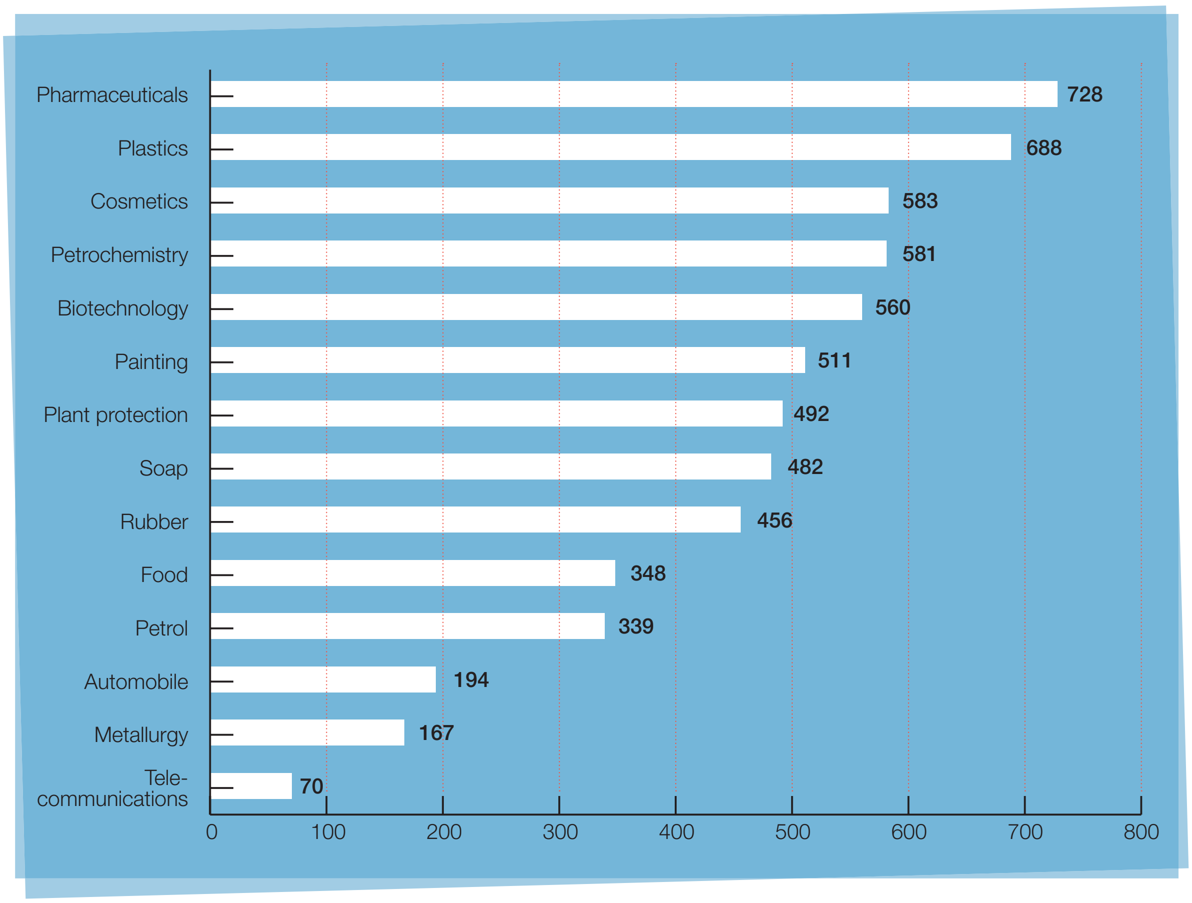

Figure **2** > ***Which industries do respondents consider as being part of the chemicals, plastics and life sciences industry? (in number of respondents)***

In addition, respondents were asked about the five most representative products of the chemicals, plastics and life sciences sector. As illustrated in Figure 3, they primarily associate medicines (53.5%), antibiotics (47.9%), plastics (30%), pesticides (28.6%) and detergents (27.8%) to the sector.

The less quoted products are photovoltaic panels (2.8%), car dashboards (3.7%), ink (4.6%), paper (2.1%) and mattresses (1.6%). Although these products are connected to the sector, they are not among the first products that come to the mind of the respondents.

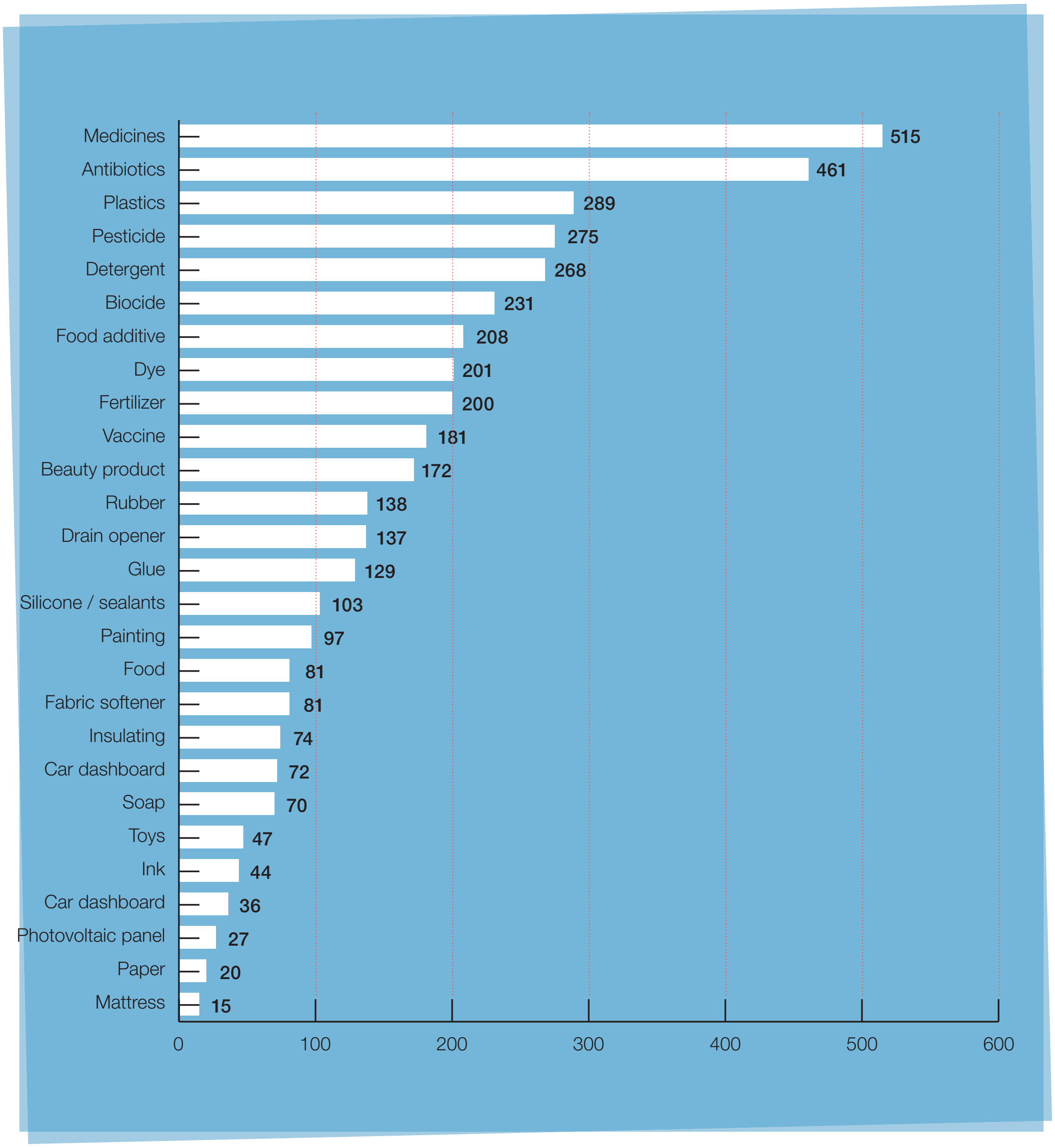

Figure **3** > ***Which are the five most representative products of the chemicals, plastics and life sciences industry? (in number of respondents)***

4/ What are the perceptions about the sector?

Chemistry: Useful in daily lives and a driver of societal progress

As shown on Figures 4 and 5, a majority of respondents (50.2%) are convinced of the usefulness of chemistry in their daily lives and 55.3% of respondents consider that chemistry is an engine of progress for society. Note that this last percentage increases to 65% of the youngest respondents (below 25 years old).

However respondents do not forget the dangers associated with the chemicals and most of them do not recognize clearly that the benefits of chemistry counterbalance the problems it causes (45% of respondents chose the neutral point of the scale - 3 - on a scale going from 1 – totally disagree to 5 – totally agree). Said differently, Belgians recognize the advantages of chemistry without minimizing the dangers or problems associated with it.

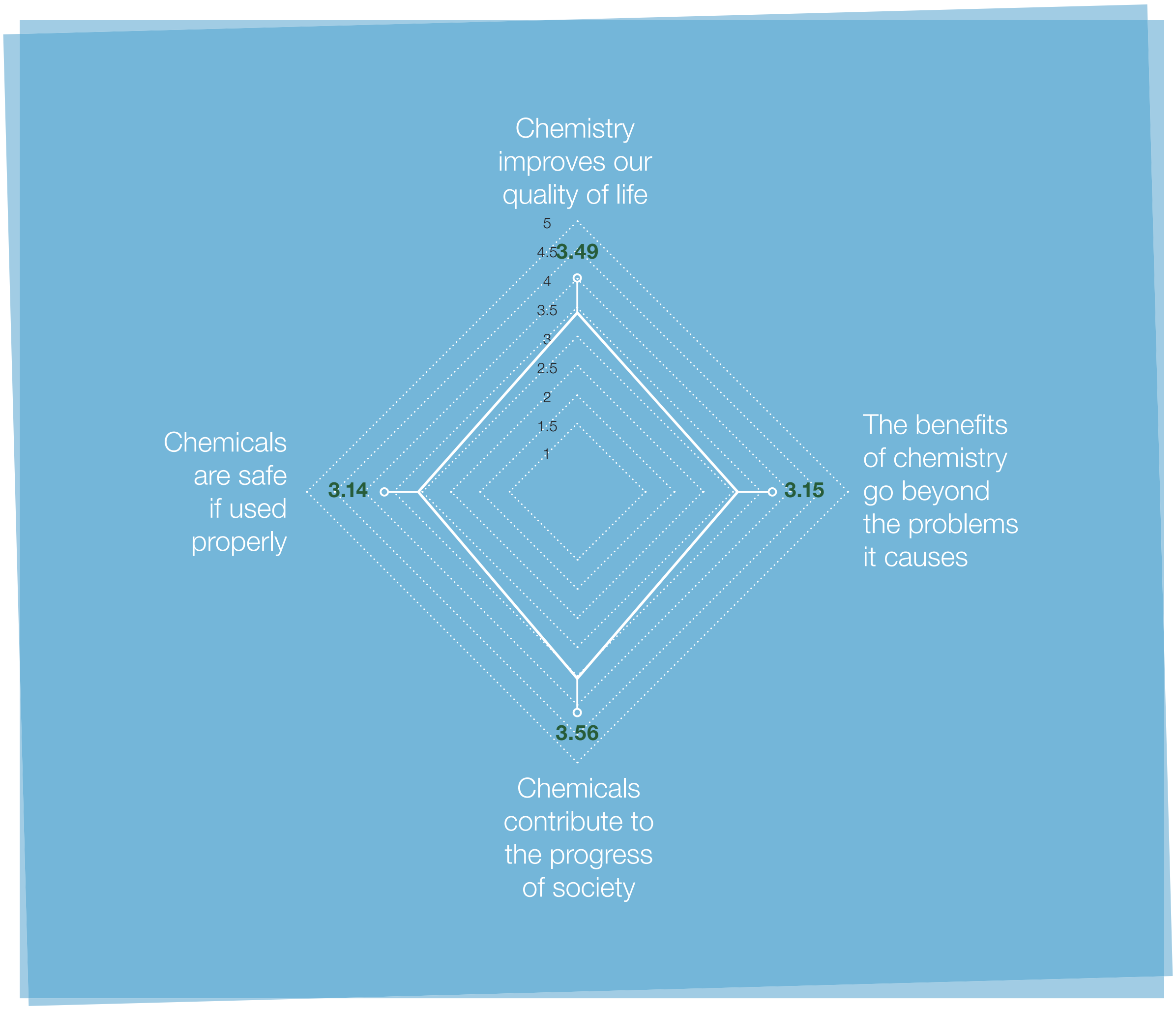

Figure **4** > **Respondents' perceptions about chemistry *(on a scale going from 1 – totally disagree to 5 – totally agree). The numbers reported inside the graph are the means of answers on each item***

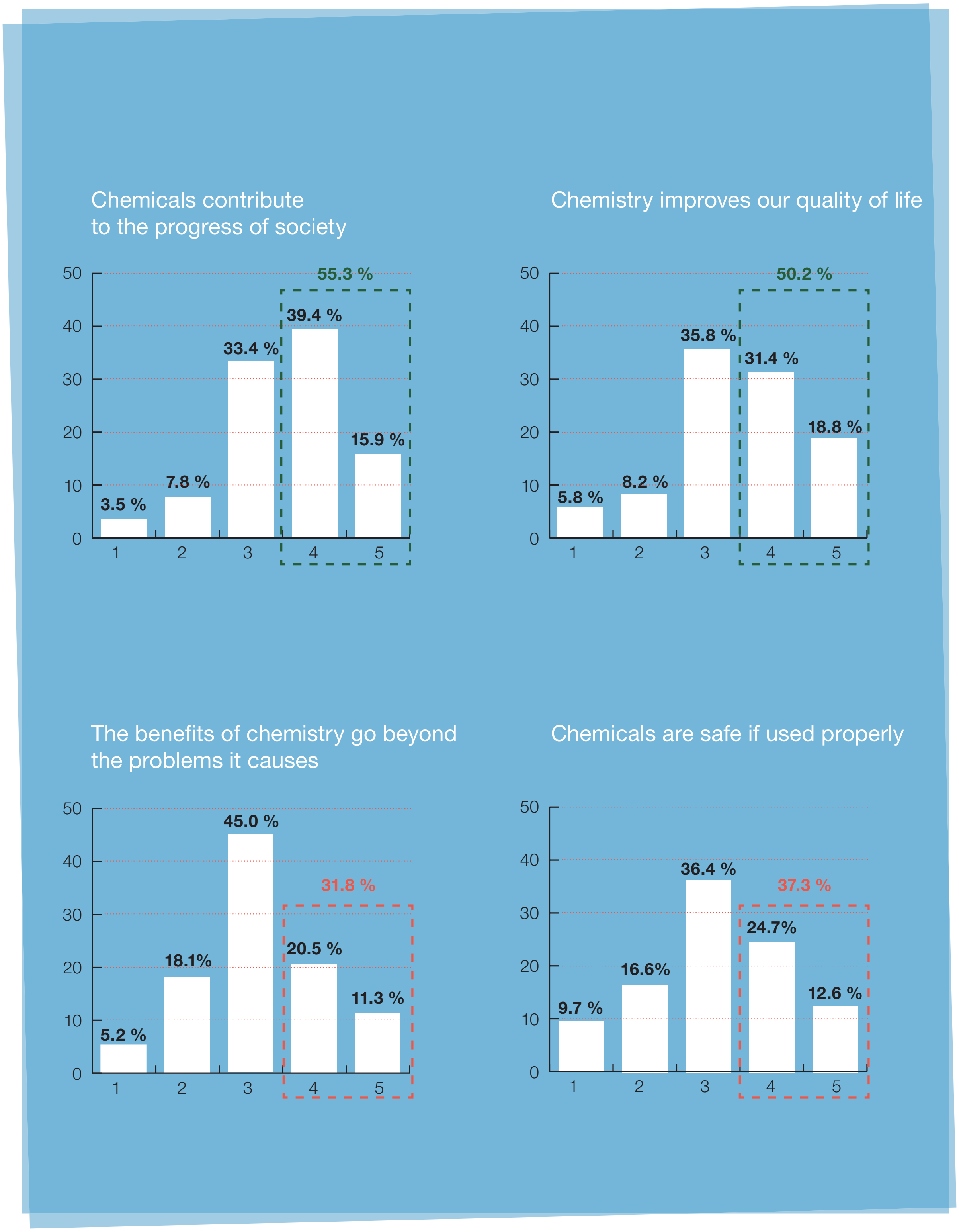

Figure **5** > **Respondents' perceptions about chemistry**
(on a scale going from 1 – totally disagree to 5 – totally agree)

Belgians perceive the sector as innovative and strictly regulated, but they consider that it lacks transparency

We asked respondents about their perceptions of the chemicals, plastics and life sciences sector to collect information about the sector's image in Belgium (see Figures 6 to 8 for more detailed results).

More than half of the respondents perceive the sector as *strictly regulated* and more importantly, more than two thirds of the respondents qualify the sector of *innovative and creative*. The sector thus benefits from a positive image in terms of its innovativeness, an important feature in the context of sustainable development, but also a key factor of success and attraction of young talent.

We note moreover that the more respondents are educated, the more they consider the sector as innovative ($Mean_{LowEduc} = 3.23$; $Mean_{MiddleEduc} = 3.51$; $Mean_{HighEduc} = 3.56$; $p=0.001$).

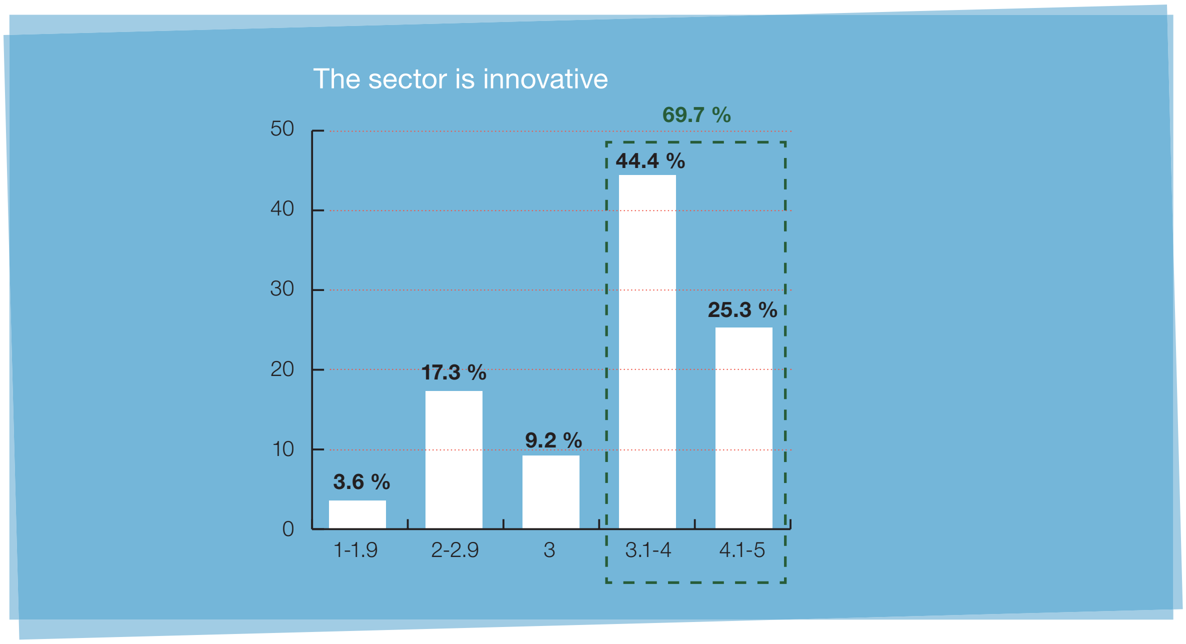

Figure **6** > **The perceived innovativeness of the sector *(on a scale going from 1 – totally disagree to 5 – totally agree)*. The perceived innovativeness was measured using the following items: innovative, inventive, creative, engine of progress, and exciting**

But the sector is also perceived as *highly profit-oriented* by more than 45% of respondents, what could be associated to some negative traits; and 44.6% of respondents also consider the sector as *unsafe* (against 32.5% which consider it as safe). Moreover, only 30.6% of respondents consider the sector as *trustworthy*, against 28.4% who perceive it as not trustworthy (41% of respondents did not pronounce themselves on the trustworthiness of the sector). When it comes to integrity, 39.5% of the respondents are quite negative, while for 33.7% of respondents, the sector is demonstrating *integrity*. These more mitigated results concerning the level of perceived integrity and trustworthiness of the sector in Belgium could be partly explained by a perceived lack of *transparency of the sector*. Indeed, 47.6% of respondents consider that the sector is not transparent. Further research should focus on the underlying causes of this perceived lack of transparency: Does this result translate a real lack of communication from the sector with the public? Or is it linked to the very specific nature of the sector, its technical and scientific features that could create a certain distance with the public per se?

We should note that the youngest respondents (below 30 years old) are more positive in their evaluation of the transparency of the sector compared to other age groups ($Mean_{<25years} = 2.84$; $Mean_{25\text{-}29} = 2.82$; $Mean_{30\text{-}44} = 2.73$; $Mean_{45\text{-}59} = 2.56$; $Mean_{60\text{ and more}} = 2.40$; $p=0.007$).

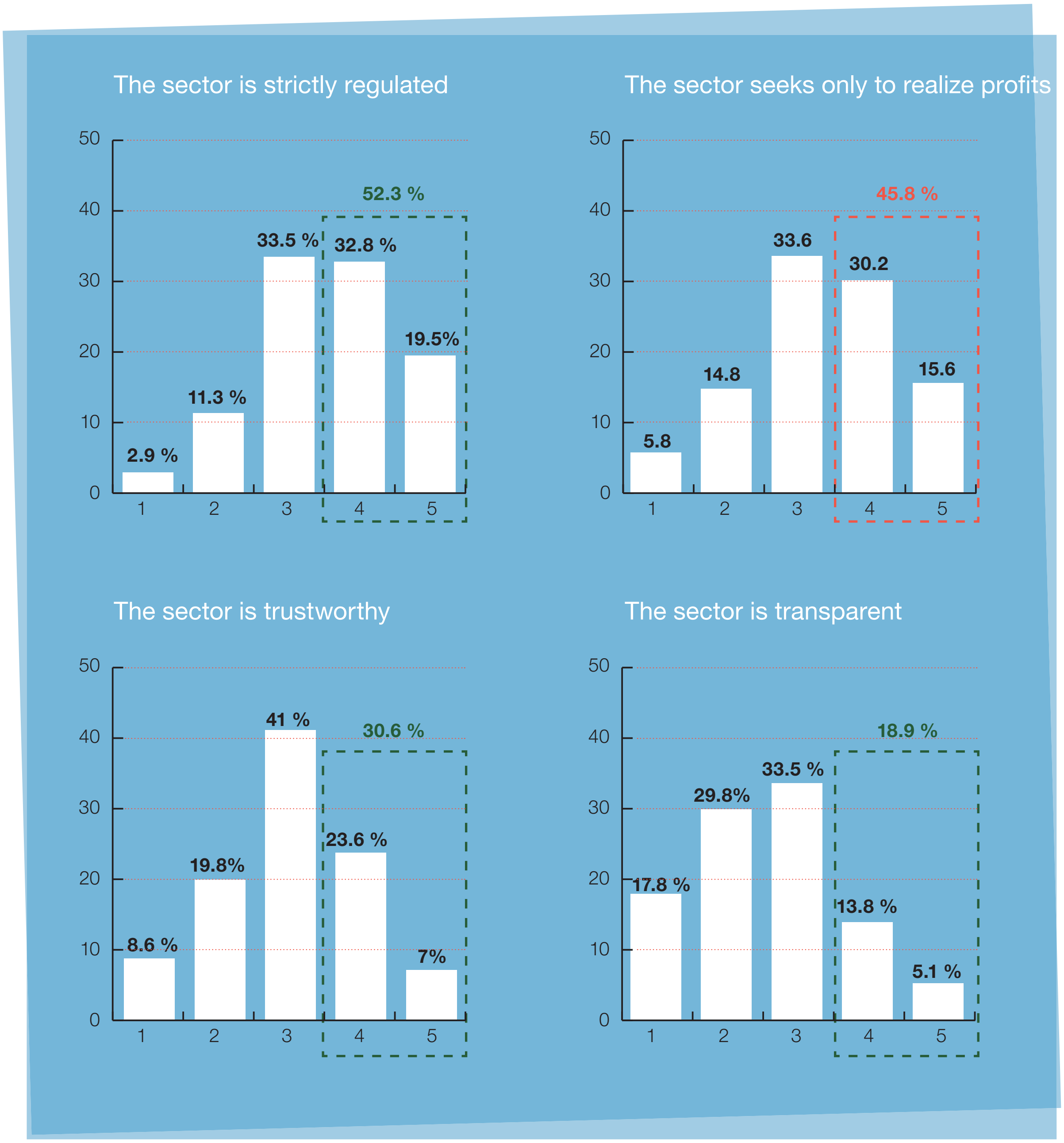

Figure **7** > **The sector's image in Belgium *(on a scale going from 1 – totally disagree to 5 – totally agree)***

Figure **8** > **The sector's image in Belgium *(on a scale going from 1 – totally disagree to 5 – totally agree)*. The numbers reported inside the graph are the means of answers on each item**

5/ What are the perceived social and environmental priorities of the sector?

We proposed a list of major social and environmental issues to the respondents and asked them whether the sector was more part of the problem or part of the solution.

Most respondents do not offer a clear-cut answer to that question. For example, 49.2% of respondents cannot decide whether the sector is more part of the solution or the problem with respect to demographic issues. This result translates a certain lack of information from the respondents about the sector's activities related to sustainable development issues.

Part of the solution with respect to human health issues, but part of the problem in terms of environmental issues

43% of respondents tend to view the sector as part of the solution when it comes to human health issues. On the other hand, respondents are more mitigated when it comes to environmental issues, natural resources and climate change, where only 29.1%; 28% and 29% of respondents consider that the sector is more part of the solution than of the problem. In other words, the majority of respondents currently believe that the sector creates more environmental problems than solutions to those environmental issues, while recognizing the sector's contribution to public health.

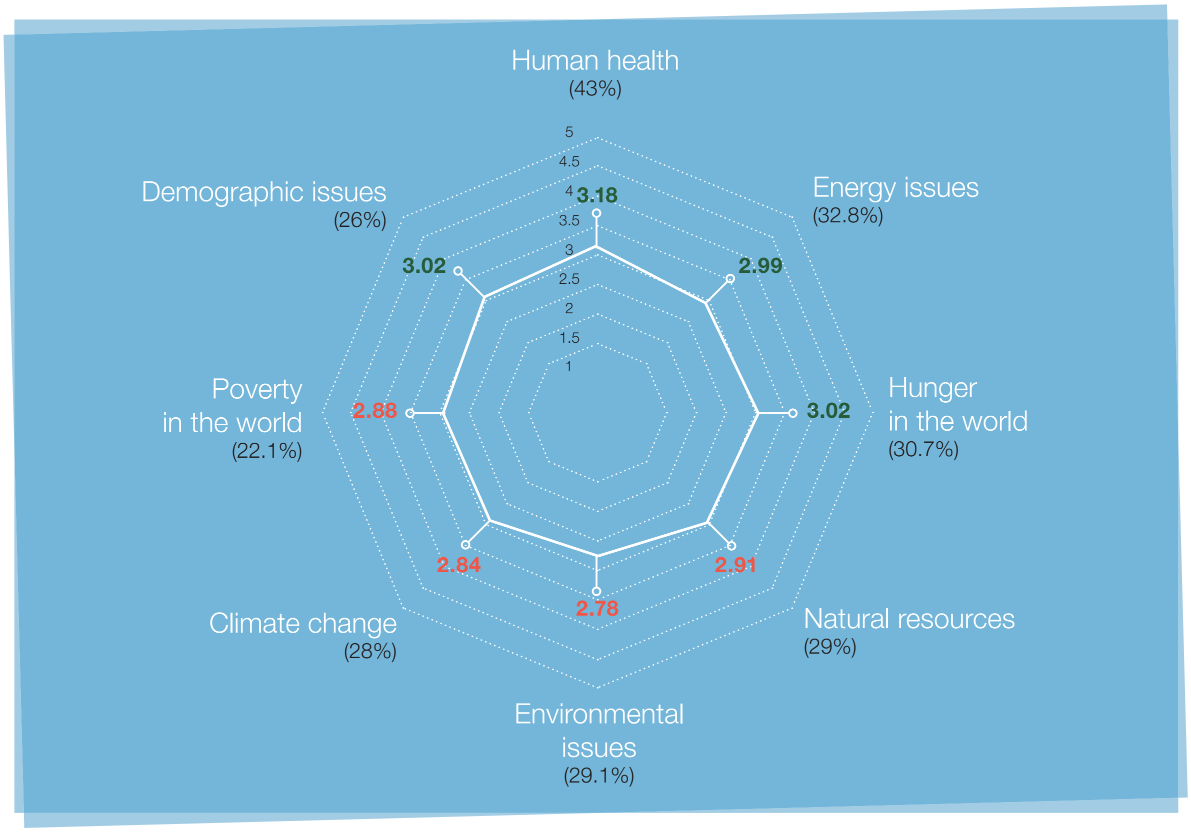

Figure **9** > **To what extent is the sector more part of the problem than of the solution on each issue? *(on a scale going from 1 – is very much part of the problem to 5 – is very much part of the solution)*. The numbers reported inside the graph are the means of answers on each item**

6/ Does the sector assume its responsibilities toward society?

The sector is a strong and important economical actor, offering good jobs and respecting the law

On average, Belgians consider that the sector is relatively good in assuming its economic responsibilities (in terms of employment and growth in Belgium); more than two thirds of respondents agree that the sector assumes its economic responsibilities (see Figure 10). This is even more the case for men and respondents that are more educated.

Moreover, 45.6% and 46.6% of respondents consider that the sector assumes its legal responsibilities and its responsibilities toward employees, respectively.

For other types of responsibilities (towards the environment and ethical responsibilities), the results are quite close to the neutral point of the scale. In particular, 45.8% of respondents give a neutral answer when questioned about the ethical responsibilities of the sector, against 27.4% considering that the sector respects high ethical standards.

The sector is taking steps to reduce its impact on the environment

Those who expressed an opinion about the environmental responsibilities reported that the sector is taking steps to reduce its impact on the environment and natural resources. For nearly half of the respondents (49.4%), the assessment of the sector's actions towards the natural environment is positive, although the mean of answer remains close to the middle point of the scale (3.14), which indicates that a large margin of progression remains possible.

The sector is thus perceived as part of the environmental problems, but as a contributing actor to get out of this situation, with most respondents acknowledging the efforts made by the sector to limit its impact on natural resources and the environment. For example, 35.5% of respondents consider that the sector is taking action to reduce pollution from its operations and 36.3% of respondents agree that the sector seeks to reduce its consumption of raw materials and energy see Figure 11).

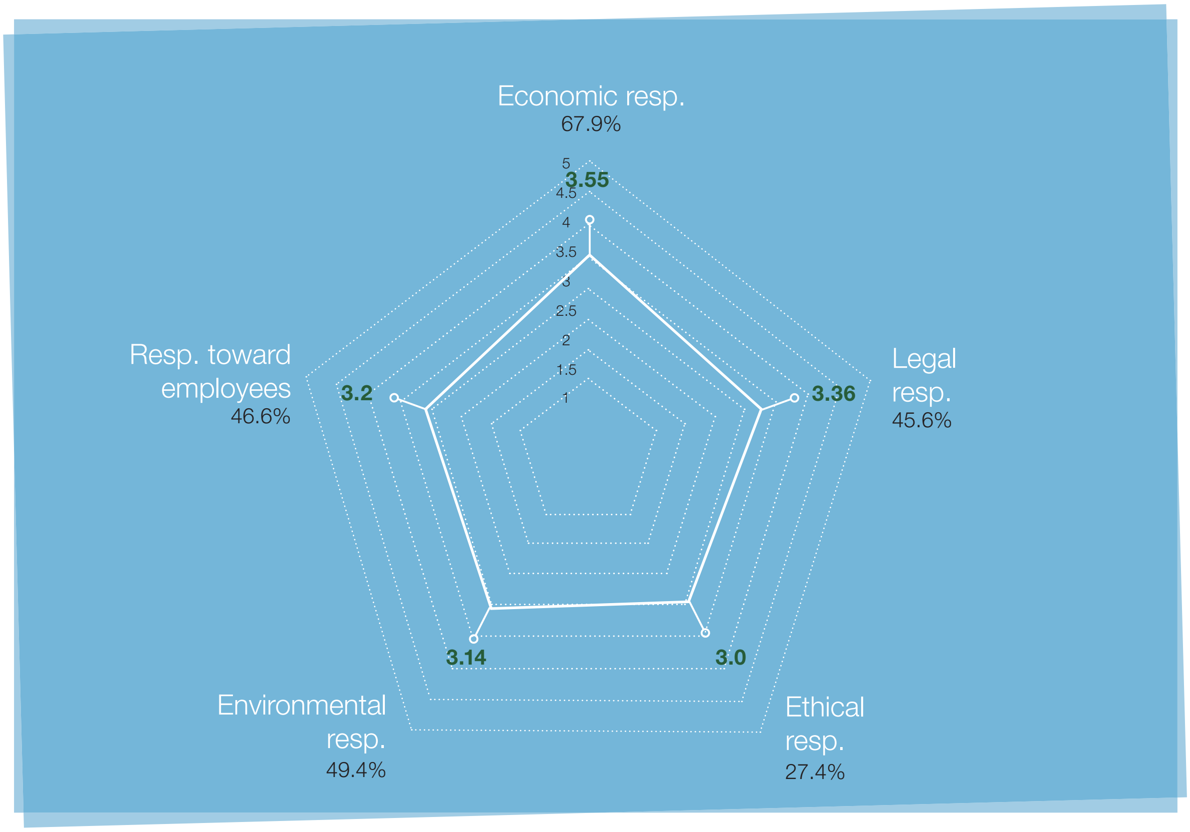

Figure **10** > **Does the sector assume its responsibilities toward society?**
(on a scale going from 1 – totally disagree to 5 – totally agree).
The numbers reported inside the graph are the means of answers on each item

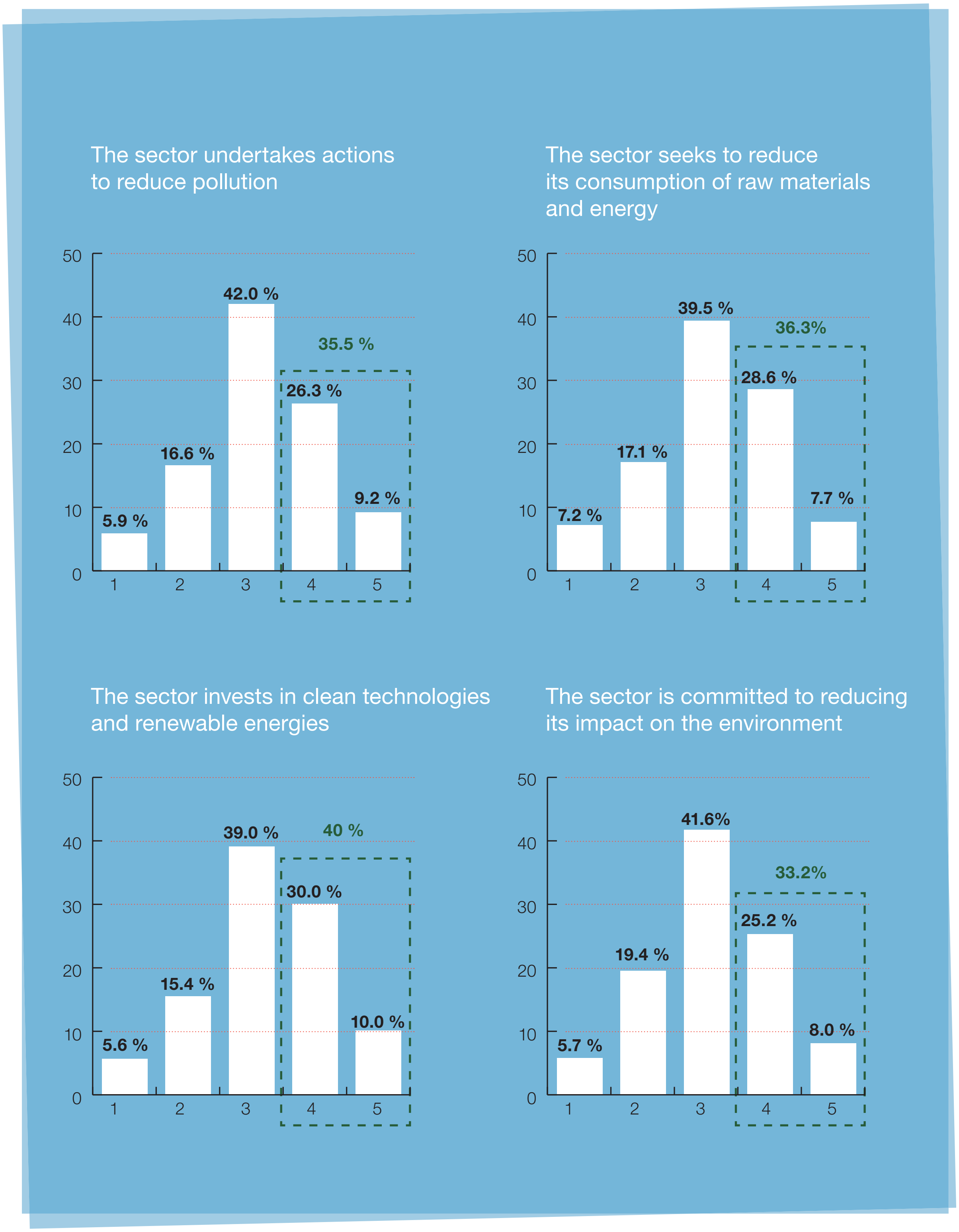

Figure **11** > **Does the sector assume its environmental responsibilities?** ***(on a scale going from 1 – totally disagree to 5 – totally agree)***

7/ Importance of communication

The sector should communicate more with the public

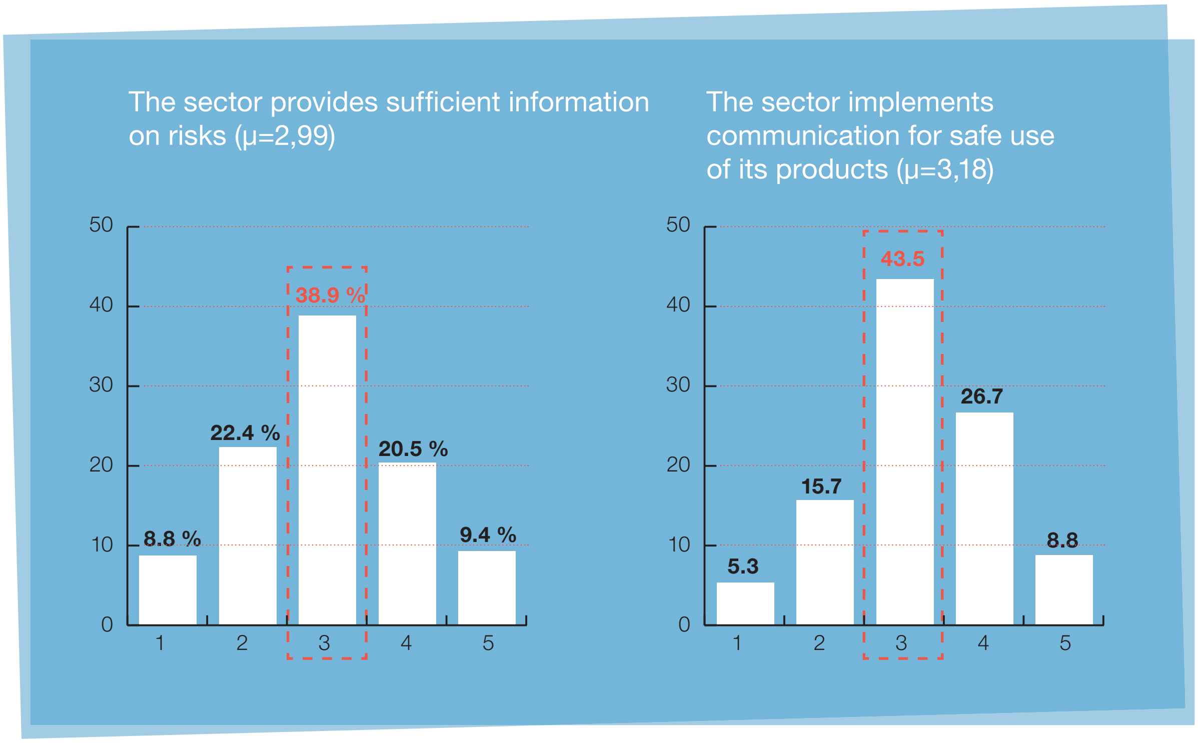

Figure **12** > **Perceptions about the sector's communication? *(on a scale going from 1 – totally disagree to 5 – totally agree)***

As illustrated in Figure 12, a majority of respondents adopt a neutral position on the questions related to the communication of the sector [1]. Consequently, the perceived level of information about the sector is quite low (see Figure 13): 50% of respondents consider to be lowly or not at all informed about the sector, while only 11.3% of respondents consider they are very well informed. We can also note that the average degree of information is higher for respondents aged between 25 and 44 years old (**μ**=2.57).

[1] We observed that youngest respondents (below 29 years old) consider more than others that the sector provides sufficient information on risks (μ = 3.13).

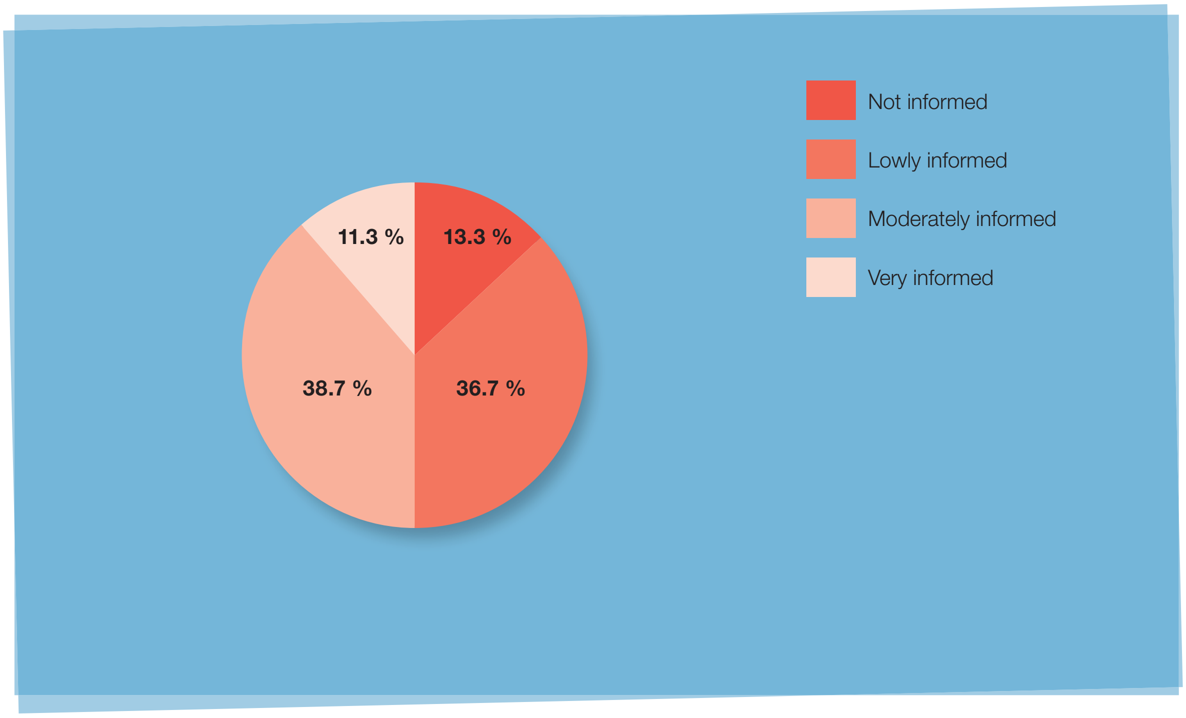

Figure **13** > **Level of perceived information about the sector**

The more respondents feel informed, the more positive they are with respect to the sector's contribution to sustainable development

We observe a positive link between the level of information about the sector and the perceived contributions of the sector to sustainable development (see Figure 14). It is thus essential to better inform the Belgian population about the sector's activities in order to develop its image of a responsible actor in society.

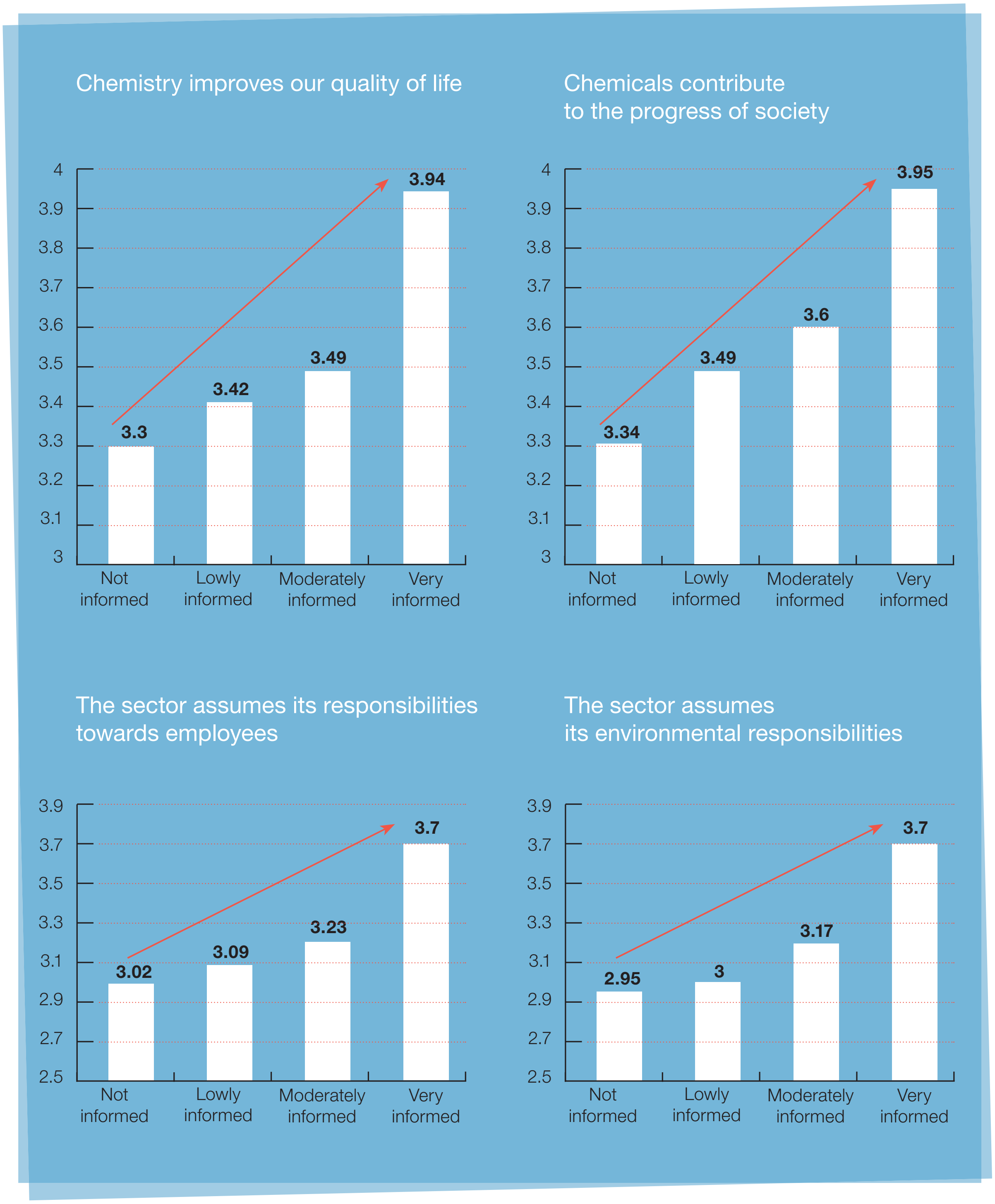

Figure **14** > **The more respondents feel informed, the more positive they are with respect to the sector (The numbers reported in the graphs are the respective means of answers per level of information)**

Internet and packaging remains the preferred communication tools used to get information about sustainability activities

A majority of respondents (58.2%) claimed to use internet for information search on sustainable development. The second most commonly used channel to look for information about sustainability is the product packaging quoted by 47.1% of respondents. TV programs appear in the third position quoted by 29.3% of respondents.

Conversely, few respondents claim to refer specifically to the corporate sustainability reports (10.2%) or annual reports (7.8%), although these are the tools companies widely use to inform stakeholders about their sustainability activities.

Using social networks can also be a recommendable option to inform about sustainability activities, particularly if the target of the communication is the youngest part of the population. Indeed, social networks are quoted by 19.1% of respondents, 39.7% of them being less than 25 years old; 21.2% between 25-29 years old.

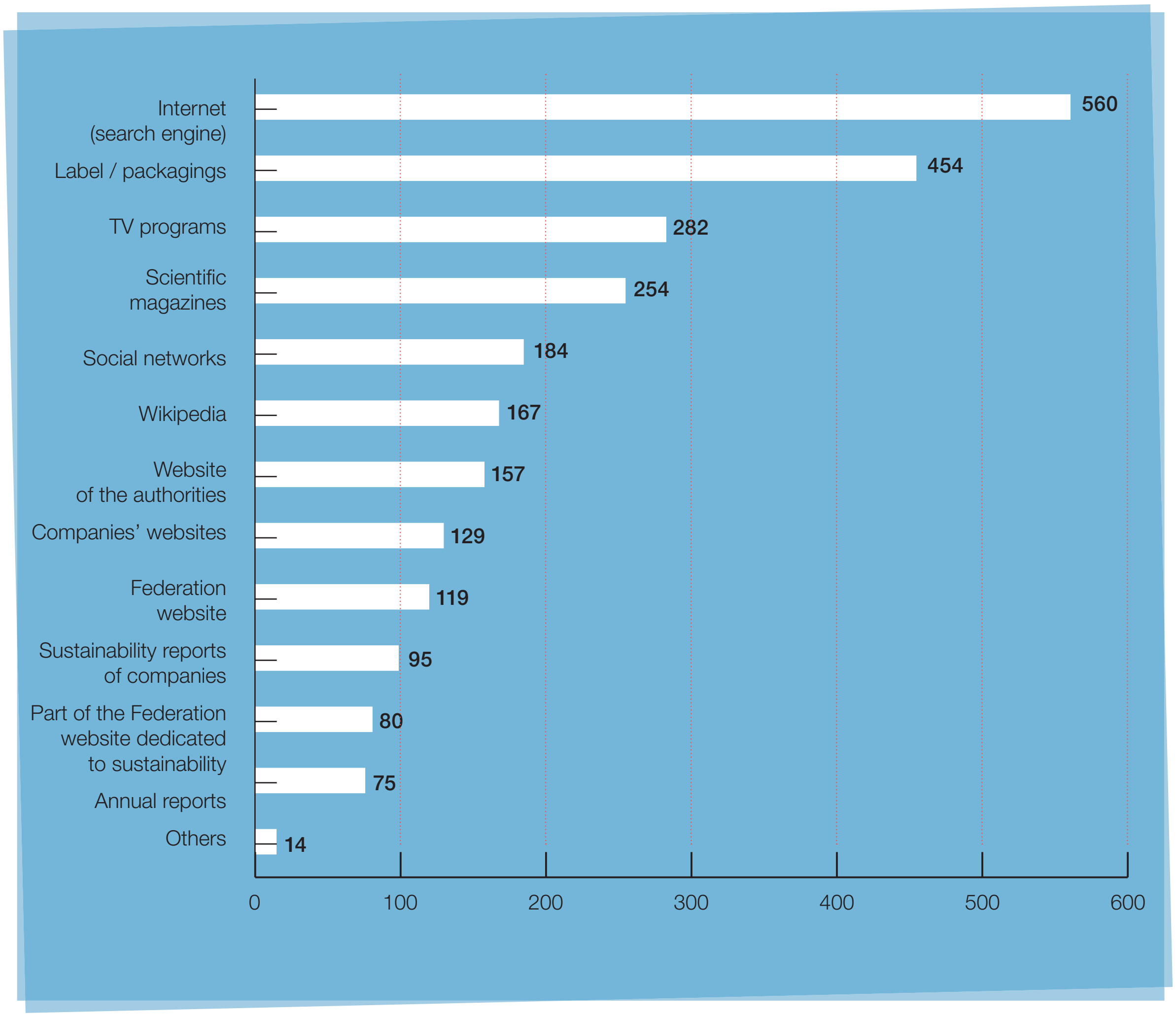

Figure **15** > **Preferred communication tools used to get information about sustainability activities of companies (in number of respondents)**

8/ Key takeaways

Belgians consider that the chemicals, plastics and life sciences sector is a **strictly regulated sector** and an **important economic pillar of the Belgian economy**. In particular, they describe the sector as a **quality employer**, which ensures quality jobs, pays its employees well and provides them with secure jobs.

Moreover, Belgians are aware of the sector investments to **develop solutions** to major global challenges, in particular those related to **health issues.** Even if, up to now, Belgians still consider the sector as more **part of the environmental problems** than of the solution, they acknowledge that the sector tries not only to reduce its negative impacts on the environment, but also to develop solutions to meet environmental challenges.

The sector is perceived as **highly innovative** and oriented toward the future, but **not transparent** enough. Informing Belgians about the sector's activities related to sustainability should be one of the top priority of the sector. Indeed, the more informed the public is the more positive its perceptions about the sector are. It is thus very important to reinforce the communication to the public about the strengths of the sector and its contribution to sustainable development, **especially for a younger target**, particularly interested in how companies take their impact on society into account.

Contributors

Valérie Swaen has a PhD in Management Sciences from the Université catholique de Louvain and is a Professor of Marketing and Corporate Social Responsibility (CSR) at the Louvain School of Management (Université catholique de Louvain, Belgium) and at IESEG School of Management (France). She studied corporate social responsibility from different fields of management (marketing, organizational behavior, strategy, leadership, and accounting), but her main research interest concerns stakeholders' reactions to CSR communication. She has published academic papers in international journals such as Journal of Management, Journal of Management Studies, Marketing Letters, Journal of Business Ethics, and International Journal of Management Reviews, among others. She has also contributed to the edition of various special issues of international journals on the topic of CSR. She is the director of the CERMA (Center on Consumer Relations and Responsible Marketing of the LouRIM), the deputy director of the CCMS (Center of Excellence on Consumers and Marketing Strategy) and the head of the LOUVAIN CSR NETWORK (https://uclouvain.be/fr/facultes/lsm/csr-network.html).

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