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Green recovery packages

- a boost for environmental and climate work in
the Swedish construction and building industry?

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EXECUTIVE SUMMARY

The objective of this study is to explore whether the green recovery packages issued by the Swedish government are aligned with the work of the construction and building industry to become climate-neutral by 2045. We have interviewed heads of sustainability of some of the largest companies in the industry and surveyed companies that have signed *the Roadmap for a fossil-free construction and building industry*¹. Our results show that market-related challenges constitute the most important challenges to the environmental and climate work of the companies in our study. To better respond to these challenges, they require policies that reward frontrunners, primarily green public procurement, and tougher standards and norms. They also requested investments and policies that support the transition to a circular economy. We conclude that while green public procurement is not among the policies and investments included in the recovery packages, other parts are well aligned with the challenges encountered, requested investments and policies, and on-going work. This is particularly true for the above-mentioned investments related to the transition to a circular economy. Further, the study enables us to conclude that it is important to consider the long-term effects of green recovery packages and their potential for return-on-investment in terms of reductions in greenhouse gas (GHG) emissions per SEK. Such packages will also have a better effect if they support on-going environmental and climate work, initiate new actions, and are designed with a systems perspective that facilitates joint action between different companies along the entire supply chain.

¹ Bygg- och anläggningsindustrins färdplan inom Fossilfritt Sverige.

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Chapter 1: Introduction

The downturn of economic activities following the outbreak of the Covid-19 pandemic has caused a global recession. To counteract some of the negative effects of this recession, governments around the world have announced recovery packages for a green and sustainable recovery. The aim of these packages is to cut greenhouse gas (GHG) emissions while simultaneously boosting the economy. The packages make available recovery funds, which offer a unique opportunity to accelerate the transformation towards a low-carbon economy and can be described as a window of opportunity. However, if the recovery packages are spent on traditional industrial activities that include fossil-intensive processes, the opportunity to kick-start a sustainable transformation may be lost, while governmental funds available for climate transformation will be exhausted for a long time to come.

The Swedish government has announced green recovery packages as part of its national budget for 2021. In total, the budget for 2021 corresponds to more than SEK 1,100 billion, of which SEK 105 billion is referred to as “recovery packages”. Approximately SEK 10 billion is aimed at a green recovery², corresponding to about 10% of the Swedish recovery packages. This is to be compared to 30%, which is the percent of the EU recovery package aimed at green recovery. We were interested in understanding the role of the green recovery packages from a business perspective, and have therefore investigated attitudes to them among companies in the Swedish construction and building industry. This industry accounts for 11% of Sweden’s annual GDP, employs more than 350,000 people³ and accounts for approximately 20% of Sweden’s annual CO₂ emissions⁴. Hence, a successful transformation in the construction and building industry would contribute substantially to the national target of becoming climate-neutral by 2045.

This study has explored whether the green recovery packages issued by the Swedish government are aligned with the work of the construction and building industry to become climate-neutral by 2045. More specifically, we have explored the following questions: To what extent do the green recovery packages contribute to increase the speed of the environmental and climate work taking place in these companies? To what extent are the green recovery packages expected to initiate new such work?

Several green recovery packages have been proposed, each of which consists of a number of investments⁵. Some of these investments (such as the Industry Leap and the Climate Leap initiatives) existed before the pandemic, but funding for them has been increased and they are now part of what the government refers to as the green recovery package. In this report, we follow the categorization used by the Swedish government. We included the following investments from the green recovery packages in the study, as they may be relevant to the environmental and climate work of the Swedish construction and building industry:

² Government Offices, Promemoria dated 14 September 2020: Grön återhämtning i budgetpropositionen för 2021

³ <https://www.byggindustrin.se/alla-nyheter/debatt/nu-fordjupas-coronakrisen-for-byggbranschen/>

⁴ <https://fossilfrittssverige.se/roadmap/bygg-och-anlaggningssektorn/>

⁵ While the government has issued what they refer to “a” green recovery package, we have, for reasons of simplicity, chosen to talk about several green recovery packages, each one consisting of several investments.

- **Better conditions for the green transition of industry:** Industry Leap initiative (SEK 150 million) and Climate Leap initiative⁶ (SEK 100 million).
- **Electricity grids and renewable energy:** Expansion of electricity grids (SEK 15 million).
- **Increased pace in the transition to a circular economy:** Increased recycling of metals (SEK 25 million), guide to a circular economy (SEK 10 million), and more reliable waste statistics (SEK 22.5 million).
- **Climate-smart travel:** Support for public transport (SEK 2 billion), production support for biogas (SEK 200 million).
- **Railway and transportation of goods:** Capital injection to Green Cargo (SEK 1.4 billion), compensation for railway transportation of goods (SEK 400 million), maintenance of railways (SEK 500 million).
- **Energy efficiency:** Support for energy efficiency and renovation of apartment buildings and green areas (SEK 900 million).
- **Improved climate statistics and international climate work:** Climate policy framework and better efficiency analyses (SEK 40 million).

In addition to the green recovery packages listed above, the government has granted credit guarantees for investment in green technology corresponding to a maximum of SEK 10 billion for 2021.

Chapter 2: A short note on the method

A survey carried out by the Swedish Construction Federation has shown that the construction and building industry has been negatively affected by the Covid-19 pandemic. Order intake for 66% of the firms who replied to the survey was lower in 2020 than in previous years, and 15% of firms had notified employees of termination of employment as a result of the pandemic⁷. Considering this, the industry can be expected to benefit from recovery packages. Furthermore, the industry accounts for approximately 20% of Sweden's annual CO2 emissions⁸. Hence, the climate impact of this industry is considerable, and it could contribute substantially to achieving Sweden's target of being climate-neutral by 2045 by reducing its emissions. Therefore, this report focuses on the construction and building industry.

The companies in our study were chosen to cover the entire supply chain of the construction and building industry. We have, thus, included companies involved in extraction of natural resources, production of input materials (steel and cement), construction and management of infrastructure and buildings, recycling, and providing technical consultancy services. Some companies are involved in several activities. Further, they have all signed the *Roadmap for a fossil-free construction and building industry*⁹ and in this way committed themselves to making the supply chain of the industry climate-neutral by 2045.

⁶ Industriklivet and Klimatklivet

⁷ <https://byggforetagen.se/2021/01/coronapandemins-effekter-oroar-byggforetagen-mest/>

⁸ <https://fossilfritt.sverige.se/roadmap/bygg-och-anlaggningssektorn/>

⁹ Bygg- och anläggningsbranschens färdplan inom Fossilfritt Sverige

We conducted semi-structured, in-depth interviews with the heads of sustainability of 11 large companies in the construction and building industry. The interviews covered issues related to their current sustainability work, with a particular focus on several topics: environmental and climate work, the challenges encountered, the context of the work in terms of important policy frameworks and actors, and the attitudes of the managers to the green recovery packages. The results of the interviews led us to design a questionnaire. This was sent to the 113 companies that have signed the *Roadmap for a fossil-free construction and building industry*, as we were interested in the attitudes of those who had committed themselves to ambitious targets and had experience from environmental and climate work. The questionnaire focused exclusively on their environmental and climate work, and covered the challenges encountered by the companies, the kinds of policy that they believed could support their work, and the extent to which the green recovery packages could support existing environmental and climate work and/or could contribute to initiating activities related to that work. The answer options in the questionnaire had been formulated based on the replies given in the interviews. We sent several reminders, and eventually received 27 answers, i.e., a response rate of 24%. The results from the survey are presented as descriptive statistics at an aggregate level, because the number of respondents was too small to allow for more detailed analysis. In this report, we primarily present results from the questionnaire, while results from the interviews are used to discuss and provide nuances to these.

The companies chosen were already engaged in environmental and climate work. The results presented here, thus, are not representative of the entire construction and building industry. Moreover, while a comparatively high fraction of the companies that replied to the questionnaire are engaged in activities early in the supply chain (and are thus comparably large companies with high GHG emissions), few companies in later parts of the supply chain (which are comparably smaller companies with lower GHG emissions) replied. While this is a limitation to our study, a strength is that we have covered the entire supply chain, and have managed to include actors who have committed themselves to ambitious targets with respect to their environmental and climate impact. Their perspectives are valuable in understanding how the green recovery packages might, or might not, support environmental and climate work in the construction and building industry.

Chapter 3: Results

The extents to which the companies in our study have been negatively affected by the Covid-19 pandemic differ. While a majority state that they have not been negatively affected at all or only to a low degree, approximately 30% indicate that they have been negatively affected to a high or very high degree. This, together with the fact that only one respondent claimed to know about the content of the green recovery packages, might explain why many respondents were unsure whether the recovery packages can contribute to a restart or not: 63% answered that they do not know and 16% answered that the green recovery packages had no relevance in that respect. Only one respondent believed that the green recovery packages can contribute to restarting the activities of the company to a high extent. Few respondents replied to an open question in which they were asked to give examples of the negative effects of the pandemic on the company's environmental and climate work. In contrast, several gave examples of positive effects, as the pandemic led to fewer transports, less travelling, and lower consumption. Therefore, on the one hand, the green recovery packages appear to have limited

importance as recovery packages for the companies in our study, while on the other hand, they may be important in boosting the environmental and climate work of these companies by leading to a decrease in their GHG emissions. To better understand this, however, it is necessary to explore the nature of the environmental and climate work already taking place, the challenges encountered in this work, and the kind of policy support that the companies stated they would need.

3.1 Environmental and climate work

Signing the *Roadmap for a fossil-free construction and building industry* has implications for the signatory's environmental and climate work. By 2022, all signatory firms should have mapped their GHG emissions and set climate targets, and by 2025, they should *"exhibit clearly decreasing GHG emissions"*¹⁰. GHG emissions should have decreased by 50% in 2030 and by 75% in 2040 from 2015 levels. This work is tightly aligned with the companies' core business, as the companies will decrease GHG emissions by transforming the way in which they conduct the core business. Hence, it is of utmost importance that policies are well-aligned with their needs. While some companies have only recently formulated their specific targets and the strategies they will use to achieve them, others are well ahead of schedule. Moreover, many companies have other targets related to their environmental and climate work than those described in the roadmap. It is, for instance, common to have targets related to the Sustainable Development Goals (SDGs) of the UN – mainly targets related to sustainable cities, clean and renewable energy, and responsible production and consumption. The companies in our survey considered the targets to be ambitious, yet realistic, and suggested that they have a clear understanding of how they will reach them.

When asked about their three most important motivations to conduct environmental and climate work, the companies mentioned the following motivations most frequently: (1) a desire to act responsibly, (2) competitive advantage, and (3) strengthening the brand. In our interviews, however, the interviewees suggested that there has been a shift in perspective during the past 5-10 years, and suggested that environmental and climate work has become an issue of profitability, rather than of ethics: *"Let us say five years ago, it was more some kind of idealism, but today, it is a competitive advantage that we cannot live without. Moreover, if we really examine it, we realize that it doesn't involve higher costs"*. Another respondent suggested that *"the transformation will be fast and there is a huge financial risk to stay with the unsustainable"*.

3.2 The challenges encountered and the policies requested

Although fundamental to business, environmental and climate work brings challenges. Our survey showed that economic and market-related challenges were identified to be most important (80%). These were followed by weak or unclear policies (74%), technology-related challenges (74%), expertise-related challenges (56%), and challenges following from legal requirements (48%). This pattern was repeated when the respondents were asked to what extent a number of specific challenges applied to the company (see Appendix 1 for a list of the challenges). Then, the single most important current challenge was the lack of requirements and incentives for sustainable solutions in public procurement processes (85%) (Figure 1). This was followed by limited investment capacity (81.5%), limited market knowledge about sustainable solutions, higher investment costs for sustainable solutions (both 77.8%) and unsustainable solutions being cheaper (70.4%).

¹⁰ <https://fossilfritt Sverige.se/roadmap/bygg-och-anlaggningssektorn/>, page 7.

Figure 1: The percentages of respondents who suggested that a particular challenge constituted a challenge to the environmental and climate work of their company to a large or very large extent

We also asked what policies would enable the companies to increase the pace of their environmental and climate work. The single most important policy that companies requested was green public procurement (Figure 2), i.e., a wish for public organizations to use their purchasing power to choose more sustainable alternatives. More than 89% of respondents suggested that such a policy, to a large or very large extent, would increase the pace of their environmental and climate work. This result is not surprising, since the respondents had previously identified economic and market-related challenges to be the most important ones, and considering the pattern that emerged from our interviews, in which most respondents suggested that the public procurement process could be better used to incentivise companies to offer more sustainable solutions. In the interviews, the head of sustainability of one of Sweden's largest firms in the construction and civil engineering industry referred to the public procurement process: *"It is no longer enough to push the laggards by the use of legal requirements: it is essential to create incentives and opportunities for those running at the front to run even faster"*.

The survey also shows that many companies want to see a set of policies that reward frontrunners. These policies include tougher standards and norms (81%), increased requirements on the percentage of recycled or reused material (78%), removal of obstacles that limit the recycling and reuse of material (78%), and tax reductions for sustainable alternatives (74%) (Figure 2). It is interesting that the policies requested are mainly related to tougher legal requirements, standards, and norms rather than financial support, even though the results presented in Figure 1 show that financial and economic challenges are considered to be most important. Policies consisting of various examples of financial support, such as increased investment support, increased innovation support, and the introduction of credit guarantees, were at the bottom of the list – although a considerable share of the companies still found many of them relevant. An explanation of the results might be found in the following free-text responses:

“It is very nice that the market often precedes politics, but we do not have the time for that any longer. To realise a comprehensive transformation, the legislators must be clear and set tougher requirements. Only then will the market really do what is required.”

“Generally, policies are too weak and combined with too low requirements. [Policies] do not follow well-proven solutions, such as the international standard for passive houses. Instead, in Sweden, we rather invent our own [standards].”

Figure 2: The percentages of respondents suggesting that a particular policy would contribute to increase the pace of their environmental and climate work to a high or very high degree

3.3 The importance of the green recovery packages

The respondents generally had poor knowledge of the green recovery packages. While most stated that they did not know whether the recovery packages were relevant to their environmental and climate work, 27% hoped that they would be. We followed up on this question by counting those investments from the recovery packages that could be relevant to the sector (p. 7), and asked respondents to rank the degree to which they could contribute to increasing the pace of current environmental and climate work, and the extent to which they could contribute to initiating new such work (Figures 3 and 4).

Figure 3 shows that most investments from the recovery packages were not expected to make any considerable contribution to increasing the pace of the firms' environmental and climate work. A guide to the circular economy, however, is an exception, and a majority (59%) of the respondents suggested that it would contribute to a high or very high degree. This investment amounts to SEK 10 million and is part of a SEK 100 million package aimed at increasing the pace of transition to a circular economy. Reliable waste statistics and increased reuse of metals, which about a third of the respondents

suggested would increase the pace of their work to a high or very high degree, constitute other parts of this package. This green recovery package is compatible with the kinds of policy requested, where almost 80% of respondents requested that the requirements on the percentage of recycled or reused material be increased, and obstacles that limit recycling and reuse of materials be removed (Figure 2). The investment appears to be targeted such that the Swedish Environmental Protection Agency will use it to *“implement legislation and strengthen the work for a circular economy”*.

Figure 3: Percentages of respondents who suggested that a particular investment of the green recovery packages would contribute to a high or very high degree to increasing the pace of their environmental and climate work

The second and third most important investments that would lead to an increase in the speed of environmental and climate work were support for energy efficiency (which included renovation of apartment buildings and green areas corresponding to SEK 900 million (48% of respondents)), and expansion of the electricity grid (33% of respondents) (Figure 3). While the first investment constitutes direct financial support to companies, the second one, which amounts to SEK 20 million, is to be used by the Swedish Energy Markets Inspectorate¹¹ to handle applications for renovating and/or building new power lines. The interviewees pointed out the need for up-grades to electricity grids, and this was particularly emphasised by firms early in the supply chain, i.e., firms that extracted natural resources and/or produced input materials. Several of these firms were in the process of converting their production sites to become electricity-powered rather than powered by oil or gas. This reinforced their emphasis on the importance of a stable electricity grid.

Figure 4 details investments from the green recovery packages that the companies expected to lead to new environmental and climate work. Again, those related to increasing the pace of transition to a

¹¹ Energimarknadsinspektionen.

circular economy are most frequently mentioned. More than 70% of respondents considered that a guide to the circular economy would make them initiate new activities. In that work, more reliable waste statistics and increased reuse of metals (ranked 2 and 4, respectively) are important investments. Further, while many firms were already engaged in work related to increased energy efficiency and the renovation of apartment buildings and green areas, almost 45% thought it likely or highly likely that new work would be initiated in this field as a response to the investments of the green recovery package.

Figure 4: Percentages of respondents who suggested that a particular investment of the green recovery packages would contribute to initiate new environmental and climate work to a high or very high degree

Figure 4 shows that a fairly large share of the companies in our sample believe that the Climate Leap initiative will lead to new environmental and climate work activities. This is interesting, since the initiative has existed for some time and could be expected to have been important for the work already taking place. However, most companies did not consider the Climate and Industry Leap initiatives respectively to be important in increasing the pace of the current environmental and climate work. In our interviews, several respondents also commented upon such initiatives, and described how they considered the application procedure to be too time-consuming relative to the expected contribution. These companies, therefore, refrained from applying.

Chapter 4: Discussion

The objective of the work described in this report was to investigate the views of Swedish building and construction companies regarding the green recovery packages announced by the Swedish government and the extent to which these green recovery packages are aligned with their environmental and climate work. More specifically, we have explored the extent to which they have the potential to increase the speed of the environmental and climate work that is already taking place in these companies, and the extent to which they are expected to initiate new such work. By signing the *Roadmap for a fossil-free construction and building industry*, the companies in our study have

committed themselves to decreasing their climate impact. These companies are already actively engaged in environmental and climate work, driven, as they describe it by a willingness to act responsibly, to acquire competitive advantages, and to establish a strong brand. The requests of these companies in terms of policies might, therefore, differ from those of less engaged actors in the industry. However, we have identified policies that can contribute in important ways to the environmental and climate work of both laggards and frontrunners, such as green public procurement, and tougher standards and norms (see below).

Economic and market-related challenges were most important to the companies' environmental and climate work. However, although investment capacity was limited and investment costs for sustainable solutions considered to be high, the companies did not primarily ask for direct financial support. Instead, they requested policies that can be game-changers, and contribute in this way to creating a market for the most sustainable solutions. The companies in our study put forward the strongest request for green public procurement processes since this would constitute an incentive to companies that have already invested in more sustainable solutions, while complicating business for companies that have not. This also holds true for the second most preferred policy, tougher standards and norms. Tougher standards and norms could further enable companies to circumvent the second most important challenge, limited market knowledge about sustainable solutions, as the new standards and norms would contribute to the gradual disappearance of unsustainable ones, and drive actors towards using better alternatives.

Green public procurement was not included in the recovery packages, and while no investment was literally expressed in terms of tougher standards and norms, some investments, such as those related to increasing the pace of transition to a circular economy, would contribute to their development. These investments are compatible with the wish expressed by the companies for increased requirements on the percentage of recycled or reused materials, and the removal of obstacles that limit reuse of such materials. These latter two wishes were expressed by more than 75% of the companies. Moreover, they would contribute both to increasing the pace of the companies' on-going environmental and climate work, and initiating new work. This also holds true for the green recovery package that includes support for energy efficiency and the renovation of apartment buildings and green areas – the only direct financial support on the upper part of the list. When it comes to green recovery packages which, according to our respondents, would increase the pace of current work, they believed that investments in the expansion of the electricity grid would be particularly useful. The number of respondents was not sufficient to analyse in detail the preferences of companies in different parts of the supply chain. However, better possibilities to recycle and reuse materials were considered essential by interviewees throughout the entire supply chain. This may not be the case when it comes to the expansion (and stability!) of the electricity grid, or new support for energy efficiency and renovation of apartment buildings and green areas. Rather, investments in the electricity grid were primarily mentioned by companies early in the supply chain, while support for energy efficiency and renovation of apartment buildings and green areas, quite naturally, was requested by owners of such properties. We further note that it is not the most costly investments that are expected to result in increased speed of, or initiation of new, environmental and climate work among companies in our study. Rather, the companies believed that cheaper investments will have a greater impact on their environmental and climate work.

Most companies included in the study were not heavily affected by the pandemic, and their need for recovery packages can therefore be considered to be moderate. However, not all green recovery packages target specifically companies that need a re-start. Many of them, in contrast, have been designed to have the potential to affect the activities of all companies in the industry. Given that knowledge about the content and design of the recovery packages was low, however, there is a risk that companies that were not heavily affected by the pandemic would not actively try to make use of the investments that constitute direct financial support (such as the Industry Leap and Climate Leap initiatives). On the other hand, those investments of the green recovery packages are not best aligned to the support requested by most of the companies in this study, although several suggested that these investments could initiate new environmental and climate work. Moreover, many investments of the green recovery packages are of such a nature that they will inevitably contribute to changing the game for all companies, regardless of their need for recovery packages. It should, however, be noted that the government has been criticised by the Swedish Climate Policy Council, which claims that the recovery packages are not sufficient to support a green recovery of the magnitude needed in order to reach the national target of 2045. The council also believes that the message sent about a forceful and green recovery is incongruous and contradictory¹². We have not considered the question of whether the green recovery packages are sufficient to reach the national target, or the targets of the signatories of the *Roadmap for a fossil-free construction and building industry*. However, we can conclude that several of the policies requested are not included in the green recovery packages, and that several policies that are included in them are not considered important by a majority of the companies.

Chapter 5: Concluding remarks

As suggested in the introductory part of this report, there are at least two risks associated with recovery packages. First, that they exhaust available governmental funds for climate transformation for a long time to come, and second, that they fail to push companies in more sustainable directions. It is, therefore, important that the green recovery packages issued by the Swedish government and investigated further in this study contribute not only to recovery, but also to the long-term environmental and climate work undertaken by companies and to Sweden's commitment to become climate-neutral by 2045. The construction and building industry accounts for about 20% of Sweden's annual CO₂ emissions and has therefore a great potential to contribute to the national target.

The green recovery packages consist of investments in infrastructure, changing legal frameworks, and direct financial support. Investments in infrastructure and changing legal frameworks have long-term effects that reach beyond immediate recovery. Further, these components influence the environmental and climate work of all companies, regardless of the extent to which a company has been affected by the pandemic. While some examples of direct financial support (such as the Climate Leap and Industry Leap initiatives) can be used by all companies in the industry and are designed to support long-term transformation, the more long-term effects of direct financial support are generally more uncertain¹³. Further, the financial resources invested in those packages earmarked as investments in infrastructure and changing legal frameworks are smaller than the direct financial

¹² Report from the Swedish Climate Policy Council (Klimatpolitiska rådets rapport 2021)

¹³ Cf. Report from the Swedish Climate Policy Council 2021 (Klimatpolitiska rådets rapport 2021).

support. This means that in this particular case, comparatively small investments give more certain and long-term effects. We have also seen that these investments are generally more aligned with the kind of support requested by companies.

While more studies are needed in order to present an exhaustive and more generally applicable list of criteria for policies aimed at green recovery and the more long-term aim of climate transformation, the list below constitutes a starting point. We suggest that the following aspects must be considered when designing green recovery packages:

- **The long-term effects of the policy or investment.** Recovery packages should be designed to change the game of business in adequate ways and with a long-term perspective. This is the case with such components as changing legal frameworks, but not necessarily with direct financial support.
- **The return-on-investment potential of different policies and investments.** The investments and policies most frequently requested by companies, and which also tend to change the game of business in a longer-term perspective, are not necessarily those with the highest investment cost. The investments related to increasing the pace of transition to a circular economy constitute an example.
- **The extent to which the investments not only support companies' existing environmental and climate work but also have the potential to initiate new ones.** Many firms have initiated actions to substantially decrease their GHG emissions and to become climate-neutral by 2045. To the extent that the actions taken are relevant to their purpose, policies and investments should preferably be aligned with them to provide support in the right direction, and to contribute to initiating new actions by the companies. Again, the investments related to increasing the pace of transition to a circular economy constitute a good example, as does the support for energy efficiency and the renovation of apartment buildings and green areas.
- The companies included in our study had signed the *Roadmap for a fossil-free construction and building industry*. Such roadmaps exist for several industries. It is interesting to note that the entire supply chains of those industries have taken joint action to make the industry climate-neutral by 2045. This points to the importance of actually **considering the entire supply chain, by having a systems perspective when designing policies and investments for a green recovery**. While we could not find any policies or investments targeted to the entire supply chain of the construction and building industry, our interviewees gave examples of how the legal frameworks made joint actions difficult, as different legal frameworks resulted in goal conflicts. This impeded some joint collaborations and actions aimed at further reducing the GHG emissions of the industry. A systems perspective is also essential, as the success of individual firms in reaching their environmental and climate targets hinges upon that of other firms in the supply chain.

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Appendix 1: Challenges

The table presents the percentages of respondents who considered that the challenge mentioned affects, to a high or very high degree, the environmental and climate work of the company.

Economic and market-related challenges		Technology-related challenges	
Limited investment capacity	81	The technology is available, but policies are too weak for them to be implemented	67
Limited market knowledge about sustainable solutions	77	Technology which could reduce the environmental and climate impact is immature	63
Higher investment costs for sustainable solutions	77	Lack of required infrastructure	63
Unsustainable solutions are cheaper than sustainable solutions	70	The technology needed does not exist	15
Limited demand for sustainable solutions	65		
Economic and market-related risks of promoting sustainable solutions	43		
Ever-changing market demands	33		
Challenges related to legal requirements			
Lack of requirements and incentives in public procurement processes	85		
Lack of common standards	63		
Laws and regulations make reuse of material difficult	59		
Obsolete laws and rules	48		
Differing interpretations of laws and regulations depending on authorities	41		
Laws and regulations make faster transition to sustainability difficult	22		
Approvals are too extensive	15