



Report on the impact of COVID-19 pandemic on the EMAS system





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1. Introduction

Circular economy has become a key element for the post-COVID-19 recovery and to help recover the wealth of the EU regions. Further advance towards a Circular Economy model is one of EU's priorities after the COVID-19 pandemic and has become a lever of greatest need to encourage environmental, climate and digital policies.

For this reason, the circular economy has been strongly introduced into the current Regional Policies of many EU regions, where it is taking an important role in tackling the great transition towards global sustainability. Arising from the COVID-19 pandemic, the closed cycle economy becomes even more relevant to promote the EU Green Deal.

Against the current background, the EU regions, more than ever, have to join forces to better face and recover from the COVID-19 crisis. In this sense, it is essential to strengthen the interregional cooperation process to continue exchanging experiences and mutual learning.

Interreg Europe program ([Interreg Europe 2014-2020 | Interreg Europe - Sharing solutions for better policy](#)) has been an opportunity to help regional and local governments across Europe to develop and implement better policies, creating an environment and opportunities to share solutions, exchange experiences, cooperation and mutual learning.

ENHANCE ([EMAS as a Nest to Help And Nurture the Circular Economy](#)) is one of the 67 Interreg Europe projects working on the Environment and resource efficiency, one of the four programme topics. ENHANCE project overall objective is to improve the implementation of regional policy instruments oriented to increasing the efficiency of resources by the exchange of experiences and practices on supporting **EMAS** ([EU Eco-Management and Audit Scheme](#)). EMAS is an instrument developed by the European Commission for companies and other organisations to evaluate, report, and improve their environmental performance.

EMAS is a voluntary scheme that offers the opportunity of rethinking operations, activities, products and services within the whole business cycle. EMAS provides transparency, while the organizations communicate real and reliable environmental information and is a guarantee of commitment with the environment in a responsible and respectable way, also ensuring compliance with all environmental legal requirements.

ENHANCE has worked on the adoption of regulatory relief and promotional incentives on EMAS and has contributed to a better EMAS governance through further integration of this instrument into certain regional and national legal frameworks. ENHANCE has developed actions aimed at helping organisations to identify the added value of a resource efficiency management and the competitive advantage that EMAS can have as a very competent tool to help in the transition process towards a Circular Economy model.



EMAS is therefore positioned as a driver and as an opportunity to encourage organisations, especially SMEs, in the transition towards this model.

ENHANCE has reported policy improvements and changes in six European regions represented in the project and results are ensured by the improvement of regional policies over which ENHANCE has had an influence.

ENHANCE project was officially closed on March 8th, 2021. The Interreg Europe Monitoring Committee approved on 13 February 2021, the Terms of Reference for a new call to develop additional activities, restricted to only Interreg Europe projects approved in the previous calls (1st, 2nd, 3rd and 4th). The aim of this call was to provide new opportunities to all these already approved projects to continue exchanging experiences, but in this case on how the COVID-19 crisis has impacted on the issue addressed by the projects, identify experiences to face and recover from the crisis and improve the policies of the different regions.

On 13 August 2021, the programme's Monitoring Committee approved a one-year extension of the ENHANCE project activities to assess how the health crisis has impacted the thematic addressed by the project.

This extension involves four of the six ENHANCE project partners, the Ministry of Climate Action, Food and Rural Agenda of the Government of Catalonia, leader of ENHANCE project, Sant'Anna School of Advanced Studies from Italy, Stockholm Environment Institute Tallinn Centre from Estonia and Environment Agency of Austria.

EMAS has been directly affected by COVID-19 crisis, as not only it has had to face and incorporate the consequences into its governance model (prolongation of audits cycle & remote audits, among other), but also policy instruments in which EMAS is integrated as a tool for simplification, savings and regulatory relief, have been affected (regulatory controls, public purchasing, among other). Therefore, further exchange experiences have been key to know how the actors involved and regions, have reacted to face and recover from crisis.

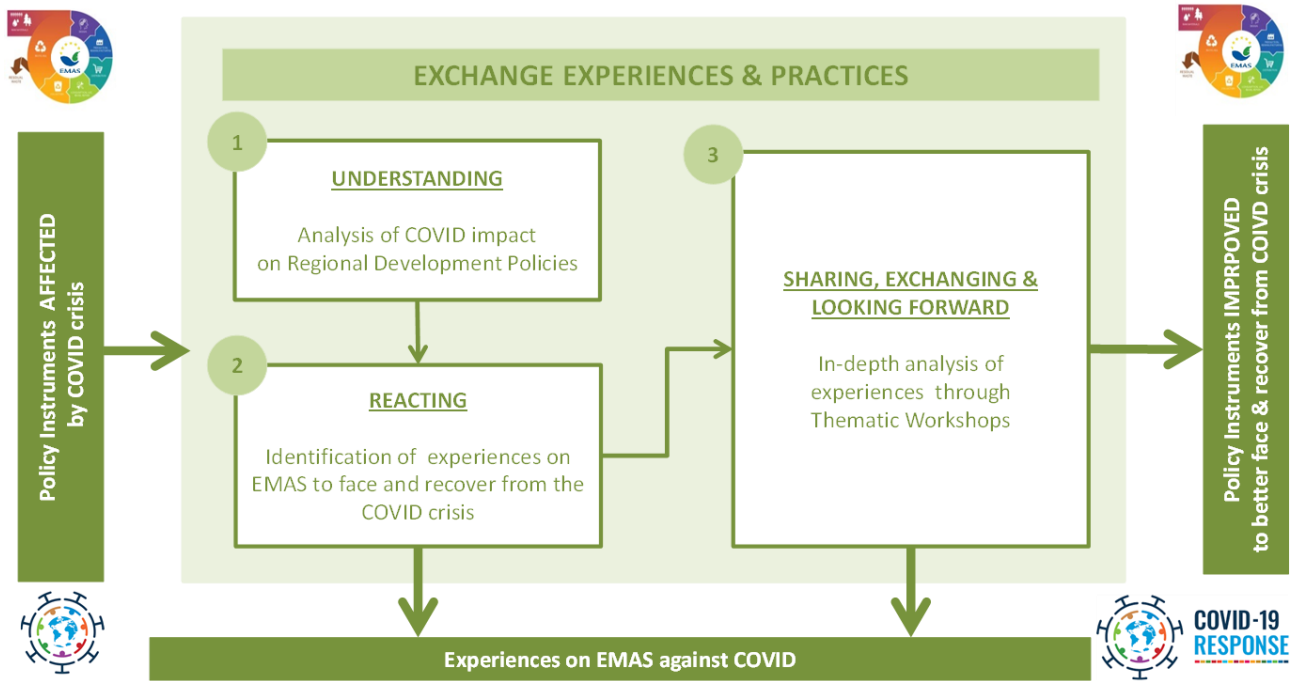
In order to achieve all the improvements of the policy instruments that ENHANCE can influence, and to incorporate the changes resulting from the crisis situation, it is necessary to jointly agree on the management of the EMAS governance model itself between all parties involved: EMAS organisations, verifiers and competent bodies.

ENHANCE additional activities have been organized based upon an integrated and interregional approach developed through 3 types of activities:

- **Understanding:** analysis on how the policy instruments on EMAS have been affected by crisis;
- **Reacting:** identification of experiences on the way the crisis impact EMAS supporting to face and recover from crisis;



- **Sharing, exchanging and looking forward:** understand how these experiences can be implemented from a region to another.



The results shown in this report are those derived from the **Understanding** activities.



2. Methodology and sample

To evaluate the impact of COVID-19 pandemic on EMAS-certified organisations as well as the whole EMAS system, Scuola Superiore Sant'Anna (SSSA), together with the whole consortium, designed, developed, and administered three surveys to the three main EMAS actors: EMAS-certified organisations, Environmental Verifiers and EMAS Competent Bodies. Although the focus was on EMAS-certified organisations, the consortium investigated the impact on the other actors with specific surveys. The questions of the surveys were common in some respects and specific in others (customised according to the actor), with the aim to cover all the topics and to understand the different perspectives on the same topics.

From a methodological point of view, during the design phase SSSA reviewed relevant literature, and we designed our surveys accordingly. Next, we asked academicians and ENHANCE partners and experts to review the suitability and contents of our survey questionnaires. In this way, the quality of our survey questionnaires was further improved. Afterward, the survey questionnaires were translated in Italian, German, Catalan, Spanish and Estonian.

The surveys were designed from September to December 2021 and uploaded on the platform SurveyMonkey. They were administered by emails from January to February 2022 through the EMAS register for all European organisations and through the help of the whole consortium for Verifiers and Competent Bodies. The national versions were administered respectively to Italy, Austria, Catalonia (Spain) and Estonia, whereas the English ones to all the other European countries.

A total of 383 surveys (281 fully completed) were collected by EMAS-certified organisations; n. 53 surveys (39 fully completed) by Competent Bodies; n. 57 surveys (37 fully completed) by Verifiers (see table 1). The completion rate was extremely high, about 70% for each survey, and the sample, i.e., the number of respondents, quite relevant in comparison with the total number of the actors in the respective countries. The highest number of usable respondents came from Italy for EMAS-certified organisations, followed by Austria, Catalunya, and the other European countries. Verifiers came especially from Austria and Germany. The high number of Competent Bodies involved is especially due to Germany and Spain regional CBs, with respectively 24 and 11 respondents. Although invited to participate, in general no answers came from Romania, The Netherlands, Ireland, Hungary, Greece, Cyprus, Croatia, Bulgaria and Belgium.



ORGANISATIONS	Austria	Estonia	Italy	Catalunya	Rest of Europe	TOTAL
Number of respondents	80	12	136	71	84	383
Full completion	63	10	105	52	51	281
VERIFIERS	Austria	Estonia	Italy	Catalunya	Rest of Europe	TOTAL
Number of respondents	16	19	2	5	15	57
Full completion	14	16	2	5	10	37
COMPETENT BODIES	TOTAL					
Number of respondents	53					
Full completion	59					

Table 1. Collected surveys per each actor and by country

The sample of EMAS-registered organisations is primarily made up of about 30% of NACE category C organisations (Manufacturing), 15% of category S (Other service activities), 11,2% Category E (Water Supply; Sewerage, Waste Management and Remediation activities), followed by Category O (Public Administration), category D and H (respectively, Electricity, Gas, Steam and Air Conditioning Supply; Transportation and Storage).

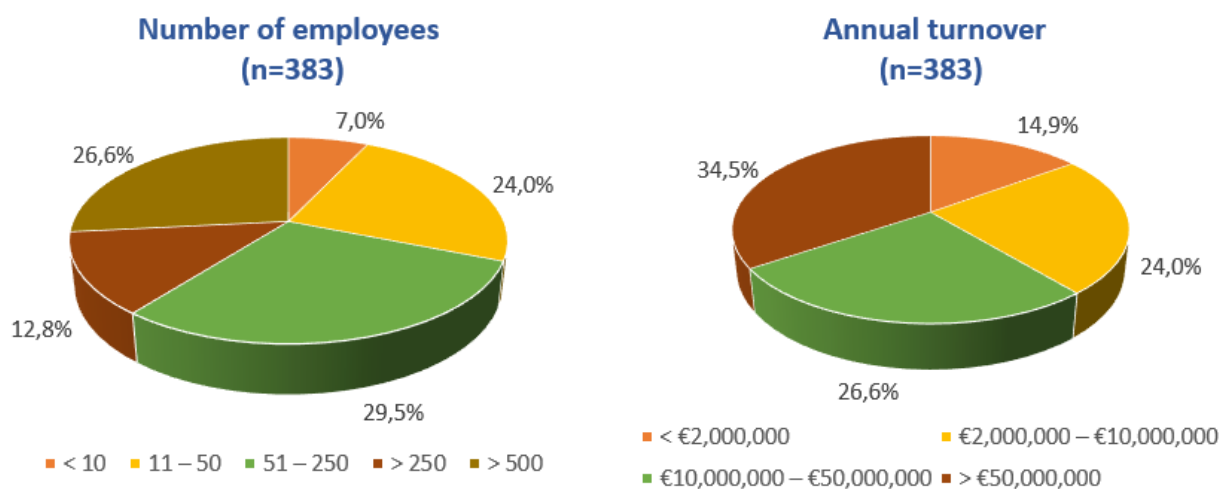


Figure 1. Number of employees and annual turnover of EMAS-registered organisations



EMAS-registered organisations sample is mostly represented by large organisations (figure 1). Only 31% of respondents have less than 50 employees, and about 39% have a turnover lower than 10,000,000 euros. In fact, 69% of organisations have more than 50 employees (29,5% between 51 and 250) and about 61% have a turnover higher than 10,000,000 euros (with 26,6% between 10 and 50 million of euros).

The sample of Environmental Verifiers shows verifying experience primarily in NACE category C organisations (Manufacturing, 25,80% of respondents), category M and O (respectively, Professional, Scientific and Technical activities, 13,18% of respondents; Public Administration, 13,20% of respondents), followed by Category I (Accommodation and food services), category A and S (respectively, Agriculture, Forestry and Fishing; Other service activities).

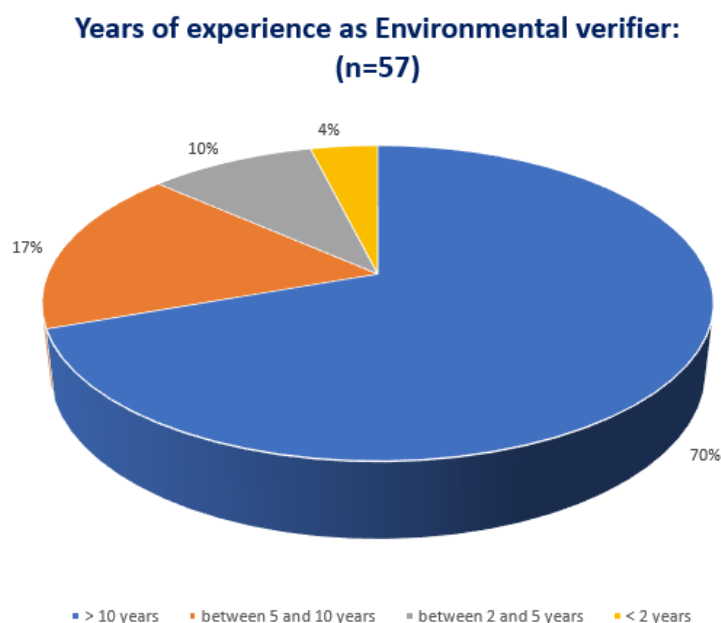


Figure 2. Years of experience of Environmental Verifiers

70% of Environmental verifiers declared more than 10 years of experience, 17% between 5 and 10 years, 10% between 2 and 5 years and 4% less than 2 years.



3. COVID impact on EMAS actors

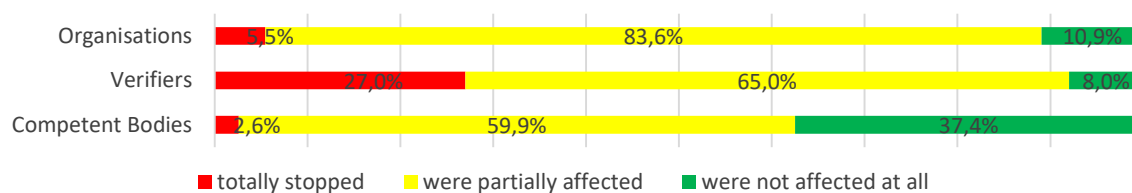
This section describes the impact of COVID pandemic on the actors' activities. The section is structured into 2 sub-sections:

- Impacts on the activities of the actors (EMAS-organisations, Competent Bodies and Verifiers);
- Impacts on the EMAS system.

3.1 COVID impact on the activities of the actors

The first section concerns the impact that Covid-19 pandemic has had on the three actors of the EMAS system.

ALL ACTORS - During the weeks of strict lockdown and the peak of covid-19 in your region, the activities:



According to the responses above presented, all the actor activities were affected. However, data suggest that activities for all of them were impacted only partially, with a small percentage of respondents which claimed a total shut down. In fact, the competent bodies represent the category that has been least impacted by the pandemic, with 37,4% of respondents declared that were not affected at all. This is probably linked with the type of activities carried out by the CBs.

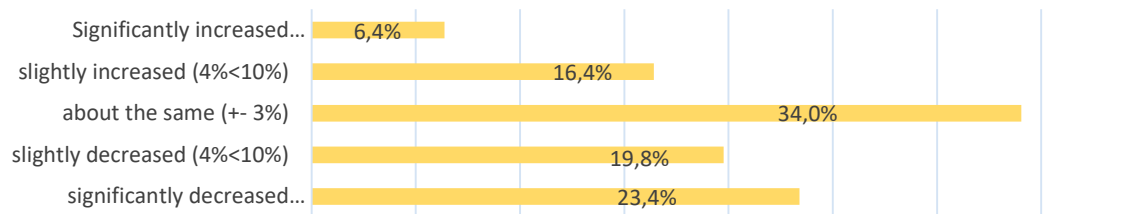
89,1% of the organisations was impacted, but the majority, 83,6%, was only partially affected. 5,5% had instead to totally stop.

Verifiers were the most impacted, with more than 1 out of 4 respondents (27%) that had to totally stop their activities.

Regarding EMAS organisations, we also investigated the impact on their turnovers. Results are represented in the following table.



EMAS ORGANISATIONS - In the pandemic period your turnover (2020 vs 2019):

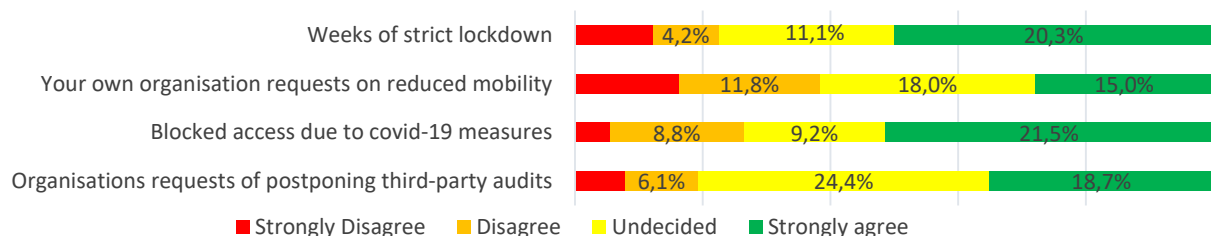


During the pandemic period, the interviewed EMAS companies' turnover (2020 vs 2019) was about the same for the 34% of respondents, but for approximately 1 out of 4 respondents (23,4%) had significantly decreased, against a 6% that had significant increment.

In general, during the pandemic, the turnover decreased for 43,2% of the EMAS organisations.

In addition, we investigated the reasons for the verifiers limited activities.

VERIFIERS - Please, indicate your level of agreement with the following reasons for your limited audit activities during covid-19 pandemic:



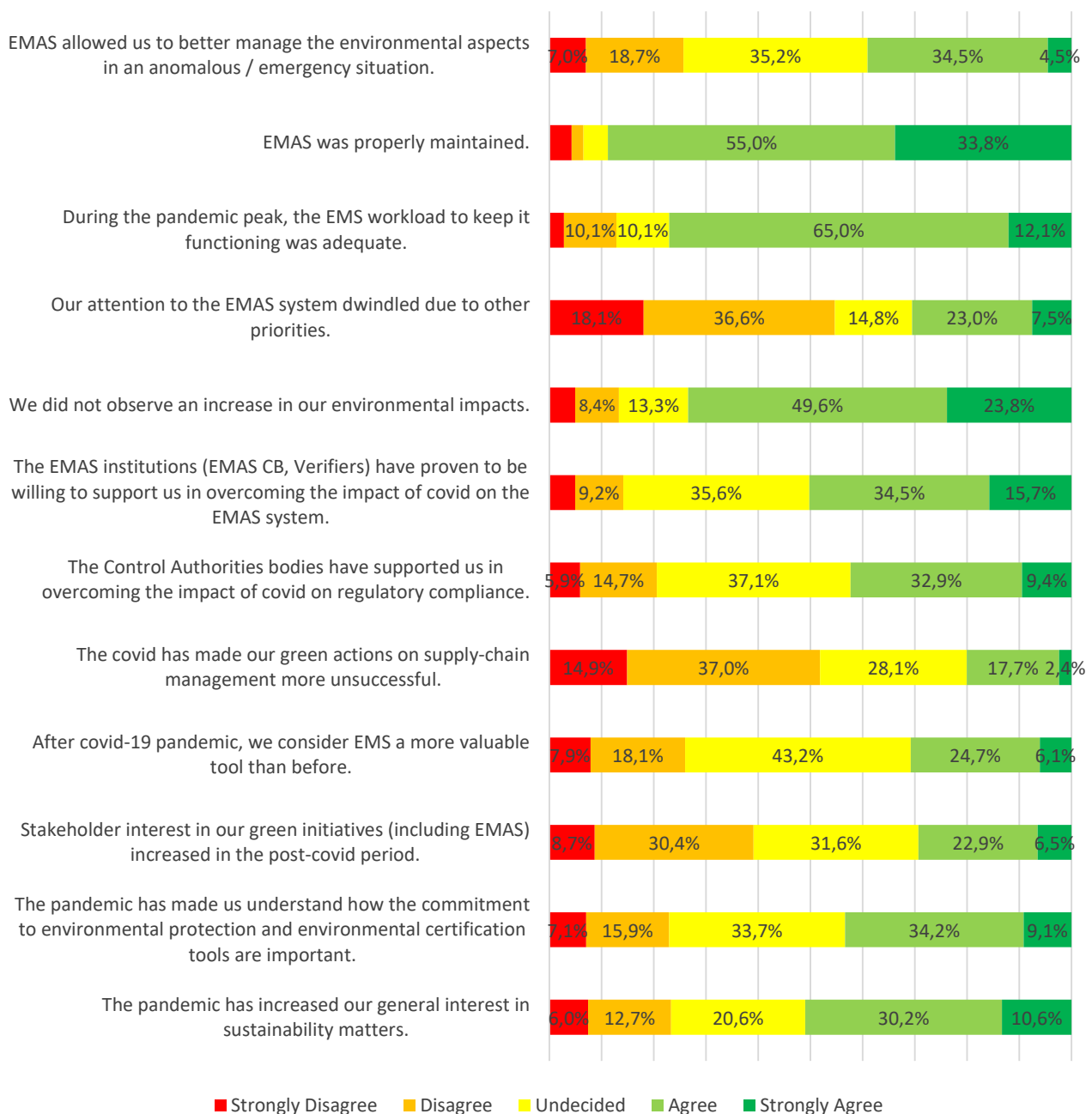
79,8% of verifiers agreed that their activities were stopped by the weeks of strict lockdown and the blocked access due to covid-19 measures. However, activities were greatly affected also by their own organisation requests on reduced mobility and by the request of EMAS organisations to postpone third-party audits.



3.2 COVID impact on the EMAS system

This section describes some general questions related to the EMAS certification and its system. The questions are both general and specific, with some of them addressed to different actors to investigate different perceptions on the same topics.

ORGANISATIONS - Please indicate your level of agreement with the following statements. During the pandemic peak...



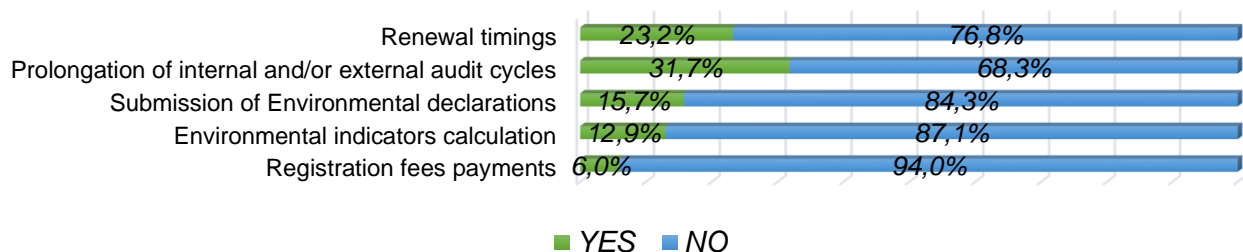


Regarding the EMAS organisations' perspective, a strong majority (more than 70% of respondents) agrees that during the pandemic peak EMAS was properly maintained. In addition, the EMS workload to keep it functioning was adequate and they did not observe an increase in their environmental impacts. In fact, 39% of organisations agree that EMAS allowed them to better manage environmental aspects in an anomalous situation. However, 25,7% disagreed on this perspective and 35,2% was undecided. Only 30,5% declared a decreased attention on EMAS during the pandemic.

In terms of EMAS system, 50,2% of EMAS organisations declared that EMAS institutions (CBs, verifiers) have proved to help them in overcoming covid impacts. Similarly, 42,3% agreed on the support received by the control authorities on regulatory compliance.

It is also notable that one out of three declared that the pandemic has increased their interest on environmental protection, tools and sustainability matters. On this regard, 30,8% of organisations after the pandemic consider EMSs more valuable than before.

ORGANISATIONS - Please, indicate which of the following EMAS exemptions were granted due to Covid-19 (2019-2020 and/or 2020-2021):

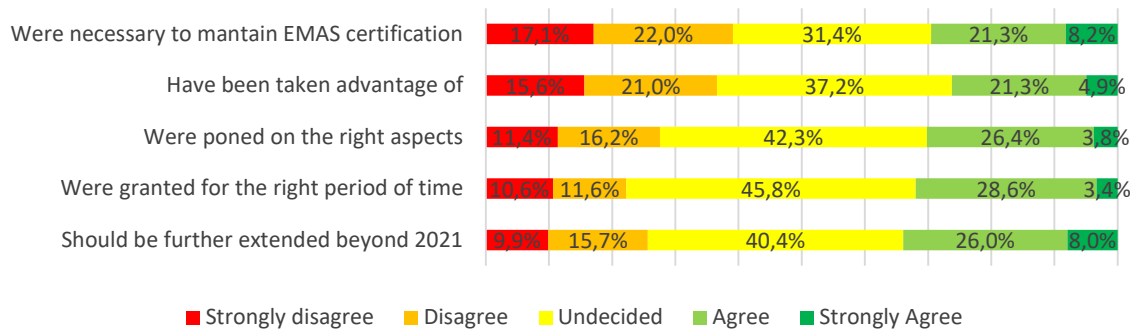


When organisations are asked about the EMAS exemptions/derogations applied due to the pandemic, only a small portion of respondents declares their presence. In fact, only 23,2% of respondents declared the application on renewal timings, 31,7% on the prolongation of internal and/or external audits cycles, 15,7% on environmental declaration contents, 12,9% on environmental indicators calculation and only 6% on registration fees payments.

We then investigated how organisations valued such exemptions.



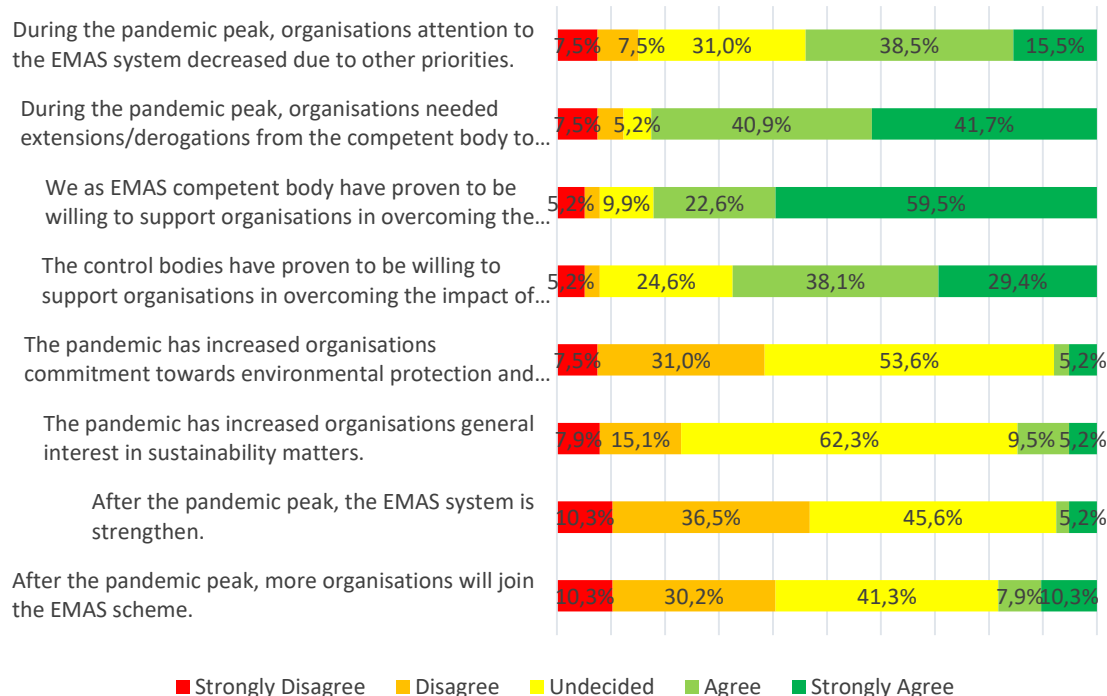
ORGANISATIONS - Please, indicate your level of agreement with the following statements on the EMAS exemptions due to Covid-19 (2019/2020 and/or 2020/2021):



29,5% of organisations declared that they were necessary to maintain EMAS certification, against 39,1% that did not feel such need. 30,2% thought that such exemptions were applied on the right aspects, 32% that they were granted for the right period, and 34% would like them to be further extended beyond 21%. However, results show mixed answers, with the highest percentage of respondents being undecided on exemptions/derogations values. Also, 26,2% of organisations declared that they took advantage of them, against 36,6% that disagreed on this.



COMPETENT BODIES - Please indicate your level of agreement with the following statements on the impacts of covid on the EMAS system:

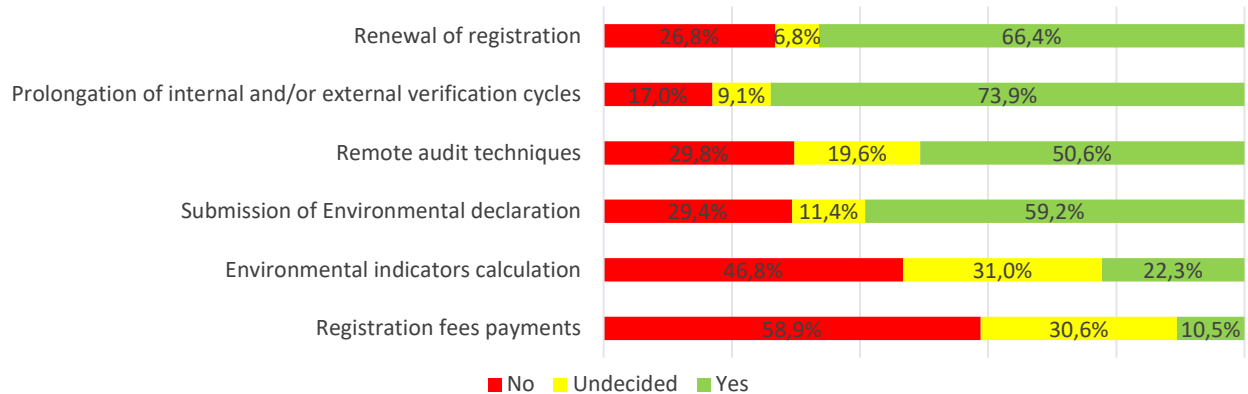


Regarding the Competent Bodies, about 80% of Competent Bodies agrees that they, as competent bodies, have proven to be willing to support organisations in overcoming the impact of covid on the EMAS system. 46,8% of Competent Bodies think that the EMAS system is not strengthen by the covid pandemic, although a small percentage, 7,6% think it is. This is linked to the following question, where 40,5% of competent bodies indeed do not expect an increase of participation to the EMAS scheme.

Also, 82,7% of them agrees on the need of organisations to have extensions/derogations from the competent body to maintain the EMAS registration. We then investigated the typology and timing of the exemptions/derogations.

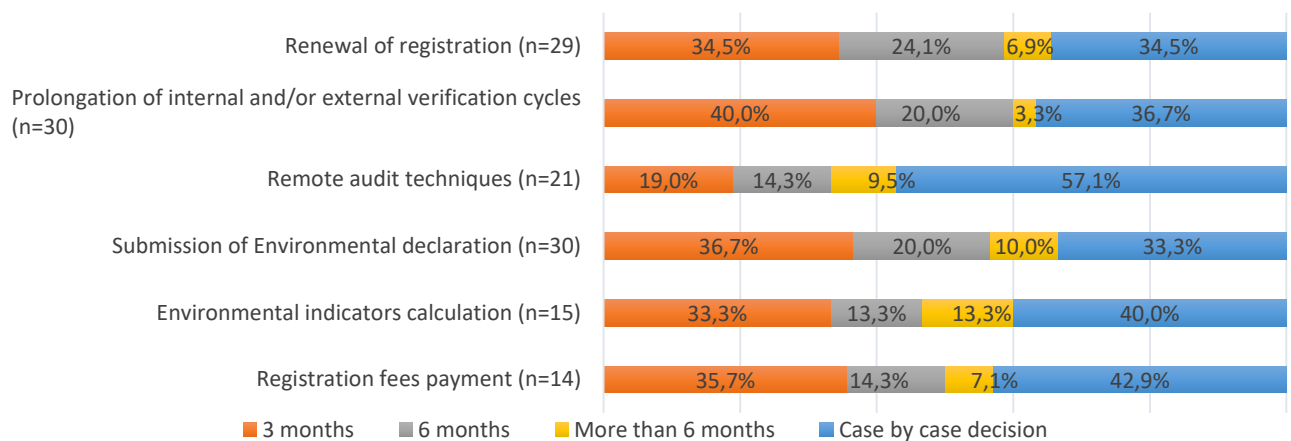


COMPETENT BODIES - EMAS exemptions/derogations due to Covid-19 (2019-2020 and/or 2020-2021) were granted for:



The exemptions and derogations granted to the organisations by the Competent Bodies were mostly related to the renewal of registrations, prolongation of internal and/or external verification cycles, remote audit techniques and the submission of environmental declarations. Only a small percentage granted them for the calculation of environmental indicators and for the registration fees payments.

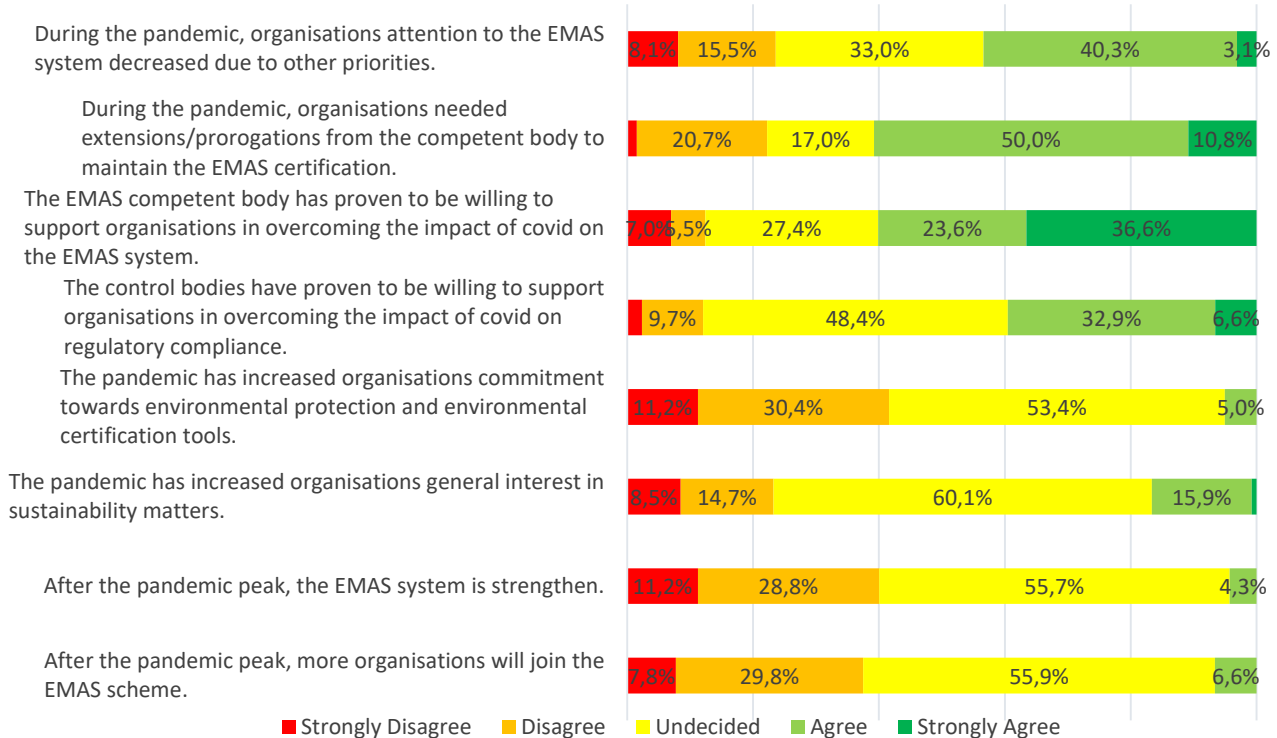
COMPETENT BODIES – If any, for how long they will be granted?



Most of the Competent Bodies granted exemptions and derogations for 3 months or through a case-by-case decision approach.



VERIFIERS - Please, indicate your level of agreement with the following statements on the impacts of covid-19 on the EMAS system:



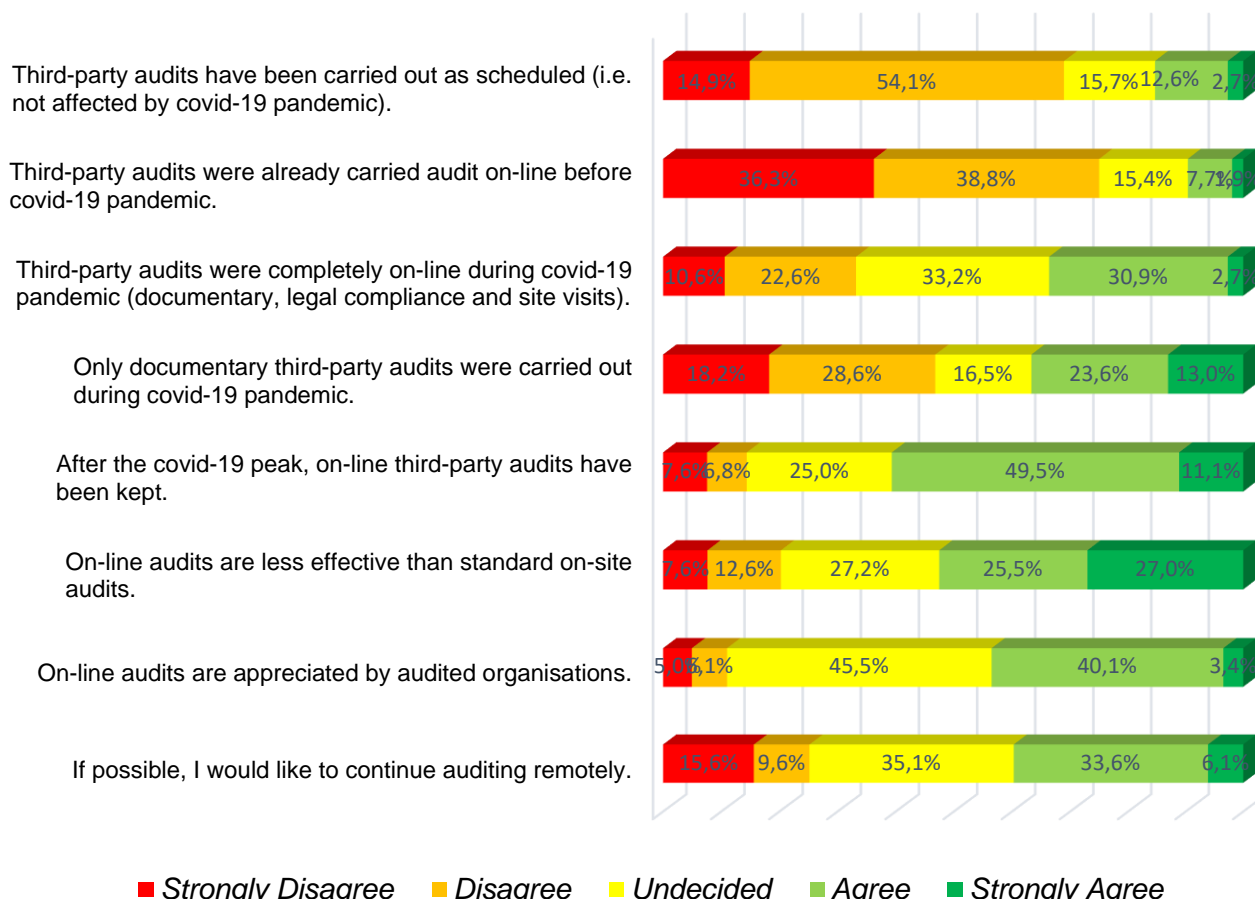
Concerning the Verifiers, 60,8% of them confirmed the organisations needed to have extensions/prorogations from the Competent Bodies to maintain the EMAS certification and 60,2% that the EMAS Competent Bodies have proven to be willing to support organisations in overcoming the impact of covid on the EMAS system.

Similarly to Competent Bodies, after the pandemic peaks around 40% of verifiers think that EMAS system will not be stronger and the number of organizations joining the EMAS scheme will not grow.

We also investigated, with questions specific to Verifiers, the topic of online third-party audits.



VERIFIERS - Please, indicate your level of agreement with the following statements on third-party audits:



Only 15,3% of Verifiers declare that during the pandemic peaks third-party audits had been maintained as scheduled. This opens the way to the concept of online audits. Only 9,6% of Verifiers had carried out audits online before the pandemic. However, during the pandemic, 33,6% of them had to start working completely online, whereas 36,6% say that only documentary audits were carried out online.

Interestingly, after the pandemic peaks, 60,6% of respondents affirm that on-line third-party audits are still used, showing the huge impact the pandemic has had on such working model. We further investigated the opinions of Verifiers and we found out that for 52,5% of them on-line audits are less effective than standard on-site audits even though they are very much appreciated by the audited organisations (43,5% of agreement on such statement). Finally, our surveys shows that this might not be only a trend, since 39,7% of Verifiers would like to continue auditing remotely in the future,



against 25,2% of them that instead would like to go back to standard auditing. 35,1% is still undecided on the future of environmental auditing.

Since many questions were the same for two or three actors, we sum up and highlighted the main differences between the respondents (see figure 3 and 4).

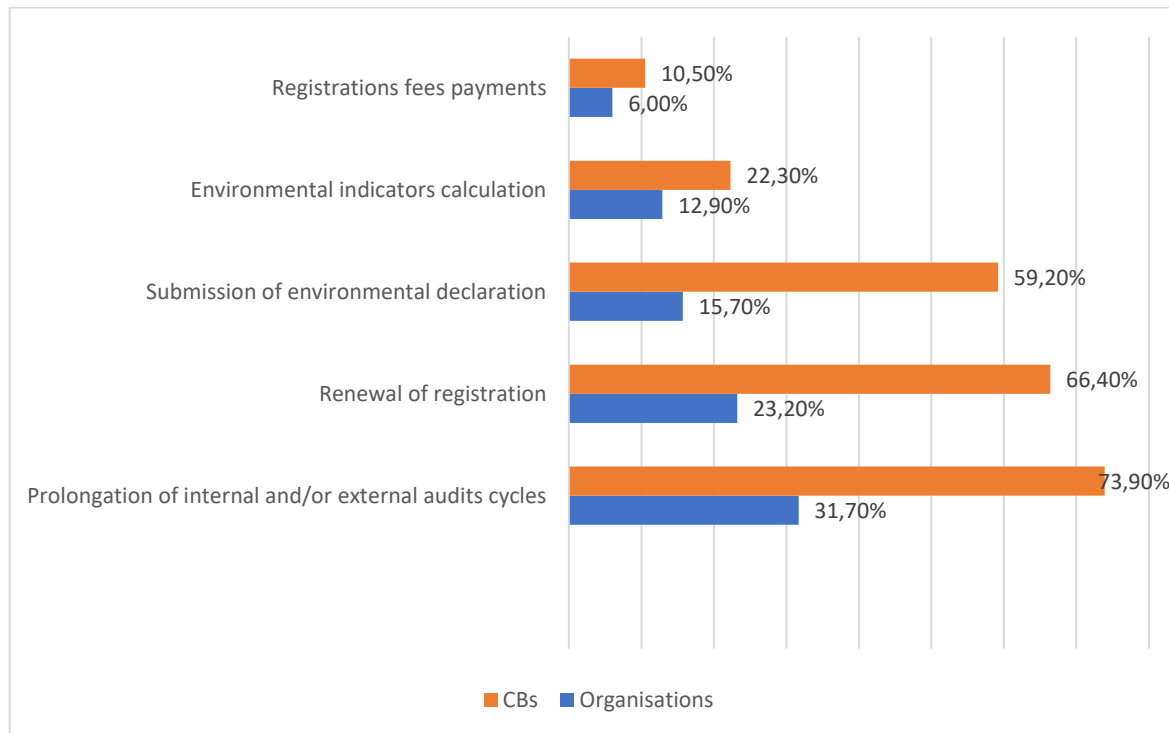


Figure 3. Agreement (YES/NO) on the type of exemptions/derogations granted for EMAS organisations during the pandemic.

We asked the same questions to EMAS-registered organisations and Competent bodies on exemptions derogations. We found out clearly that for both the actors the prolongation of internal and/or external audits cycles was undoubtedly the most prominent one, which is also in line with the low activity of Verifiers as discussed previously; then follows renewal of registration, submission of environmental declaration, environmental indicators calculation, registration fees payments. However, what is extremely unexpected is the different perception among the two actors: Competent bodies claimed to have granted exemptions/derogations way more than EMAS-registered organisations perceived. In all the listed options, CBs claimed at least about twice more than organisations, and in the case of submission of environmental declaration the different perception gets to almost four times more (59,20% vs 15,70%). This evident information misalignment might be due to lack of proper communications between CBs and EMAS-registered organisations as well as lack of proper awareness by the organisations, maybe because of low EMAS internalisation.



However, this misalignment between EMAS actors persist even when we go from objective situations (the granting of an exemption/derogation can be proved) to opinions on specific situations.

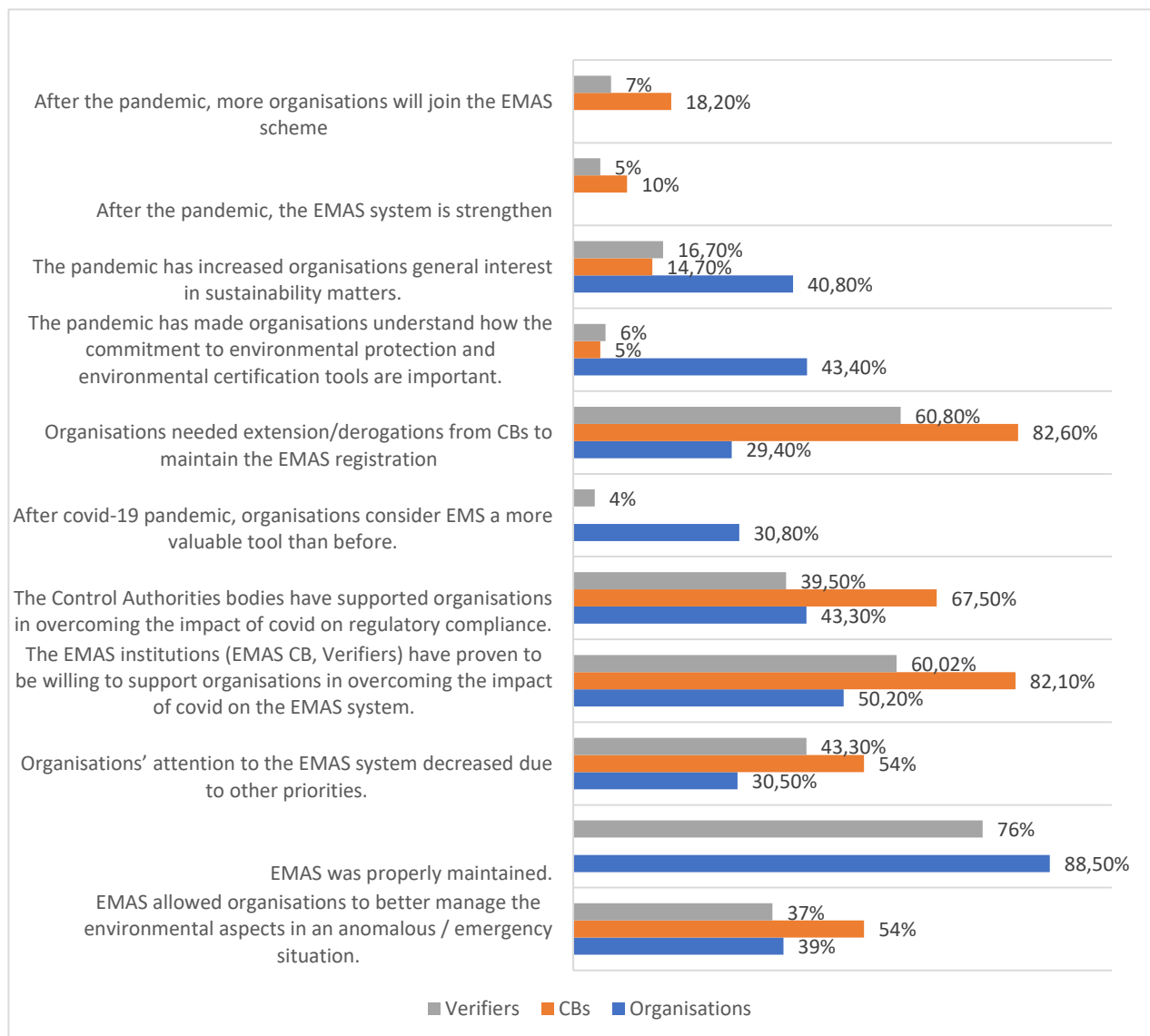


Figure 4. Agreement (Strongly agree + Agree) between different actors on some general questions on the EMAS system.

Some aspects show a similar agreement, even though with small differences. Generally, it can be seen that CBs have a more positive view than verifiers and also EMAS-registered organisations. For example, when asked about the idea that new organisations will join the EMAS scheme or about the strengthening of the system after the pandemic, both CBs and verifiers express a low agreement, but with different percentages, respectively 18,20% vs 7% (more than double) and 10% vs 5% (double).



It is extremely interesting to analyse the perception of the three actors on how the EMAS system worked during the pandemic. For example, 82,60% of CBs declared that EMAS-registered organisations needed the extensions/derogations granted from CBs to maintain the EMAS registrations, against an agreement of 60,80% of Verifiers and only of 29,40% of EMAS organisations. The same happens when asked about the role of EMAS institutions (CBs and verifiers) during the pandemic. 82,10% of CBs and 60,02% of Verifiers say that they have proved to be willing to support the organisations. However, only one out of two EMAS-registered organisations has the same thought. Again, 67,50% of CBs think that Control Authorities have supported organisations on regulatory compliance during the pandemic, but only 39,50% of Verifiers and 43,3% of organisations agrees on this situation. In general, EMAS-registered organisations perceived less support than what EMAS institutions (CBS, Verifiers) imagined. One out of two CBs also say that EMAS allowed organisations to manage some anomalous situations during the pandemic, but again the agreement on this is lower for Verifiers and Organisations (respectively, 37% and 29%). When the questions are more related to what organisations have done and not anymore to EMAS institution support, the situation is the opposite. For example, only 30,05% of organisations agreed that organisations' attention on EMAS decreased. However, the percentage increases when asked to CBs and Verifiers: in fact 54% of CBs and 43,30% of Verifiers think that their interest decreased. Anyway, for 16% of Verifiers and 88,50% of organisations EMAS was properly maintained during the pandemic. Finally, it is worth to evidence that the pandemic increased the interest of organisations on sustainability, environmental protection and certifications, with some of them valuing the EMS more than before. Again, CBs and Verifiers do disagree and have significant different perceptions on these aspects.

4. COVID impact on the environmental management systems and performances

This section describes how the pandemic has had an impact on the environmental management systems (EMSs) and on the organisations' performances.

The section is further divided in the following sub-sections:

- Covid impact on EMSs;
- Covid impact on environmental performances;
- Circular economy practices;
- Environmental reputation.

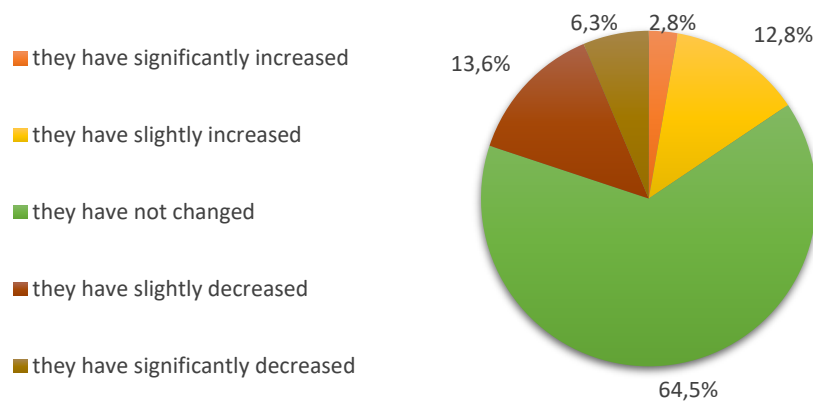


4.1 COVID impact on EMSs

Most of this sub-section is addressed both to EMAS-certified organisations and Environmental Verifiers. It investigates the impacts of Covid-19 pandemic on the Environmental management systems (EMSs) from one or two different perspectives.

First, we started with a general question to EMAS organisations investigating how the pandemic influenced the allocation of resources for their EMSs.

ORGANISATIONS - Have the resources for the environmental management system changed due to the pandemic (2020-2021)?



Results show no influence on the resources allocation. The resources for the EMS remained almost unchanged for 64,5% of organisations, while there is a balance between those who affirm that these resources slightly increased (15,6%) and decrease (18,9%).

We then investigated the changes in the environmental declarations. We sum up in the next graph the results obtained by organisations and CBs. The question was structured differently to be addressed to both the actors, but here it is edited in one single question to increase its clarity.



ORGANISATIONS and COMPETENT BODIES- Please, indicate your level of agreement with the following statement on the environmental declaration: The environmental declaration of the organisations has incorporated references to the environmental impact modifications due to Covid-19 / crisis related aspects (2019-2020 and/or 2020-2021):

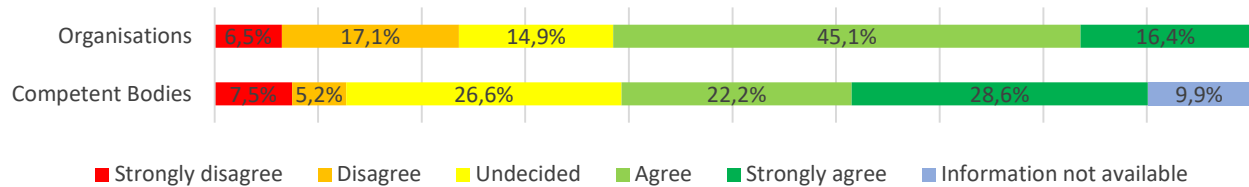
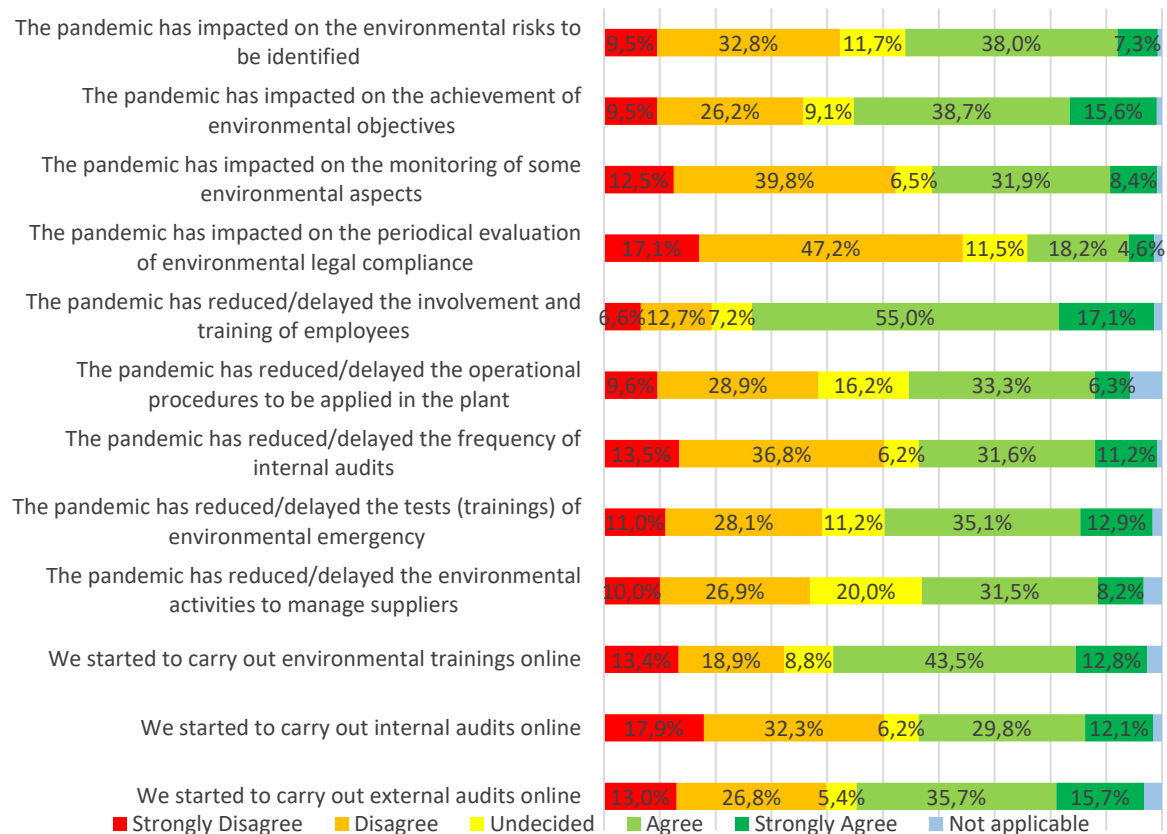


Figure 5. Agreement between different actors on the incorporation of covid-19/crisis related aspects in the environmental declarations

One out of two (more than 50%) of both organisations and CBs agrees that environmental declarations do include references to the pandemic and/or crisis related aspects. After these two general questions, the surveys investigated more specific aspects related to environmental management system.



ORGANISATIONS - About activities linked with the EMS during the peak of pandemic period, please state your agreement with the following sentences:



In general, when asked to EMAS-certified organisations, results show that the pandemic has had relevant effects on the EMS of all surveyed organisations, always affecting all the different investigated aspects for 20%-40% of the organisations. The least affected aspect was the periodical evaluation of environmental legal compliance, with 64,3% of respondents claiming no effects from the pandemic. Also, the monitoring of environmental aspects was not deeply affected. The most impacted aspects were instead the achievement of the environmental objectives (54,5% of organisations), the involvement and training of employees (72,1% of organisations) and the external audits. 56,3% of organisations claim that they carried out environmental trainings online and 51,4% they had online external audits.



VERIFIERS - About activities linked with the organisations' EMS during the peak of pandemic period, please state your agreement with the following:

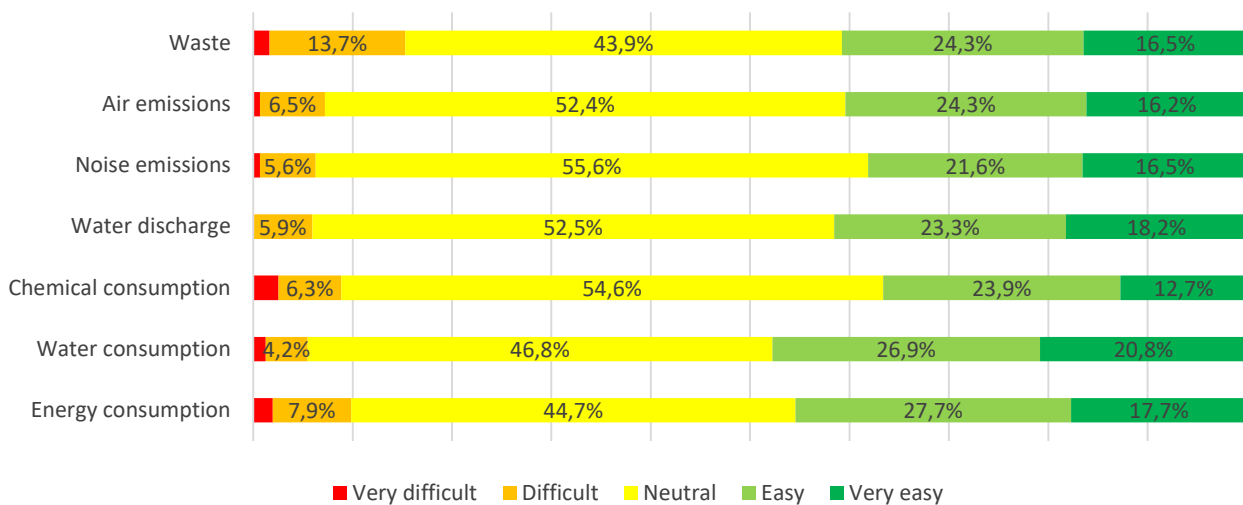


In general, when asked to Verifiers, they tend to agree more than organisations on the impact of the pandemic on the different aspects of the EMSs (higher percentage of agreement for each aspect). Aligned with organisations, Verifiers confirm, with a higher extent, that the pandemic has influenced the achievement of environmental objectives (74% of Verifiers), reduced/delayed the frequency of internal audits (78%), reduced/delayed tests of environmental emergency (70,2%), increased environmental trainings online (84,8%) and internal audits online (54,4%). 54,1% of Verifiers also stated that organisations started a digitisation of their EMSs.



Thereafter, we looked into the difficulties occurred in the management of environmental aspects.

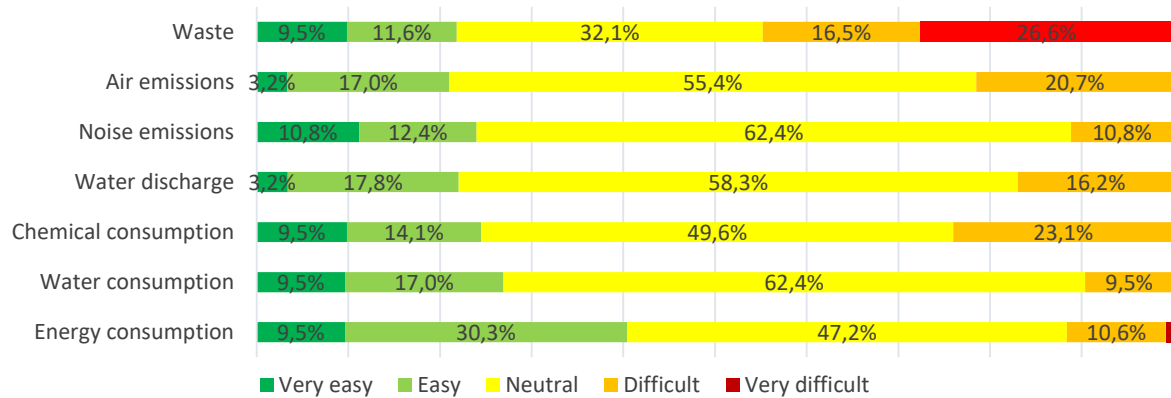
ORGANISATIONS - Regarding the difficulties you experienced in the management (e.g., Monitoring, data collection, application of procedures as drafted in non-pandemic period, etc.) of some environmental aspects during the pandemic peak, please indicate the level of difficulties:



In fact, the pandemic does not seem to have significantly impacted environmental aspects management. However, waste management stands out as the most difficult aspect to be managed for 15% of organisations, followed by energy and chemical consumption. Waste management might be linked with the low activity of waste management companies.

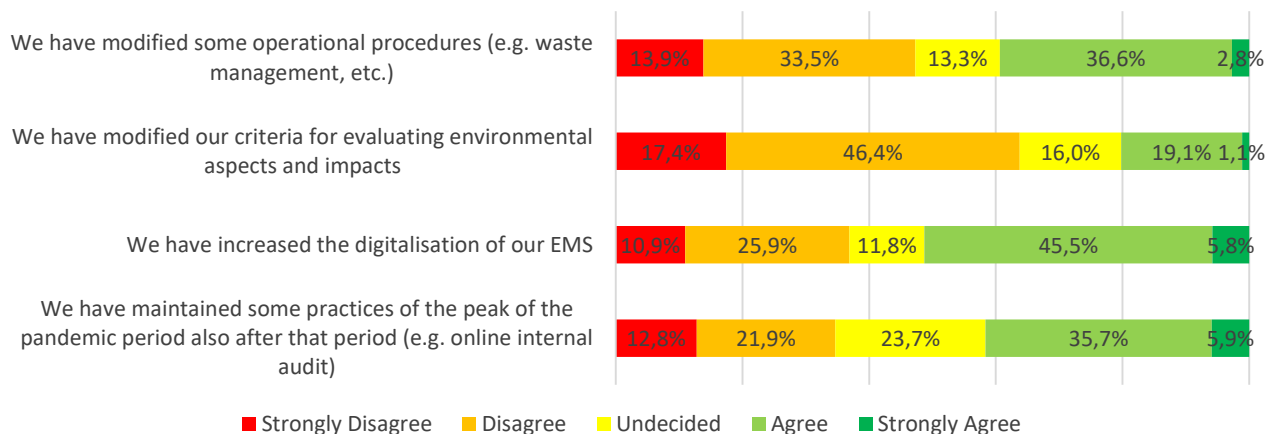


VERIFIERS - Regarding the management of some environmental aspects during the pandemic period, please indicate the level of difficulties associated with the following environmental aspects:



Verifiers' point of view is aligned with the organisations' one, but Verifiers declare higher difficulties experienced by organisations than what organisations stated. In general, 43,1% of Verifiers confirms that waste management has been difficult to manage (against 15% of organisations). According to Verifiers, the other most difficult aspects to manage were chemical consumption and air emissions. Since during the pandemic the EMS has been somehow affected, we tried to understand how EMSs were modified and used to cope with the Covid situation.

ORGANISATIONS - Concerning the modifications occurred to your EMS after the pandemic period:





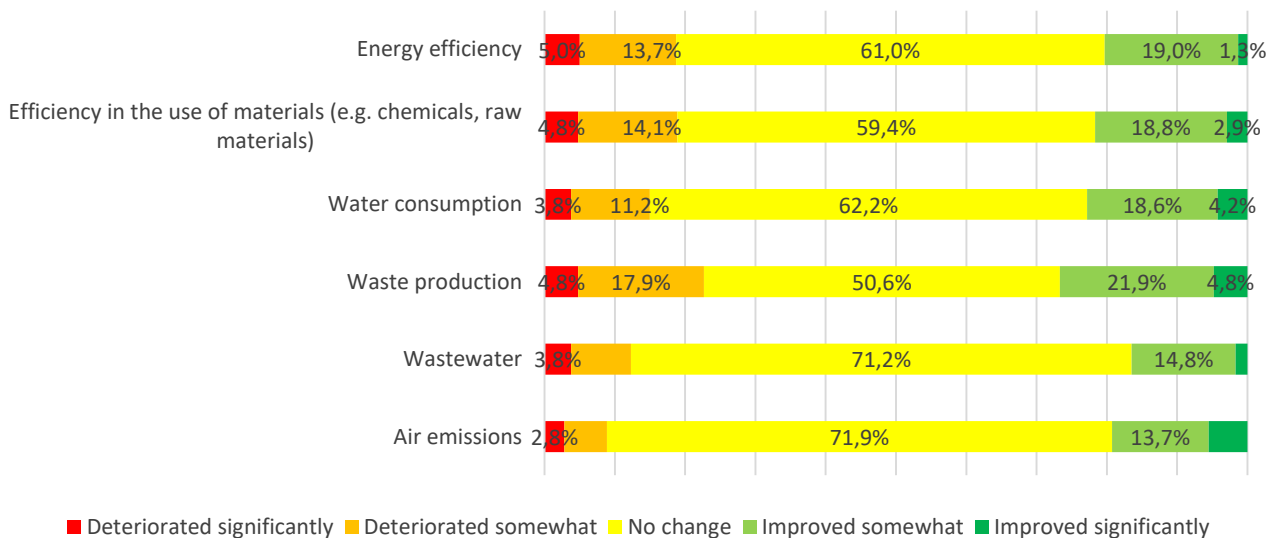
Results clearly show, in line with what Verifiers stated, that there has been an increase of the digitalisation of EMS (for 51,3% of organisations). Only a small number of organisations (20,2%) modified their criteria to evaluate environmental aspects and impacts, whereas much more (39,4%) carried out modifications on their operational procedures.

Interestingly, 41,6% of organisations are keen to maintain some practices acquired during the pandemic even after it ends.

4.2 COVID impact on environmental performances

This sub-section analyses the covid impact on the organisations' environmental performances.

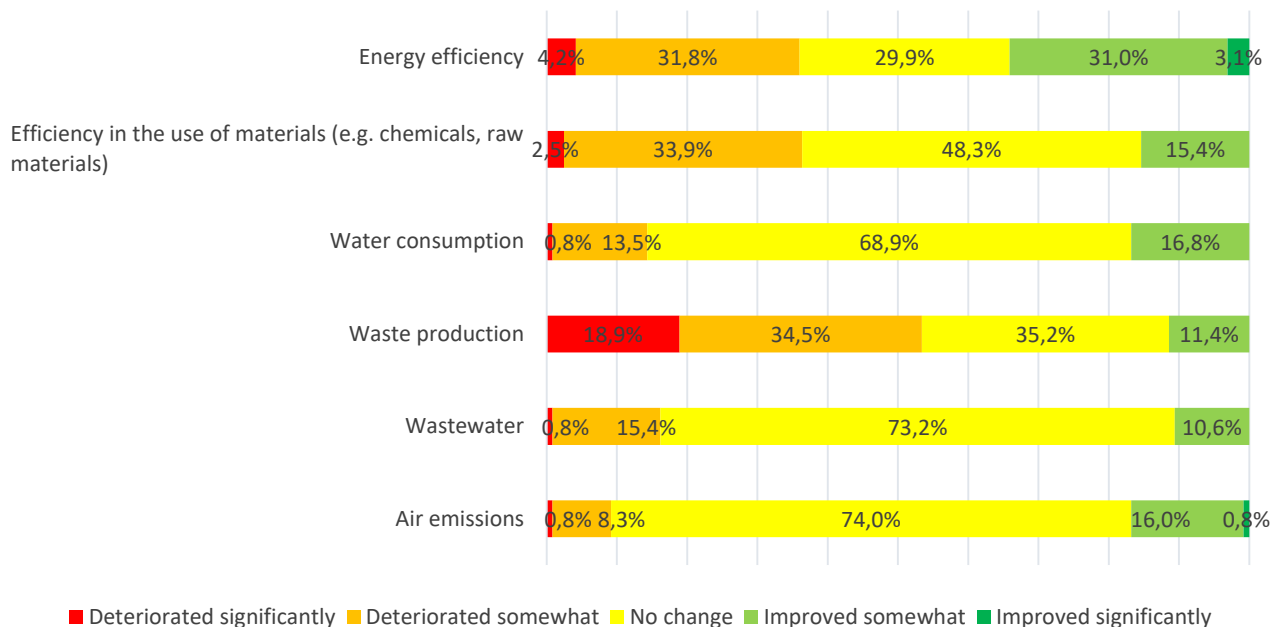
ORGANISATIONS- Please provide your opinion about the impact of covid pandemic on the environmental performance of your organisation.



When asked about the impact on environmental performances, the most prominent answer by organisations is that there have been no changes due to the pandemic. However, following the results already seen on the difficulties occurred in the management of the environmental aspects, 22,7% declare a deteriorated performance in waste production (i.e. an increase) and 18,7% a lower performance in energy efficiency.



VERIFIERS - Considering your experience and scope (NACE code), please provide your opinion about the impact of covid pandemic on the environmental performance of organisations:



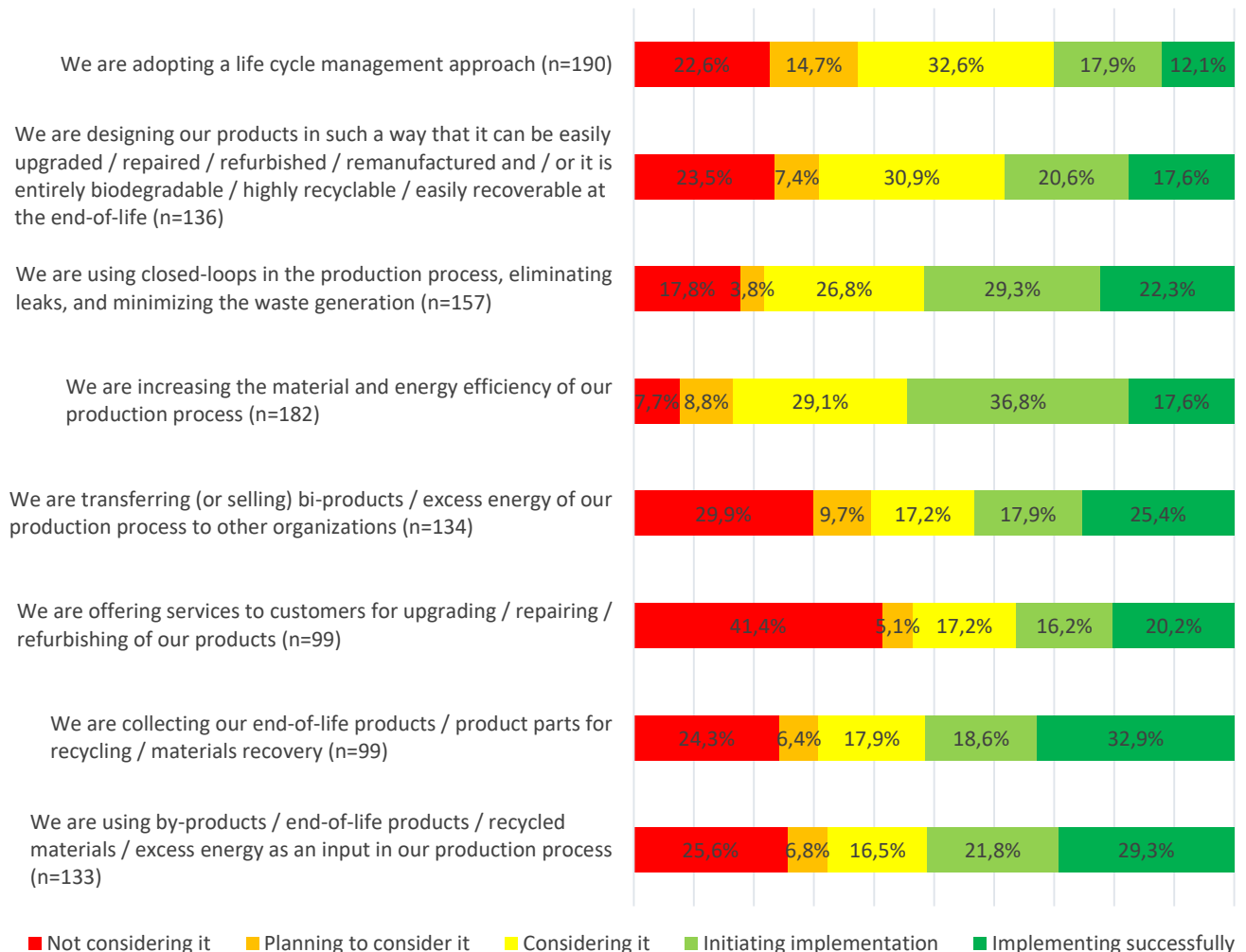
Again, Verifiers agree to a higher extent than companies on the effects of the pandemic. However, waste production performances remain the most affected, with 53,4% of Verifiers claiming their deterioration. Verifiers also agree on the lower energy efficiency (for 36% of them) and 36,4% highlight the low efficiency in the use of materials as well.

4.3 Circular economy practices

This sub-section analyses the organisations' circular economy practices in the framework of the pandemic.



ORGANISATIONS - In the context of Covid pandemic (2019-2020 and/or 2020/2021), has your organisation been considering or implementing the following practices?



In terms of circular economy, results (which are already filtered by “N.A.” answers) demonstrate that EMAS-certified organisations have been considering or implementing consistently circular economy practices.

Specifically, 54,4% have been implementing material and emergency efficiency of their processes whereas 51,6% declare that during the pandemic they have been trying to close loops in the production processes, eliminating leaks and minimizing waste generation.

Other prominent circular economy practices are the use of by-products, recycling processes and material recovery within and outside the organisations. The least

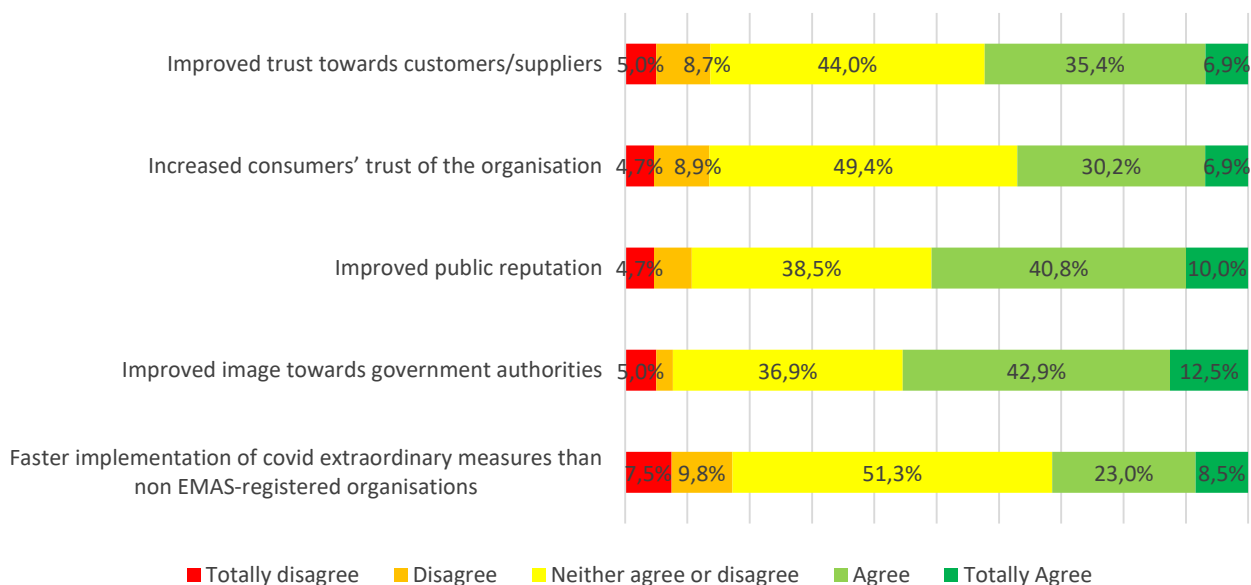


implemented ones are related to life-cycle management and eco-design approaches as well as maintenance services.

4.4 Environmental reputation

This sub-section analyses the EMAS-certified organisations' environmental reputation in the framework of the pandemic. We investigated the competitive advantage perceived by EMAS-registered organisations when compared with non-EMAS organisations.

ORGANISATIONS - Please indicate your level of agreement with the following statements on what kind of competitive advantage your organisation has experienced by participating in EMAS in the framework of Covid-19 pandemic, when compared with non-EMAS organisations.



During the pandemic 50,8% of organisations perceived that EMAS improved public reputation, 42,3% trust towards customers and suppliers, and more than 55% agrees that its image towards government authorities has improved thanks to the EMAS experience. 31,5% also declared that EMAS has helped them in the implementation of faster covid extraordinary measures, when compared to non-EMAS organisations. However, the largest part of organisations is still undecided on the competitive advantage, with a small number disagreeing with the listed options.



We also provided an open question asking: “*What did EMAS bring to your organisation in terms of innovation and reputation during the Covid crisis?*”. The most interesting answers are sum up and listed below:

- “Security of consumption data”;
- “EMAS has enabled us to maintain essential activities for the environment despite the reduction in staff “;
- “By regularly determine the use of materials, we implemented a risk management with the regard of security of supply”;
- “Reputation increased during the Covid crisis. We got some new costumers”;
- “safety inside and reporting”;
- “We have gained a significant number of new customers”.

5. Conclusions

The main aim of this survey was to assess the impacts of COVID-19 on the EMAS system and its actors. By doing so, ENHANCE consortium carried out the first empirical analysis of this type on EMAS. Using a multiple-survey approach, we designed and delivered three different surveys to EMAS-registered organisations, Competent Bodies and Environmental Verifiers, investigating specific topics addressed to the single actors as well as different perspectives by more actors on the same topics. This approach enhanced the robustness of our data and shed light on the different perspectives within the EMAS world.

Impact of COVID on EMAS actors and EMSs

In general, results highlight that the EMAS system was not deeply affected by the Covid pandemic, showing a certain degree of resilience. Verifiers were the most impacted among the actors whereas many EMAS-registered organisations and CBs managed to continue with their activities.

The most important impacts on EMSs for both organisations and Verifiers were on environmental risks to be identified, the environmental objectives to be achieved, and especially auditing activities and the training of employees. Environmental aspects management was not significantly affected, even though waste management was the most critical.

Different perception on the EMAS system among the actors

When we investigated how the EMAS system worked during the pandemic, we found out misalignments between the perceptions of the three actors. Competent bodies systematically perceived to have helped EMAS-registered organisations more than what the same organisations declared. Interesting results come also from the granting of



exemptions/derogations by CBs. The most common exemptions/derogations granted by European CBs were on renewal of registrations, prolongation of internal/external audits cycles, submission of the environmental declaration and the use of remote audit techniques. However, organisations declared their granting to a lower extent than CBs, even though an exemption/derogation presence (the CB has granted it, YES/NO) should be objective. This might be due to lack of information communication between CBs and organisations. Moreover, organisations declared a lower need of such helps than what CBs expected. Verifiers are aligned with CBs, even though to a lower extent. Surprisingly, organisations declare to be more interested in sustainability and environmental certification tools, but again perception inconsistencies exist since CBs and Verifiers disagree that this is occurring.

Resilience and digitalization of EMAS-registered organisations

To face the crisis, EMAS-registered organisations showed resilience by starting to carry out environmental trainings online, online internal and external audits. Moreover, many organisations increased the digitalisation of their EMSs, changed some operational procedures and now they are even keeping some of these practices after the end of the pandemic peaks.

Even during the pandemic, many organisations are trying to or implementing some circular economy practices.

The value of EMAS for registered organisations

Results also show that some EMAS-registered organisations perceived that participating in EMAS during the pandemic has increased their environmental reputation and stakeholder engagement capacity, compared to non EMAS-registered organisations. However, many organisations are still undecided whether EMAS provided an advantage during the pandemic.

A new way to audit is stepping in

Our surveys without a doubt witness the change of the auditing environment in EMAS (and probably the whole auditing world). In fact, Environmental Verifiers were the most affected in terms of activities and to cope with this situation they had to move from standard third-party audits to online ones. The following data are clear: only 9 % of verifiers declared that audits were carried out online before the pandemic, the number increased to 33% during the pandemic, and about 60% of Verifiers are keeping somehow this practice even after the pandemic. Results also show that organisations appreciate this auditing methodology and that 40% of Verifiers is willing to continue auditing remotely. However, Verifiers also state that online audits are less effective than standard ones.



Concluding remarks

Overall, we show for the first time the impacts of a crisis at single EMAS actor level and at the system level, demonstrating the capacity of the system to be resilient in front of a crisis. We also observe some new trends such digitalisation of the EMSs, online environmental trainings and auditing. However, the study reveals relevant different perceptions on certain EMAS topics and aspects between Competent Bodies, Verifiers and organisations. Discussion on the causes of these differences could strengthen the whole EMAS system.