UIC COVID-19 TASK FORCE

MANAGEMENT OF COVID-19

RAILsilience, back on the track

A series of potential measures published by the International Union of Railways
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INTERNATIONAL UNION
OF RAILWAYS

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1. INTRODUCTION

1.1 UIC COVID-19 TASK FORCE

Amid the coronavirus disease outbreak, UIC has set up a task force combining UIC member companies, experts and other relevant stakeholders (AAR, African Union, AFRA, ALAF, Allrail, ANPTrilhos, APTA, CER, CIT, EIM, EPF, ERFA, ETF, ETOA, IATA, OTIF, UITP and UNECE) to work together to find ways to respond to this crisis that are adapted to the railway sector.

The UIC Covid-19 taskforce's main purpose is to provide a trusted space for our members and fellow transport associations to share information with one another regarding this crisis. As this is an unprecedented, global crisis, being able to come together and benefit from each other's experiences has been key in the fight to protect lives while still providing a minimum of our essential service: transport.

As this continues to be a global crisis, it needs a global response, and UIC is uniquely placed to create a space where rail stakeholders the world over can come together and cooperate. At our taskforce meetings we bring together railway stakeholders from Asia, Africa, Europe, the Middle East, Oceania and the Americas, and all are benefiting from each other's knowledge and experience.

Information has continued to be shared among members. All the information shared by the members is available upon joining the task force and registering to UIC extranet and the Covid-19 Task Force Workspace at https://extranet.uic.org/index.php.

Relevant multimedia information is available on the UIC Media Center at https://mediacenter.uic.org/fr.

The UIC Covid-19 task force has also created a Linked-In group where relevant newspaper articles and upcoming webinars are shared. Join us: https://www.linkedin.com/groups/13846065/
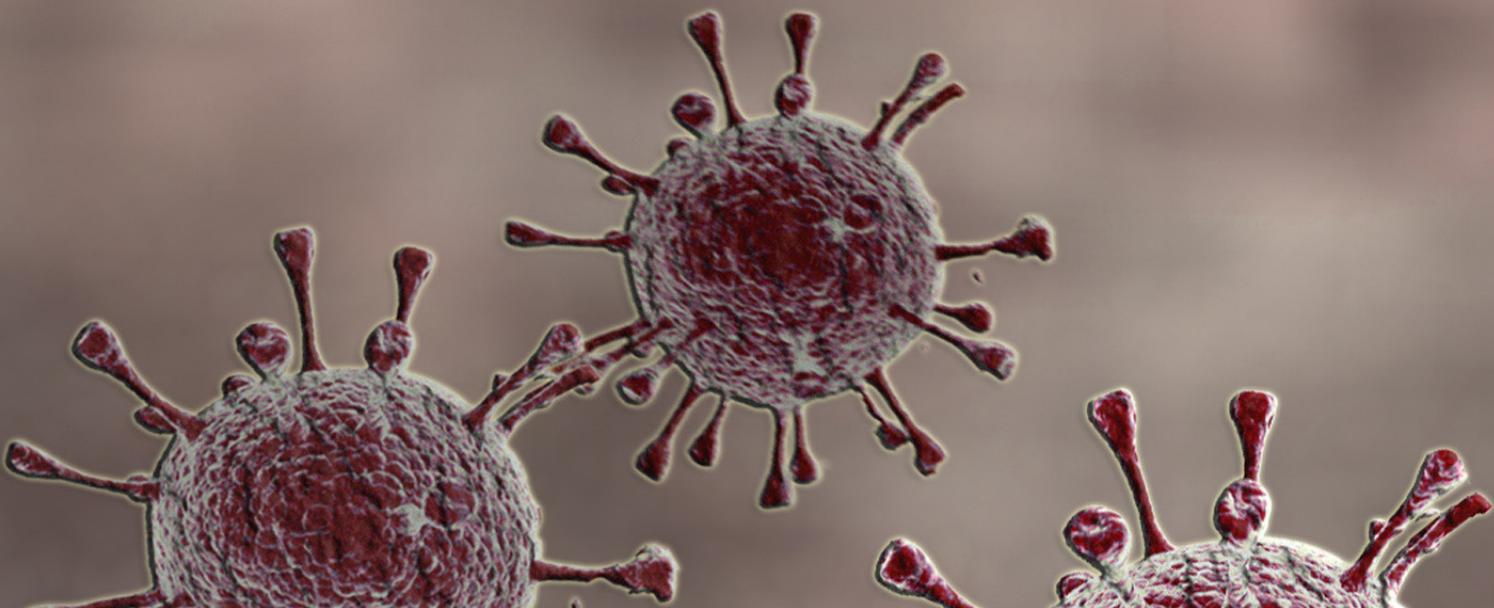
1.2   PREVIOUS WORK

In March, the first guidance document, "Management of Covid-19 - Guidance for railway stakeholders" was published. This document brings together potential measures, collected in February 2020 with the aim to assist railway stakeholders and provide reliable information about the specific challenges for rail when it comes to this communicable disease.

In April, a second guidance document, "Potential measures to restore confidence in rail travel following the Covid-19 pandemic," was published. This document listed different measures that rail stakeholders could undertake in order to increase passengers' feeling of security.

In May, a third guidance document, "RAILsilience - How the rail sector fought Covid-19 during lockdowns," was published. This document aims to show the situation during the lockdowns and the measures put in place by the rail sector during the epidemic control phase.

All these previous guidance documents are made available online at: https://uic.org/covid-19.

1.3   RAILSILIENCE: BACK ON THE TRACK

Even before governments were announcing the rolling back of Covid-19 prevention measures such as lockdowns and/or shelter-in-place recommendations, the UIC Covid-19 Task Force members were asking themselves how they could ensure a smooth recovery, while ensuring the safety and security of passengers and staff. Having demonstrated themselves RAILsilient during lockdowns, rail stakeholders were already envisioning how they could continue to be RAILsilient post-lockdowns, how they could get themselves back on track, or rather, back on the railway track.

While many railway companies reduced their service level during Covid-19-related government restrictions, some of the task force members continued to provide their full service level for passengers. As such, they do not view this period so much as a "resumption" of service, but rather an increase of passengers using trains.
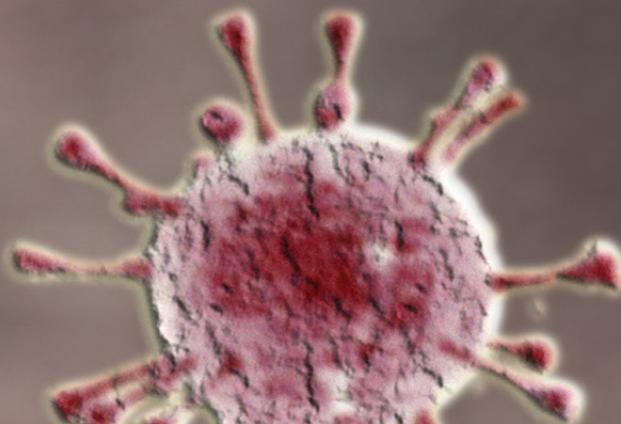
While in many parts of the world lockdowns or similar government imposed restrictive measures have been lifted, it is important to note that this document is based on answers to a questionnaire that was sent out before this was a reality. Therefore, the results here within are really an imagining of the future, and not necessarily based on the actual measures put in place post-lockdowns.

It should also be noted that while in most Asian and European countries, governments have started to ease Covid-19 related restrictions, in other parts of the world, such as Latin America, the crisis is just beginning.

1.4   METHOD

The task force developed and distributed to task force members a questionnaire which can be seen in the Annex. The questionnaire aimed to understand how railway stakeholders were considering to approach service resumption post Covid-19 affiliated lockdowns or similar government imposed restrictions. 38 members of the task force responded to the questionnaire.

The answers to the first part of the questionnaire were used as a data corpus and also to create the Covid-19 Task Force Recovery Data Base. This data was analysed using a thematic analysis lens. Thematic analysis is a social science and humanities method used to identify, analyse and report patterns (aka themes) within a set of data. There are several steps:

↗ Familiarise oneself with the data corpus (in this case reading the answers to our two task force questionnaires);

↗ Search for themes (taking into account the relationship between the data, seeing what is similar, what is different, etc);

↗ Producing the report (to tell the complicated story of the data).

Here after is that report.

2. PASSENGER SERVICE RESUMPTION POST CONFINEMENT

While on lockdown or shelter-in-place recommendations, many countries limited the offer of passenger rail traffic available to citizens, by closing international borders, reducing PSO levels, or, in some cases, completely stopping rail traffic. Now that most lockdowns in Europe, Asia and North America have started to be lifted, passenger traffic will most likely gradually increase. This section examines the ways in which UIC Covid-19 Task Force members intend to tackle any issues associated with this re-start.

2.1 FEASIBILITY TO CONTINUE TO APPLY THE PREVENTION MEASURES

Almost all respondents state that they will be able to continue to apply prevention measures as countries ease out of their respective lockdown phases and passenger traffic picks up in passenger volume. They are working closely with authorities when it comes to which measures to keep in place and intend to continue to be a major contributor in the fight against Covid-19 as long as the threat remains.

Many respondents also indicated that not only will they continue to implement measures such as increased cleaning & disinfection, but also that authorities are requiring them to implement new measures in this new phase of the crisis, namely that passengers wear masks.

The main foreseen difficult indicated by respondents is being able to maintain social distancing while meeting passenger demand for rail travel.

## 2.2 MEASURES TO BE APPLIED POST CONFINEMENT TO RECOVER RIDERSHIP AND CUSTOMER CONFIDENCE

This section examines task force members' intention to either start implementing or continue to implement certain measures post-lockdowns. For an overview on the measures listed here, please see the UIC Guidance Document "Potential measures to restore confidence in rail travel following the Covid-19 pandemic." https://uic.org/covid-19/

2.2.1 Temperature checks

About a third of respondents are intending to either start implementing or continue to implement temperature checks for passengers post-confinement (Figure 1). The technology named by respondents to be used for such checks are infrared, non-contact thermometers, including CCTV and other cameras. Two respondents made clear that the temperature checks are done in collaboration with the national authorities and under the responsibility of the authorities. For example, in Italy, checking of passenger's body temperature is currently performed by Public Authorities (Railway Police and Health Authorities) in major stations (Milano Centrale, Roma Termini and Napoli Centrale). FS Italiane has provided the necessary thermoscanners and corporate security staff provides operational support when required.

Two thirds of respondents stated that they are not considering to implement temperature checks. There were four main reasons why cited: the unproven effectiveness, the risk of creating bottlenecks, privacy issues and high costs. As stated in the UIC guidance document "Potential measures to restore confidence in rail travel following the Covid-19 pandemic," not all persons who are infected with Covid-19 present the symptom of a temperature, and many respondents were quick to point this out. Depending on how the measure is implemented, temperature checks could create crowds waiting for access to a given location (whether it be on the platform to access the train, or on the sidewalk to access the station).
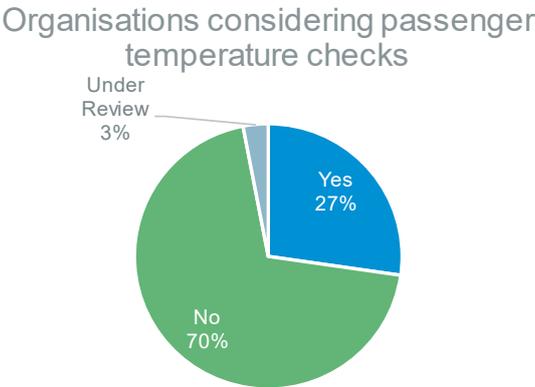
Figure 1: Answers from 33 respondents to the question, "Is your organization considering temperature checks for passengers post confinement to recover ridership (both in stations and in trains) and customer confidence?"

Another important factor in not using temperature checks has to do with the issue of respecting privacy, especially for European members who are subject to the General Data Protection Regulation (for more see section 6). Lastly, one respondent pointed out that temperature checks are a costly measure. Some members that stated that they do not intend to implement temperature checks also made clear that they would do so if required to by the national authorities.

KORAIL thermal cameras

The Korean government has implemented a 3Ts system: Trace, Test, Treat in the fight against the spread of Covid-19. To aid in the detection of potentially infected persons, KORAIL has put into place the measure of temperature checks since the beginning of the crisis.

KORAIL is continuing this measure into the resumption phase, and as of June 10, 2020 has installed 49 thermal cameras, 42 of which are at big stations. In this new stage of the crisis, KORAIL has been able to work together with the government to change how they react to persons who are detected with a fever. Originally only being able to recommend the individual not to travel, they can now block the passenger from entering the train and take them to be tested before boarding. This is to protect other passengers from infection and to give other passengers the feeling of security to ride the train. This new protocol also helps the government in their policy to find every infected person.

2.2.2 Masks

The majority of respondents are applying the measures of mandatory masks (Figure 2). This measure is most of the time put in place following decisions taken by authorities to require masks in public spaces. Overall, it is the responsibility of the passenger to provide their own mask and the respondents do not intend to provide passengers with masks. A few respondents stated that they have some single use masks in reserve for passengers in case they do not have their own and a notable exception is Turkey, where mandatory masks are distributed free of charge by public institutions and organizations, including checkpoints at train stations.
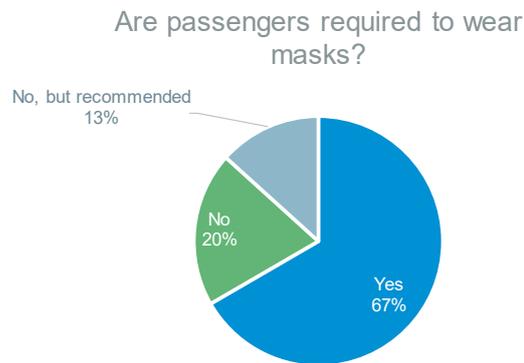

Figure 2: Answers from 30 respondents to the question, "is your organization considering mandatory masks post confinement to recover ridership (both in stations and in trains) and customer confidence?"

Figure 3: A map of the world showing where masks are mandatory in passenger trains for passengers. Map based on data provided by UIC Task Force Members and is therefore non-exhaustive.

2.2.3 Questionnaires

Very few respondents are intending to implement questionnaires to passengers regarding health (Figure 4). Some notable exceptions are China Railways and Indian Railways, both of which use smartphone apps co-created by the authorities to implement this measure. One respondent who currently uses health questionnaires commented that while they intend to continue it, they are concerned about the continued feasibility of the measure given the increase in passenger numbers. Furthermore, half of the respondents who said that they do use questionnaires clarified that it is only in the case of a suspected case, and not to all passengers. Most respondents do not intend to use this measure. Instead, they will continue to advise passengers to avoid using the railways if they are feeling ill or have symptoms of Covid-19.

Organisations considering
questionnaires to passengers on their
health condition

Yes
24%

No
76%
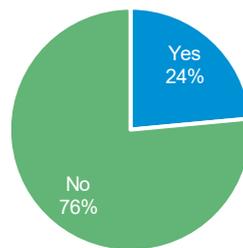
*Figure 4: Answers from 34 respondents to the question, "Is your organization considering questionnaires to passengers on their health condition post confinement to recover ridership (both in stations and in trains) and customer confidence?"*

Indian Railway's uses the mobile app 'Aarogya Setu'

Aarogya setu is a mobile application developed by the Indian Government to connect essential health services with Indian citizens in our combined fight against Covid-19. The app is aimed at augmenting the initiatives of the Indian government, particularly the Department of Health, in proactively reaching out to and informing the users of the app regarding risks, best practices and relevant advisories pertaining to the containment of Covid-19, including what to do in case one turns positive, what precautions one should take to protect one-self from getting infected, etc. To date (09/06/2020) the app has about 122.5 million users.

It undertakes contact tracing based on blue tooth connectivity. Every user is advised to undertake a daily self-assessment. In case a user is Covid-19 positive, data of their turning positive is uploaded in the app. The app then automatically informs direct contacts that they are under risk and should quarantine themselves.

Indian Railways is using it to ensure that only asymptomatic persons as certified by the aarogya setu are permitted to travel. Everyone desirous to travel by Indian Railways must download, install, register and take a self-assessment test. Only those declared safe by the app are allowed to travel. Those who are Covid-19 positive, unwell or at risk, are not allowed to travel.

2.2.4   Sanitary gel

Most respondents are intending to either start implementing or continue to implement the measure of providing sanitary gel to passengers either in stations (Figure 5) or on trains (Figure 7). Depending on the role of the respondent (infrastructure manager, train operator, etc.), respondents intend to continue or start placing publicly available sanitary gel in train stations and on trains, and examples of which can be seen in Figures 7 & 8. A few respondents are currently reviewing this as a possible measure to put in place.

Two respondents mentioned the possibility of selling sanitary gel, with one possible point of sale being vending machines. For now, these are not yet in place.

Unsurprisingly, the main difficulty mentioned for this measure is product availability.

Organisations considering to provide
sanitary gel dispensers to passengers
in stations

Under Review
12%

No
15%

Yes
73%
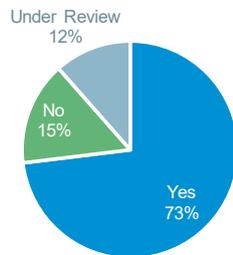
Organisations considering to provide
sanitary gel dispensers to passengers
on trains

Under Review
17%

No
18%

Yes
65%
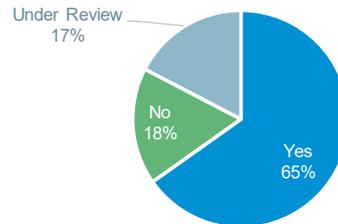
Figure 5 and 6: (Left) 26 responses to the question, "Is your organization considering providing sanitary gel dispensers to passengers post confinement to recover ridership (both in stations and in trains) and customer confidence?" that mention stations, and (Right) 23 responses to the same question mentioning trains. The difference in number of answers has to do with the fact that not all respondents own/operate trains/stations.
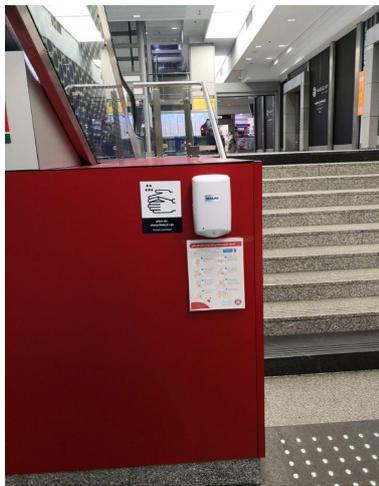
Figure 7: Picture of sanitation dispensers available for public use in Polish train stations, in use by PKP S.A. and PKP PLK S.A


Figure 8: A photo of someone using gel provided in a SNCF station

2.2.5 Increased cleaning/disinfection

České dráhy new cleaning protocol using PROFIZON X

Since the Covid-19 crisis, České dráhy (ČD) has added a new tool to their cleaning and disinfection arsenal: the Profizon X.

The Profizon X device has been developed by a Czech private company in cooperation with universities and was already in use by the European commission in some buildings.

Given the Covid-19 circumstances, ČD was glad it could be used to protect their staff and passengers. The system cleans the air by spraying for a duration of one hour and with immediate effects that last for three years. Doors and windows have to be kept open for a while after disinfection and knobs/handles/bars and other touch zones continue to be cleaned separately.

Almost all respondents intend to continue an increased level of cleaning and disinfection as we phase out of lockdowns and transportation use increases (Figure 9). Most intend to keep cleaning and disinfection at the same level as during the lockdown phase, and this until the health crisis has passed. The one respondent who answers negatively stated that "cleaning frequency in the long run should be the same as before the crisis," which is a sentiment shared by many respondents.

Organisations intending to use the measure of increased cleaning/disinfection


No
3%

Yes
97%
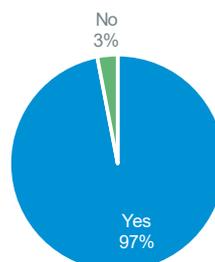
Figure 9: Answers from 33 respondents to the question, "Is your organization considering increased cleaning/disinfection post confinement to recover ridership (both in stations and in trains) and customer confidence?"

2.2.6   Waste disposal, recycling, treatment measures

The majority of respondents did not change their waste management procedures during the lockdowns and do not intend to do so going forward into this period of resumption of passenger traffic (Figure 10). Indeed, many respondents mentioned that this was not something that authorities had advised. For those who are planning on having special waste disposal, recycling and treatment measures, they all indicated that it was in the case for potential Covid-19 infected objects such as masks or gloves by using special containers. Lastly, the respondent who indicate that they did not plan on continuing their change indicated that this was once the health crisis was over.

Organisations intending to continue or
put in place waste disposal, recycling,
treatment measures
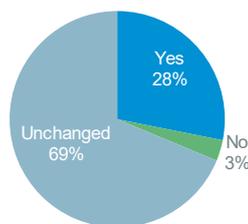
Figure 10: Answers from 32 respondents to the question, "Is your organization considering waste disposal, recycling and treatment measures post confinement to recover ridership (both in stations and in trains) and customer confidence?"

FS strategy for potential Covid-19 infected waste

In compliance with the provisions set forth in "The FS Recovery Plan", the waste management system at the stations provides for special, well-identified trash bins positioned in public spaces in order to place used gloves, masks and handkerchiefs as well as other objects.

Key features of the waste management system are listed below:

• Trash bins are equipped with foot opening mechanisms or without lids, in order to reduce direct contact;

• At least two bags are placed in the trash bins;

• A hand gel dispenser is positioned near the trash bins; and

• Trash bins are sanitized when emptied out.

The aforementioned waste is treated as unsorted municipal waste and is given to the managers of the municipal waste collection service.

2.2.7 Social distancing

Almost all respondents are putting in place measures to help ensure social distancing in train stations. The one respondent who is not intending on doing so stated that it is because even post-confinement occupancy rates will remain below normal, and "thus it was not relevant to indicate concrete distancing measure," meaning that people in stations will have enough room to respect social distancing on their own. The same general sentiment is seen when it comes to trains, whereby the majority of respondents intend to put in place measures to help ensure social distancing. Those that state they are not intending to do so also point out that it should be the responsibility of the passengers to social distance, especially as they do not have seat reservation systems already in place. Lastly, one respondent is currently reviewing this measure.

Organisations considering putting in place measures to ensure social distancing in stations

No 3%
Yes 97%
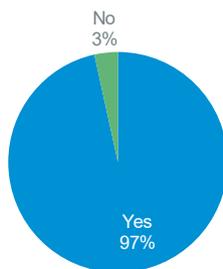
Organisations considering putting in place measures to ensure social distancing on trains

No 8%
Yes 92%
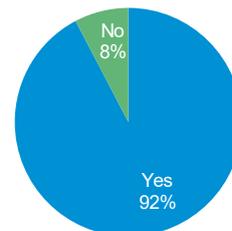
Figure 11: For the question, "Is your organization considering measures to ensure social distancing post confinement to recover ridership (both in stations and in trains) and customer confidence?" (Left) Answers from 29 respondents mentioning stations & (Right) Answers from 27 respondents mentioning trains.

For those respondents who answered yes to this question, a variety of measures are being put in place, including:

↗ Nudge actions (Figures 12, 13, 14)
  - Posters
  - Signs
  - Floor markings/stickers indicating the social distance
  - Markings/stickers condemning certain seats

↗ Announcements

↗ Displays

↗ Removing seats from waiting areas

↗ Increasing access points to stations

↗ Limiting an access point to entry or exit only

↗ Physical barriers for queues

Figure 12: An example of nudging in the form of floor stickers from PKP group, Poland

Figure 13: An example of nudging in the form of floor stickers from ADIF, Spain.

Figure 14: An example of nudging in the form of floor stickers to also control passenger flow from DSB, Denmark.

Two respondents are going to actively limit access to stations post-confinement. Another respondent has also ensured that machines in stations are also at the correct social distance from one another. Lastly, one respondent informed about their real-time monitoring of station congestion level which they make available to the public so that they are able to judge for themselves when the best time to visit a station would be (Figure 15).
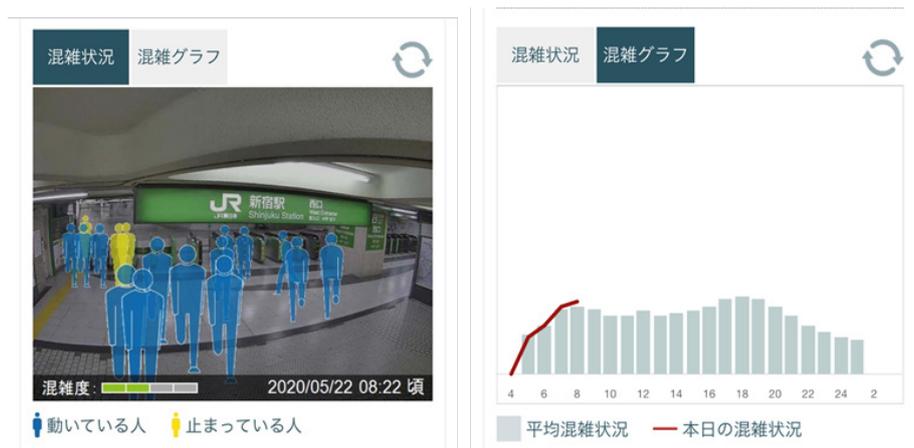
Figure 15: An example from JR East on realtime situation at station (left figure) and congestion level at station on the real time data (red line on the right figure) and the statistical data of the last week (bar chart on the right figure).

In order to ensure that there is enough space on board trains to allow for social distancing, respondents are applying a few different measures, laid out here. First off, thirteen respondents indicated that their passenger traffic will continue to be capped post-confinement, at levels ranging from 30% to 50%. A few respondents mentioned implementing a reservation system for commuter and/or regional trains which had not been the case before Covid-19. Some have also implemented smart reservation systems which not only limit the capacity but also assign seats in a "checkerboard" formation. Some allow the passenger the capacity to reserve for themselves, thus avoiding congestion and ensure social distancing, while allowing family groups to reserve seats together (Figure 16).

Figure 16: An example from JR East on a system that allows customers to reserve their favorite seats

Another way to help passengers to be able to ensure social distancing is to cooperate with authorities and companies in order to incite passengers to commute in off-peak times. Railway companies are also considering increasing the number of trains during peak hours, where possible. Another way to ensure low congestion levels is to put the trust in the passengers themselves by providing them with the relevant information (e.g. real-time congestion levels, statistics on congestion levels). One respondent stated to have created a new web platform to monitor real time occupancy levels (see DSB box) and another respondent indicated that they also are reviewing the possibility of creating a smartphone app. JR East already had such an app in place before Covid-19 (Figure 17).

Figure 17: The JR East app showing in real time situation in each car: congestion level, temperature, and facilities for PRM (Passengers with Reduced Mobility)..

DSB web application for real time monitoring of coach capacity

The service "plads på rejsen" (www.pladspaarejsen. dk) has been created to give customers travelling with DSB's s-train (suburban trains running in the Copenhagen region) the possibility of deciding for themselves to take the train with the least amount of passengers by exposing the real time occupancy data and the expected occupancy on a given train line.

The web app consists of:

• "tjek s-tog" (check s-train): with this feature the users can get an overview of the whole s-train grid and zoom in on their specific line to see the occupancy rate based on the real time weight data. The app also shows basic traffic information on the given line.

• "bedste tid" (best time): with this feature the users can plan future travels based on the expected occupancy. They can search a line and a day and see a graph showing the occupancy rate and adjust their travel accordingly.

• "departure boards" (coming soon): DSB is currently working on creating better models for their predictions and implementing them in a departure board setup, so the users can use the occupancy rates in their travel planning in the future even better.

The web app is built on:

• A reactive platform allowing us to publish quickly as a web app instead of a native app, where DSB would have had to wait for approval from e.g. Apple. This has also given the opportunity of very fast agile releases. Underneath, a custom-built backend is serving the service.

• The foundation data used is weight data from the train, that is originally used for calculating break length. This data has been reworked to estimate the occupancy rate of a given train. The data is exposed real time to the commuters with advice on occupancy rates and if they should board it or wait until a train with fewer passengers arrives.

• On top of the real time data DSB has created forecasts for future departures by making relatively simple models that will adjust as society opens more and more. DSB is currently working on a third version with more sophisticated machine learning on top to give even better advice for travel planning.

The first version of the app was built over two weeks from the initial idea to customer launch.

Since, DSB has followed an agile release setup taking them close to the third and final version.
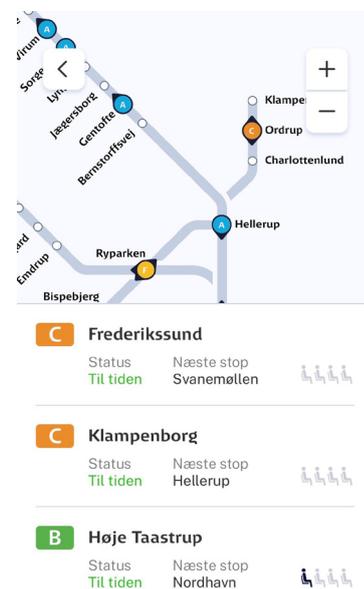
2.2.8 Change of protocol in case of suspected infected person

The majority of respondents intend to keep their current suspected case protocols in place in the post-lockdown period (Figure 18). The reason given is the success of the current measures.

Will you change your suspected case
protocol?
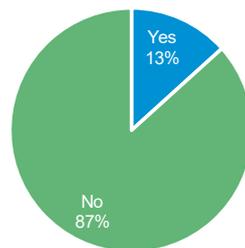
Figure 18: Answers from 30 respondents to the question, "Will you change your protocol in case of suspected infected person?"

For those respondents who answered that they will change their protocol, the main reason given was that advice from authorities on this issue had changed and they needed to take this new information into account. Further, even during the confinement period protocols were changed in this manner. Thus, the changes foreseen are always in close collaboration with the relevant authorities, as are the lack of changes.

2.2.9 Other measures

Without being asked about directly in the questionnaire, certain respondents also shared other measures they either will continue to implement or start implementing post government affiliated restrictions.

Ventilation: Railway undertakings have either already implemented or are planning to start implementing ventilation in order to reduce the risk of spreading Covid-19. This can be done either through an air conditioning/HVAC system (Figure 19) or simply by opening windows and both will continue to be part of the railways measures post-confinement.
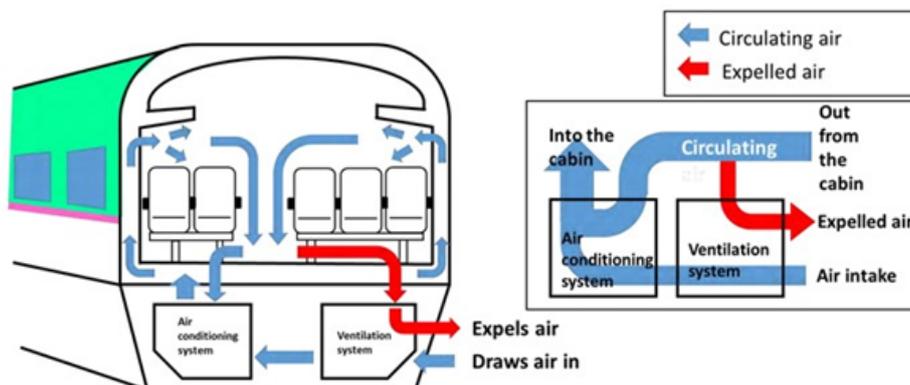

Figure 19: JR East ventilation system on their SHINKANSEN can replace the air in the room to the atmosphere in minutes. This is a same technology that is also used in aircraft.
© JR East.

Contactless tickets: Railway undertakings who have implemented contactless tickets to avoid Covid-19 spread from object-to-person will continue to do so post Covid-19 affiliated lockdowns, and others will begin to implement this measure.

2.3 MEASURES DIFFERENTIATION

This section examines whether or not respondents intended to have different measures for different circumstances, such as for passengers vs public in stations, long distance vs commuter trains, or between regions.

2.3.1 Between persons

Organisations planning on differentiating between passengers and other persons

18%

82%
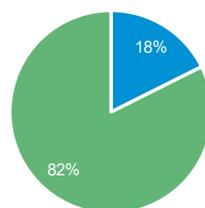
Figure 20: Answers from 34 respondents to the question, "Do you plan different measures for passengers and other persons?"

In regard to the above-mentioned measures, respondents indicated that they do not plan on differentiating between passengers and other persons who may be on railway premises (e.g. station staff, shop customers, accompanying persons) (Figure 20). The respondents who responded positively pointed out the need to put in place additional measures for vulnerable groups, for example while elevators are closed to the general public for one respondent, they are allowing PRM (Persons with Reduced Mobility) to use the elevators. Others pointed out that station staff will be provided with PPE whereas passengers will not. Lastly, one respondent is planning on having a separate coach for ladies only.

2.3.2 Between services

The majority of respondents intend to implement the same measures to prevent the spread of Covid-19 on all their services (Long Distance, Commuter, Regional, Night, etc.) (Figure 21).

Organisations who plan different measures for different services

Under review
3%

Yes
30%

No
67%
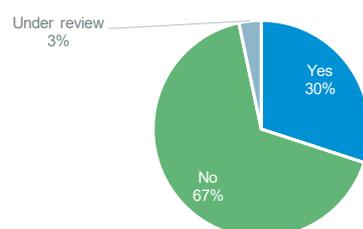
Figure 21: Answers from 30 respondents to the question, "Do you plan different measures for different services (Commuter, regional, long-distance trains, couchettes, international or touristic trains)?"

For those respondents who have implemented different measures, many are differentiating between long distance and commuter/regional rail. Another respondent pointed out that having an on-board cleaning crew was not an effective measure for commuter/regional trains but has been put in place for long distance trains. A further respondent mentioned that as passengers are on long distance trains for a longer period of time than commuter/regional trains, additional measures are being put in place. Lastly, respondents also pointed out something similar for night trains and that touristic trains will remain closed during this time.

2.3.3   Between regions

Most respondents are implementing their post-lockdown measures on a national scale (Figure 22). Those who said that they were currently implementing measures on the national scale placed emphasis on the fact that this is dependent on local/regional authorities and they would follow any specific measures on a regional scale if need be. One respondent who said that they were planning different measures for different regions is because they operate in two countries and thus must apply the relevant measures for each region they operate in. Another stated that as the spread of the Covid-19 virus was very different depending on the regions, the measures need to also be on a regional level, in accordance with the authorities.

Organisations who plan different measures for different regions

Yes
6%

Under review
3%

No
91%
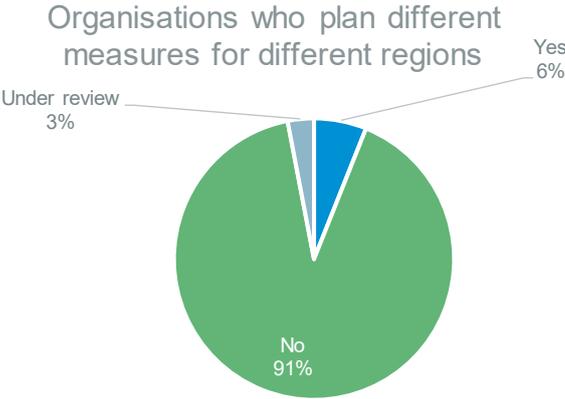
Figure 22: Answers from 33 respondents to the question, "Do you plan different measures in different regions?"

Respondents also mentioned other ways that they are differentiating their measures:

↗ Rolling stock (e.g. ventilation system, cabin structure)

↗ Station size

2.4   NEW TECHNOLOGIES

The use of new technologies developed specifically to Covid-19 has not been widely adopted as a strategic tool during the service resumption phase post-lockdown as more than half the respondents indicated that either they don't plan on using it or, at least, not at this stage (Figure 23). However, it is to be noted that most organizations already have tools and solutions developed prior to the Covid-19 pandemic that can help manage the situation, directly or indirectly (e.g. GPS data from apps, monitoring data, sensors). Another reason behind the low adoption rate of Covid-19-specific tech solutions and tools may be the concerns over data protection and privacy.

Half the respondents, who answered positively to the question, stated that they are using the government-sponsored/ developed contact-tracing app as a key player for managing the spread of the disease, not limited to, but with great importance, in trains and public transport (see box on Indian Railways). These GPS-enabled apps are designed to notify people if they have been in contact with an infected person.

The second most adopted solutions (31%) address the capacity and congestion levels, as social distancing is crucial in fighting the pandemic, yet hard to achieve in places like public transport and railways. JR East (Japan) already had an application that shows the level of congestion in each coach prior to arrival, which helps the distribution of passengers in the train and also the platform (Figure 13). DSB (Denmark) has followed suit by developing a web application where customers can be informed in real time about the capacity of all DSB's S-trains (see DSB box). Similarly, RENFE (Spain) is currently developing an app that offers space saturation onboard dedicated to commuter and regional trains. In stations, ONCF (Morocco) is using smart CCTVs for passenger counting and developing a wayfinding app for stations to further ease the flow of passengers navigating the station's facilities.

Use of new technologies

Purpose for new technology use

No 35%

Yes 47%

Under review 18%

Other 19%

Capacity and congestion levels 31%

Contact tracing 50%
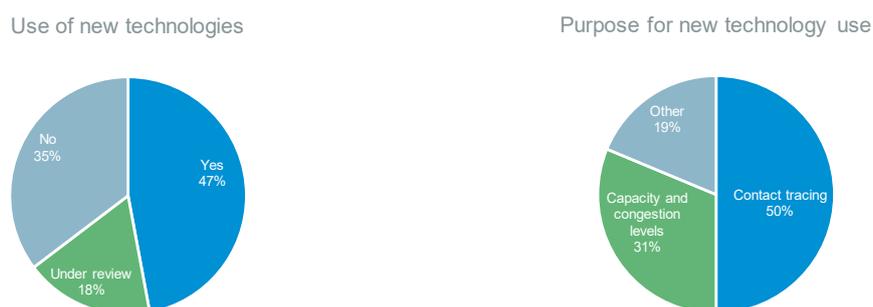
Figure 23: For the question "Do you envisage the usage of new technologies (Apps…), Big Data or Artificial Intelligence?" (left) Answers from 34 respondents on the use of new technologies (right) answers from 16 respondents specifying the purpose of use

Other usages of new tech were the integration of new Covid-19-specific functionality in the organization's app such as "the reason for traveling" by FS Italiane in coordination with authorities, and "Health reporting" by China Railways.

2.5   COMMUNICATION CAMPAIGNS

Most respondents stated that they will carry on with the campaigns as a continuity to their organisations' communication strategies during the lockdown (Figure 24).

Organisations planning specific
communication campaigns for business
resumption
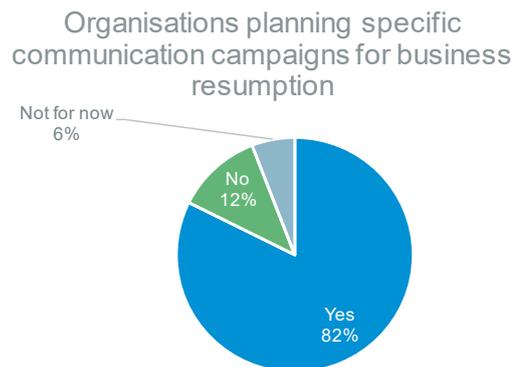
Figure 24: Answers from 34 respondents to the question, "Do you envisage any specific communication campaigns?"

While continuing to communicate content provided by their local/ national authorities (prevention measures, situation updates, recommendation on travel limitations) and information specific to travel by train (onboard, in stations, ticket sales, seating etc.) they will also reinforce the visibility of action taken by their organisations to mitigate the spread of the disease, such as increased cleaning, the enforcement of respecting social distancing and the new measures implemented (e.g. better ventilation, more efficient disinfectants, etc.) as a key point in regaining their customers' trust and recovering ridership. The campaigns, mostly, will continue to be carried out through the same channels as during the Covid-19 crisis (organisations' website, apps and social media, press releases, trains and stations) in the form of videos, posters and banners and public announcements (PA) while some will take a step further and include campaigns via mainstream media and press (Figure 25 & Figure 26).

Figure 25: Communication campaigns from DB

Having on mind your and all passengers health and safety:

- purchase, exchange and return your tickets online using the website **intercity.pl**
- remember to acquire ticket with indicated seat reservation on it,
- submit your complain online using the website **intercity.pl**
- cover your mouth and nose,
- wash or disinfect your hands often.

Having on mind keeping safety during the journey, PKP Intercity:

- sets maximum tickets sales on a level guaranteeing that number of passengers will not exceed total number of seats,
- increased the frequency of cleaning and disinfecting trains.

Figure 26: Communication campaign from PKP

In Lithuania and Greece, two specific communication campaigns have been launched, branded, respectively, "For Those Who Missed Travel" (see box) and "Travel continues" (Figure 27) in an attempt to rebrand rail travel and correct the current perception of rail as unsafe. German railways has taken a different approach to achieve the same goal; communicating research-based evidence on how unlikely contamination in trains can occur, especially, when met with the current prevention measures.

Romanian railways have introduced temporary discounts on tickets to incentivize early bookings and the use of the online sales channels as an attempt to increase ridership.
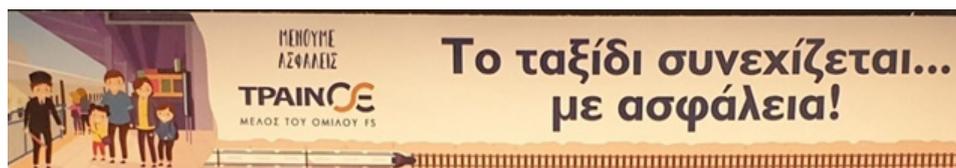
Figure 27: Screen shot of a video from TrainOSE and a window sticker from their "travel continues" campaign. The video is available in the UIC media center.

Lithuanian Railways' "For Those Who Missed Travel" Campaign

After the end of the quarantine, UAB LG Passengers (Part of LG Group (Lietuvos Gelezinkeliai- Lithuanian Railways) is now inviting passengers to return to the trains in an original way. The campaign has two parts:

Part I. The idea is an invitation not only to dream about travel, but also to travel virtually from the train driver's cab. Since the end of April (with the continuation of quarantine), different filmed train journeys have been announced to the followers of the Lithuanian Railways Facebook account every week. Both popular and less known routes were filmed: Vilnius – Trakai, Vilnius – Kena, Vilnius – Jašiūnai, Marijampolė – Kaunas, Vilnius – Kaunas, Vilnius – Ignalina. Each of these films received between 16 and 45 thousand views. (Quite big number in Lithuanian scale)

Part II. Started in the first week of June, after the end of quarantine. This part also actively seeks the involvement, organization and certainty of the passengers themselves. In this part a competition in social networks is announced. Passengers are asked to show how they see travel through the prism of romance, through an aesthetic understanding that is acceptable to them. They are asked to take photos during journeys and in this way to convey a desire to travel and discover their country. The competition is held on social networks Facebook and Instagram, its conditions are simple - passengers take photos while traveling by train and upload to their accounts by tagging @lietuvosgelezinkeliai (LG) and #keliauju kartu (I travel together). The organizers share these photos on their Facebook account. The authors of the photos that collect most "likes" are awarded weekly prizes - special travel bags with company souvenirs and travel vouchers. A new web page has been created for the communication of the "For Those Who Missed Travel" campaign: https://pasiilgusiemskelioniu.traukiniobilietas.lt/.

The initiative attracted interest in social networks and the dissemination of national media.

2.6   THE IMPACT ON DEVELOPMENT OF FUTURE RAIL SERVICES

For most respondents, their organization is still considering whether or not the Covid-19 sanitary crisis will impact the future of rail services and are currently reviewing this internally (Figure 28).

Organisations that believe the current crisis will impact the development of future rail services
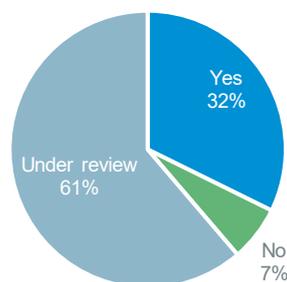
Figure 28: Answers from 31 respondents to the question, "How will this crisis affect the development of future rail services (design of stations and trains, Materials, Operation, Financing, Usage of PPP, Multimodality, other services…)?"

For those who already believe that Covid-19 will have a lasting impact on the future of passenger rail, many believe rolling stock adaption will be necessary in new trains and that the ease of cleaning will be a high priority. One respondent even directly mentioned including anti-bacterial and anti-viral surfaces in trains and stations. Another important change that respondents foresee is the increased used of digital tickets. Lastly, some respondents mentioned the fact that Covid-19 has demonstrated the power of working from home and believe that this may continue even once the Covid-19 sanitary crisis has passed.

3. FREIGHT SERVICE POST LOCKDOWN

3.1 MEASURES TO RECOVER FREIGHT BUSINESS

Many questionnaire respondents stated that Covid-19 crisis has not affected their freight activities and as such have not envisaged any commercial measures intending to "recover" the business, as the business has not been lost. Four respondents mentioned commercial measures such as strengthening customer acquisition, providing personalised support, or using a sale offensive. The majority of respondents (69%) are not intending to change business models. However, a few respondents mentioned that they would do so if the need arised in the future. The majority of respondents (62%) are not intending to change the strategic focus of their company.

That said, when it comes to taking advantage of the RAILsilience demonstrated by freight during this crisis as a key provider of goods when compared to other transport modes during Covid-19, all respondents intend to surf the wave of this success and use it to continue to build freight's future. Further, they hope that governments have realised the RAILsilience and sustainability of freight going forward.

3.2 MEASURES TO RECOVER CONFIDENCE

Most respondents intended to implement a communication campaign, focusing on the measures put in place as well as how they will optimise freight transport following the restoration of passenger traffic.

Respondents do not appear to need to implement technological solutions to restore confidence. For example, respondents said that that they already have in place Reliable Estimated Time of Arrival (ETA) or Track and Trace systems and thus Covid-19 has not affected this. Further, respondents are either already using EDI or intend to start.

When asked how this crisis will affect the future design of rail facilities, 60% of respondents expected the crisis to impact future designs. The main issues to take into account going forward would be worker protection and contactless interactions.

Railways of Iran Disinfection Tunnels at Borders

RAI has designed and built disinfection tunnels at the rail borders of Sarakhas, Incheh Broun and Lotf Abad (bordering Turkmenistan). Each disinfection system is made up of a tunnel 20 metres long and 10 metres wide. On May 30th 2020 construction was completed and the tunnels were put into operation.

Eight (8) ducts or loops set 1.40 cm apart have been installed inside each tunnel, with the Sarakhs tunnel having 16 loops for both standard and broad gauge lines. Each duct has 15 nozzles mounted to thoroughly spray the rolling stock with a disinfecting solution. Two high- flow- rate pumps are installed to the gate ducts inside the tunnel to ensure the spray. Finally, to supply the required water and drain the waste-water, high volume tanks are used.

4. STAFF CONFIDENCE POST GOVERNMENT IMPOSED RESTRICTIONS

While on lockdown or shelter-in-place recommendations, about half of UIC Covid-19 Task Force members had to reduce their staff, and the majority who were able to keep staff at pre-Covid-19 levels did so by implementing work from home on a large scale. Now that the rail sector is getting back on "the tracks," making sure staff feel confident returning to work is a must. This section examines the ways in which UIC Covid-19 Task Force members intend to tackle this re-start.

Making staff feel safe: DB strategy for Covid-19 testing

In the first days of the pandemic in March, DB was very concerned that the pandemic could be overwhelming and a threat to their business continuity. Laboratory resources were rare, available only for the diagnosis and treatment of Covid-19, and not yet available for testing asymptomatic staff. Therefore, DB decided early to build up laboratory resources for coronavirus diagnostics in their DB laboratory.

Today, DB is able to perform the Gold standard of Coronavirus diagnostics, the PCR-diagnostics of SARS-CoV-2 in large scale. DB uses this ability for mainly two scenarios:

1. Single workers are concerned about an asymptomatic infection with SARS-CoV-2 due to a suspicious infection in their social environment, and the general practitioner and public health office do not authorize a testing. In these cases, DB can prevent a sick leave by testing.

2. Several members of the staff have COVID-19 or confirmed but asymptomatic infections and the colleagues at the workshop or station are concerned about an infection. The public health service neither requests nor performs testing. In this case we can offer large groups of staff testing, or preferably, two tests within a week. This prevents a lockdown of the business and the further spread of the infection in the unit.

The tests are performed by the medical staff of the occupational health service on the compound of the unit in extra rooms or like a drive-in. Results are available within 24 hours.

4.1   BACK TO WORK MEASURES

4.1.1   Temperature checks

Respondents are split about evenly when it comes to whether or not they intend to implement or continue implementing temperature checks as rail service resumes (Figure 29). For those respondents who say they will perform temperature checks on staff, they are intending to do so at the entrance to office buildings and other rail premises. They intend to use non-contact, distance thermometers and most are/will be using infrared technology. One respondent is also using non-invasive heat testing devices. For those respondents who do not intend to put in place this measure, several reasons were given: that fever is not the only symptom; employees are already encouraged to stay at home if they are presenting symptoms including but not limited to fever; and that it could decrease the level of discipline for better controls such as sanitization, hand washing and physical distancing.
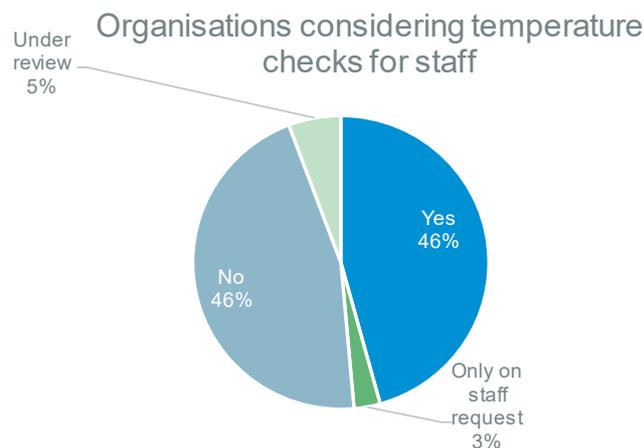

Figure 29: Answers from 35 respondents to the question, "Is your organization considering temperature checks for staff as they return to their offices?"

4.1.2   Masks

Not quite half of all respondents intend to make masks mandatory for all staff, and another third intend to make masks mandatory for certain staff members, notably for front line staff, control centre staff, and also staff working in an area where social distancing measures cannot be respected (Figure 30). One respondent stated that masks were recommended when social distancing cannot be respected, but not mandatory (listed as Recommended Sometimes in Figure 30).

Organisations considering mandatory masks for staff as they return to their place of work

Recommended Sometimes 3%

Recommended 6%

Yes 47%

Sometimes 28%

No 16%
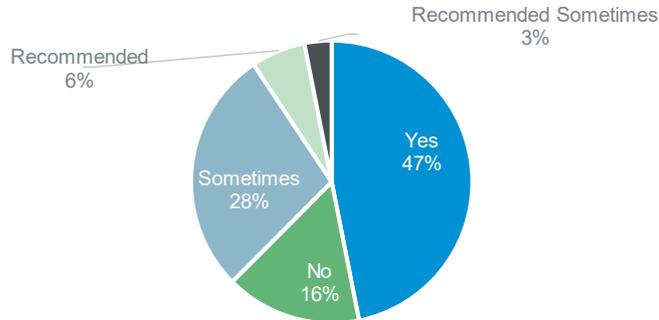
Figure 30: Answers from 32 respondents to the question, "Is your organization considering mandatory masks for staff as they return to their place of work?"

4.1.3 Sanitary gel

The vast majority of respondents intend to provide staff with sanitary gel at their place of work (Figure 31). Of those that said yes, the most often cited location to place sanitary gel dispensers mentioned was in the office buildings. More specific examples given include the toilets, the lobby, the break rooms, the kitchens, and the corridors. One respondent indicated that they would continue to provide sanitary gel to front line staff only, while making available soap and water at other work areas.

Organisations considering providing staff with sanitary gel as they return to their place of work

Sometimes 4%

No 8%

Yes 88%
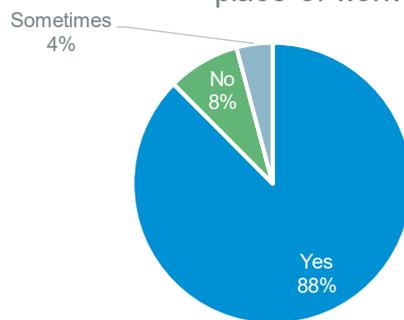
Figure 31: Answers from 24 respondents to the question, "Is your organization considering sanitary gel dispensers for staff as they return to their place of work?"

4.1.4 Increased cleaning/disinfection

Almost all (97%) respondents will either start to implement or continue implementing increased cleaning and disinfection of traction utilities (e.g. engine drivers' cabins, work and rest spaces). A few mentioned that they will specifically increase cleaning for spaces that will be used more after lockdown. Only one respondent stated that they are currently reviewing their cleaning policy (Figure 32).

Organisations considering increased cleaning of traction utilities


Figure 32: Answers from 34 respondents to the question,"Is your organization considering increased cleaning/disinfection of traction utilities as they return to their place of work?"

4.1.5 Social distancing

In countries where restrictions due to Covid-19 are easing and employees are starting gradually to go back to offices, railway companies are prioritizing the reorganization of staff by encouraging teleworking when possible and allowing flexible workhours and rotations. When asked how they intended to ensure staff members were able to respect social distancing, most respondents stated that they were going to implement various awareness raising measures, such as trainings, communication via posters, SMS, emails, reminders, and also nudges (e.g. marking out the social distance on the floor) (Figure 33). Buildings either will be or have been retrofitted with signage (marks, stickers and posters) to facilitate the compliance of staff with the social distancing measures and to better manage their flow when moving around the building (e.g. one-way traffic corridors and elevators).

Ways in which organisations intend to ensure the respect of social distancing between staff
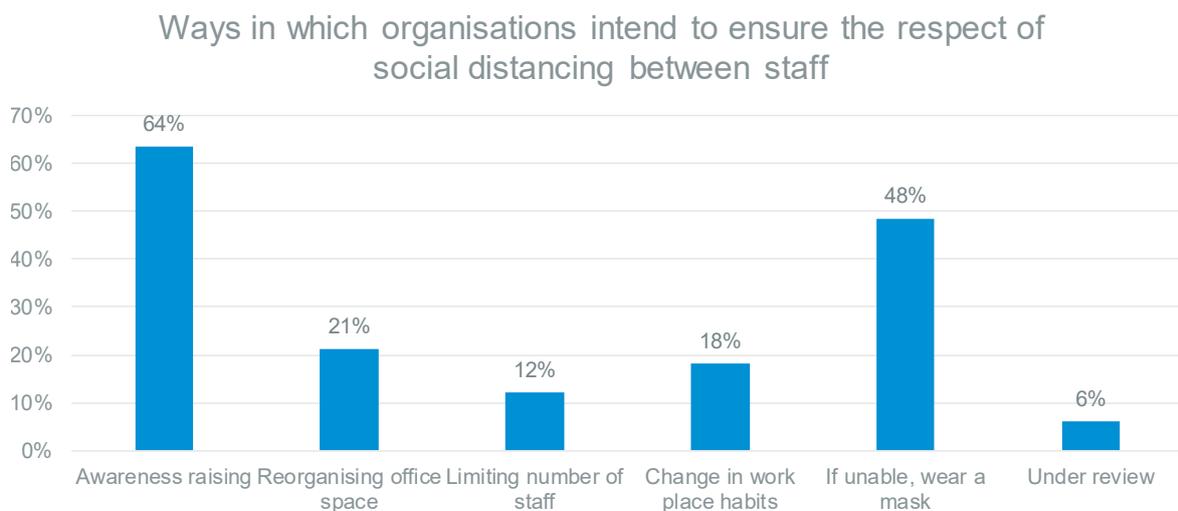
Figure 33: Answers from 33 respondents to the question, "How do you intend to ensure the respect of social distancing between staff (e.g. maintenance workers)?"

35

Another often mentioned solution was to reorganise the workspace to make sure that there is adequate space to welcome all the workers (Figures 34 and 35). Open workspaces and control rooms have been or will be partitioned using plastic transparent dividers and, in some cases, have rearranged seating to limit the risks of the spreading of the infectious disease.
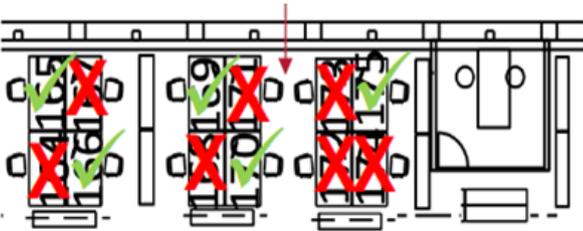

Figure 34: Seating rearrangement in the workspace, DSB, Denmark
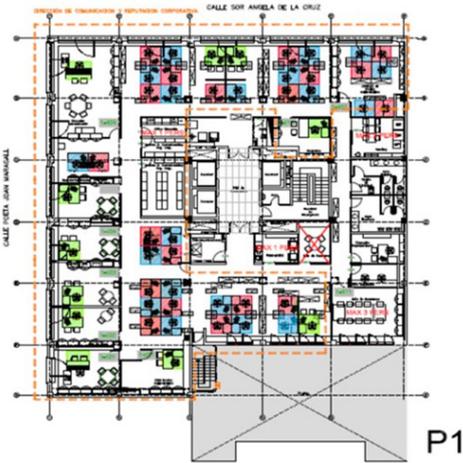
Figure 35: ADIF, Spain has prepared new maps of company buildings showing the reorganization of office posts.

A further way to ensure that the workspace has enough place that was mentioned is to limit the number of people allowed to enter a given workspace. Some respondents also mentioned measures that would lead to a change in workplace habits, such as eating alone or talking less.

Many respondents further mentioned that if there was any doubt about the ability to social distance, the workers would wear a mask and other relevant PPE. In some instances, increased ventilation or air-conditioning were put in place to guarantee a better air circulation.

4.1.6 Changes in staffing

The pandemic has been a major disruption to the organization of staffing, and since, railway organizations have taken different measures to guarantee a minimum continuity of work. Now that restrictions due to the Covid-19 crisis are easing bit by bit in different regions in the world, employers are adapting those measures for a gradual going back to normal in a way that ensures the safety of staff and minimizes the risk of spread in the workplace.

When asked about a potential reorganization of staffing while transitioning to post-covid-19 stage, almost all 29 respondents answered positively while some highlighted the possibility of permanent change (to some extent) in the way work is performed. Figure 36 indicates the relevance of different measures.

Ways in which organisations intend to reorganize staffing
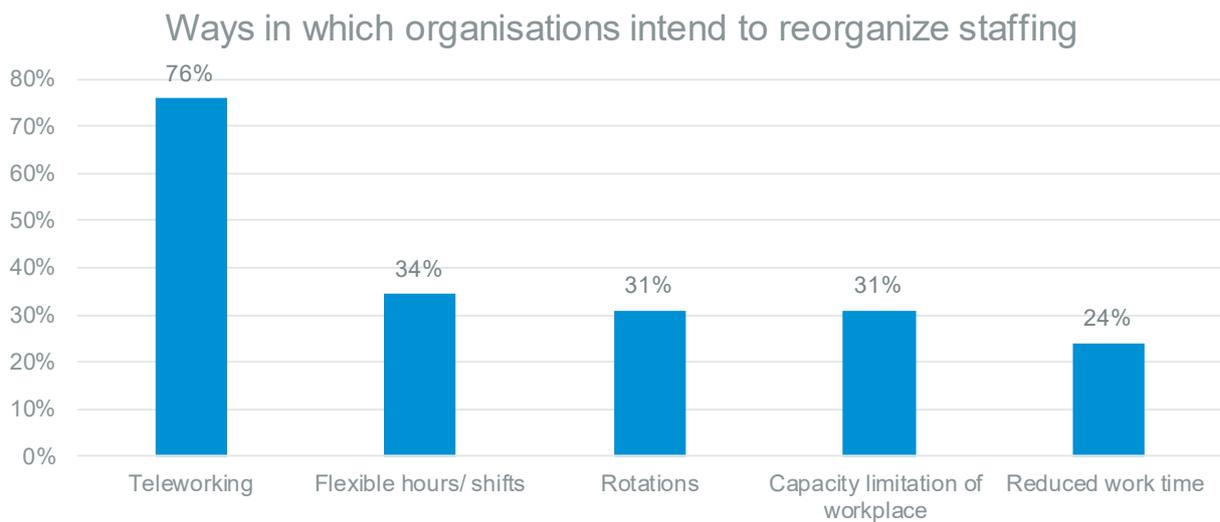
Figure 36: Answers from 29 respondents to the question, " Is your organization considering changes in organisation of staffing?"

By far, teleworking or remote working is the most adopted measure by organizations when applicable (administrative employees, management etc.) both during the crisis and after with up to 99% teleworking rates in some organizations. Up to 78% of respondents indicated that teleworking for eligible staff will stay the norm during the post-crisis phase with a progressive yet precautious return to the office. As the demand on teleworking solutions increased drastically during the peak of the crisis in some regions of the world, companies have acted accordingly by upgrading the required infrastructure to accommodate the new demand (solutions like cloud services, collaboration tools, cloud services etc.) at a fast pace. DB, Germany, has seen in the space of a few months teleworking infrastructure upgrades that were previously planned for 2023 and beyond.

Where teleworking isn't applicable, other measures are put in place such as; i) flexible hours of work/ shifts and ii) working in rotations with respondents mentioning them respectively 34% and 31%. These measures will help workers avoid on the one hand transportation during peak hours and on the other hand to have an asynchronized (sometimes opposite) work schedule aiming to limit the presence of all personnel at their work premises at once and thus controlling the risk of spread of the disease. Limiting the capacity of all or parts of the workplace is also a common resort to companies (31% of answers) seen especially in common areas (e.g. meeting rooms, canteens) and some restrictions on mobility in the workplace. Reduced workhours, which include both reduced daily work and temporary suspension, are another alternative to control the number of present personnel at the workplace (24% of answers).

4.2   MEASURE DIFFERENTIATION

4.2.1   Measures for maintenance work

Over two-thirds of respondents intend to integrate extra cleaning steps or continue to apply already integrated extra cleaning steps in the maintenance level (Figure 37). One respondent who does not intend to use this measure informed us that "cleaning is carried out separately to maintenance and therefore this is unlikely." Lastly, one respondent is currently reviewing this measure.
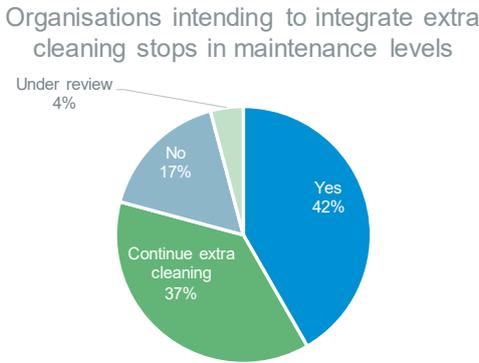
Figure 37: Answers from 26 respondents to the question, "For the maintenance (rolling stock and facilities): Do you plan to integrate extra cleaning steps in the maintenance levels?"

4.2.2   Measures for critical jobs

A common concern among railway stakeholders is to ensure that staff who perform critical jobs are safe and secure, therefore it is no surprise that most respondents intend to implement or continue implementing separate measures for such staff (Figure 38). Many respondents mentioned special measures put in place for staff in control rooms such as workspace segregation or split teams. Other respondents are also having special measures for front line staff (mainly regarding PPE) that are not applicable to all staff. Two respondents mentioned making testing available for critical staff and one mentioned applying temperature checks to critical staff only.
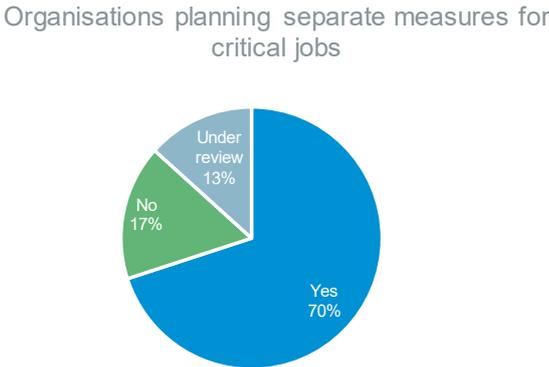

Figure 38: Answers from 340 respondents to the question, "Do you plan separate measures for critical jobs? (personnel in control rooms, shunters, drivers…)"

4.3   STAFF TRAININGS

The majority of respondents are planning special or new trainings for this new period (Figure 39). Many of those respondents mentioned these trainings as an opportunity to inform staff regarding the pandemic measures, including how to correctly use PPE and new cleaning agents. A few respondents also mentioned new trainings on aspects related to work from home. While not necessarily mentioning the creation of new or special trainings, some respondents specifically mentioned that they were offering more online, e-trainings.

When asked if they were intending to train and maintain (a pool of) multi-skilled staff who would be able to take over for one another in the case of a new crisis, the majority of respondents answered no (Figure 40). The main reason given is summarized well by one respondent, "there are currently sufficient skilled staff for the functions; there is no need for cross training."

Many of the respondents who answered yes to this question also pointed out that this is something that was already practiced and that, as one respondent put it, "having multi-skilled staff was one of the key takeaways from this crisis."

Organisations planning special or new trainings
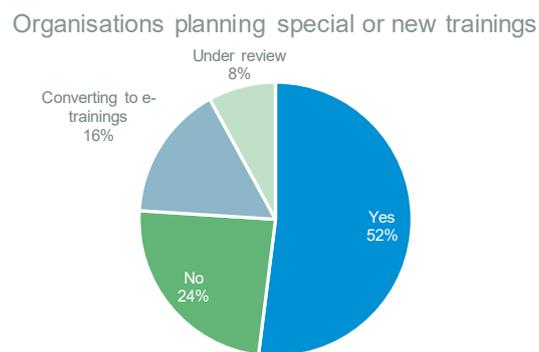
Figure 39: Answers from 25 respondents to the question,"Is your organization considering special or new trainings?"

Organisations considering to train and maintain
(a pool of) multi-skilled staff
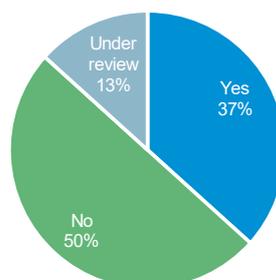
Figure 40: Answers from 30 respondents to the question, "Will your company train and maintain (a pool of) multi-skilled staff, so that people can replace each other if needed in future emergencies?"

RZD e-learning course "Basic precautions for protection against a new Coronavirus Infection (Covid-19)"

At the beginning of the Covid-19 pandemic JSC "Russian Railways" (RZD) launched a new distance e-learning course "Basic Precautions for Protection Against a New Coronavirus Infection (Covid-19)". This training program designed in a longread format and uploaded on the corporate distance learning system covers all categories of the Company's staff.

The training course describes main measures that must be taken for protection to avoid the virus spread and contains such sections as the WHO and Russian federal governmental authorities' recommendations, measures taken by the Russian Railways, self-protection measures at home, at work and during trips, overview of food safety rules and regulations, existing myths and misconceptions.

5. SECURITY ISSUES

5.1 ASSURANCE OF PASSENGERS' FEELING OF SECURITY

Even if rail transport is safe, recovering passengers relies heavily on the latter's feeling of security using the rail services and their perception of its safety, especially when collective transport is believed to be a favorable environment for the spread of the pandemic. In this context, almost all rail organizations adopted a three pillars action plan; continuous prevention, communication and visibility of actions:

↗ **Continuous prevention:** rail organizations are continuing for the foreseeable future to apply the preventive measures adopted during the peak of the pandemic including disinfection and cleaning, enforcing social distancing measures, promoting hygiene best practices and avoiding overcrowding in trains and stations. Rail organizations are also actively investigating new innovative solutions to help fight the pandemic (new disinfection protocols, new technologies to facilitate the enforcement of social distancing, etc.)

↗ **Communication** is obviously a key element in regaining the trust of customers. Organizations are continuing to communicate updates and messages related to the Covid-19 situation at all points of interaction with passengers (starting from sales till the end of journey), as well as, launching specific PR campaigns to highlight the efforts made by companies to ensure the safety of rail transport beyond the regular measures put in place, such as investing in research to know more about the spread in transportation or the extra effort put in new technologies and the use of innovative solutions (e.g. enhanced ventilation, UV disinfection etc.)

↗ **Visibility of action:** one of the most important strategies is to make the organizations' actions and effort visible to the eyes of customers during their daily travel. Passengers seeing the staff performing the safety measures in real life plays a crucial role in regaining their trust, actions like active cleaning and disinfection, security personnel making sure that passengers are respecting social distancing and prevention measures, uncrowded trains due to a conservative sales strategy etc.

Beyond these actions, organization also adopted a heightened level of customer service and assistance to understand the actual needs of customers at this stage on one hand, and to further understand their behavior on the other. For example, NS (the Netherlands) launched a massive 100 000 customer survey to reach the above-mentioned goal. Other organizations have dedicated trained staff to assist passengers in distress or discomfort.

JR East cooperates with passengers to ensure their feeling of security
Understanding that customers may feel frustrated and anxious about the railway for a while, JR East continues to ask passengers to follow the prevention measures even if it may be inconvenient. They rely on passengers to understand that there is no one single perfect measure, and that each measure is not so special. As such, JR East is doing its best to get the understanding and cooperation of their passengers.

While sneezing and coughing are generally known as infection risks, talking also increases the risk. Head to head talking, talking for a long time within a close distance, and talking loudly all increase the risk of infection. Therefore, JR East is also requesting their passengers refrain from talking in the congested train (see poster with English translations below).

5.2 INCREASED POLICE PRESENCE OR PRIVATE SECURITY

During the lockdown period, the majority of the task force members didn't experience an increase of security issue. Now that most rail companies in Europe, Asia and North America have resumed services, passenger traffic is gradually increasing, security could be an issue, especially regarding enforcement of measures such as wearing mask and maintaining social distancing.

5.2.1 For freight

When asked if they intended to make us of police/guards to protect valuable freight, respondents either stated that this was already the case or that they weren't intending to do so, as such this is not being considered as a measure to increase confidence post-Covid-19.

5.2.2   For others

However, the majority of respondents (73%) do not envisage to increase police presence or private security (Figure 43). For most of them, the existing company security staff and the usual number of security forces are sufficient for now to protect passengers and staff. When needed (27% of respondents), additional police forces are deployed. For example, in UK, British Transport Police are assisting with social distancing at busier locations. In Spain, police presence has increased to carry out tasks such as the distribution of masks at railway stations or private security has been punctually increased at some stations to support the tasks of redirection of passengers (to avoid queues or passengers standing all together) and to guarantee social distance among passengers.

Does your organisation envisage increased
police presence or private security?
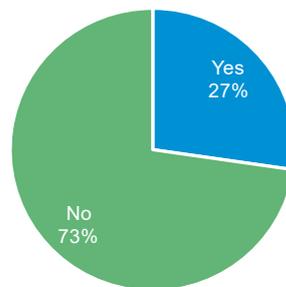
Figure 41: Answers from 33 respondents to the question, "Do you envisage increased police presence or private security"

## 5.3   SECURITY TECHNOLOGIES TO MANAGE CROWDS

Beyond human presence, technology can help railway staff to manage security issues related to Covid-19.

The third questionnaire raised the question of the use of smart CCTV to manage crowds and the use of thermal cameras to check temperature.

Most of the respondents (81%) are not using smart CCTV to manage crowds, however many of them use video surveillance already in place to monitor the situation, especially in large stations (Figure 33).

Some of the respondents (10%) are using smart CCTV and have put it in place in some stations. Few responders (9%) are considering or testing some solutions. Infrabel in Belgium is currently evaluating camera based social distancing in the offices with an alarm linked to it; in Morocco, ONCF has equipped all stations with smart CCTV with advanced technological features such as counting, and flow management and the deployment is ongoing.

Organisations that use or plan to use Smart CCTV

Test / pilot 9%
Yes 10%
No 81%
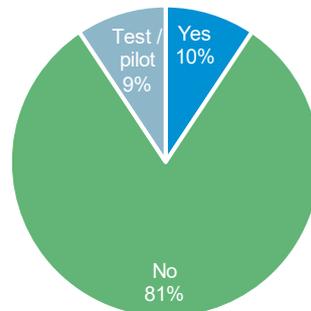
Figure 42: Answers to the question, "Do you use or plan to use security technologies such as Smart CCTV to manage crowds?"

Infrabel pilot: Respect of social distances via computer vision

Infrabel's IT department has developed a PoC that enables a PC to detect the number of people present in a room and to ensure that social distancing is respected.
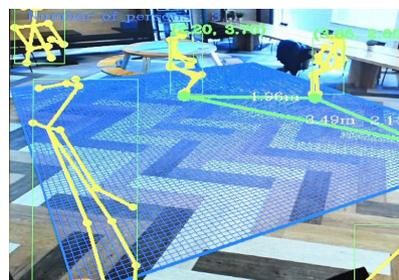
6. ETHICAL/LEGAL ISSUES

When asked if they thought the legal framework would need to evolve post Covid-19 affiliated lockdowns and restrictions, the majority of respondents said no (Figure 43). For those who stated that the framework might need to evolve evoked the issues of work from home, GDPR, use of CCTV, and contact tracing. Many stated that this is an issue for public authorities and not for the rail industry.

Organisations who believe the legal framework
would need to evolve
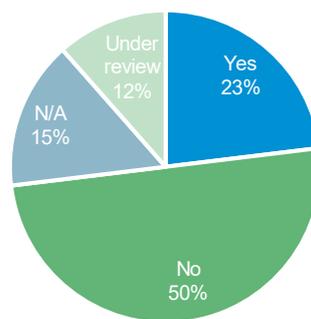
Figure 43: Answers from 26 respondents to the question, " Would you need any evolution in the legal framework (especially GDPR and ethical aspects)?"

Covid-19 has had big legal implications, among other things in relation to data protection. Questions were raised by railway undertakings on the lawfulness of processing personal data as regards to temperature screening and health information of employees and passengers. Other issues concerned tracing apps and the use of location data. The CIT General Secretariat made a presentation on those questions during the UIC Covid-19 Task Force meetings. It showed the significance of processing such data only if there is a necessity, more specifically a ground to do so. The CIT General Secretariat also drafted recommendations on that in this regard, which will soon be published (a copy can be requested by sending an e-mail to info@ cit-rail.org).

7. CONCLUSION

Overall, when imaging and planning for the lifting of Covid-19 related government imposed restrictions, the railway sector intends to continue to implement the measures that they were already using during the lockdowns or shelter-in-place recommendations. Even with the lifting of restrictions, all recognise that the threat of Covid-19 has not passed and intend to do all they can to ensure the safety and security of passengers, freight goods, and staff.

Railways are ready to get back on the track, demonstrating once more their #RAILsilience.

8. ANNEX

8.1 THIRD UIC COVID-19 TASK FORCE QUESTIONNAIRE – RESTARTING THE RAILWAY SECTOR POST COVID-19 AFFILIATED LOCKDOWNS

PASSENGER SERVICE RESUMPTION POST CONFINEMENT

1. Once travel is no longer restricted and if the situation returns to normal ridership, will it still be feasible to continue to apply the prevention measures you are currently applying to combat Covid-19? In which conditions?

2. Is your organization considering any of the following measures post confinement to recover ridership (both in stations and in trains) and customer confidence? Why or why not? Will these measures be implemented at the same or a different level than you had done during the lockdown?

- a. Temperature Checks of passengers – if yes, when and where, with which device?
- b. Mandatory Masks (or other facial cover) – provided by passengers or given by the company or Authorities?
- c. Questionnaire to Passenger on their health condition?
- d. Provide sanitary gel dispensers to passengers – if yes: when, where?
- e. Increased cleaning/disinfection (same as during Covid-19? Less? More?)? Specify where?
- f. Waste disposal, recycling, treatment?
- g. How to ensure the respect of social distancing:

    i. In stations: limitation of number of persons in stations, layout of station, passenger flows in the station and in the platforms (stickers, markers on the floor, fences, or other nudges)…

    ii. In trains: seat reservation, forbidden seats, managing of luggages, passenger flows, managing of occupancy rate…

- h. Do you plan different measures for different services (commuter, regional, long-distance trains, couchettes, international or touristic trains)? Which differences?
- i. Do you plan different measures for passengers and other persons (station staff, shop customers, accompanying persons, Persons with Reduce Mobility, Unaccompanied Minors…)?

- j. Do you envisage the usage of new technologies (Apps…), Big Data or Artificial Intelligence? If yes, please explain.
- k. Do you envisage a change in the way you sell tickets? If yes, which?
- l. Do you envisage any specific communication campaigns?

3. How will you ensure that passengers have a good feeling of security on trains and stations when the Covid-19 crisis may have created new fears (virus, air condition, confined space)? What's about new air condition system (in trains, in stations…), new cleaning protocols of the whole train, new manner of using space in train, station and platforms, communication?

4. How will this crisis affect the development of future rail services (design of stations and trains, Materials, Operation, Financing, Usage of PPP, Multimodality, other services…)?

5. Will you change your protocol in case of suspected infected person? If yes, please explain.

6. Do you plan different measures in different regions?

FREIGHT SERVICE RESUMPTION/UPTAKE POST CONFINEMENT

7. What measures are your organization considering post confinement to recover freight business and customer confidence? Why or why not?

- a. Commercial measures?
- b. Communication campaign?
- c. Usage of police/guards to protect valuable freight?
- d. Other?
-

8. Are you considering a potential change of business models (lighter in assets, new models)? If yes, please explain.

9. Will the strategic focus of your company change?

10. How would you describe the relevance of a sector approach of the railways during the crisis and any other comparable crisis situation, where national issues were/are prioritised?

11. How will this crisis affect the development of future rail services regarding for example operations in general, financing, multimodality, Single Wagon Load, Block Train, Dangerous goods, others?

12. How will this crisis affect the future design of rail facilities such as terminals (e.g. routing to follow....), loading docks, locomotives (e.g. ventilation, shunters), hand over points, others?

Company policy

13. Operations: As the crisis has highlighted the reliability of rail freight transport, will your company be able to catch that opportunity when the Covid-19 crisis is over?

14. Electronic Data Interchange: To reduce the need for physical interactions (between carriers, between carriers and freight forwarders and CT operators, with Infra Managers (EU), with Customs, etc…), will your company -due to the crisis- to increase the level of EDI in the freight business?

15. Can or will your company use Reliable Estimated Time of Arrival (ETA) or Track and Trace systems so that the teams are mobilized at the right time and are not exposed unnecessarily?

STAFF CONFIDENCE

16. Is your organization considering any of the following measures for staff as they return to their offices?

- a. Temperature checks – if yes, when and where, with which device?
- b Mandatory Masks (or other facial cover) – personal mask or given by the company or Authorities?
- c. Provide sanitary gel dispensers to staff – if yes: when, where?
- d. Changes in organization of staffing? (e.g. flexible shifts, reduced working time at the office, keep with the teleworking for administrative purposes, limiting capacity in buildings (e.g. rotation system))?
- e. Increased cleaning of traction utilities (engine drivers' cabins, work and rest spaces, public places e.g. toilet) (same as during the lockdown? More? Less?)
- f. Do you plan on reorganizing the office space (e.g. continuing to use open space? putting in dividers? adjusting the ventilation and/or air conditioning systems, adjusting the flows of staff in corridors, etc.)? What about other workspace areas (e.g. driver and other staff rest areas, cafeterias)?
- g. How do you intend to ensure the respect of social distancing between staff (e.g. maintenance workers)?
- h. For the maintenance (rolling stock and facilities): Do you plan to integrate extra cleaning steps in the maintenance levels?
- i. Special/new trainings?

17. Will your company train and maintain (a pool of) multi-skilled staff, so that people can replace each other if needed in future emergencies?

18. Do you plan separate measures for critical jobs? (personal in control rooms, shunters, drivers…)

SECURITY ISSUES

19. Do you envisage increased police presence or private security?

20. Do you use or plan to use security technologies such as Smart CCTV to manage crowds, thermal cameras, other.

ETHICAL/LEGAL ISSUES

21. Would you need any evolution in the legal framework (especially GDPR and ethical aspects)?

OTHER

Please indicate any information regarding re-starting railway transportation post Covid-19 lockdowns not mentioned in the previous questions

Countries with members of the UIC Covid-19 Task Force
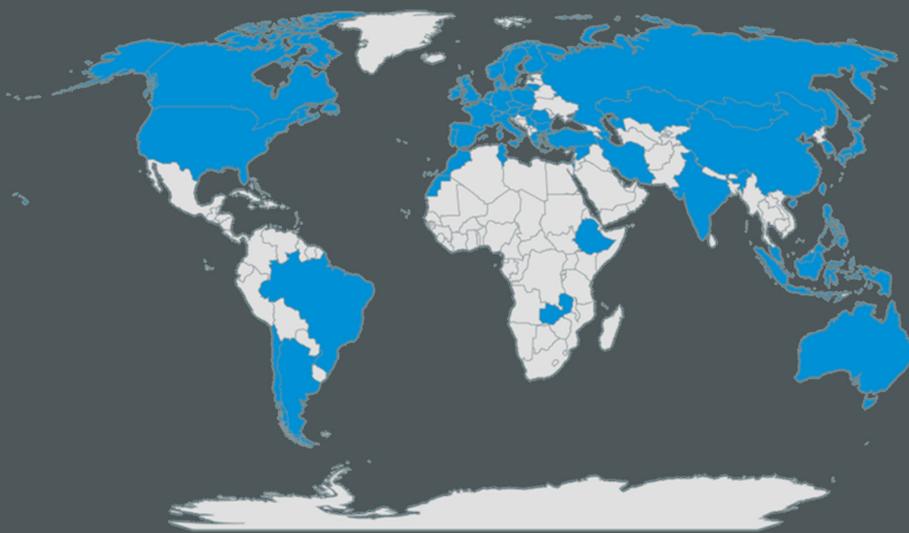
Contact: COVID19@UIC.ORG

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