#### Livestream: Covid-19 Automotive Supply Chain March Update

Short and long-term impacts on demand, technology and globalisation









#### Running order

- Intro and Live polls
- Update on Covid-19 supply chain and production situation to date
- Global vehicle demand forecast and economic impacts
- Live polls
- Global supply chain, trading and technology implications
- Live polls





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#### Welcome to Livestream. Get ready to engage:

- Q&A will be after presentations, but **submit your questions**, **comments or technical issues any time** using the question box
- If you would like to pose your comment or question live via microphone select the raise hand icon, and we will try to get to you during the Livestream. Please turn on your microphone and ideally use headphone.



- \*Note we reserve right to mute any comments in which sound quality is poor or if any inappropriate comments are made
- For questions we don't get to during the session, we'll produce answers for over the next week and share with you
- Comments, experiences, disagreements are also welcome.



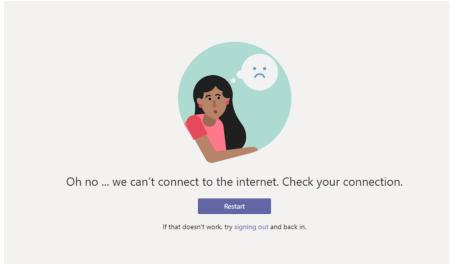
#### And please bear with us...

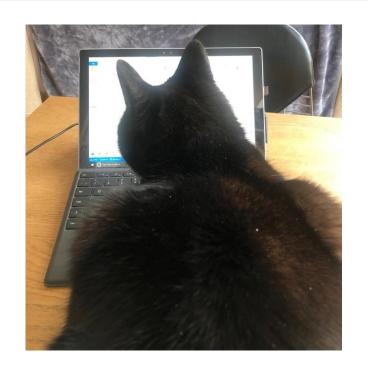
 Sorry if we experience any brief technical or connection issues. We are all putting broadband through its paces! We'll be back ASAP.



Also, apologies for any home office interruptions.
Has this happened to any of you lately?







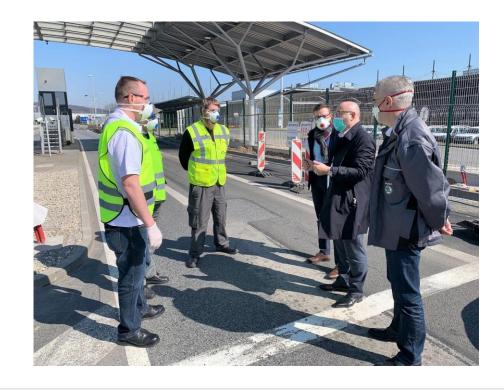
#### Calling stop on production: a crisis of historic proportion

- 95% of UK & EU plants shuttered, with North America winding down, now India
- Shutdowns spreading across South America, South-East Asia, North Africa, South Africa, Russia
- 2-4 weeks planned but likely indefinite in many places until restrictions ease
- Production adjustments in Japan and South Korea for lower demand
- Threatens viability of many companies, especially smaller suppliers, dealers and carriers
- Fundamental questions about globalisation, role of governments and technology post crisis





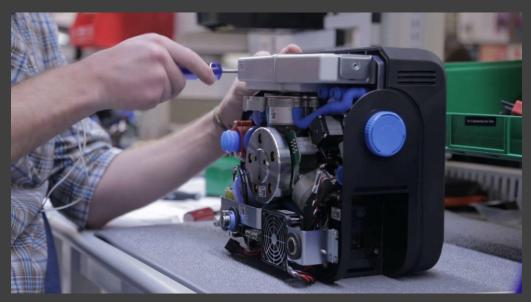




#### What's still open?

- Plant winddown process, disinfection, maintenance
- Service parts network & some repair for logistical supply of medicine/food. Some CV operations
- Some dealership activity (varied by region/US state)
- China restarting (incl. Wuhan), Japan, SK with lower output, parts of Russia, Latin America, SE Asia





# Re-tooling and focusing supply on medical equipment

- GM, Ford working with supply base in US
- FCA and suppliers in Italy
- JLR, McLaren and technology specialists in UK
- German, Indian OEMs doing the same
- Also production and supply of face masks



#### Logistics impacts

- Collapse in passenger flight underbelly capacity shift to freighters means limited capacity and rate spike
- Growing border and trucking queues, pile up of products and containers in ports
- Move to 'super slow steaming' for deep sea shipping
- Priority on food & medicine



### Suppliers and providers racing to preserve cash, revenue

 Scrambling to access to government rescue, loans and salary support

Temporary lay off and short-time working

 Truck and vessel fleet reductions: warm/cold layups, recycling and ending leases

 New revenue, including crisis relief support – e-commerce where possible

 Some forward planning – Engineering designs, supply chain optimization...but limited updates and new model tooling





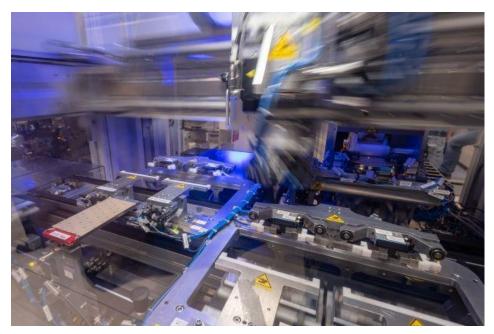
## Ramp up will be a major challenge

- Production plants cannot just be switched back on – depends on equipment maintenance, worker availability and inventory availability
- Financial health of supplier base, equipment service providers will be key to restart
- China gives hope but is still not back to full capacity, still faces restrictions and will see demand hit from export declines



#### Key questions. What are your thoughts?

- How long, hard and deep will this impact current and future automotive demand?
- How much will governments do to help automotive value chain survive?
- Will we see delays/changes to prior legislative priorities, i.e. USMCA, Brexit Trade Deal, CO2 emission regulations?
- Will we see a fundamental reshaping of global trade, supply chains and manufacturing footprints post-crisis?
- What would be impacts of long-term depression of oil price?
- Will we see a faster transition to online vehicle sales and service?
- Will there be a faster, more sustained move to automation?
- New ways of working: how will the crisis accelerate changes in working patterns and the technological tools that we use?





#### We are here to share insight, data and solutions

#### We want to hear from you with your ideas!

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