

# Status of the Automotive Supplier Industry

*Pulse Check Results – 2<sup>nd</sup> COVID-19 survey*

May 6<sup>th</sup> 2020



# Your McKinsey team for today's Webinar



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# The 2<sup>nd</sup> COVID-19 Pulse Check focuses on the ramp up of the automotive supplier industry

## **Pulse Check – Automotive Supplier Response**

- Impact of COVID-19 crisis on automotive suppliers
- Ramp-up readiness and challenges
- Mid-term and structural measures

## **McKinsey Perspective – Scenarios and manufacturing ramp-up**

- Updated scenarios for economic development & expected impact on the light vehicle industry
- Key elements to overcome manufacturing challenges

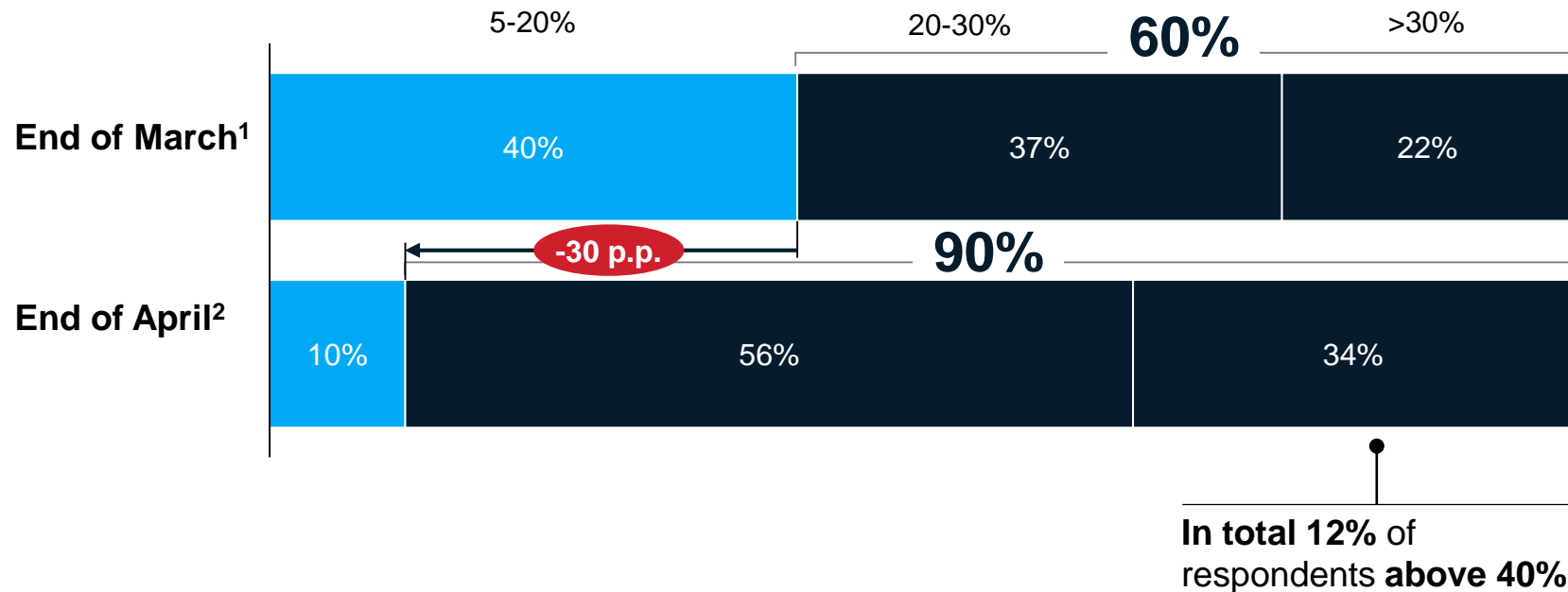


*2<sup>nd</sup> COVID-19 Pulse Check  
May 2020*

# Expected impact on 2020 revenue became more negative – 90% believe in revenue reductions of >20%

Survey conducted between April 27 – 30, 2020

**What is the total estimated effect in 2020 on your company's revenue**  
(% below plan)



**Selected quotes from respondents**

- Despite **courageous optimism** of some OEMs, seeing the **overall economic situation** we tend to become less rosy
- Our sales decrease **-45% in March**, **-100% in April** and **-60% in May**
- April was the **worst month in 15 years**

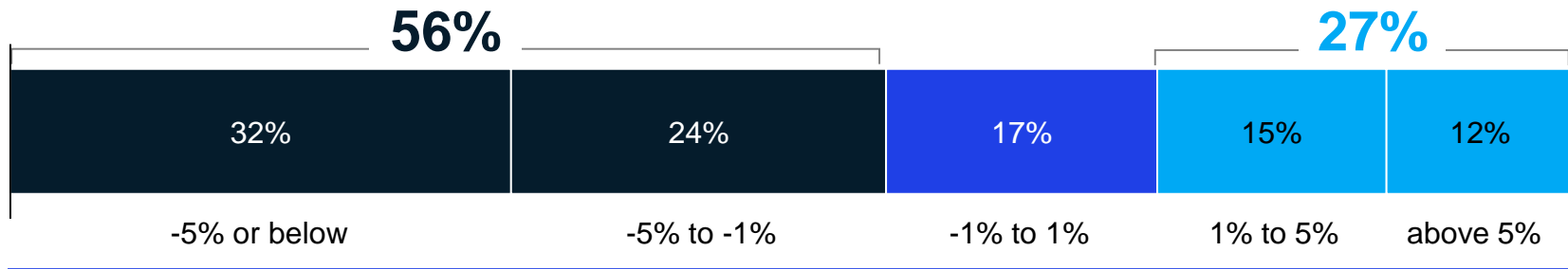
**!** The **outlook of respondents on revenue in 2020 deteriorated significantly** in comparison with the March survey **90% of respondents** now believe in revenue reductions of **more than 20% vs. plan**

1. March 20-24 2. April 27-30 Note: Displayed percent values without accounting for "N/A" answers. N=116 (March 20-24, 2020), N=79 (April 27-30, 2020)

# Profitability will take an even harder hit – majority of respondents expect a net loss for 2020, a third expects profitability below -5%

Survey conducted between April 27 – 30, 2020

Which profitability do you expect for 2020 after accounting for this effect



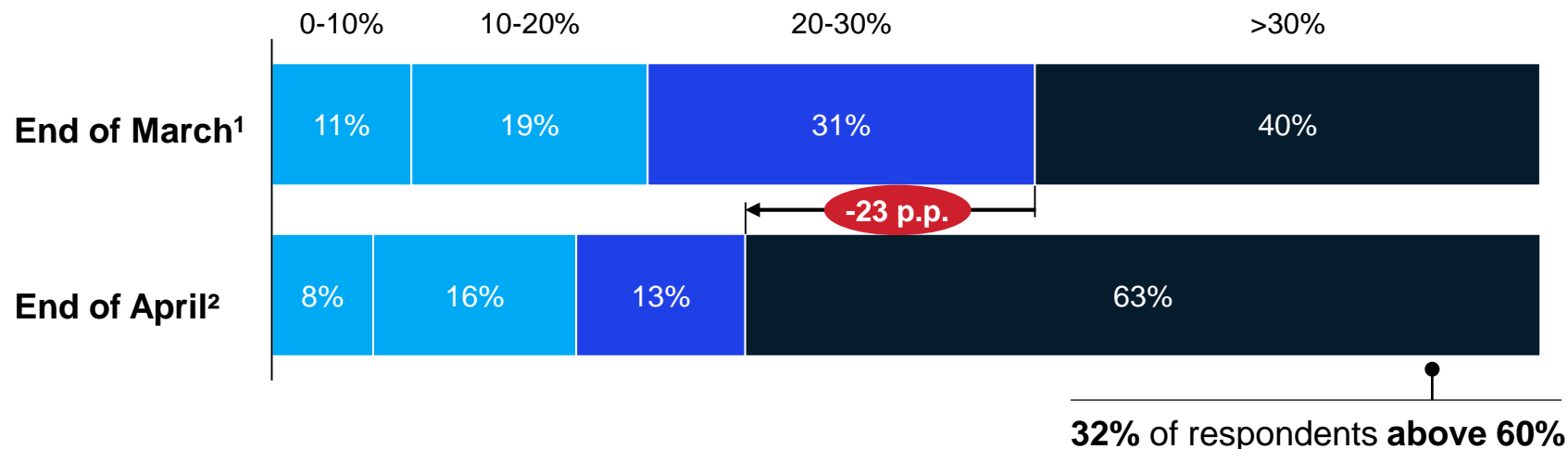
Selected quotes from respondents

“ ” This crises will be much more severe than the previous sub-prime crises

“ ” The reduction of fixed cost cannot follow the rate of turnover reduction

“ ” It will shift from expected profit to expected losses

What is the total estimated effect in 2020 on your company’s profitability (% below plan)



1. March 20-24 2. April 27-30 Note: Displayed percent values without accounting for "N/A" answers. N=116 (March 20-24, 2020), N=79 (April 27-30, 2020)

# Confidence in sales levels recovered for China, high level of uncertainty remains in Europe & America

Survey conducted between April 27 – 30, 2020

## Do you expect significant additional sales reductions in the next 3 months

% of respondents<sup>1</sup>



### Selected quotes from respondents

- “ ” We are blind to the future
- “ ” The situation is not predictable and dramatic
- “ ” OEMs are expected to ramp up again in May - but customers will not buy new cars in economically unstable situation



**Outlook for China continues to improve rapidly**

**Despite initial ramp-ups, respondents remain uncertain about sales level in Europe & America**

<sup>1</sup> % of respondents expecting sales reductions, delay or cancellation of orders by 20% or more.

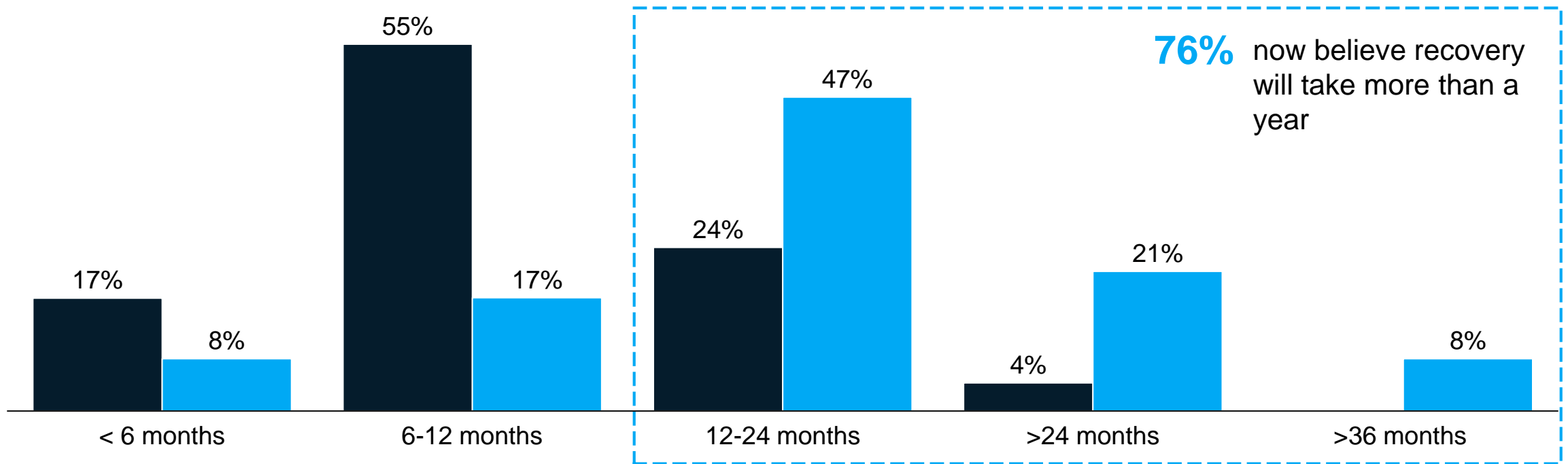
Note: Displayed percent values without accounting for "N/A" answers. N=79 (April 27-30, 2020)

# Over 75% of respondents do not expect recovery within one year – a third even believes in a 2-3 year timeline

Survey conducted between April 27 – 30, 2020

How long will it take until your company has fully recovered from the COVID-19 impact

■ March 20-24 ■ April 27-30



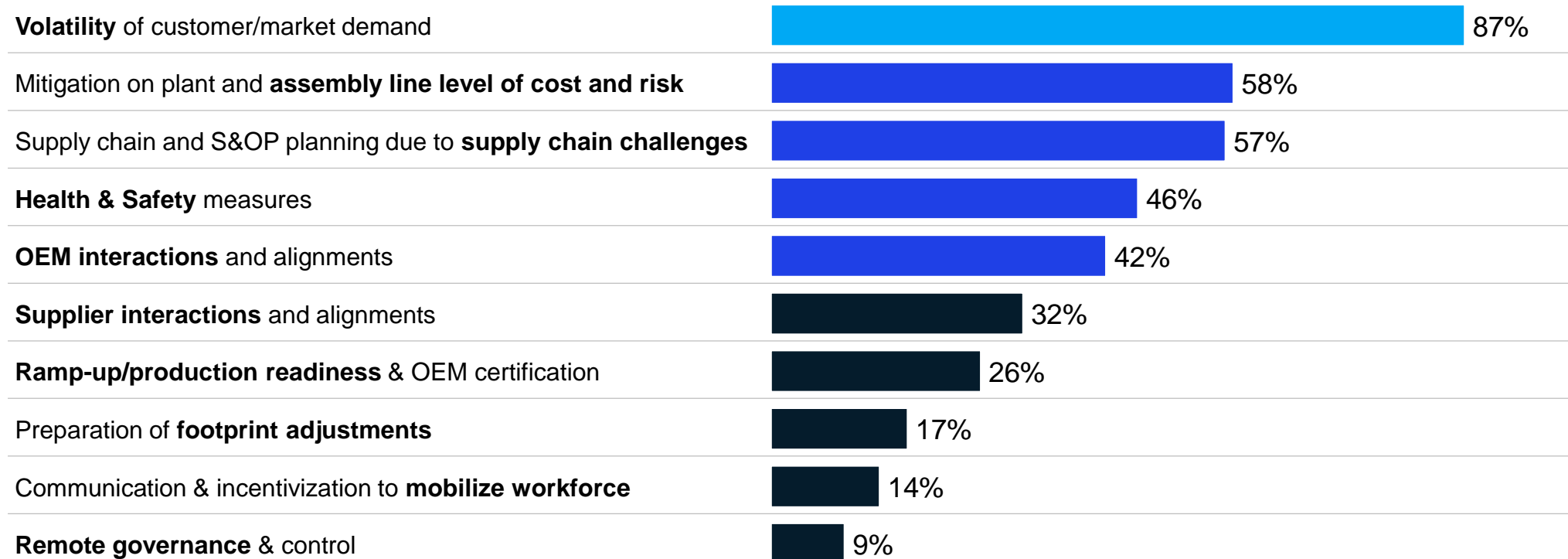
**!** Over 75% of respondents believe recovery will not be achieved within this year  
 Despite initial signs of recovery and ramp-ups, respondents now believe in a 6-12 month delay in recovery compared with March Survey results

Note: Displayed percent values without accounting for "N/A" answers. N=116 (March 20-24, 2020), N=79 (April 27-30, 2020)

# Ramp-up challenges: Respondents are most concerned with remaining uncertainty & volatility of demand

Survey conducted between April 27 – 30, 2020

## Where do you see the biggest ramp-up challenges in the next 6-12 months



**Demand uncertainty remains the biggest mid-term challenge for suppliers during ramp-up**  
**Workforce mobilization and remote governance not perceived as a major challenge**

Note: Displayed percent values without accounting for "N/A" answers. N=79 (April 27-30, 2020)

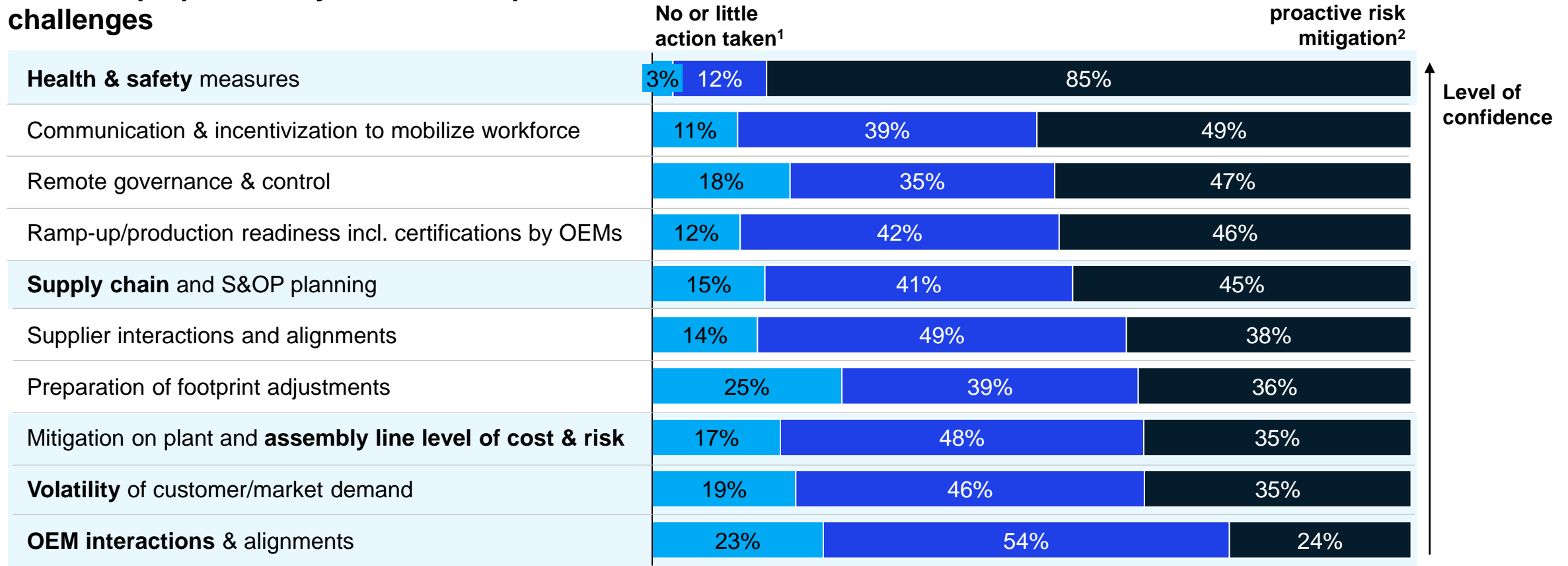


# Respondents feel especially ill-prepared for 3 out of the 5 main challenges – high level of confidence only in health & safety measures

Survey conducted between April 27 – 30, 2020

■ Top 5 challenges

## How well prepared are you for the respective challenges



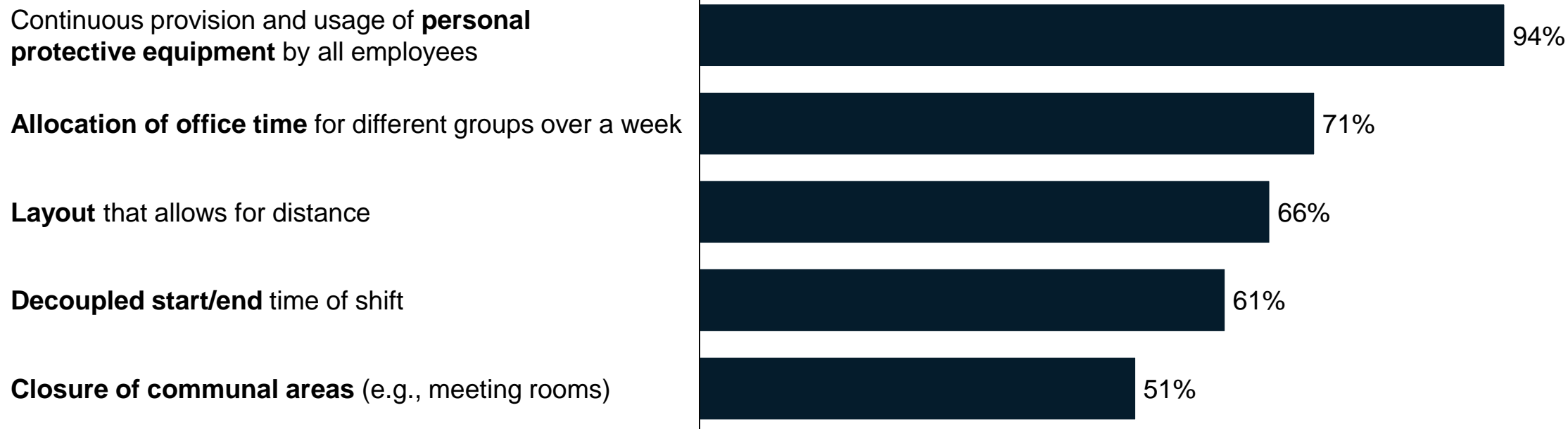
1: 1-3 on a scale of 1-7, where 1="No preparation actions taken" and 7="Proactive actions taken to mitigate risks and create opportunities" 2: 6-7 on the same scale of 1-7

Note: Displayed percent values without accounting for "N/A" answers. N=79 (April 27-30, 2020)

# Health & safety of employees continues to be a key priority during and after the ramp-up

Survey conducted between April 27 – 30, 2020

**Do you anticipate any medium-term changes (lasting longer than 2-3 months) on the shop-floor to protect health & safety of your workforce (Top 5 shown)**



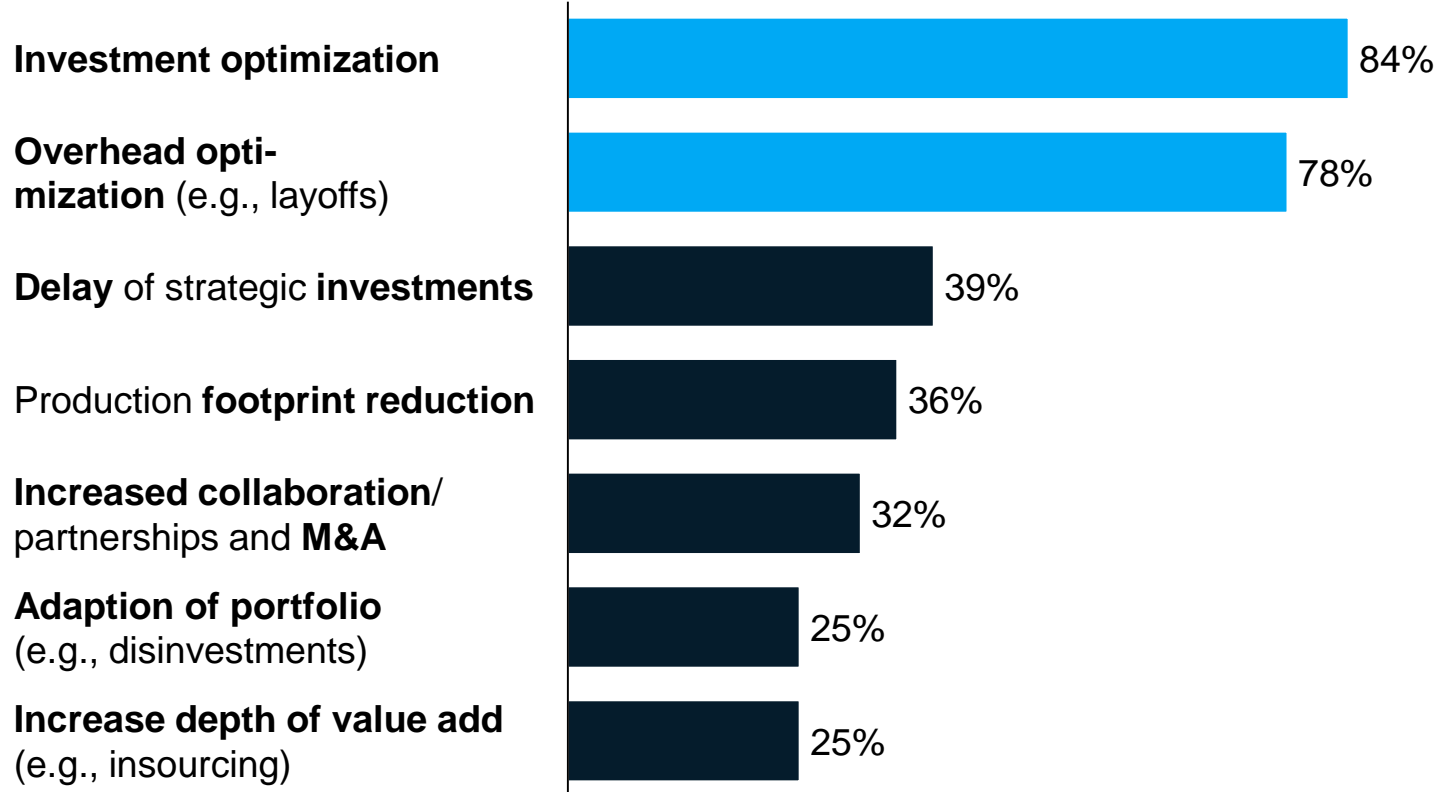
**All respondents expect the continued use of health & safety measures on the shop-floor in the near to medium term, reducing risk by providing PPE and sufficient space among employees through layout and shift design**

Note: Displayed percent values without accounting for "N/A" answers, N=79 (April 27-30, 2020)

# Respondents are ready for severe structural changes to respond to COVID-19...

Survey conducted between April 27 – 30, 2020

**Which long-term, structural measures do you expect to take in response to COVID-19** (choice of up to 5 responses, Top 7 shown)

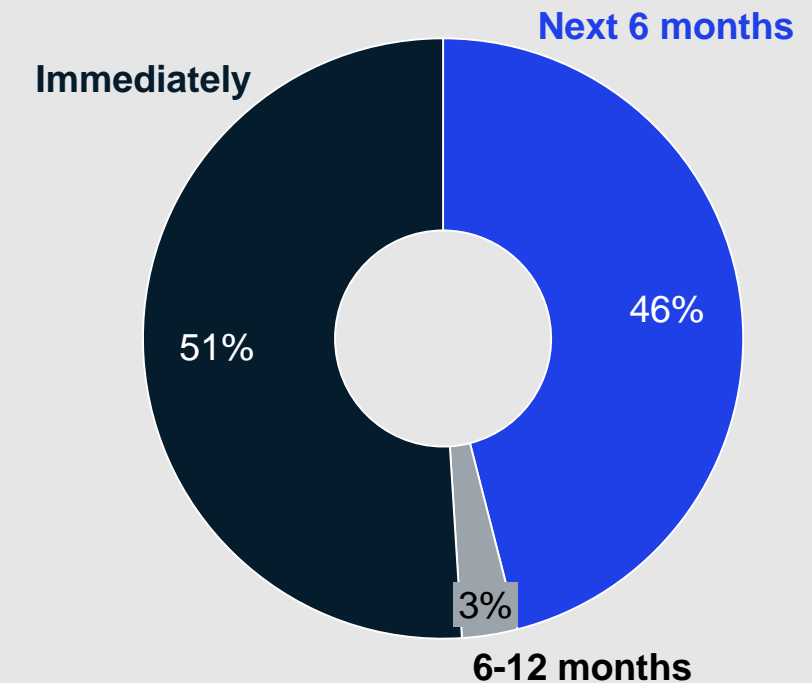


Note: Displayed percent values without accounting for "N/A" answers, N=79 (April 27-30, 2020)

SOURCE: McKinsey CLEPA Pulse Check Survey

# ... and are prepared to act quickly

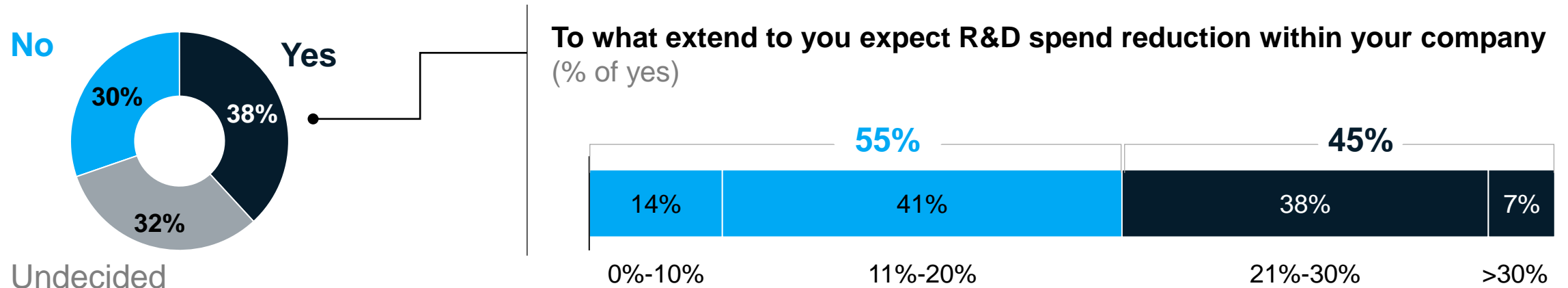
**Over which time horizon will you take action**



# As part of the overhead optimization, 38% of respondents have already decided to cut R&D budgets

Survey conducted between April 27 – 30, 2020

## Does your company plan to cut back on R&D spending in response to COVID-19



**38% of respondents have already decided to cut R&D budgets** in response to COVID-19

**Half of the companies willing to cut R&D budgets, are planning reductions of more than 20%**

Reduced spending **mostly expected outside of core ACES<sup>1</sup>-Trend technologies**, e.g. in production processes

1. ACES = Automated, Connected, Electrified, Shared

Note: Displayed percent values without accounting for "N/A" answers, N=79 (April 27-30, 2020)

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## **Pulse Check – Automotive Supplier Response**

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## **McKinsey Perspective – Scenarios and manufacturing ramp-up**

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- Key elements to overcome manufacturing challenges



*2<sup>nd</sup> COVID-19 Pulse Check  
May 2020*

# The Imperative of our Time

## Imperatives

### 1

#### Safeguard our lives

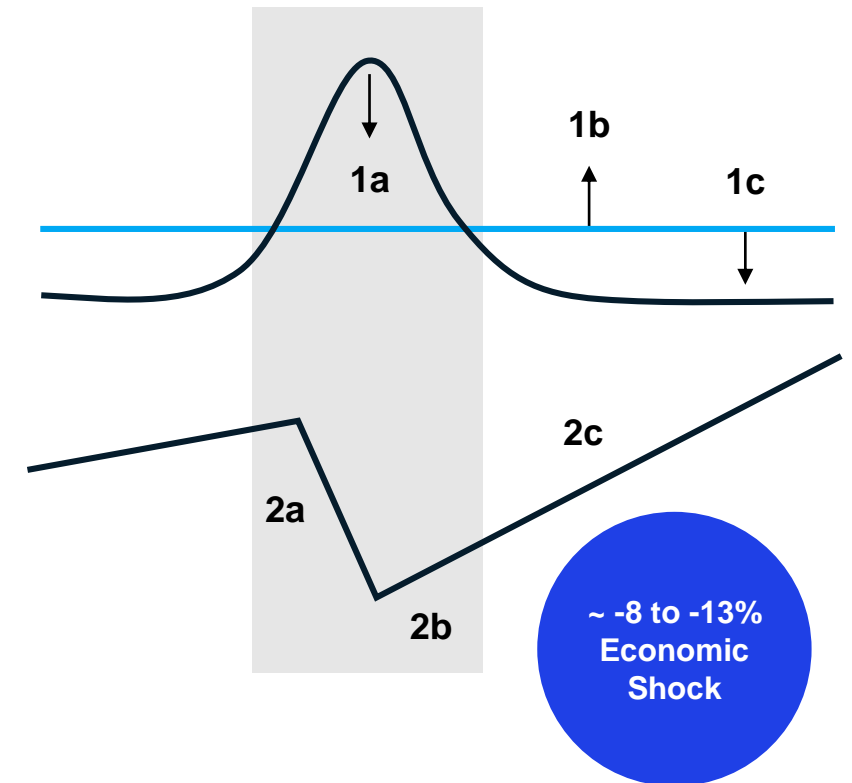
- 1a. **Suppress the virus** as fast as possible
- 1b. **Expand treatment and testing** capacity
- 1c. **Find “cures”**; treatment, drugs, vaccines

### 2

#### Safeguard our livelihoods

- 2a. **Support people and businesses** affected by lockdowns
- 2b. **Prepare to get back to work safely** when the virus abates
- 2c. **Prepare to scale the recovery** away from a -8 to -13% trough

### “Timeboxing” the Virus and the Economic Shock



# Economic impact of COVID-19 can be considered in 9 scenarios

## GDP Impact of COVID-19 Spread, Public Health Response, and Economic Policies

Survey of 2,079 global executives (769 in Europe); % of respondents

■ Focus of this document

### Virus Spread & Public Health Response

Effectiveness of the public health response in controlling the spread and human impact of COVID-19

#### Rapid and effective Control of Virus Spread

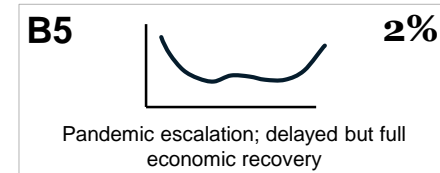
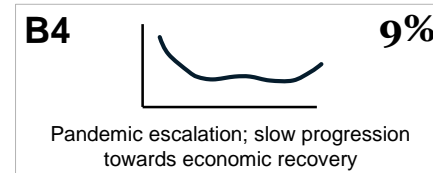
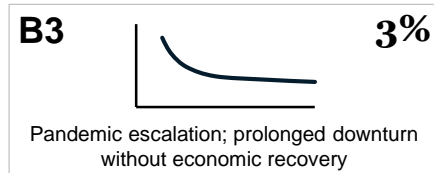
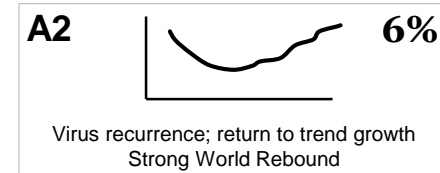
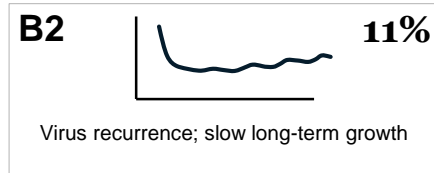
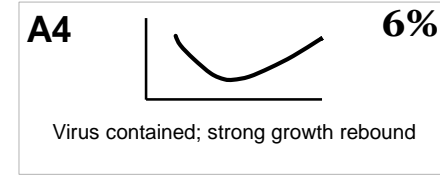
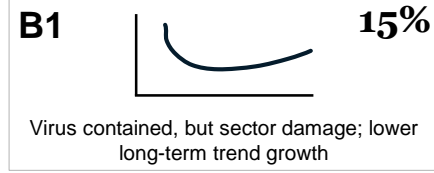
Strong public health response succeeds in controlling spread in each country within 2-3 months

#### Effective Response, but (regional) Virus recurrence

Public health response initially succeeds but measures are not sufficient to prevent viral recurrence so social distancing continues (regionally) for several months

#### Broad Failure of Public Health Interventions

Public health response fails to control the spread of the virus for an extended period of time (e.g., until vaccines are available)



#### Ineffective Interventions

Self-reinforcing recession dynamics kick-in; widespread bankruptcies and credit defaults; potential banking crisis

#### Partially Effective Interventions

Policy responses partially offset economic damage; banking crisis is avoided; recovery levels muted

#### Highly Effective Interventions

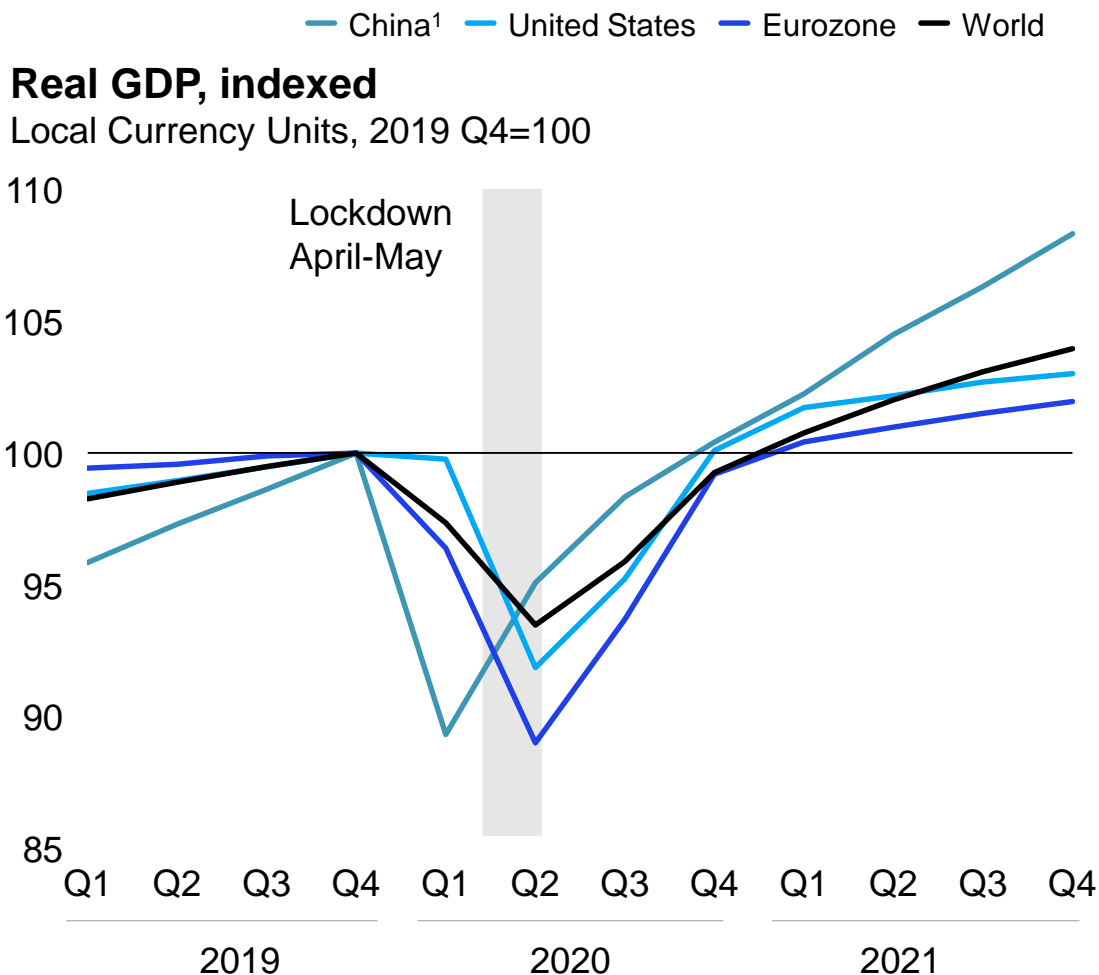
Strong policy responses prevent structural damage; recovery to pre-crisis fundamentals and momentum

#### Knock-on Effects & Economic Policy Response

Speed and strength of recovery depends on whether policy moves can mitigate self-reinforcing recessionary dynamics (e.g., corporate defaults, credit crunch)

# GDP forecast of Scenario A3

Virus contained with growth rebound



1. Seasonally adjusted by Oxford Economics

Source: McKinsey analysis, in partnership with Oxford Economics

	Real GDP Drop 2019Q4-2020Q2 % Change	2020 GDP Growth % Change	Time to Return to Pre-Crisis Quarter(+/- 1 Q)
	-4.9%	-2.0%	2020 Q4
	-8.1%	-2.5%	2020 Q4
	-11.0%	-5.2%	2021 Q1
	-6.5%	-2.7%	2021 Q1



# Moderate interventions scenario assumes ~20-25% sales volume loss under risk in key automotive markets in 2020

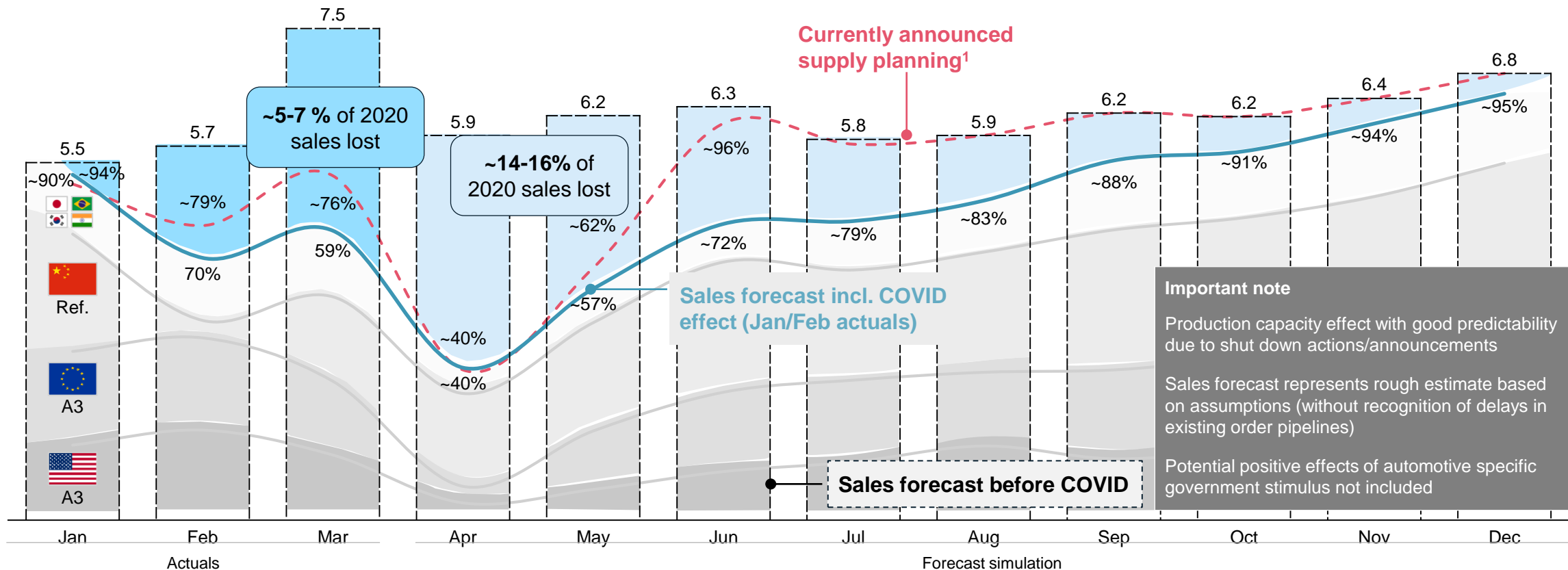
Light vehicle sales volume 2020, in mn units



Preliminary modeling – one possible scenario

As of April 27

**Selected geographies cover 85% of global automotive sales**



1. Based on publicly available information on OEM plant closure plus anticipation of further closures or extensions of closure time – adaption of production to demand not considered here (esp. catch-up of lost production volumes)

# Moderate interventions scenario with up to ~25-30% sales volume at risk in European automotive market in 2020

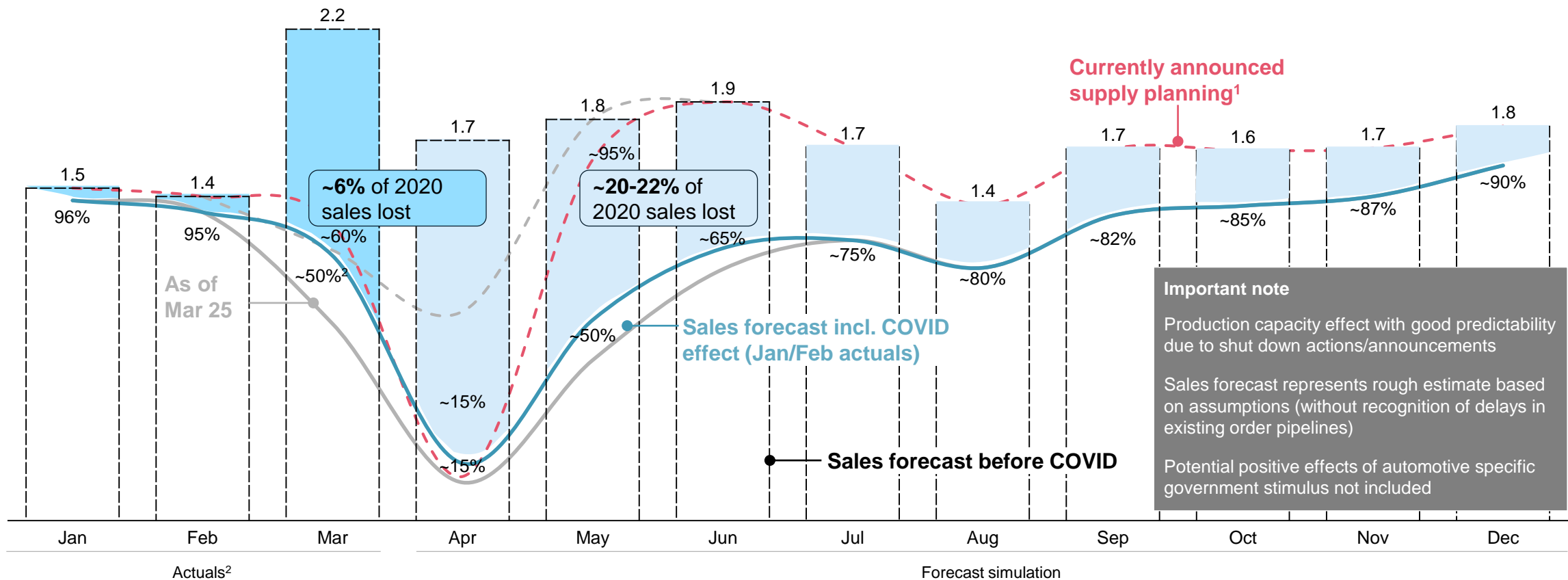
European light vehicle sales volume 2020, in mn units



Preliminary modeling – one possible scenario

As of April 27

**In total: 5-6 mn sales units lost (~25-30% of 2020 sales)**



**Important note**  
 Production capacity effect with good predictability due to shut down actions/announcements  
 Sales forecast represents rough estimate based on assumptions (without recognition of delays in existing order pipelines)  
 Potential positive effects of automotive specific government stimulus not included

1. Based on publicly available information on OEM plant closure– adaption of production to demand not considered here (esp. catch-up of lost production volumes) 2. March 2020 value based on reportings from >90% of market

# The sales impact in Europe is -50% in March 2020 – Italy most affected, China starts to recover

Light vehicles sales growth rate (year on year)





■ Worse than -60% 
 ■ -60% to -40% 
 ■ -40% to -20% 
 ■ -20% to 0% 
 ■ Better than 0%

As of April 20

## -50%

Light vehicles sales impact across Europe for March 2020

### Selected countries

Jan 20 ↓ -5%	Feb 20 ↓ -9%	Mar 20 ↓ -84%	
Jan 20 ↓ -7%	Feb 20 ↓ -11%	Mar 20 ↓ -38%	
Jan 20 ↓ -20%	Feb 20 ↓ -81%	Mar 20 ↓ -45%	
Jan 20 ↑ +1%	Feb 20 ↑ +9%	Mar 20 ↓ -38%	

### European sales impact March 2020

Light vehicle sales growth rate (year on year)



1. Only countries with sales above 10,000 in March 2019 displayed. Incomplete data for Denmark, Finland, Hungary, Portugal

# Impact of COVID-19 on the ACES trends differ by trends in the short-term – no major changes in the mid-term outlook

 Trend intensified
  Trend slowed down
  Trend comparable to pre-COVID

## Short-term

### A Autonomous



Testing temporarily **suspended**; OEM investments expected to **slow down**

### C Connectivity



**Limited impact** expected as many programs have already been decided and will not be halted

### E Electrification



Global **intensification** to be expected (Sales increase in China, pro-EV regulations expected in EU), even with **regional slow-down** (esp. in parts of the US)

### S Sharing



**General slow down expected** (Demand drop expected to recover not before mid 2021, financial pressure on start-ups, regulations focused on social distancing), small modifications to reduce risk of infection (e.g., face masks, riders required to sit in back seat)

## Mid-term



**Delay in development** (“months”) **partial consolidation** to be expected, eventually increase in **cooperations**, however importance still high (e.g., contactless delivery)



Consolidation in the startup and software tech space provide **chances to acquire talent or players** (esp. for OEMs); **“buy” more likely than build** for OEMs



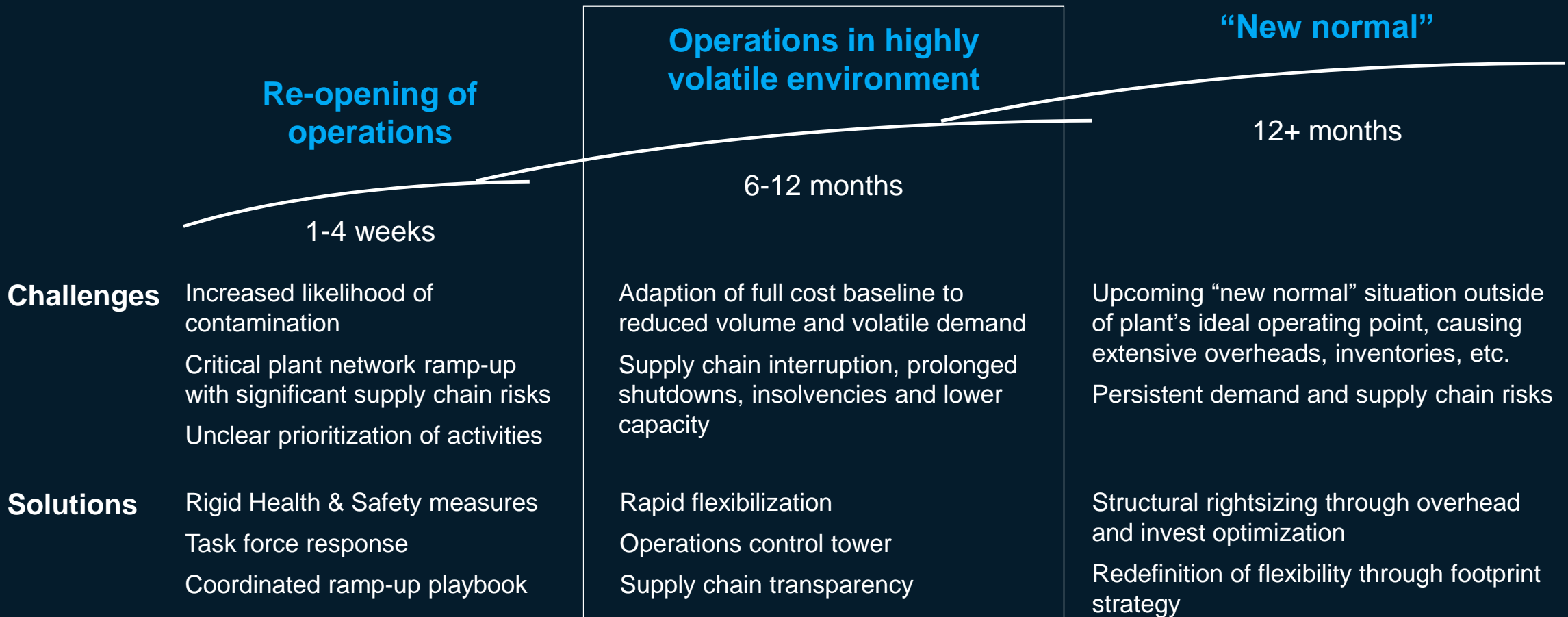
EV sales **back to pre-Covid projections** (EV sales forecast reaches pre-crisis levels by mid-twenties in EU and CN, further delay in US)



Consolidation expected by **M&A activities** (esp. in micromobility), while cities might not take back all **restrictions for private vehicles**

# We see suppliers facing challenges along all 3 horizons of the COVID-19 response

Deep dive on next pages

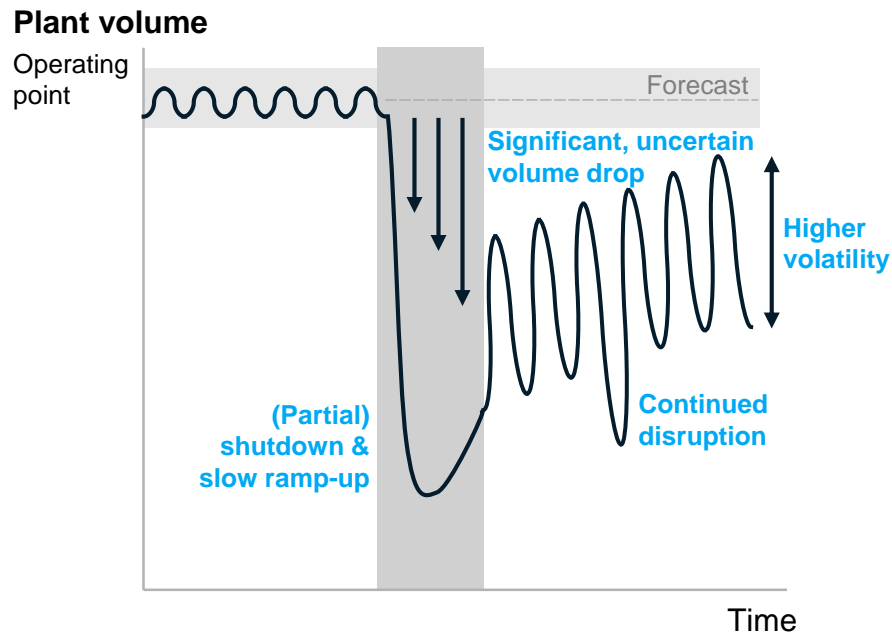


# Manufacturing will be a key differentiator...

Illustrative

While operational impact will hit suppliers on plant level...

COVID-impacts lead to plants no longer producing at optimal operating point

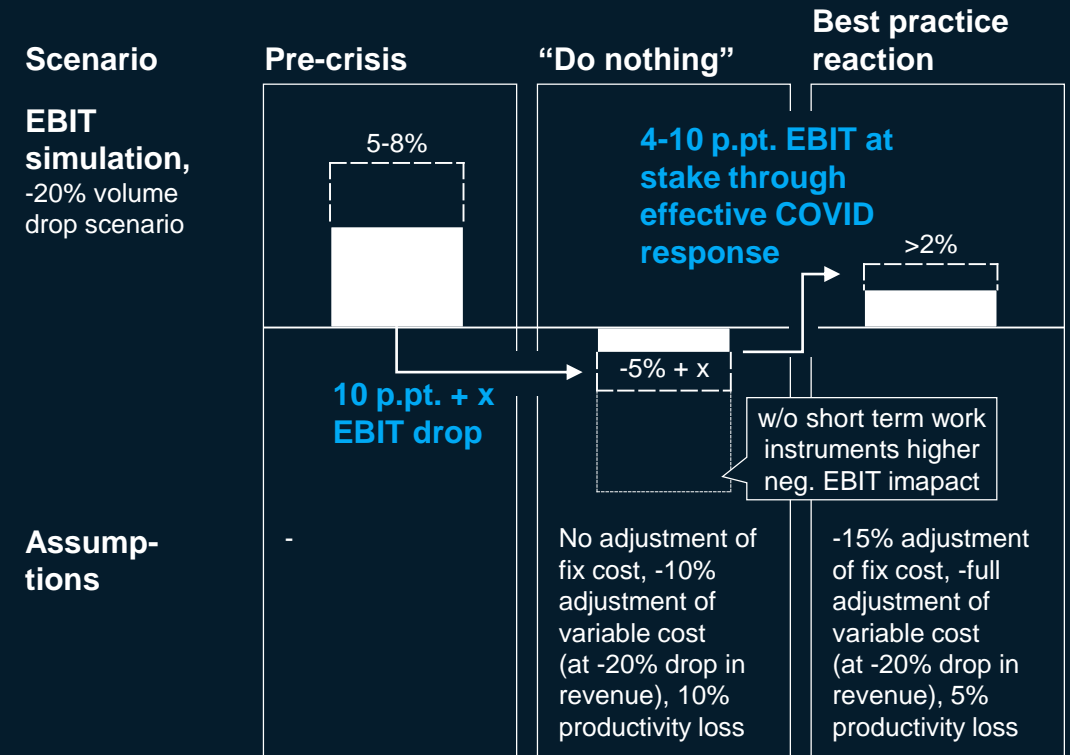


1. Needs to be adjusted for specific supplier and scenario, depending on supplier's starting point, break even, production system, etc.

# ... as it holds significant EBIT impact in COVID-19 response

Rough scenario calculation<sup>1</sup>

...overall P&L impact of managing the response and flexibilizing cost is critical



# A structured 5 step process prepares the entire plant network for COVID-19 impacts

Deep dive on next page



**1**  
**Create volatility forecast**

Estimate demand reduction & volatility based on leading indicators



**2**  
**Identify critical plants**

Analyze volatility impact and degree of flexibility per plant



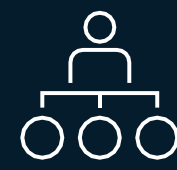
**3**  
**Define response measures**

Prioritize action areas and define solutions to reduce cost base and increase flexibility



**4**  
**Estimate impact**








Estimate impact on P&L for "do-nothing" scenario and for response scenarios



**5**  
**Roll-out & set-up governance**

Define governance structure and agree on responsibility and timeline

### 3 | Best practice levers we see to rapidly increase flexibility

Focus area	Key element	Lever description (not exhaustive, case examples available)
Production lines and centers	 <b>Direct Workforce Flexibilization</b>	Cross-skilling to enable operator to work on <b>different work stations</b> Assign foremen and shift leaders to <b>cover multiple areas</b> across processes <b>Insource direct labor</b> (e.g. pre-assembly)
	 <b>Production Planning adjustments</b>	<b>Use same shift for different OEMs</b> / product categories <b>Shift volumes between lines and consolidation of shifts</b> during to allow for days w/o production <b>Change product mix</b> on lines, <b>adapt tact times</b> and optimize change-over sequence / duration
	 <b>Efficiency/ productivity improvements</b>	<b>Reduce the variability and the waste</b> in assembly and intra-logistics processes (OPE) and increase equipment efficiency (OEE)
Indirect functions	 <b>Indirect Workforce Flexibilization &amp; optimization</b>	Consolidation of shifts and <b>classification of work tasks</b> if really necessary <b>Ensure application of government support</b> in-line with sales losses and overload mode in ramp-up <b>Benchmark indirect plant functions</b> and increase efficiency by optimizing processes
	 <b>Re-visit make or buy strategy</b>	Logistics/Maintenance: <b>Review order process</b> and cancel scheduling agreement and LTAs Insource/outsourcing and strategic partnerships for <b>support functions</b> to reduce specific cost
Supply Chain (including Tier-n+1)	 <b>Re-assess inventory levels</b>	Check inventory levels on raw material and ensure <b>no automatic re-ordering</b> depending on OEM <b>Optimize inventory levels</b> and re-assess trade-off between high batch sizes / low inventory levels
	 <b>Supplier management</b>	Check <b>contracts per supplier</b> and commodity for possible call-off cancellation Consider <b>short-term stabilization for suppliers</b> to secure future business <b>Re-assess make-or-buy</b> strategy up to traded goods depending on plant utilization



# BACKUP

# Moderate health response scenario with up to ~45% sales volume loss under risk in European automotive market in 2020

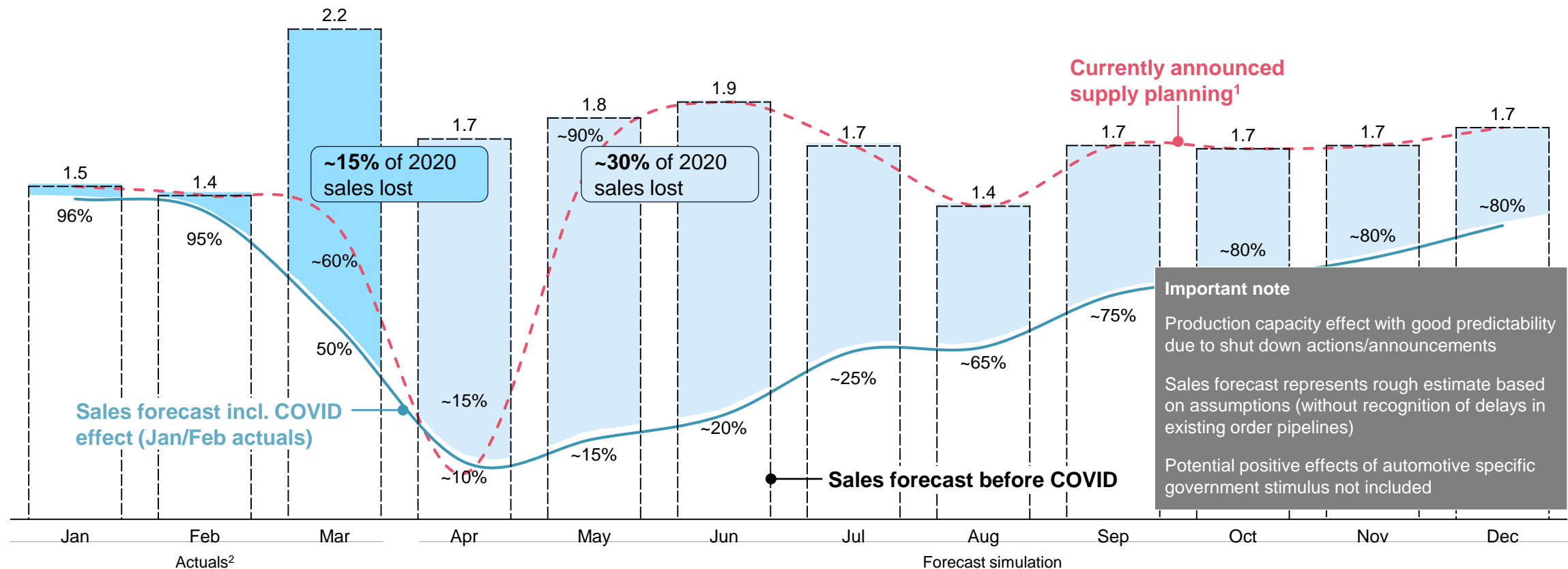
European light vehicle sales volume 2020, in mn units



Preliminary modeling – one possible scenario

As of April 27

**In total: ~8.5-9.5 mn sales units lost (~45% of 2020 sales)**



**Important note**  
 Production capacity effect with good predictability due to shut down actions/announcements  
 Sales forecast represents rough estimate based on assumptions (without recognition of delays in existing order pipelines)  
 Potential positive effects of automotive specific government stimulus not included

<sup>1</sup> Based on publicly available information on OEM plant closure plus anticipation of further closures or extensions of closure time – adaption of production to demand not considered here (esp. catch-up of lost production volumes)

## 2 | Analyses on volatility, flexibility, cost base and supply chain risks are conducted to identify critical plants

### Key analyses

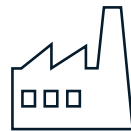
### Analysis description

#### I Volume volatility on plant level



Transfer **volatility assessment** on program / product level to plants considering production setup

#### II Flexibility of production capacities



Determine plant **cost base flexibility** and **assessing costs and time horizon** of further flexibilization of plant, lines, etc.

#### III Plant profitability



Conduct **profitability break-even analysis** on plant level considering demand impact and adapted cost base by COVID-19 counter-measures

#### IV Supply chain risk & availability



Create **transparency** on **availability** of **labor** and **production capacity** for critical parts in **production network** (incl. Tier-n+1) and classify risk areas