SUSTAINING OPERATIONS THROUGH COVID-19 PANDEMIC

EXECUTIVE ROUNDTABLE

MISSION

Evangelize and Drive Industrial Transformation (IX)

We are trusted advisors for business, operations, engineering, and technology leaders.

| Data-driven insight, deeply experienced analysts | Technology-focused research for cross-functional transformation teams | Outcome-based advisory services |

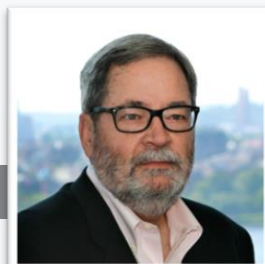LNS research

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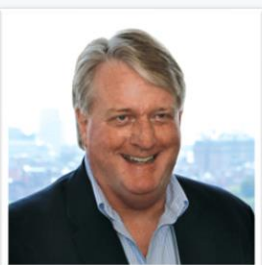**PATRICK FETTERMAN**
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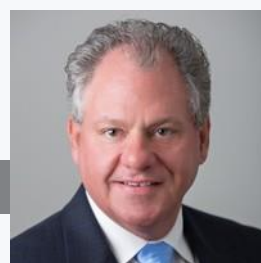President & Principal Analyst
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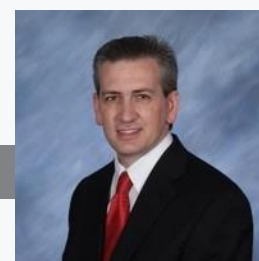
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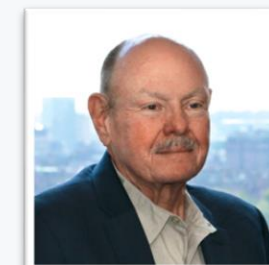Research Analyst
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AGENDA

- ## Share survey data and interactive discussions

  - What are the best and worst time-line scenarios your organization is planning for to sustain operations through the pandemic?

  - How has your organization decided which roles work from home and which must come into work? At corporate and at plants?

  - Are you planning on hiring additional works to rotate shifts or backfill potentially quarantined workers?

  - What projects/initiatives are you slowing down, which are you speeding up? Why?

- ## Q&A
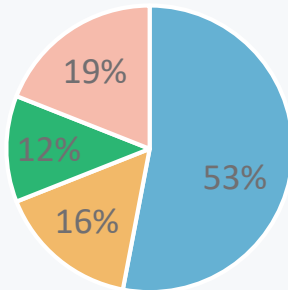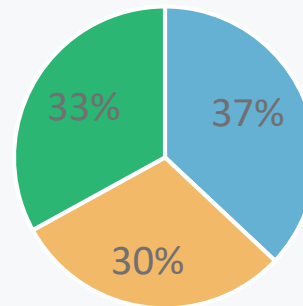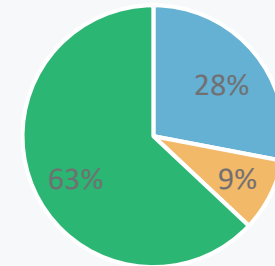
IMPACT ON PLANTS AND COVID RESPONSE
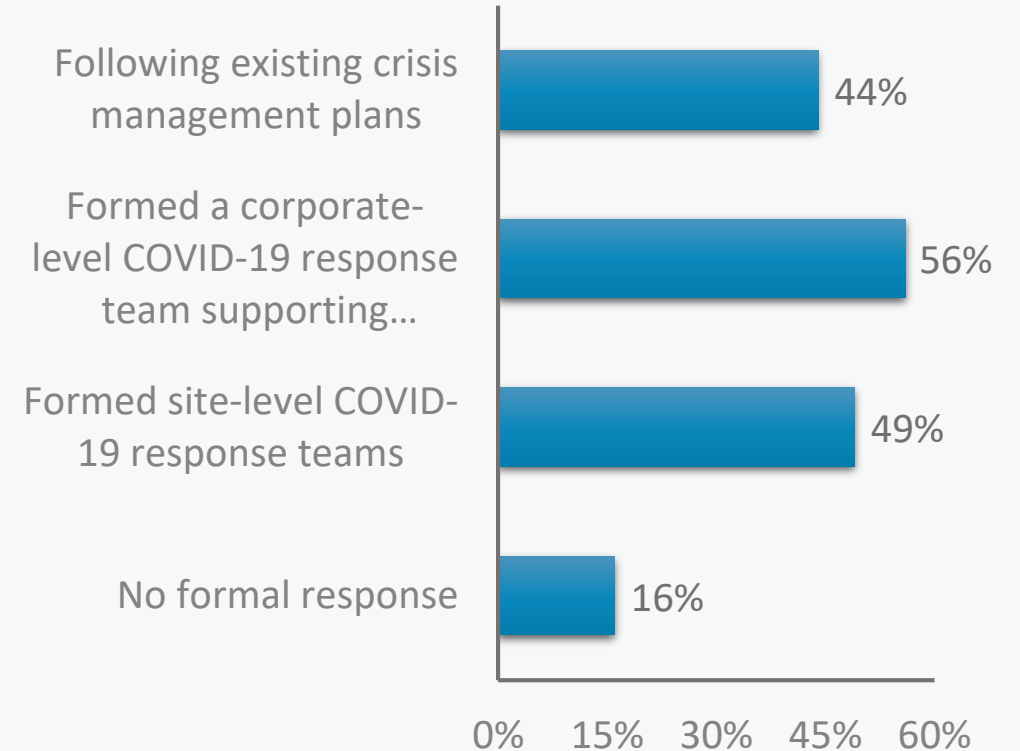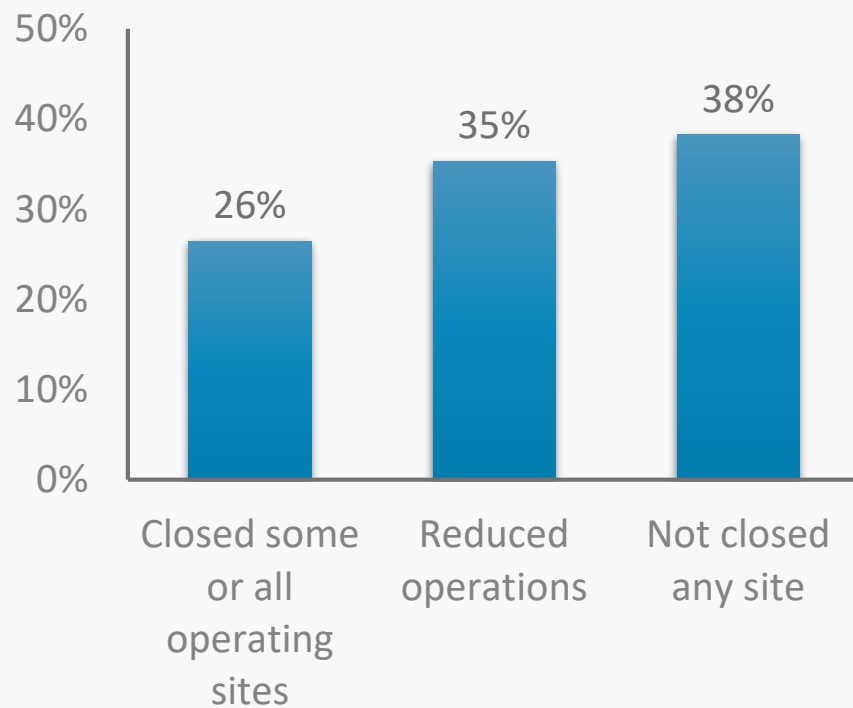
WHO IS LEADING THE COVID-19 RESPONSE TEAM?

Corporate

CEO	50%
Other	17%
Industrial Transformation (IX) team lead	13%
EHS/ safety management leader	13%
COO	8%

0% 15% 30% 45% 60%
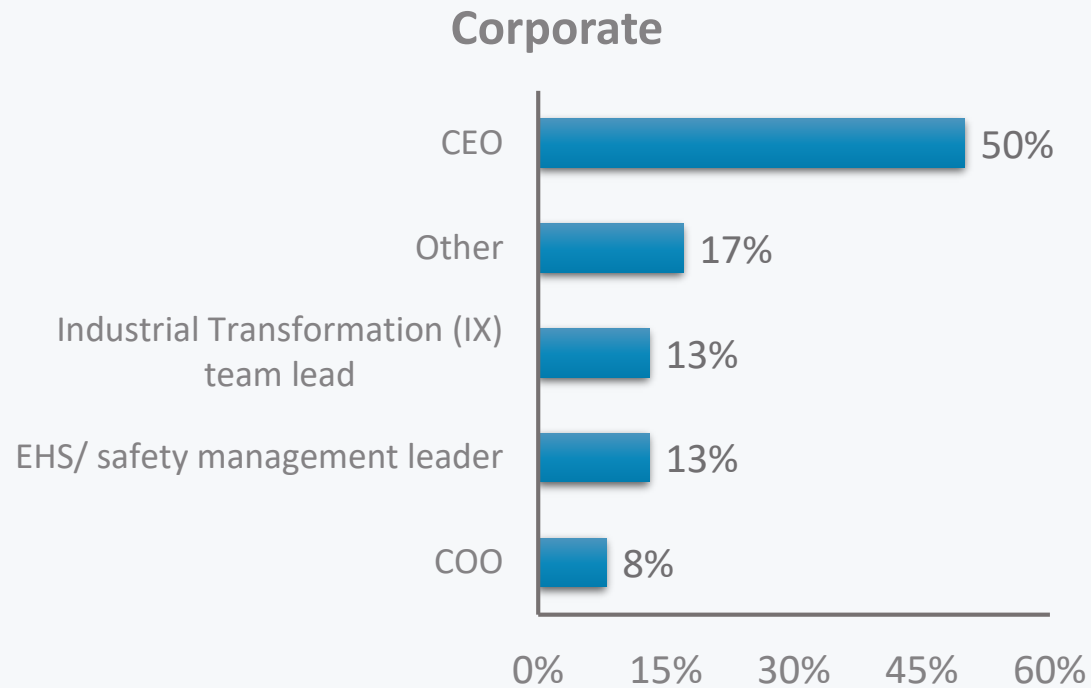
*Other responses: General manager, president, etc.

Operating site

CEO	42%
Plant level manager	32%
Other	11%
COO	11%
Industrial Transformation (IX) team lead	5%
EHS/ Safety management leader	0%

0% 15% 30% 45%
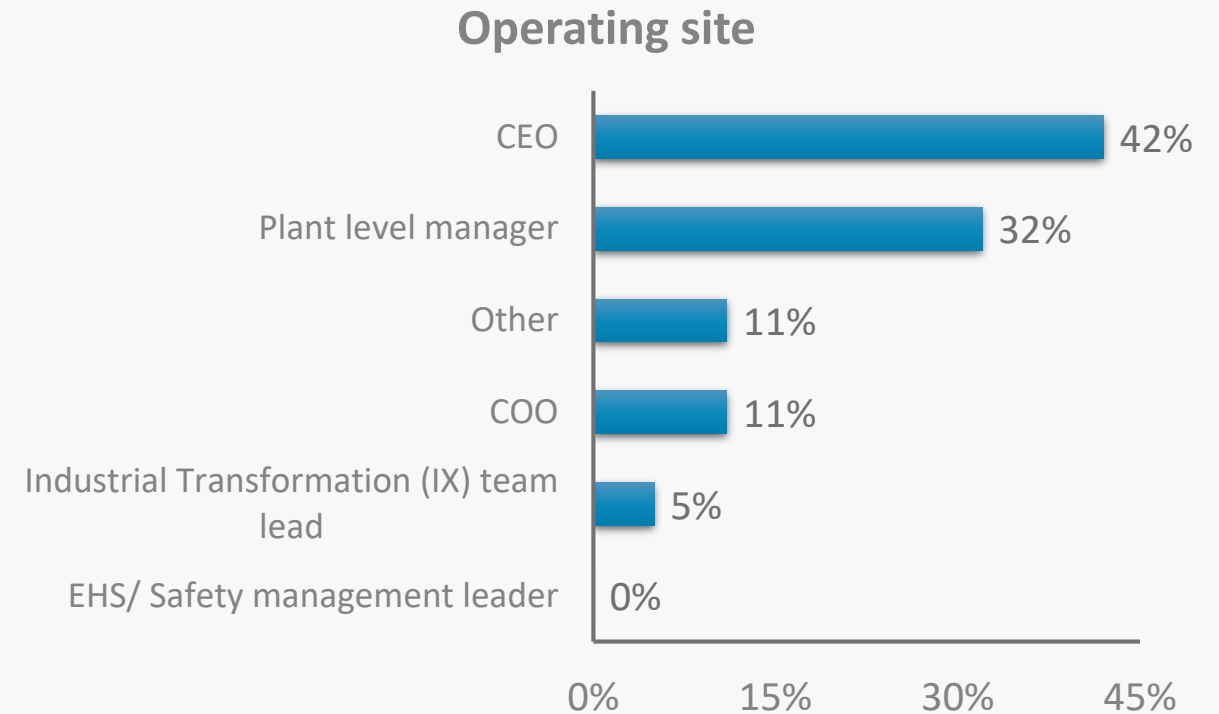
*Other responses: HR and safety managers, managing director, etc.

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COVID-19 RESPONSE TEAM MEMBERS

Category	Corporate	Operating site
Marketing	21%	5%
Sales	21%	16%
Human resources	67%	74%
Energy	4%	5%
Sustainability	8%	11%
Field service and MRO	4%	5%
EHS/ Safety management	46%	68%
Manufacturing, industrial and/or process engineering	17%	37%
Research and development/engineering	13%	11%
Quality	33%	37%
Procurement	38%	37%
Supply chain	29%	32%
Operations/ manufacturing	54%	63%
Maintenance	8%	32%
Logistics	25%	26%
Information technology	42%	32%
Finance	42%	21%
Engineering	29%	21%
Compliance	38%	11%

■ Corporate ■ Operating site

WORK FROM HOME

Does your company have a work from home policy?

- Yes
- No
- Planning to

2%
12%
86%
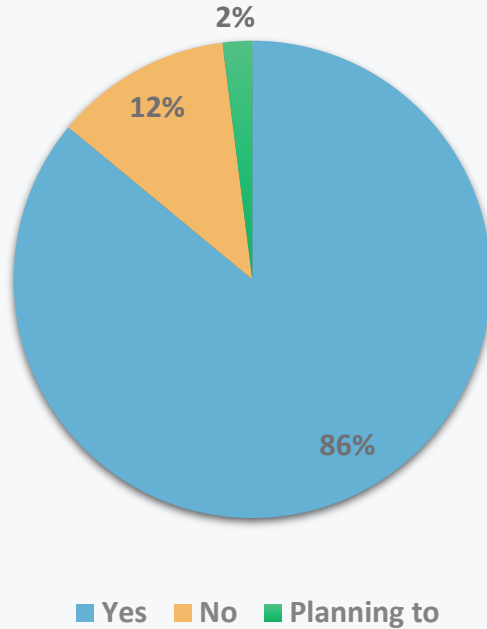
Which corporate roles work from home?

24%
76%

- All corporate staff
- Non-essential corporate staff
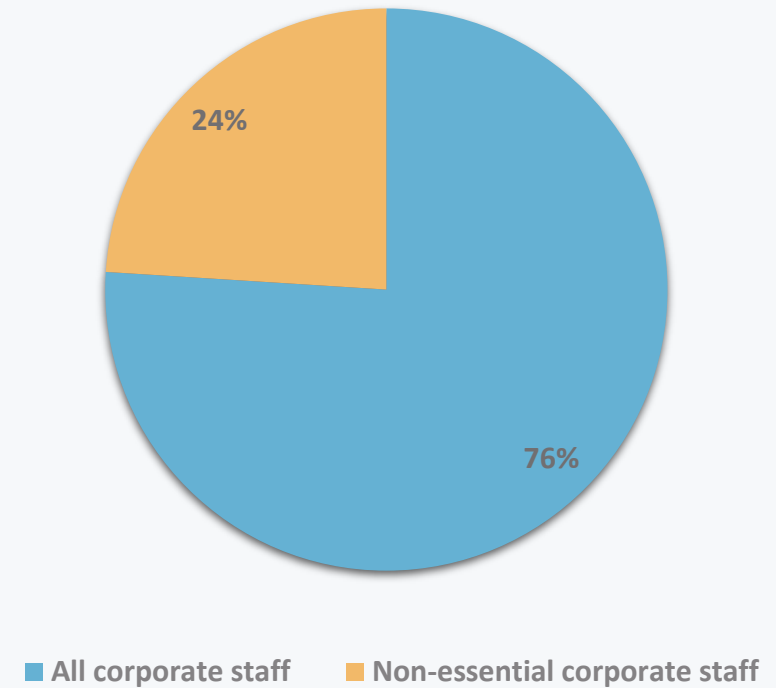
OPERATING SITE ROLES WORKING FROM HOME

Role	Percentage
Information technology	75%
Finance	75%
Human resources	63%
Procurement	56%
Engineering	50%
Marketing	44%
Sales	44%
Quality	38%
Supply chain	38%
EHS/ Safety management	31%
Research and development/engineering	31%
Logistics	31%
Compliance	25%
Sustainability	19%
Operations/ manufacturing	19%
Field service and MRO	13%
Maintenance	13%
Energy	6%
Manufacturing, industrial and/or process engineering	6%

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IT INFRASTRUCTURE SUPPORTING WORK FROM HOME

Has your existing IT infrastructure been able to support these work from home requirements?

CONTROL MEASURES

Other responses:
- *follow CDC and local requirements*
- *split & isolate teams, temp control room, workplace policies*
- *most of these thing were already in place just accelerated implementation*
- *Deep cleaning 2 hours*
- *Plant is closed for visitors, reduce amount of procurement activities, implement on-line meetings*
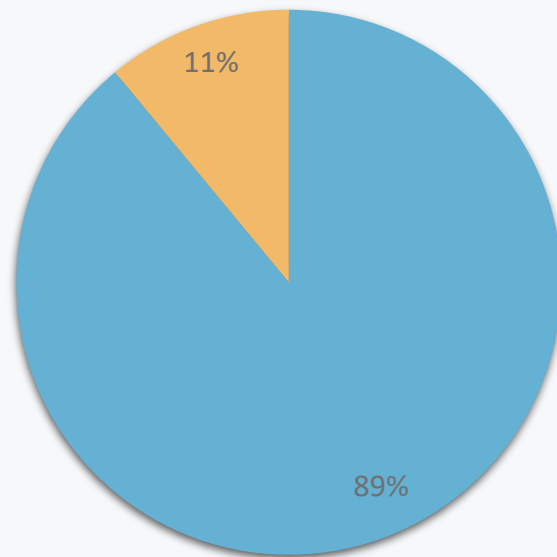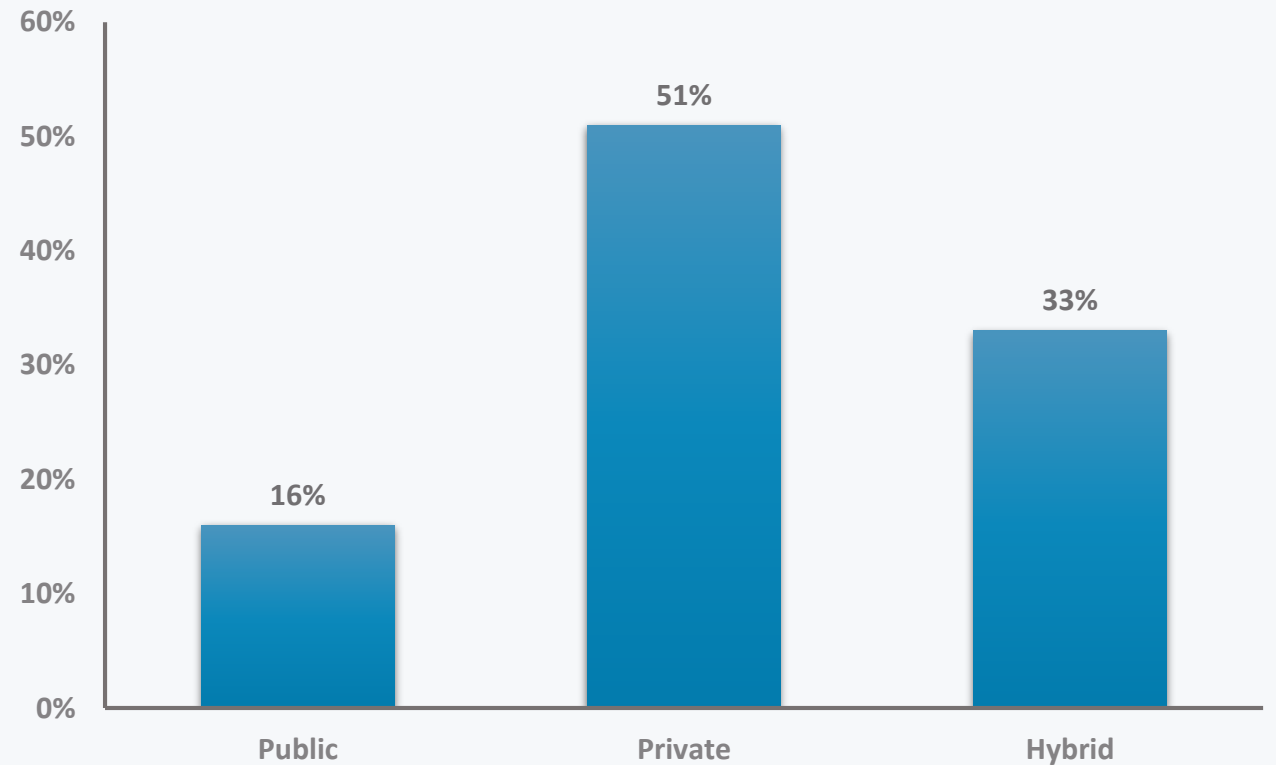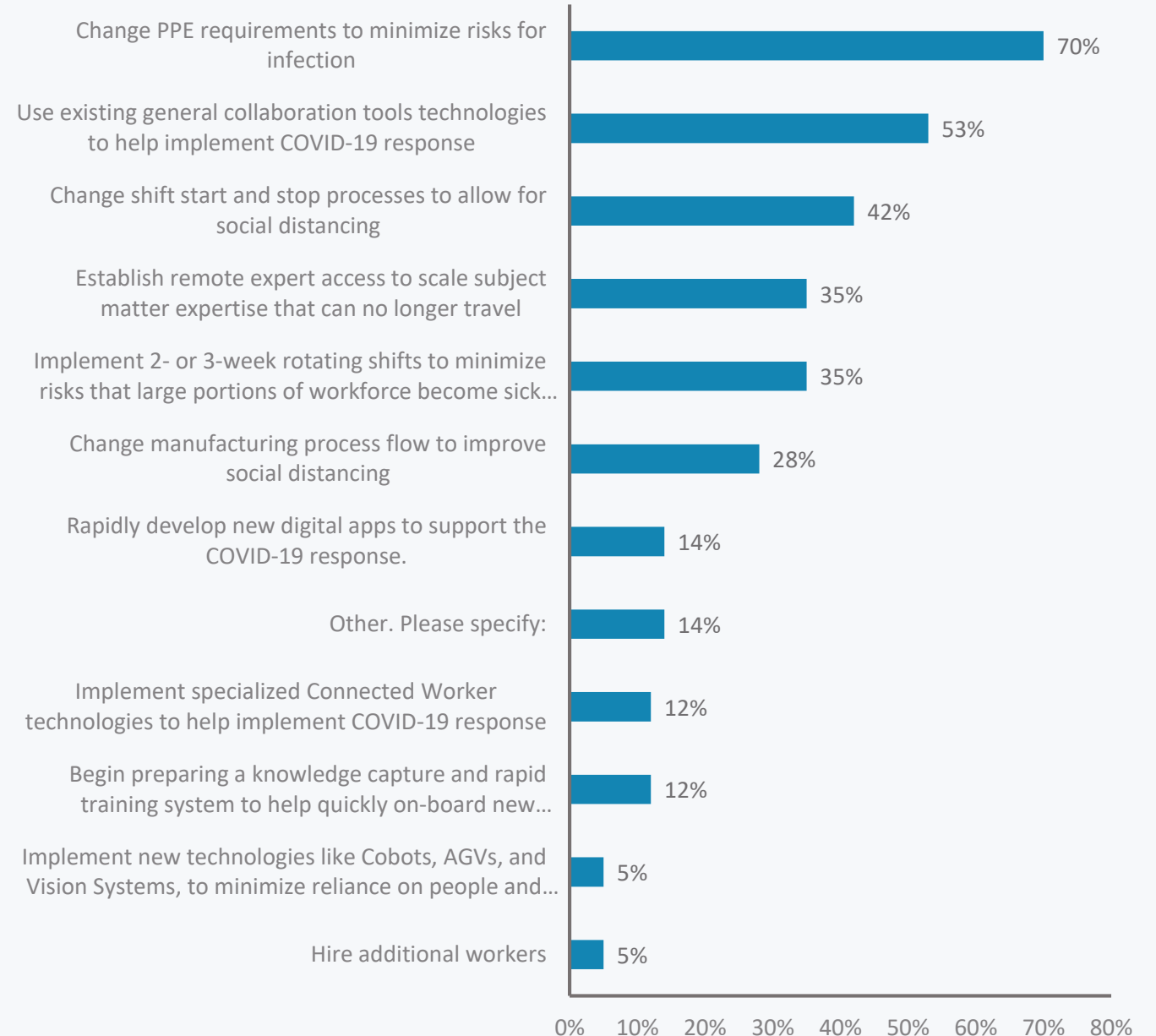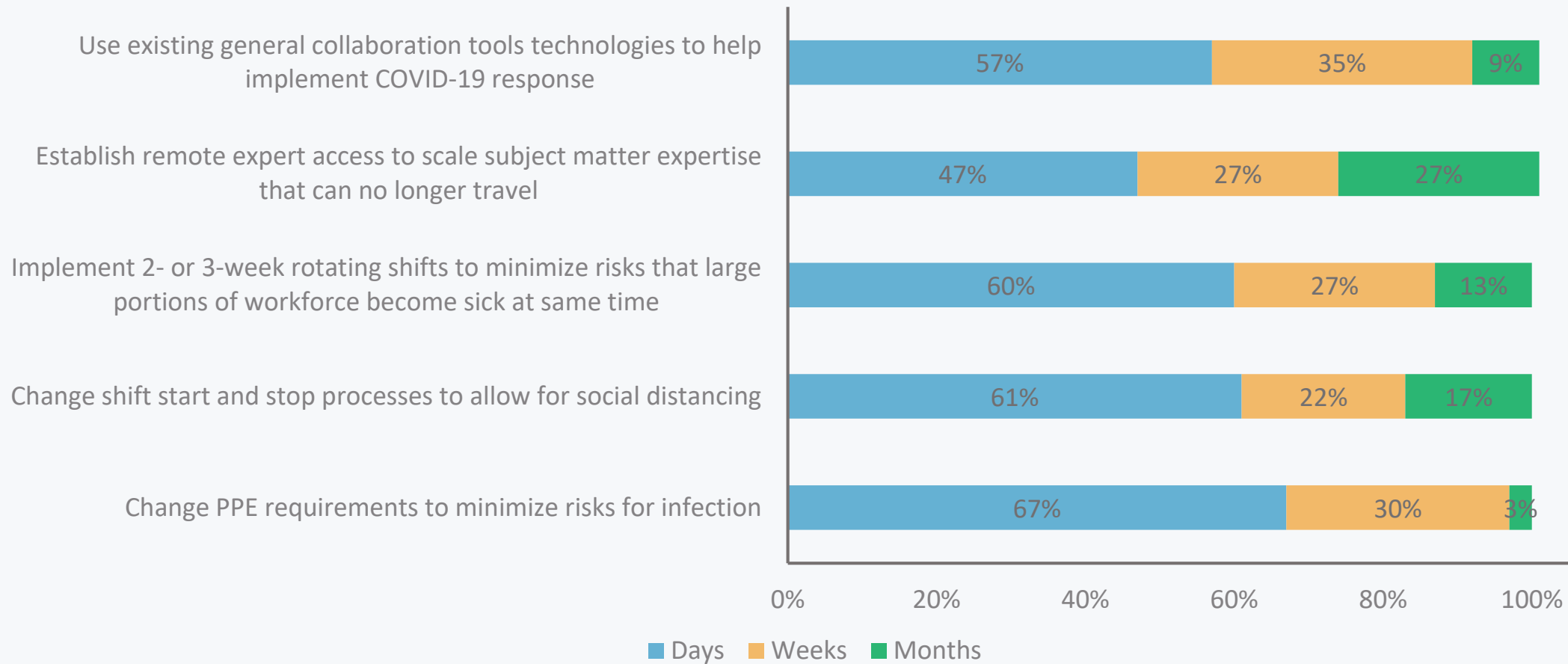- *all employees and subcontractor working virtually*

Change PPE requirements to minimize risks for infection — 70%

Use existing general collaboration tools technologies to help implement COVID-19 response — 53%

Change shift start and stop processes to allow for social distancing — 42%

Establish remote expert access to scale subject matter expertise that can no longer travel — 35%

Implement 2- or 3-week rotating shifts to minimize risks that large portions of workforce become sick... — 35%

Change manufacturing process flow to improve social distancing — 28%

Rapidly develop new digital apps to support the COVID-19 response. — 14%

Other. Please specify: — 14%

Implement specialized Connected Worker technologies to help implement COVID-19 response — 12%

Begin preparing a knowledge capture and rapid training system to help quickly on-board new... — 12%

Implement new technologies like Cobots, AGVs, and Vision Systems, to minimize reliance on people and... — 5%

Hire additional workers — 5%

0% 10% 20% 30% 40% 50% 60% 70% 80%
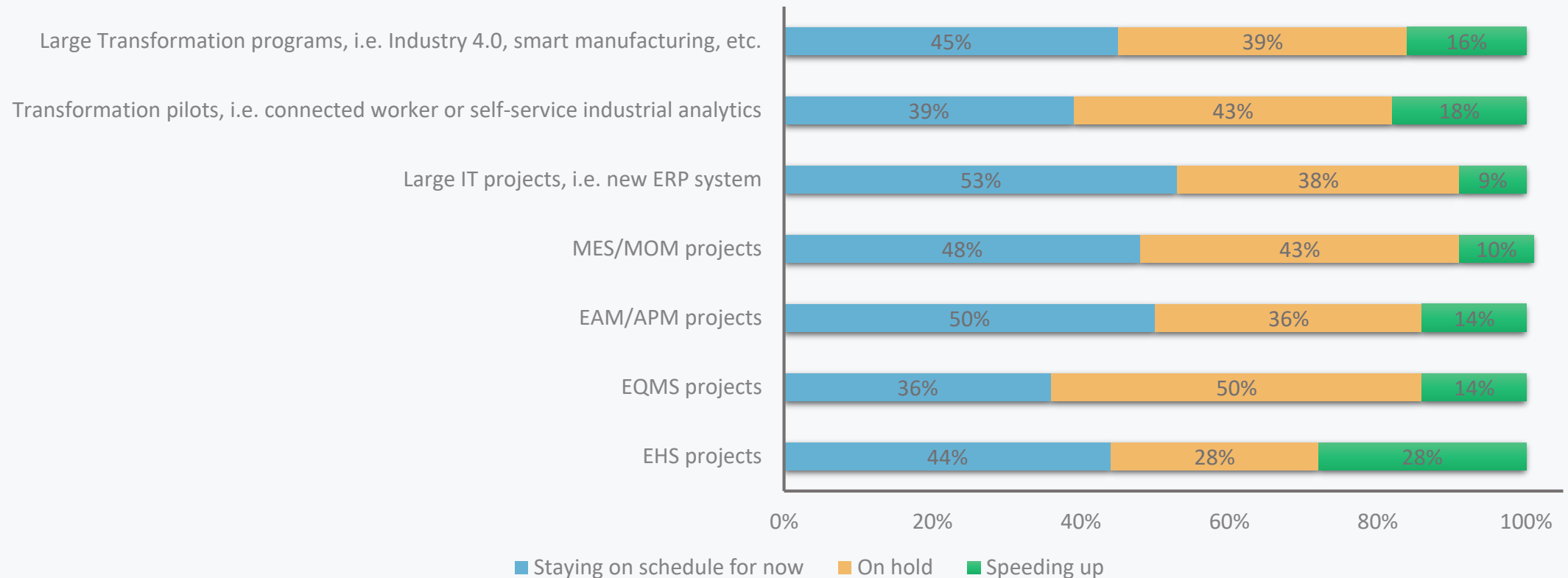
CONTROL MEASURES- TIMELINE

Didn't have enough data points to report on other control measures

TRANSFORMATION PROJECTS IMPACT

	Staying on schedule for now	On hold	Speeding up
Large Transformation programs, i.e. Industry 4.0, smart manufacturing, etc.	45%	39%	16%
Transformation pilots, i.e. connected worker or self-service industrial analytics	39%	43%	18%
Large IT projects, i.e. new ERP system	53%	38%	9%
MES/MOM projects	48%	43%	10%
EAM/APM projects	50%	36%	14%
EQMS projects	36%	50%	14%
EHS projects	44%	28%	28%