INDUSTRY 4.0

CURRENT TRENDS AND EMERGING ISSUES

IN THE CANADIAN AUTOMOTIVE SUPPLIER SECTOR

Prepared by Dr. Jeffrey Carey
W Booth School of Engineering Practice and Technology
Faculty of Engineering
McMaster University

OVERVIEW OF RESPONSES

- 80 responses from CEOs, CTOs, GMs and Plant Managers

- Responses from Magna, Linamar, Martinrea, Brose Canada, Siemens, The Plasman Group, ABC Technologies and Windsor Mold Group

- Strong participation from tier-1s, plastic parts manufacturers and Canadian-owned companies

- Further input required from SMEs and foreign-owned facilities

McMaster University

Which of the following categories best describes the products manufactured by your facility?

FACILITY CHARACTERISTICS
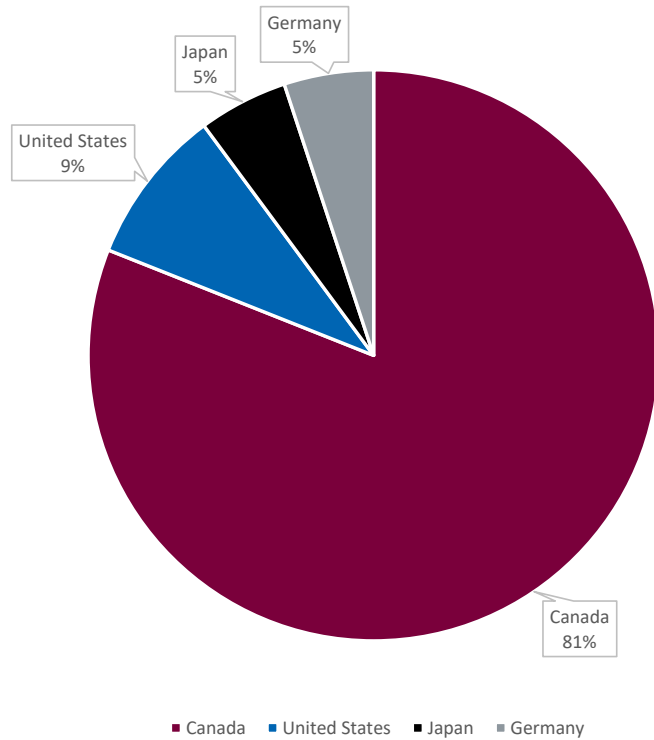
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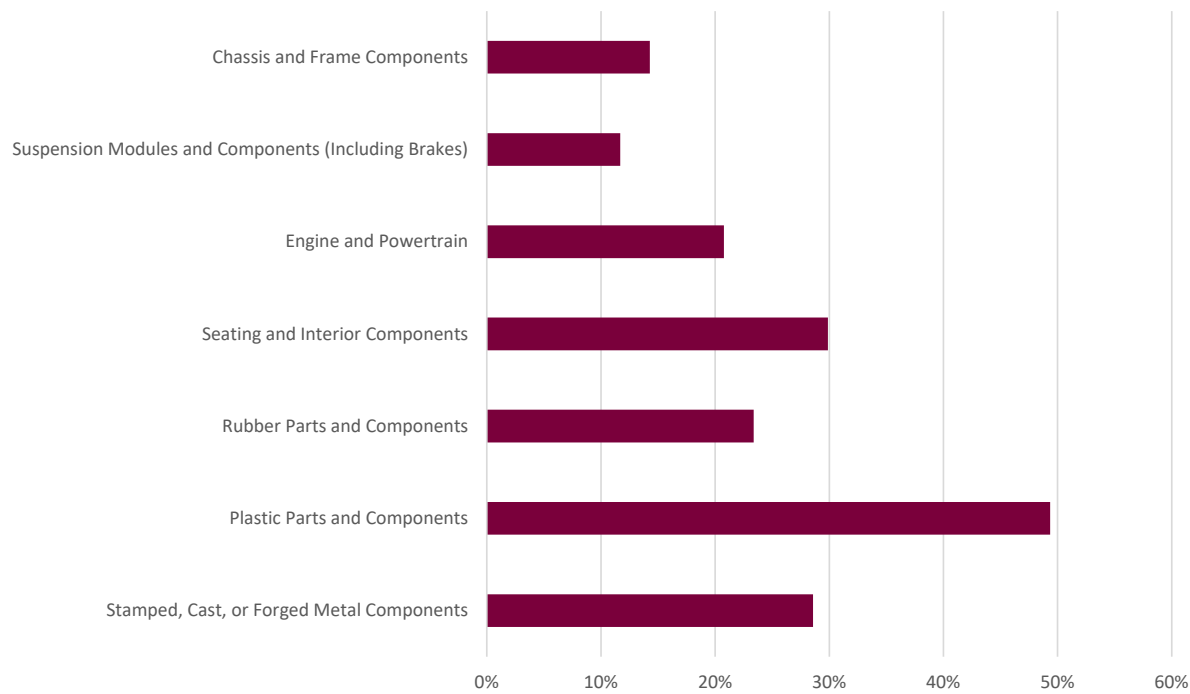
Who is your primary customer?

Original equipment manufacturers (OEMs), 57%
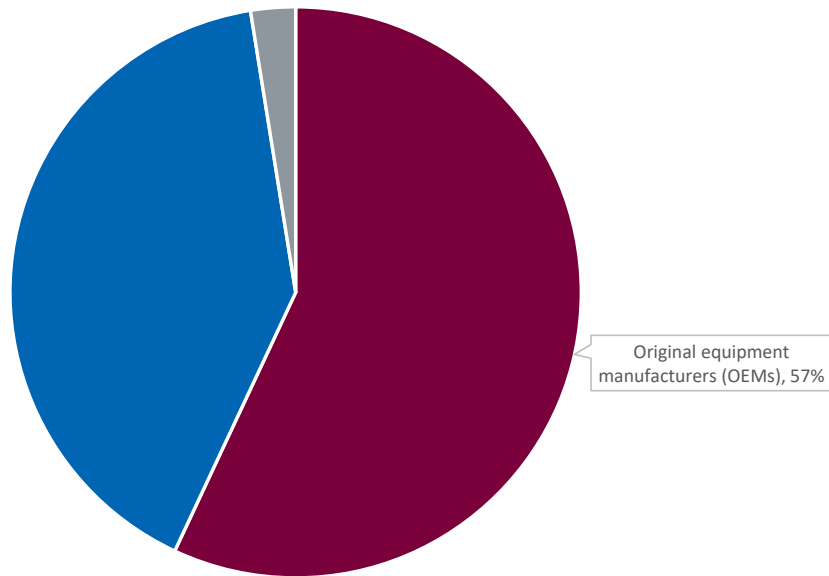
■ Original equipment manufacturers (OEMs) ■ Other automotive suppliers ■ Non-automotive suppliers

FACILITY CHARACTERISTICS

Where is your company's international headquarters?

Germany
5%

Japan
5%

United States
9%

Canada
81%

■ Canada ■ United States ■ Japan ■ Germany

FACILITY
CHARACTERISTICS

4

1. Transition in its infancy

- Many companies are in a "wait and see" mode
- Questions remain about which technologies present the greatest ROI
- Very few companies are taking full advantage of I-4.0 solutions

2. Skill shortages are intensifying

- I-4.0 demands new skills and adjustment of current practices
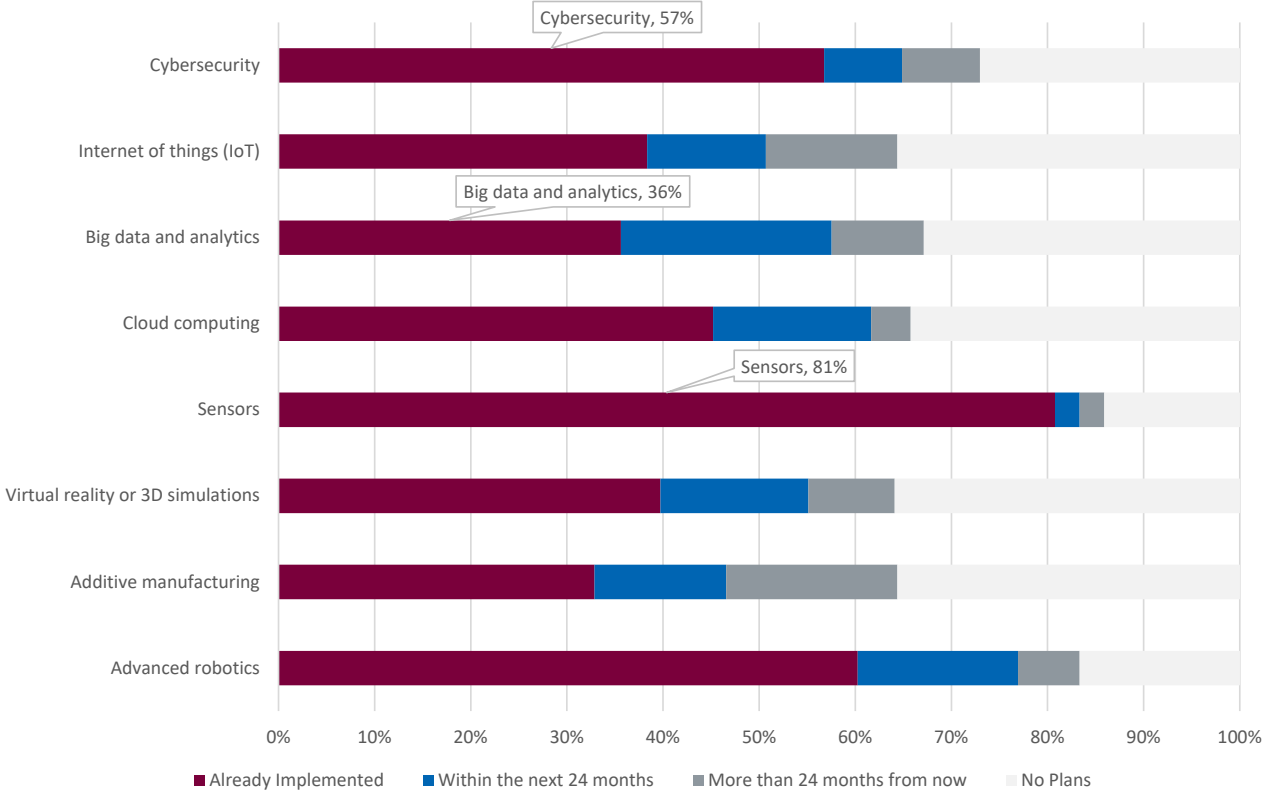- Attraction of younger workers to the industry remains a challenge

3. Government must get involved

- Grants required to help defray immense capital expenditures
- Training and skill development must be accelerated
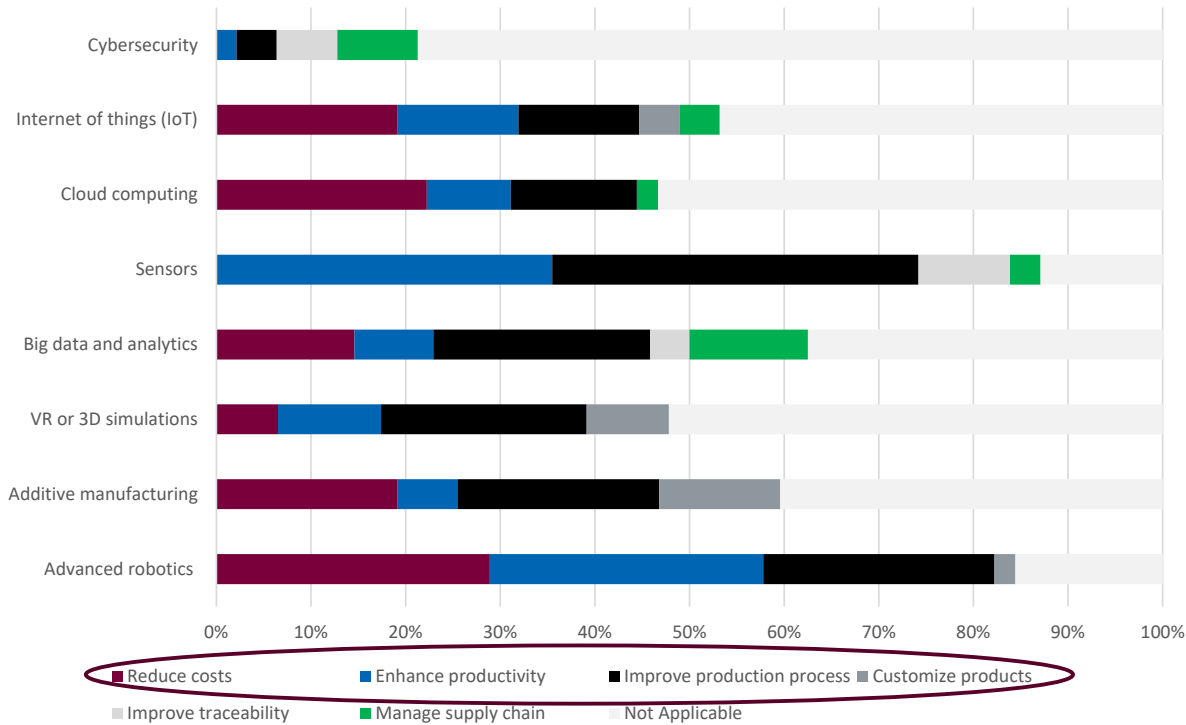
INDUSTRY 4.0: FINDINGS THUS FAR

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When do you anticipate your facility will implement the following technologies?
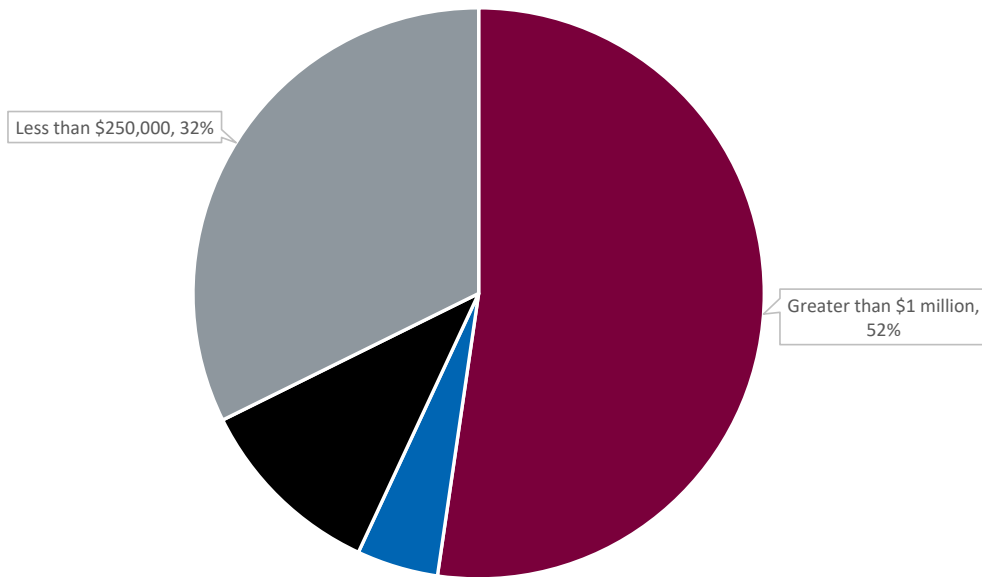
WHICH TECHNOLOGIES AND WHEN?

Why did your facility choose to implement the following technologies?

*Focussed primarily on internal "bread and butter" issues

WHY INDUSTRY 4.0?
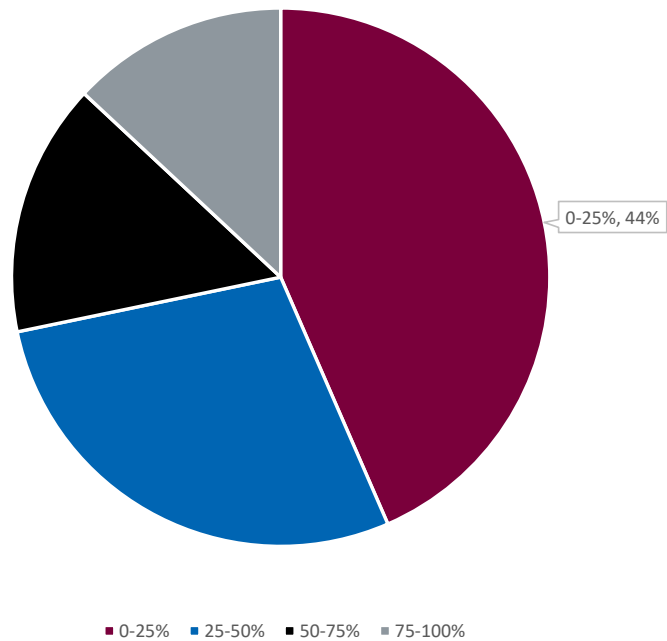
How much money has your facility invested in I-4.0 technologies?

Less than $250,000, 32%

Greater than $1 million, 52%

- Greater than $1 million
- $750,000 to $1 million
- $250,000 to $500,000
- Less than $250,000

CURRENT INVESTMENT

What percent of the data generated by your facility is used for business improvement?

0-25%, 44%

0-25% 25-50% 50-75% 75-100%

DATA

Which of the following obstacles has your facility experienced implementing I-4.0 solutions?

Chart categories (top to bottom):
- Not relevant to the current operation of your plant
- Lack of parent company interest
- Lack of customer interest
- Lack of relevant technological information
- Lack of financing
- Lack of skilled personnel — *Lack of skilled personnel, 79%*
- High costs — *High costs, 62%*

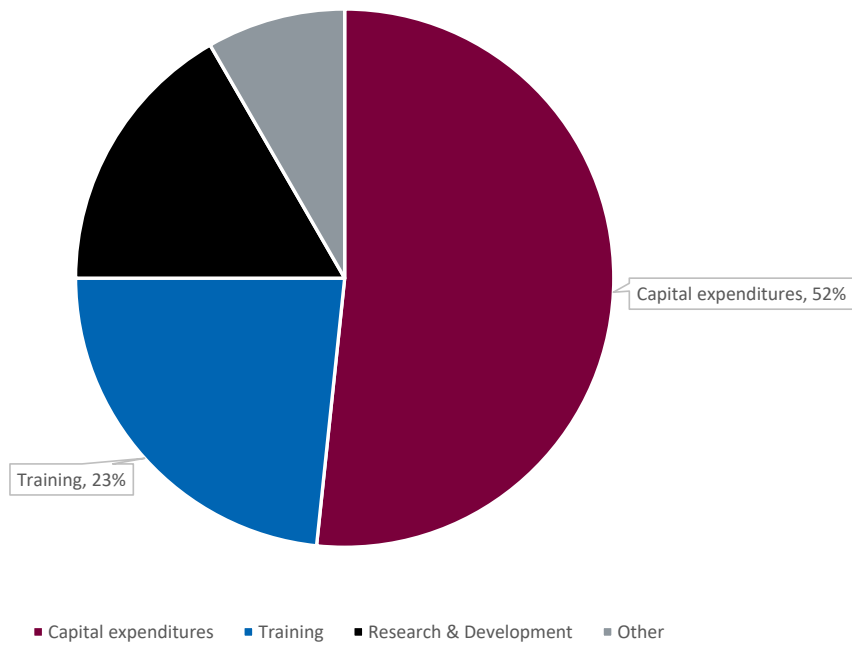X-axis: 0% 10% 20% 30% 40% 50% 60% 70% 80% 90%
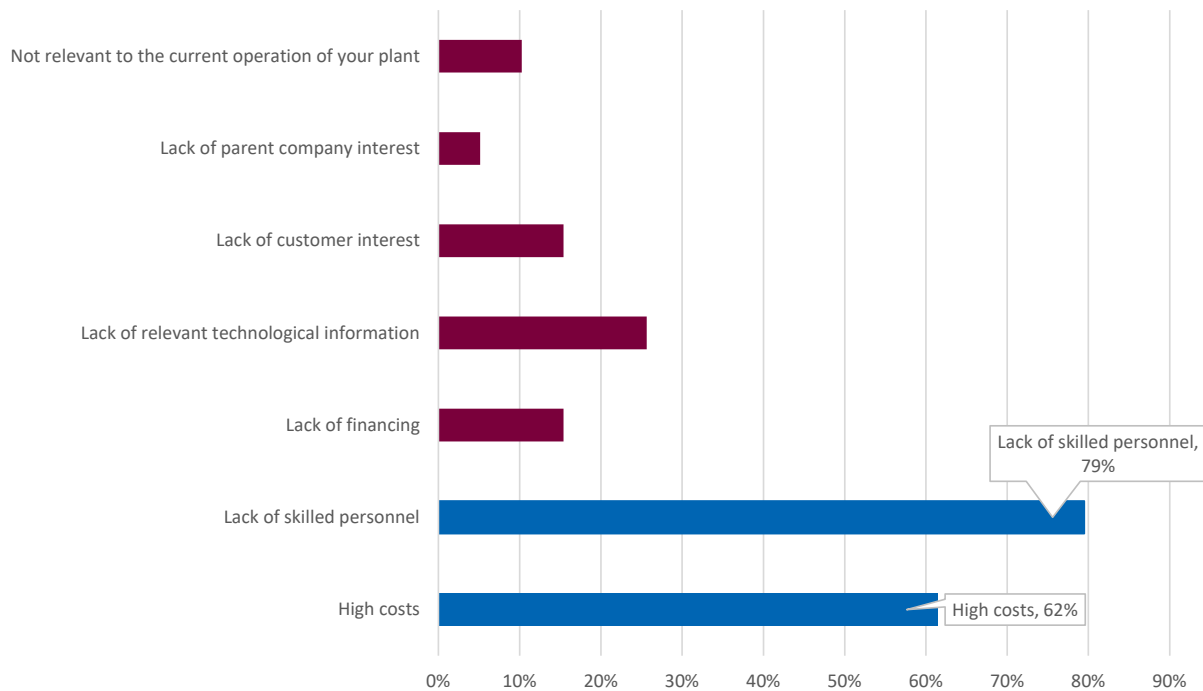
*Emerging skill shortages in the sector
*Many facilities recognize cost as a significant barrier

CHALLENGES

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Which government policies or programs would best assist your facility's adoption of I-4.0?

Capital expenditures, 52%

Training, 23%

■ Capital expenditures ■ Training ■ Research & Development ■ Other

POLICY

Establish a baseline for I-4.0 adoption in the automotive supplier sector

Identify commonalities amongst "leading-edge" firms

Establish which public policies and programs encourage firm adoption of I-4.0

NEXT STEPS