

NGen Supply Chain Summit

Report- Out: Automotive

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Next Generation
Manufacturing Canada

Report-out: Automotive

Moderator: Warren Ali, Senior Vice President – Innovation, APMA

Panelists:

- Niklas Hamnstedt, Sr. Vice President, Global Purchasing, Magna International
- John Laughlin, Chief Technology Officer, NGen Canada
- Rob Wildeboer, Executive Chairman & Co-Founder, Martinrea International Inc.
- Kim Thiara, President, AceTronic Industrial Controls Inc.

Supports for robust Canadian supply chains and reshoring

Session 1: Current State

- Canada is one of the leading countries in the ability to host the full supply chain for creating batteries
- To stay compliant with the new NAFTA the regional value will need increase
- Pandemic highlighted how dependent NA is on offshore manufacturing

Session 2: Future State

- 80+% of manufacturers are expected to reshore manufacturing within the next 12 months
- Canada needs to play catch up with the US and EU on investing in innovation

Technology & Digital Workflows

Session 1: Current State

- Software Value is increasing in value
- Hardware components are decreasing
- Vehicles are turning into Computers on Wheels
- How do you monetize not just the vehicle, but every km driven in the vehicle as well?
- Need to get technology into what we make and how we make it: Digital Manufacturing
- Ability to innovate the way preexisting technologies are used to create added value
- The end consumer is the driver for digitization

Session 2: Future State

- Reduce risk and increase flexibility to the supply chain due to the increasing difficulty to forecast
- Looking at investments in a nontraditional fashion. (acquisitions without mergers)

Workforce & Labour

Session 1: Current State

- D&I is necessary for continued success
- New employees will need to develop different skill sets than the retiring workforce:
 - More analytical
- Need to upskill current workers
 - Difficult to find skilled workers
 - Onus is on manufacturers to create learning environments

Session 2: Future State

- More diverse, equitable and inclusive
 - Increase education at a younger age
- How to encourage younger workforce to stay in small towns
- Employee desire for job fulfillment will continue to increase
- How do we pass the knowledge from the current workforce to the new workforce?
- Market Manufacturing as an attractive industry to work in

Sustainability & Circular Economy

Session 1: Current State

- Hyundai and GM are finding added value in selling their waste (batteries)
- Sustainability looks past how vehicles are manufactured and how they operate but also how they are made.
- Ensuring Green initiatives are sustainable (True Green vs Purchasing Offsets)

Session 2: Future State

- Ecological Scorecards extend past the OEM to the suppliers. If suppliers are not keeping up, they will get replaced
- Create systems and improve processes on the floor, get people thinking about new technology that will not limit us just to automotive but how we can help in other industries in our communities. Tremendous innovative solutions.
- We need to grow our battery capabilities

Standards, Infrastructure & Best Practices

Session 1: Current State

- OEMs are extending the standards that customers hold them to the rest of the supply chain
- Startups have different goals than OEMs, which is reflected in their Infrastructure and Standards (Vehicles as a service > Volume production).
- Standards will always be evolving, and increased awareness is necessary

Session 2: Future State

- Staying technologically aware to the changes to the development lifecycle
- Ensure we make meet the demands of Tier 1s, maintain inventories
- Need to have a good solid supply network within your local community, to have the ability to react quickly to demands (Avoid disruption to production)

Other

Session 1: Current State

- Medtech space worked hand in hand with the auto sector. Canada sent O₂ ventilators to India. Automotive sector was able to pivot for COVID quickly.
- Creating remote capabilities being encouraged for sending units across shores. Adapting technologies to become more tech centric in the plants.
- We are the first to release a Graphene enhanced brake line.

Session 2: Future State

- Looking to make Graphene enhanced batteries
- Uncertainty breeds innovation
- Minerals and natural resources will be a key element in this industry.