Introduction to Industry 4.0

Houston, TX

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Why Are We Talking About Industry 4.0 ?

- NA rotational molder's productivity is in decline:
  - Sales per employee is down,
  - Employees per machine is up
- Other plastics processes are experiencing increasing productivity

Rotomolding is falling behind other competitive processes.

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How Are We Talking About Industry 4.0?

- Keynote addressed the technological leverage, IoT, data visualization
- 6 General Session presentations will address elements of Industry 4.0
- Multiple conversations in Workshops will involve solutions that fit Industry 4.0

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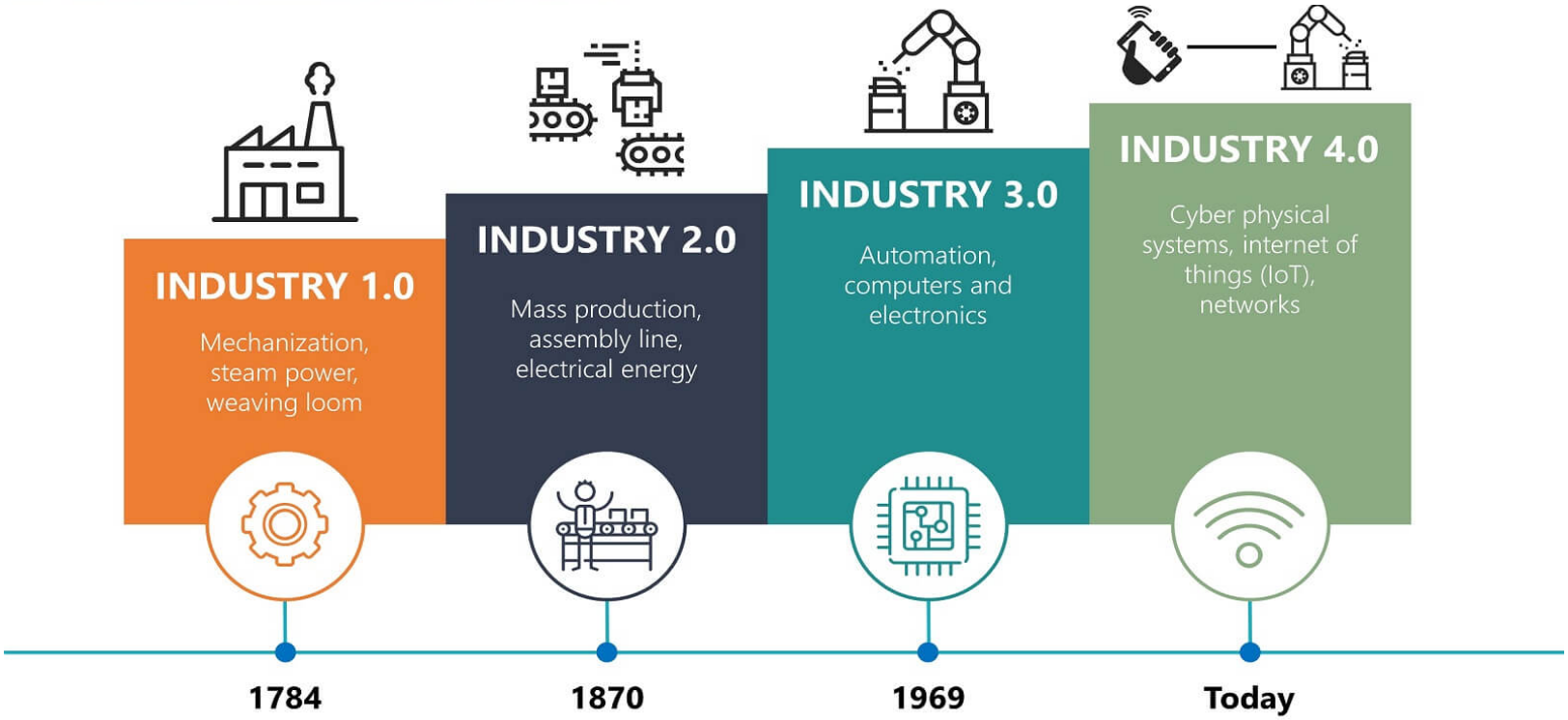
solar PLASTICS



MECHANIZATION

AUTOMATION

MASS PRODUCTION

IoT

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Elements of Industry 4.0

- *Interconnection* – machines, systems, people, devices
- *Information Transparency* – collection and dissemination of vast amounts of useful process data
- *Technical Assistance* – Systems aggregate and visualize information. Systems can perform tasks previously performed by people.
- *Autonomy* – Cyber physical systems can interpret data and make decisions on their own.

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Challenges to Implement 4.0 for Rotomolders

- Roto is a low volume, high mix, short run process
- Our equipment isn't set up for automation/integration
- There are no Roto specific solutions
- The cost to automate and integrate is too high
- Our customer's aren't willing to invest in new tooling/fixturing

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“All excuses are valid, and none of them matter”

- Sam Rosen

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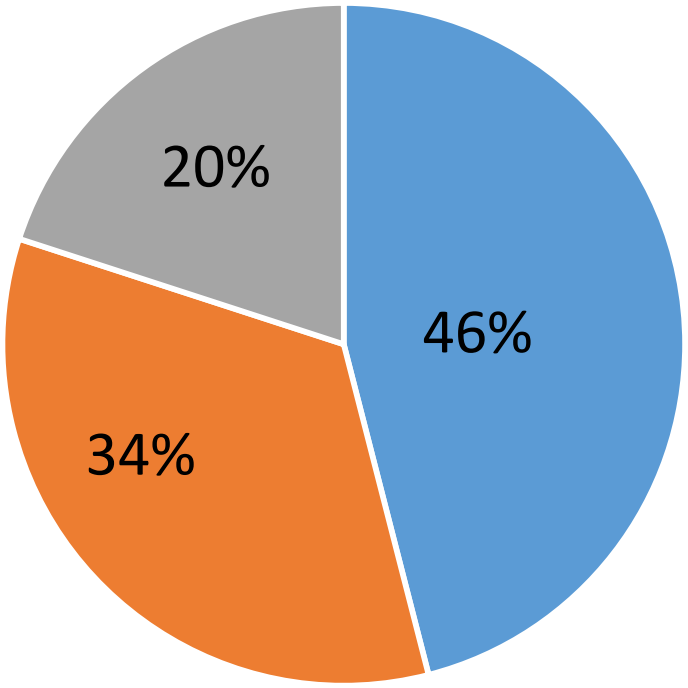
Tool & Die Makers

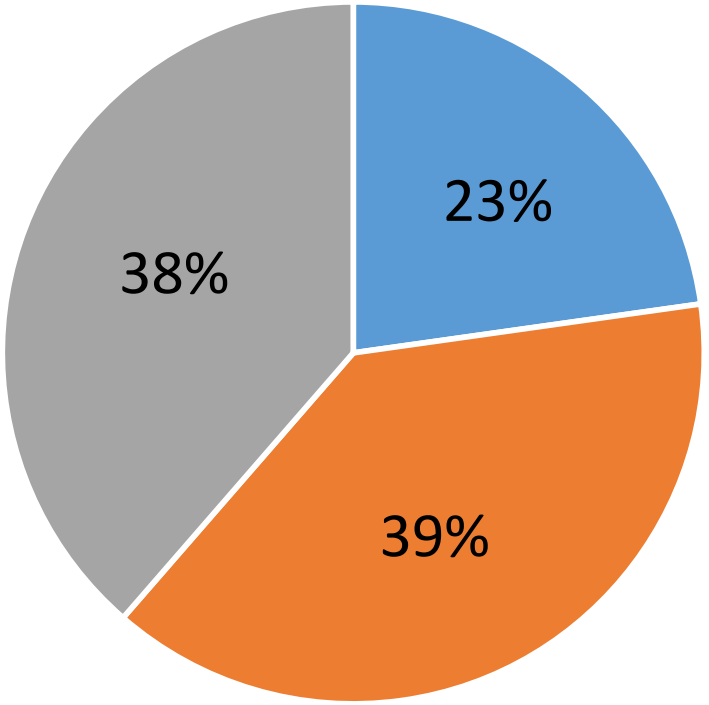


Boomers

Gen X

Millennials

Molders, Plastic



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