



Improving Shop Floor Productivity
The IoT Quick Start Program

Top 5 Business Challenges for SME's

Availability of skilled labour

47%

Cost of labour

23%

Finding new clients

22%

Rising tax burden in Canada

18%

Cost of new machinery

12%

*CME - 2018 Survey

The Problem

Average Machine is down

70.9%

of every shift

*Industry Week Best Plants Survey 2018

Two Sides of Same Coin


Downtime



Productivity

Downtime Data Problem

- We don't know how much or why
- Lack of transparency & visibility of downtime
- What is the Truth?

06/01 Job Traveler					
WO: 000000154				SO: 0539	
Customer: Alpha Amplifiers			Due :06/17/20		
Part Number: LOT-1122			Qty: 50		
Description: TEST 1 LOT CODE					
Work Center	Accept	Setup	Run	Total	Remarks
Material Staging	✓	1.000	0.400	21.000	26
AUTO INSERT-THT	✓	0.560	0.340	17.560	21

IoT Changes Things!

Then

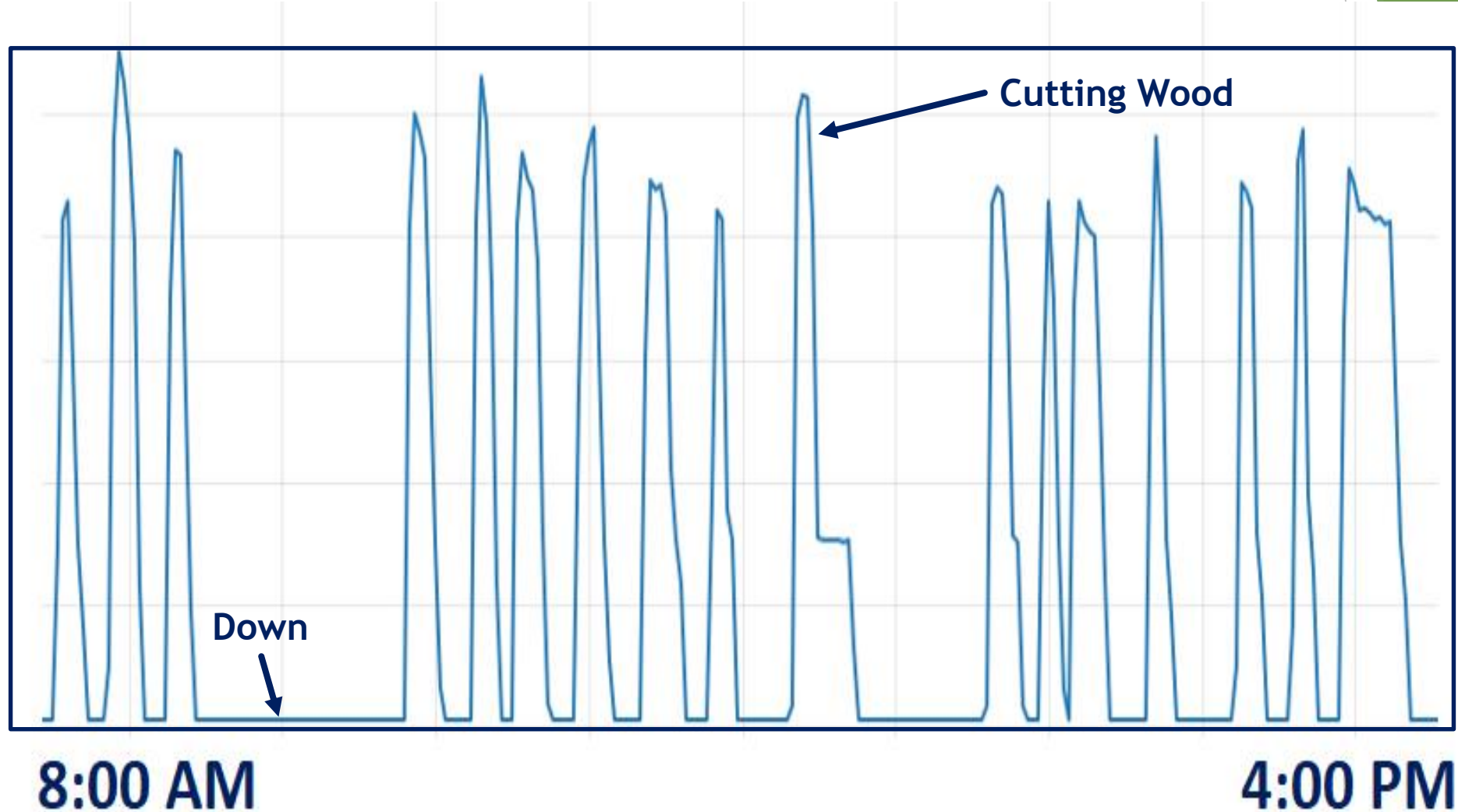
- ▶ Collecting machine data was expensive & complex
- ▶ Only for large companies
- ▶ Factories have older machines with limited or proprietary digital capabilities

Now

- ▶ Collecting real time operating data is simple and cheap
- ▶ Now everyone can monitor productivity
- ▶ Wireless devices are easy to install on existing machines

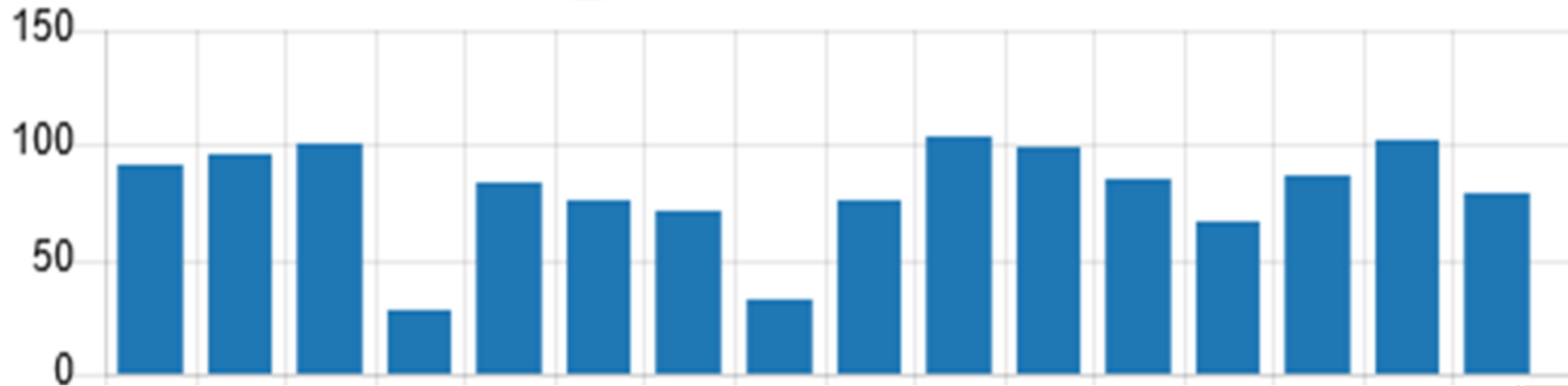
Shift Report - Shows Downtime

Power



Monthly Productivity Report Shows Downtime Trends

Run Time (minutes)



Factory View - Bottleneck Utilization

Select Date

< November 2017 >

Sun	Mon	Tue	Wed	Thu	Fri	Sat
29	30	31	1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	1	2
3	4	5	6	7	8	9

12:00 AM Today Clear

Shift	Day	Week	Month	Qtr	TTL	YTD
●	○	○	○	○	○	○

	6 am	7 am	8 am	9 am	10 am	11 am	12 pm	1 pm	2 pm	3 pm	4 pm	5 pm	6 pm		
Laser Cut	88%	98%	95%	99%	93%	84%	67%	72%	96%	77%	73%	72%	75%	77%	●
Brake	62%	67%	70%	47%	10%	0%	17%	43%	61%	66%	45%	54%	65%	66%	●
Weld	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	●
Paint	67%	71%	74%	70%	51%	51%	56%	54%	62%	51%	49%	63%	60%	57%	●
Assemble	63%	71%	77%	67%	53%	54%	55%	52%	65%	55%	51%	67%	58%	61%	●

Benefits of the MTechHub IoT Quick Start Program

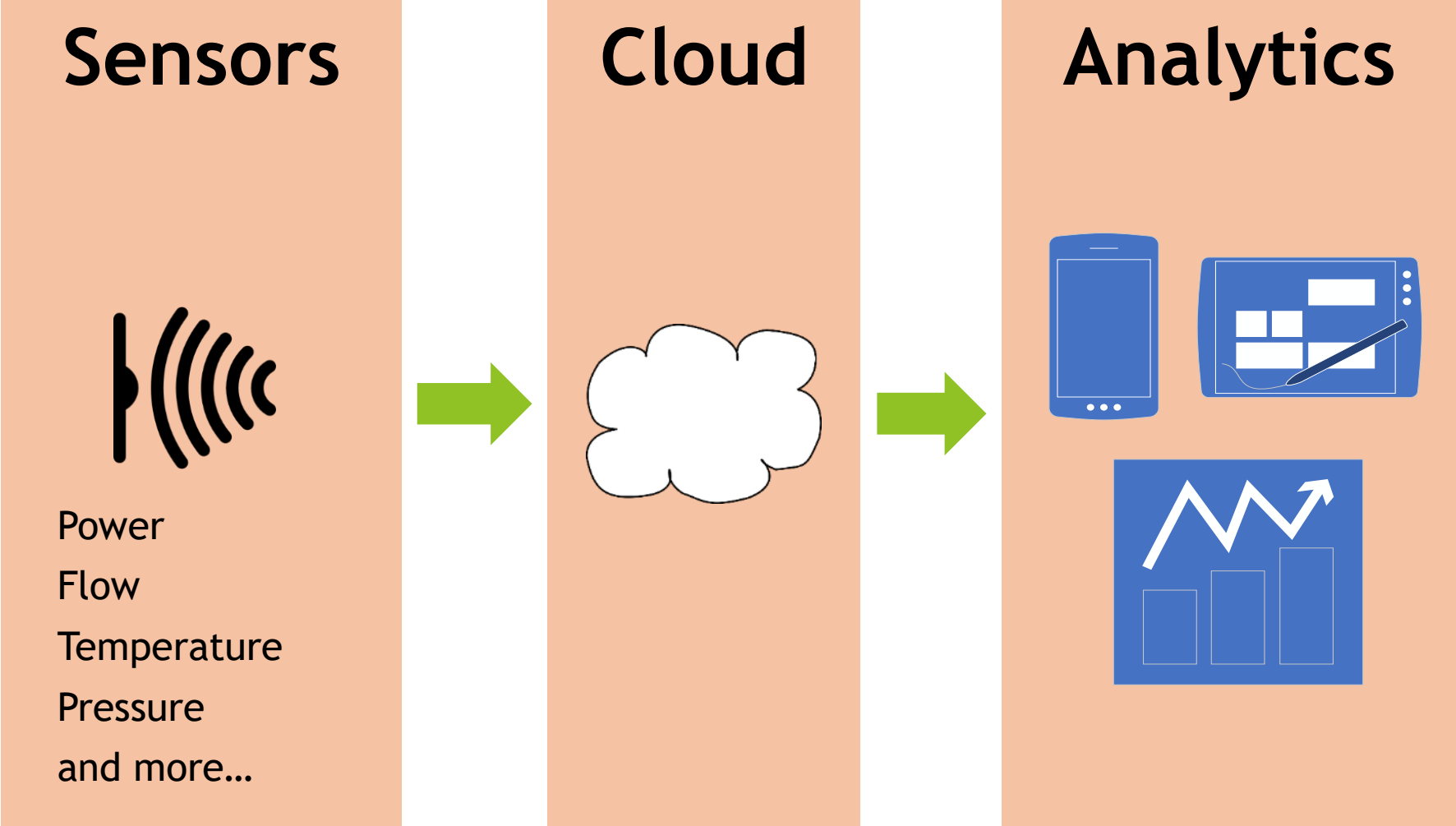
- ▶ View machine status remotely
- ▶ Manage using the truth & facts
- ▶ Improve productivity
- ▶ Change the culture on the shop floor
- ▶ Empower Operators and Supervisors
- ▶ Drive and Measure Continuous Improvement

The IoT Quick Start Program Details

- ▶ MTechHub IoT Platform
- ▶ Trained Coop Students help you adopt
- ▶ Coop Student costs funded 50-70% by ICTC
- ▶ You buy inexpensive devices
- ▶ Ongoing costs \$10/sensor per month

What it is

IoT Quick Start basics



IoT Quick Start can connect any existing machine



What it Costs

IoT QuickStart Cost Worksheet

Item	Cost	Funding	Net
Trained Coop Student	\$13,000	less \$6,500	\$6,500
Wi Fi to Shop Floor			
Monthly Subscription to MTechHub Members ** After program is complete**	\$10		
Sensor and device Costs			
Current	\$175 ea		
Pressure	\$325 ea		
Temperature	\$175 ea		
Average Cost to the manufacturer:			Approximately \$7,000-10,000

Wondering where to begin?

- ▶ MTechHub members have been starting with a bottleneck resource or primary equipment (like a compressor)



Contact MTechHub today to participate
in the QuickStart Program!

For more information:

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