Technology Developments

- Larry Daignault, SW Sales Manager
- Anaheim, California

Industry 4.0
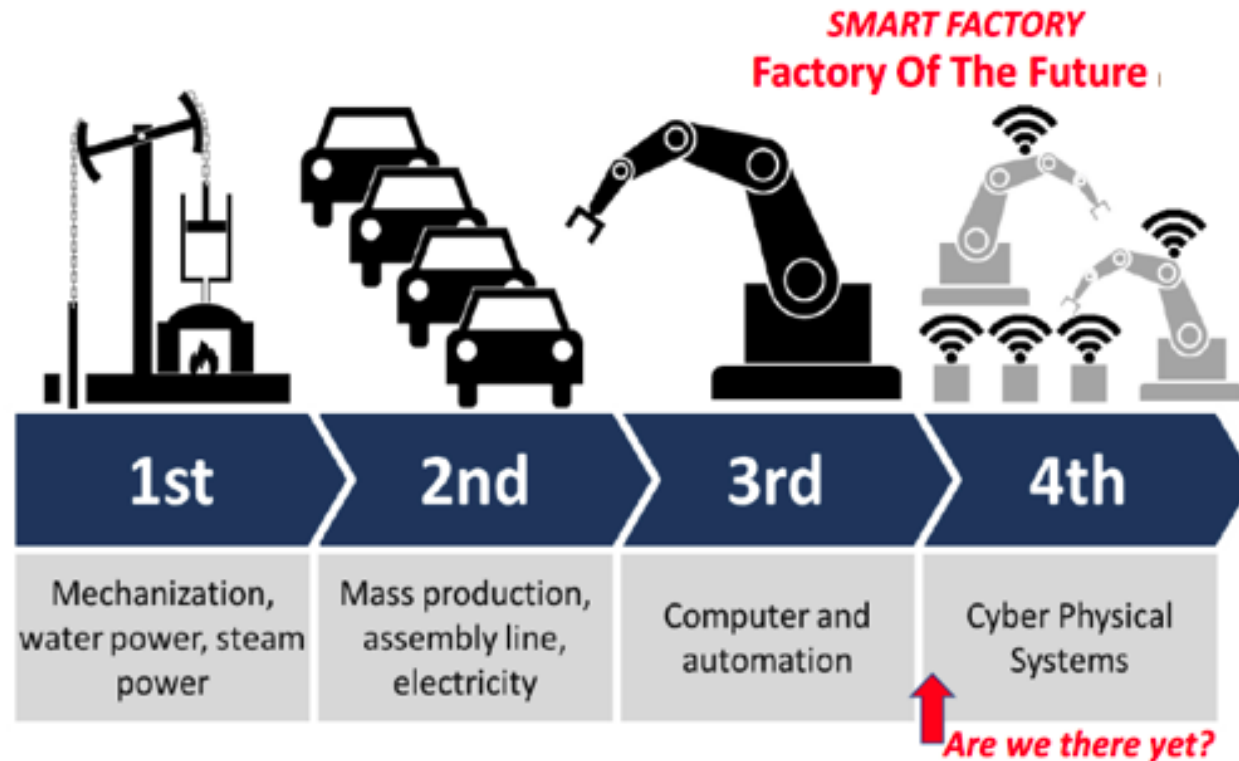# What is it?

…..and Why Does it Matter?

Industry 4.0...The Next Industrial Revolution/Opportunity

SMART FACTORY
Factory Of The Future

1st	2nd	3rd	4th
Mechanization, water power, steam power	Mass production, assembly line, electricity	Computer and automation	Cyber Physical Systems

Are we there yet?

- Industry 4.0 is about the connectivity and inter-connectivity of machinery.
- It is early days for 4.0 but remember when massive assembly lines dominated?
- It is not to early to talk about the future…

An Industry 3.0 automated machine will produce perfect parts very efficiently and repeatedly if:

- The machine is in perfect working order
- The coded instructions provided to the machine are perfect
- The material used is within machine parameters
- Tooling is within specifications
- Proper operating procedures are followed.
- *Over the past 30 year we have become very good at this*
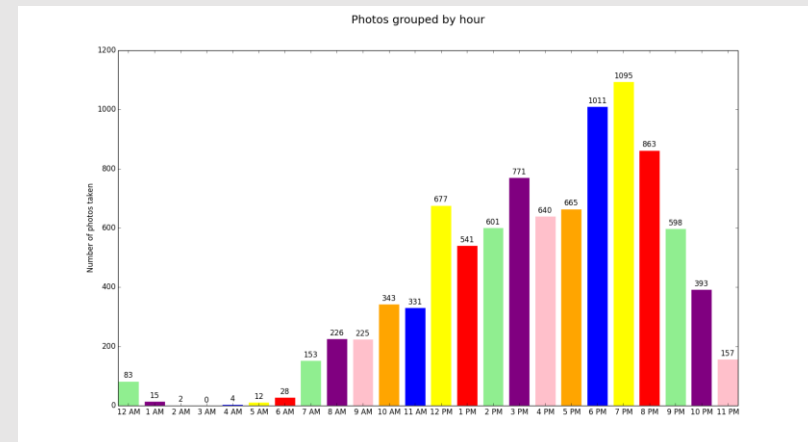- *As a result, automation now dominates the production environment*

The "Opportunity"

- As machines get more complicated and companies using them get smaller it is hard to maintain the machines.

- Parts get very complex and the programming of the instructions to make them more and more complicated.

- The variety of materials has exploded and it is hard to understand all the specifications every time you need to change material.

- Tooling options are now very exotic (and expensive) so how to figure out the data sheets?

- The skill level required of operators keeps increasing.   Training is getting overwhelming.
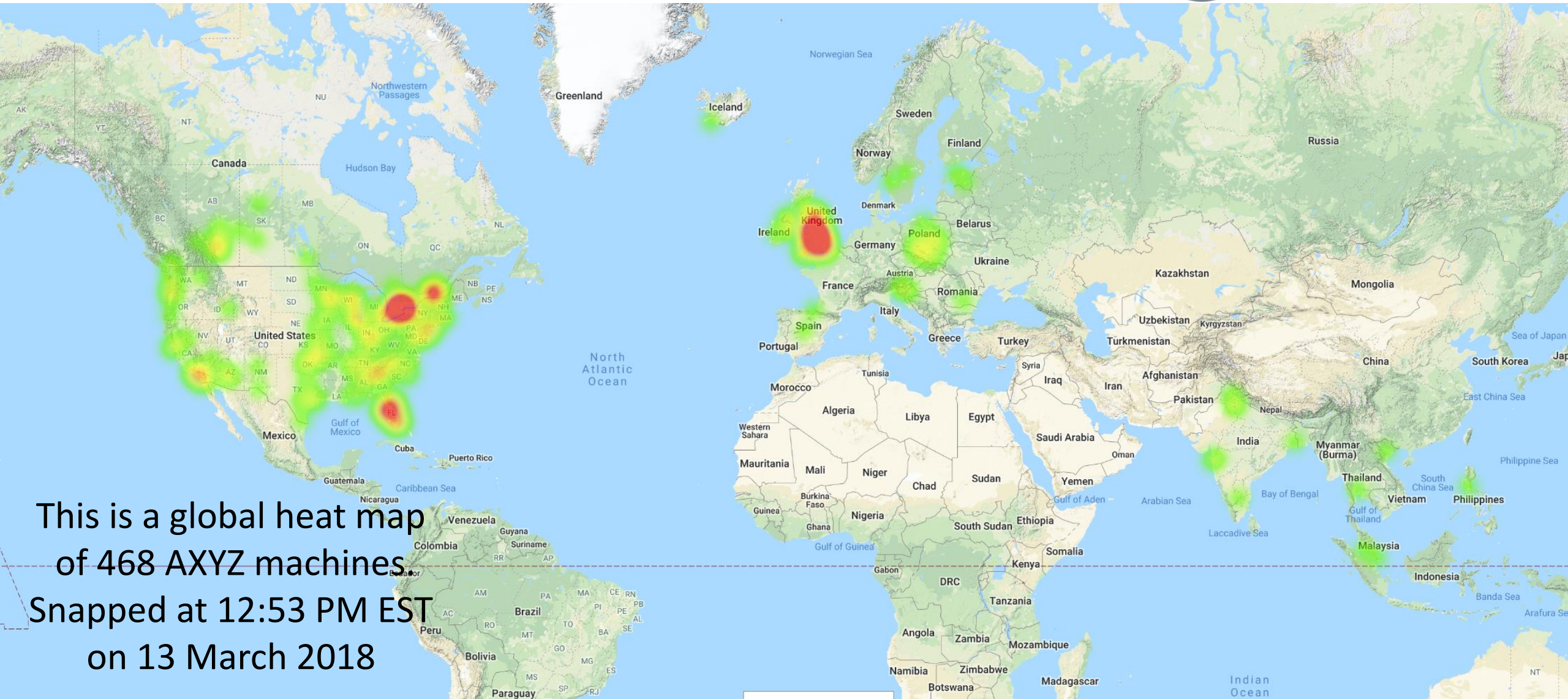
Industry 4.0 is about collecting Data:

- From customers
- From service
- From manufacturing
- From operators
- From sales
- And most of all...from machines!

Industry 4.0 is about Analysing Data…

- About customer needs
- About how machines are working
- About what machines are doing
- About the quality issues with machines
- About production efficiencies
- About what market trends

AXYZ and Industry 4.0

This is a global heat map of 468 AXYZ machines. Snapped at 12:53 PM EST on 13 March 2018

AXYZ and Industry 4.0
What does it mean to our customers?

- Transition from *Preventative Maintenance* to *Predictive Maintenance*

- Real time data can forecast potential downtime (e.g. repetitive error codes)

- Dramatically prevent machine downtime

- Advanced scheduling of machine maintenance

- Enhanced machine longevity

AXYZ and your data...

- All data collected from AXYZ customer machines belongs to the owner of the machine.

- The data collected must firstly benefit the customer by sharing useful and specific data.

- The customer has control of what data (if any) is collected by AXYZ.

- AXYZ will protect all customer data with state of the art security on our servers.

- All data that is shared, like in the previous slide, is only general industry knowledge, in this case geographic location.