

IFM Presentation
Adoption of Technology an SME Perspective
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ADOPTION OF TECHNOLOGY AN SME PERSPECTIVE

- 1. Company Overview**
- 2. Competitiveness**
- 3. Overall Equipment Effectiveness (OEE)**
- 4. Machine Monitoring Overview**
- 5. Machine Monitoring Data**
- 6. Machine Monitoring In Practice**
- 7. Machine Monitoring Business Benefits**
- 8. Questions**

INTRODUCTION TO AVPE

- Established in 1997 and operating from a 2,300 sq.m facility in Bristol Avon Valley Precision Engineering ('AVPE') is a privately owned business operating in the Aerospace & Defence sectors.
- AVPE manufactures precision machine components for both Production and Maintenance, Repair & Operations ('MRO') with rapid response "Fast Shop" capability.
- The business supplies directly into Prime & Tier 1 partners.
- AVPE is committed to investing in the latest machining technology with the company positioned to dedicate capacity for partner programs.
- AVPE has available spare footprint within it's facilities and is supported by shareholders who can make swift capital investment decisions should customer needs dictate.
- AVPE currently employs 54 Staff and aims to have at least 10% of it's workforce as apprentices or trainees.
- AVPE is involved in development funded projects to understand how Additive Layer Technology (ALM) may influence it's business in the future.



COMPETITIVENESS WHAT IS IT?

“Possession of a strong desire to be more successful than others”

“The quality of being as good as or better than others of a comparable nature”

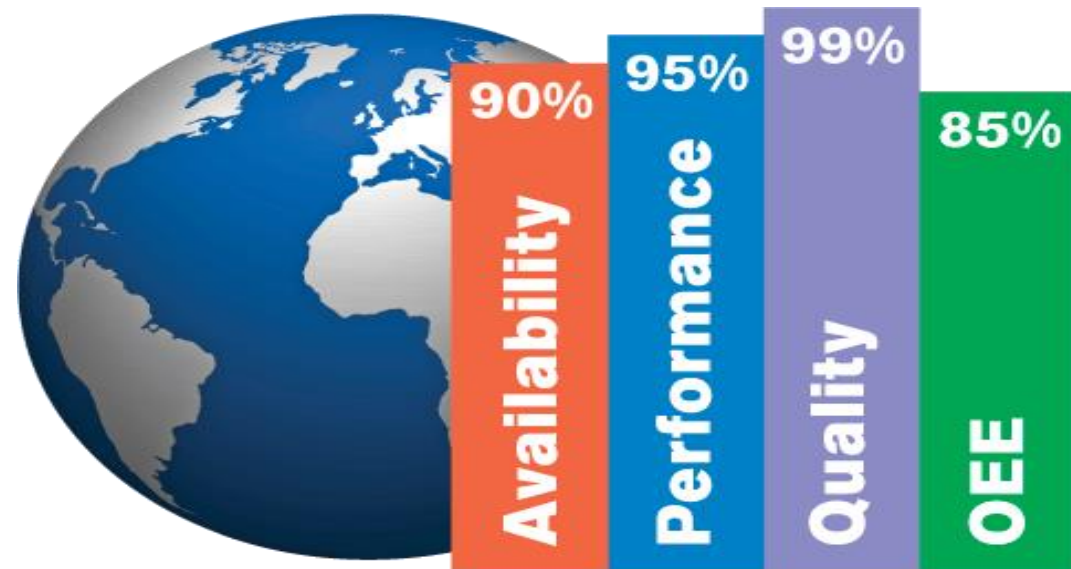
Interestingly no mention of price and cost.



OVERALL EQUIPMENT EFFECTIVENESS (OEE)

“Develop a Common Understanding”

- Measure and Monitor**
- Recalibrate as Required**



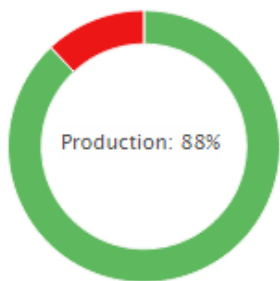
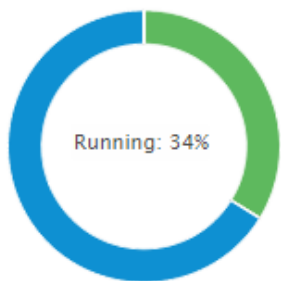
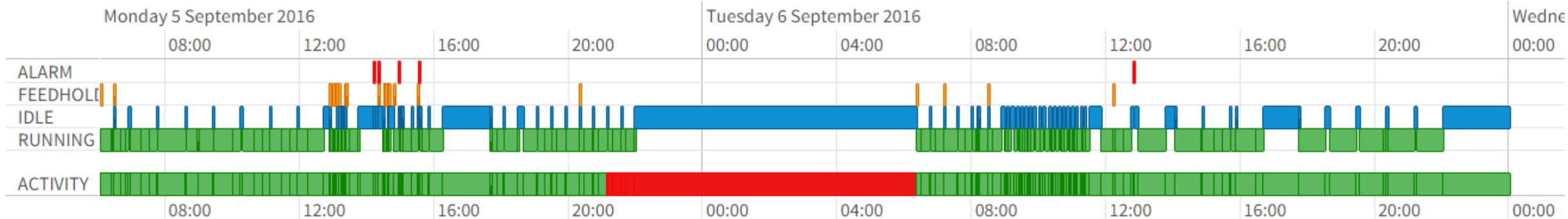
MACHINE MONITORING

Key Questions

- When is the machine stopped?
- Why is the machine stopped?
- When it is running and what are its run speeds?
- Can I calculate OEE with little or no manual intervention?

STATUS **RUNNING** PROGRAM **2325** ACTIVITY **PRODUCTION** OEE **37%** A: 100% P: 37% Q: 100%

[Calendar Icon] 7 DAY **3 DAY** TODAY



Sun 0 Mon 54 Tue 67

	ACTIVITY	OEE	CYCLES
WEEKEND	<div style="width: 100%; height: 10px; background-color: green;"></div>	0%	1
StartTime - 00:00			
WEEKEND OT	<div style="width: 100%; height: 10px; background-color: green;"></div>	0%	1
StartTime - 06:00			

- 22:01 Tue 06 **Idle for more than 10 minutes**
Machine Idle in Production
- 22:00 Tue 06 **NIGHT Shift started**
- 16:38 Tue 06 **Idle for more than 10 minutes**
Machine Idle in Production
- 14:00 Tue 06 **LATE Shift started**
- 13:44 Tue 06 **Idle for more than 10 minutes**
Machine Idle in Production
- 12:49 Tue 06 **Status changed to Idle during Production**
- 11:28 Tue 06 **Idle for more than 10 minutes**
Machine Idle in Production
- 06:00 Tue 06 **Idle for more than 10 minutes**
Machine Idle in Production
- 06:00 Tue 06 **EARLY Shift started**

MACHINE MONITORING IN PRACTICE

- **Relatively Cheap c. £200 per machine centre**
- **Can be monitored remotely**
- **Provides a base point for challenge**
- **Realigns your expectations on what is achievable**
- **Helps support a culture of continuous improvement**

MACHINE MONITORING BUSINESS BENEFITS

More realistic capacity planning

Accountability driven down to operator level

Repeatability of results

Gain job knowledge quickly and easily

Interpret facts not supposition

Nowhere to hide!

QUESTIONS