



Supply Chain Assessment

How the MTC can assess your supply chain

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Robustness and Resilience

What is the difference

Robustness vs. Resilience

Robustness

- How much can you take before you fall down



Resilience

- How long does it take you to stand up again



#RIP_Muhammad_Ali
(1941 - 2016)

Robustness and Resilience

What is the difference

- **Robustness:** Robust systems can continue functioning in the presence of internal and external challenges **without fundamental changes to the original system**
- **Resilience:** Resilient systems adapt to internal and external challenges by **changing their method of operations while continuing to function**. Whilst elements of the original system may remain, there is a fundamental shift in core activities that reflects the system's ability to adapt to the new environment

The Resilience Framework

Tom Pettit - 2008



Resilience is therefore

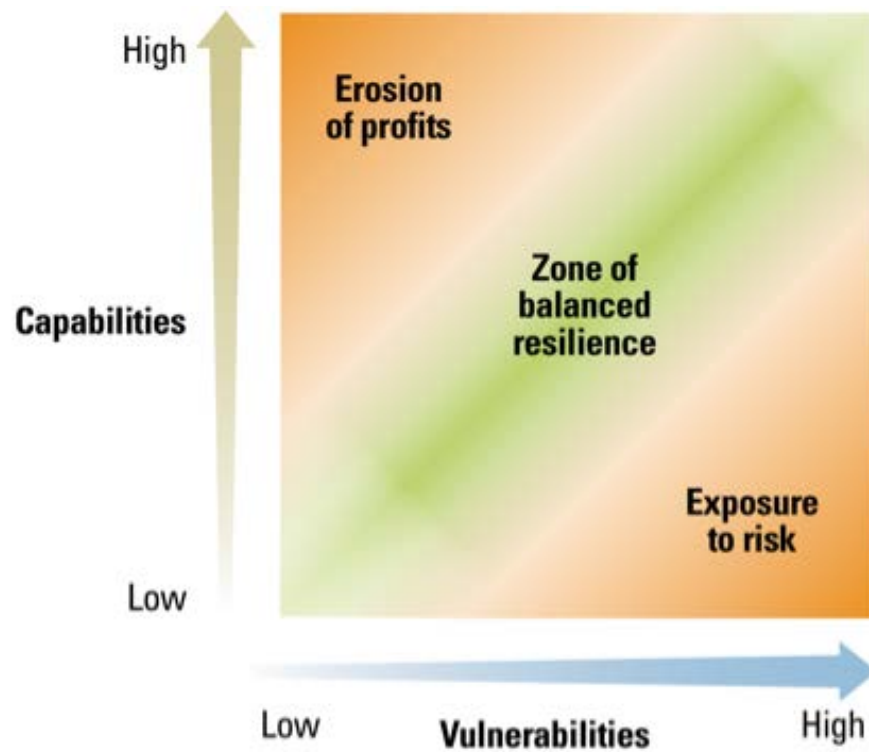
- A balance between external disruptive forces that create vulnerabilities in an organisation, and



- The degree to which an organisation has developed the capabilities to adapt its behaviour to meet the current challenges.

The Zone of Balanced Resilience

An appropriate response is called for



FINDING THE ZONE OF BALANCED RESILIENCE

As vulnerabilities increase, companies may be exposed to undue risks and need to improve their corresponding capabilities. However, overinvestment in capabilities can erode profits, so companies need to find the zone of balanced resilience where their portfolio of capabilities is matched to their pattern of vulnerabilities.

Supply Chain Expertise



HELLER



SIEMENS





The MTC Supply Chain Readiness Level Assessment (SCRLA)

Introduction to the MTC Resilience Assessment

The assessment Threads and Sub-threads

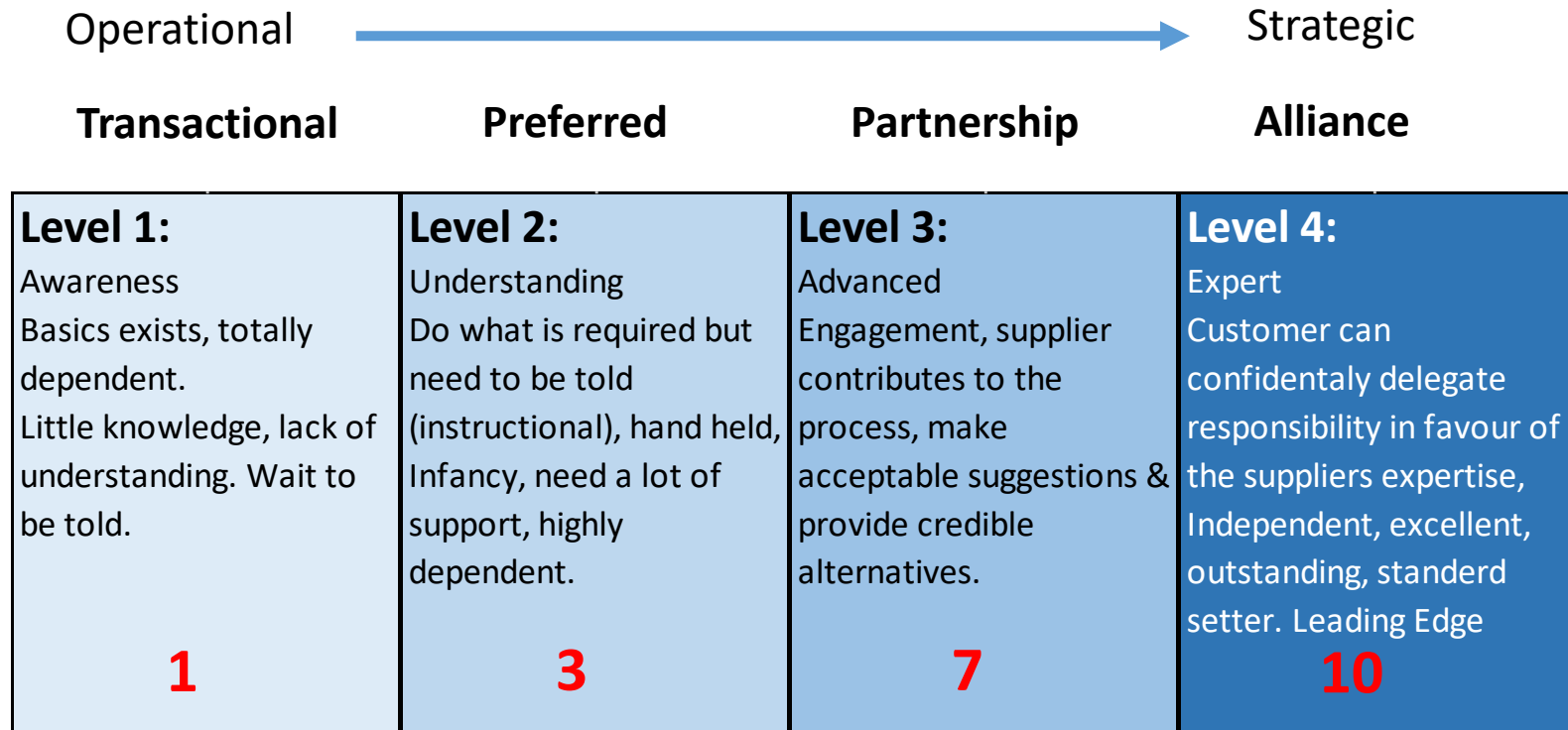
Thread	
1	Innovation & Technical Mastery
2	New Product Introduction (NPI)
3	Supplier Relationship Towards the Customer
4	Contract Management, Risk Management, & Security
5	Sustainability of Supply
6	Synchronisation of Supply
7	Supply Chain Organisation & Governance
8	Agility & Transformation

Sub-Thread Questions
Are we using innovation & new technology in our processes?
Are we using innovation & new technology in our products?
Have we got a systematic approach to technology introduction?
Are we building strong technology collaborations and networks?
How are we using data to support innovation?

5 sub threads for each main thread

8 or 9 main Themes or Threads

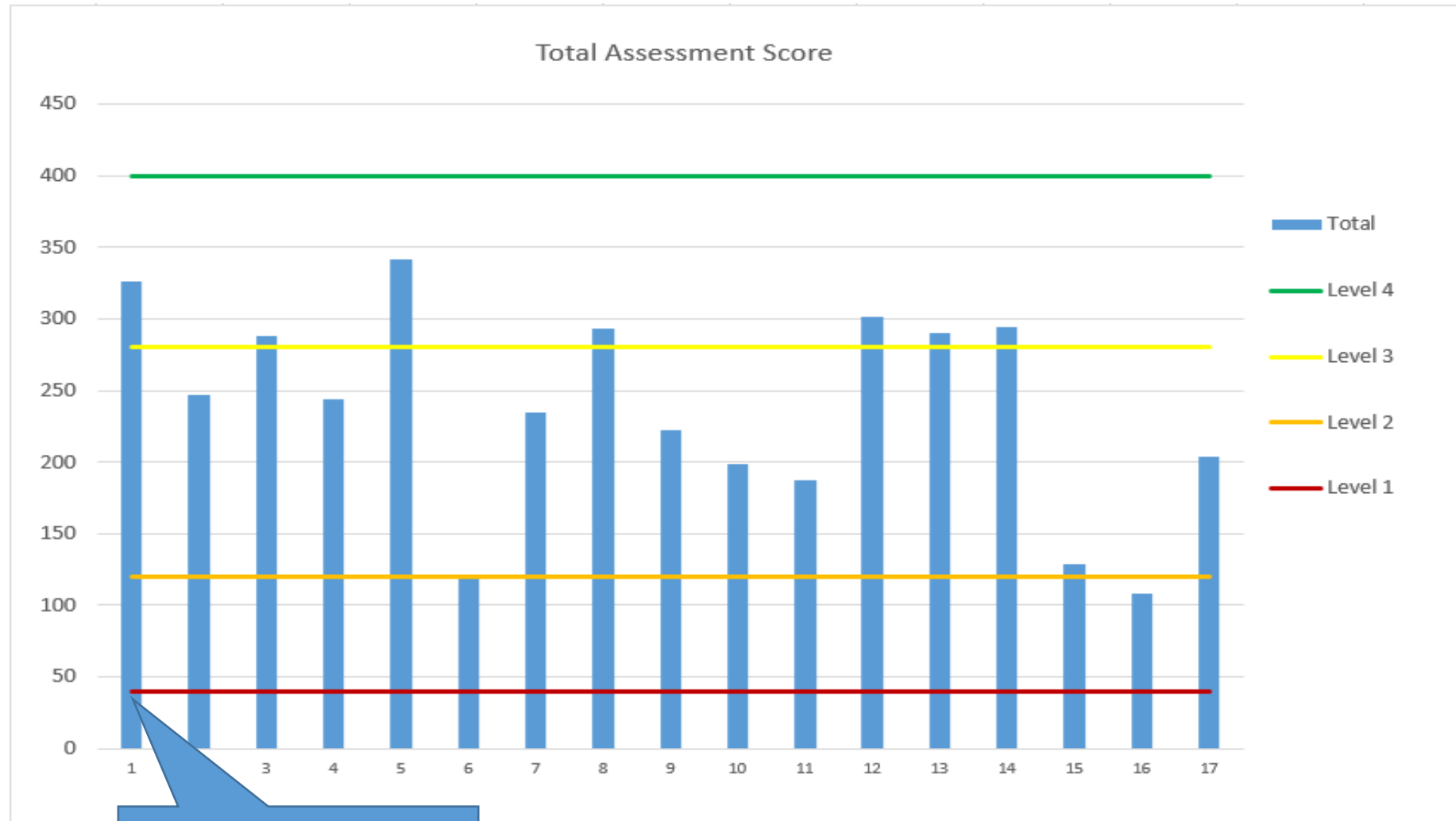
Introduction to the MTC Resilience Assessment Methodology – The 4 Levels of Maturity



160 – 180 (4 x 40) points of reference as a measure of capability

Assessment Results 1

Analysis: - Overall Score by Supplier

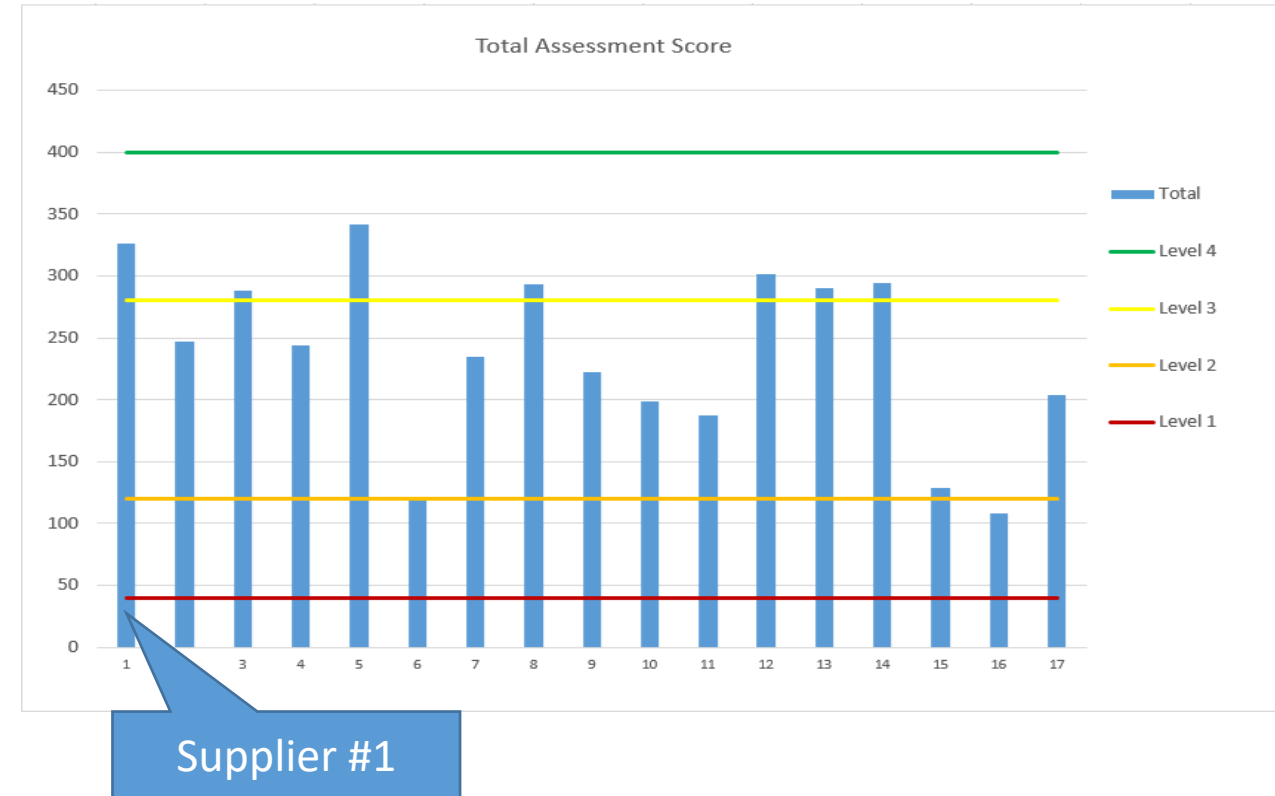


Supplier #1

Assessment Results 1

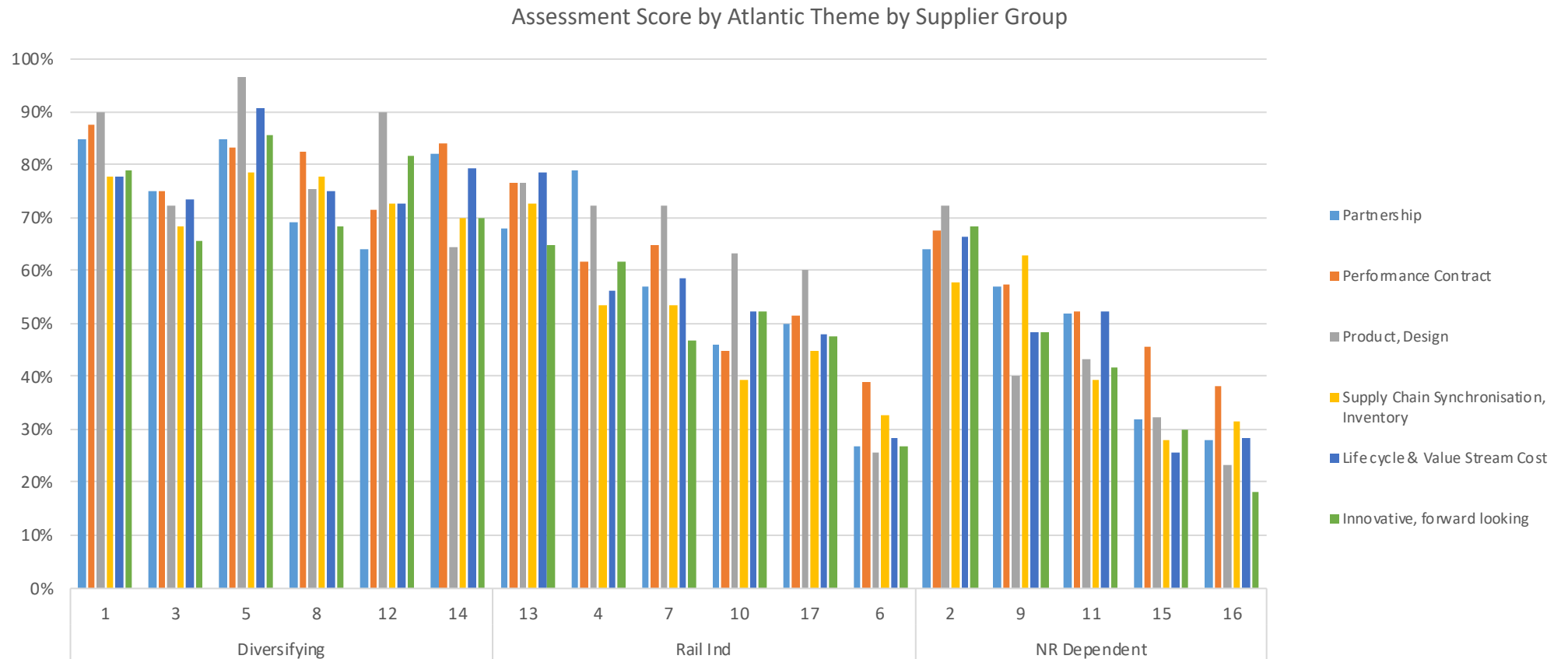
Analysis: - Overall Score by Supplier

1. **Score and range vary significantly.**
2. **No supplier at level 4.** No trend-setter or role model.
3. **Most suppliers above level 2;**
4. **An understanding** of the minimum requirements of capability. Some have a way to go.
5. **3 suppliers at level 2 or below**
Support needed to reach a sustainable level of supply capability. Foundation Programme?
6. **Attaining Level 3 could be objective of Supplier Development Programme**



Assessment Results 4

Analysis: - Score of Project Atlantic themes by Supplier Group



Diversified

Rail Sector

Dependent

Results – Deep Dive

Areas for major concern level 1 & 2

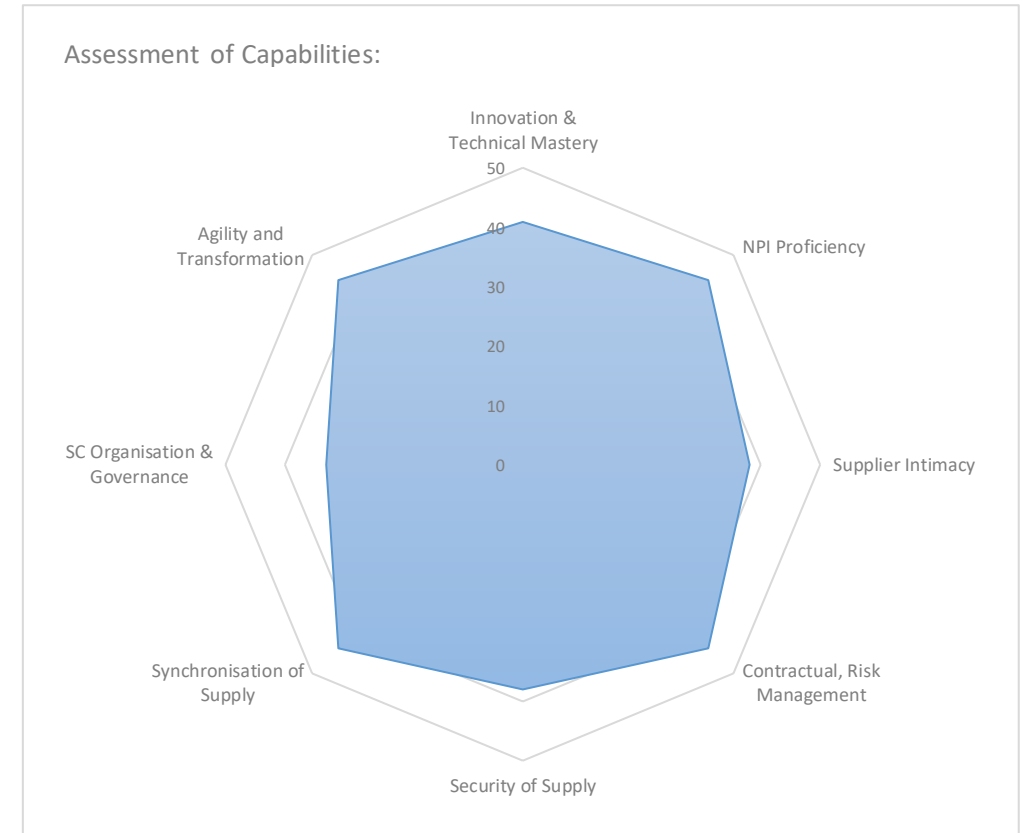
Theme	Sub thread	No. of Level 1 Scores	No. of Level 2 Scores	No. of Level 3 Scores	No. of Level 4 Scores	Total
7Sustainability of Supply	Are we exposed to critical suppliers (e.g. materials, sub-assemblies, components, etc.)?	0	11	3	3	17
10Supply Chain Organisation & Governance	Fit in supply chain, business intelligence and control of their value stream (e.g. cost & waste management)	9	3	4	1	17
11Agility & Transformation	To What extent are we Industry 4.0 ready? What plans have we in place to future-proof our business?	7	9	0	1	17

Supplier Capability Assessment

Supplier #1

Diversified

- Customer Sectors: Automotive, Rail
- Special Processes & Services: Precision Grinding,
- Capacity, Utilisation:
- Other comments: Stretcher bar suppliers.



Supplier Resilience Assessment

Resilience Factors

Diversified

1. Digital Competence and innovation
2. Strategy
3. Supplier intimacy
4. Sustainability
5. Agility
6. Systems, Standards & Procedures

Supplier Resilience Assessment

Supplier #1

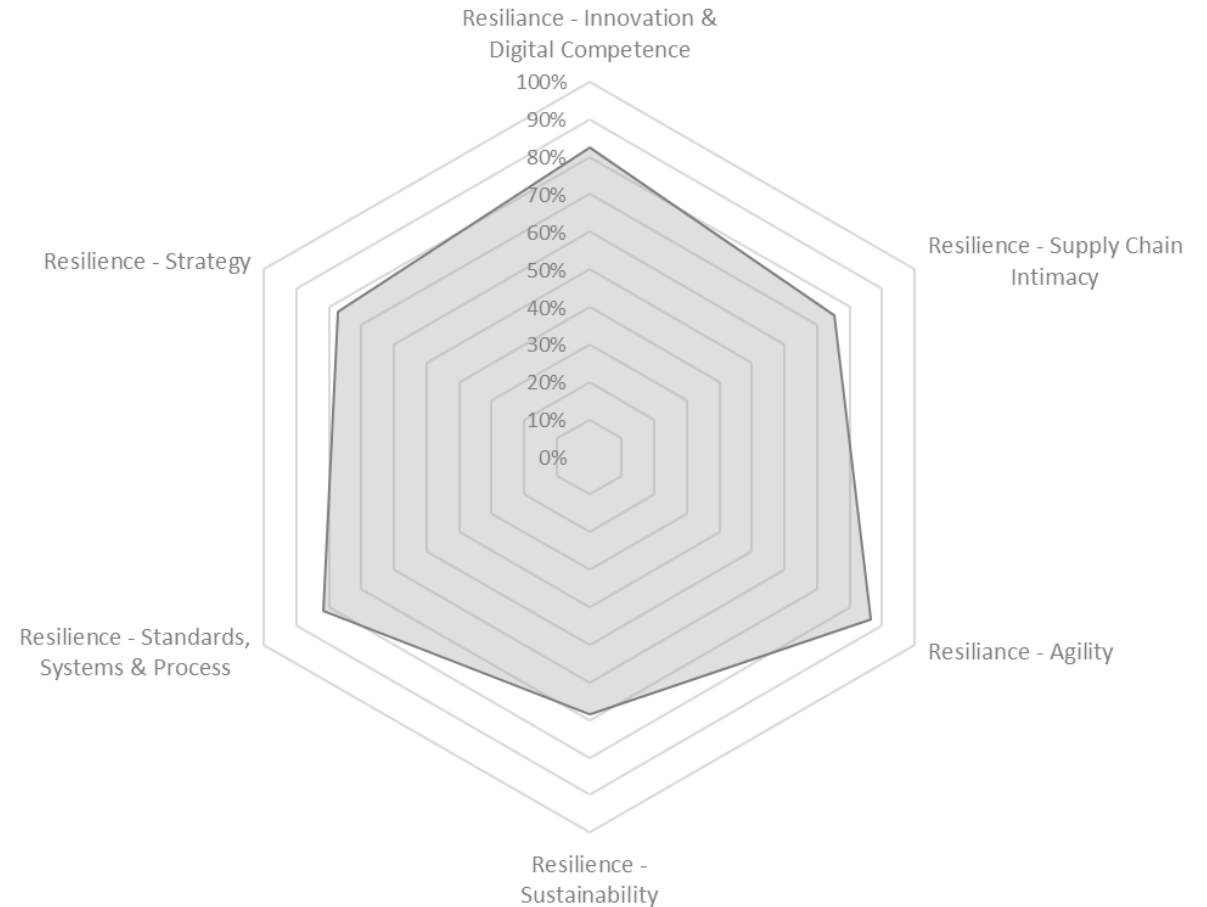
Diversified

- Customer Sectors: Automotive, Rail
- Special Processes & Services: Precision Grinding,
- Capacity, Utilisation: High/High
- Other comments: Stretcher bar suppliers.

Resilience Quotient: **78%**

Resilience - High /Robustness – High

Assessment of Resilience



Supplier Resilience Assessment

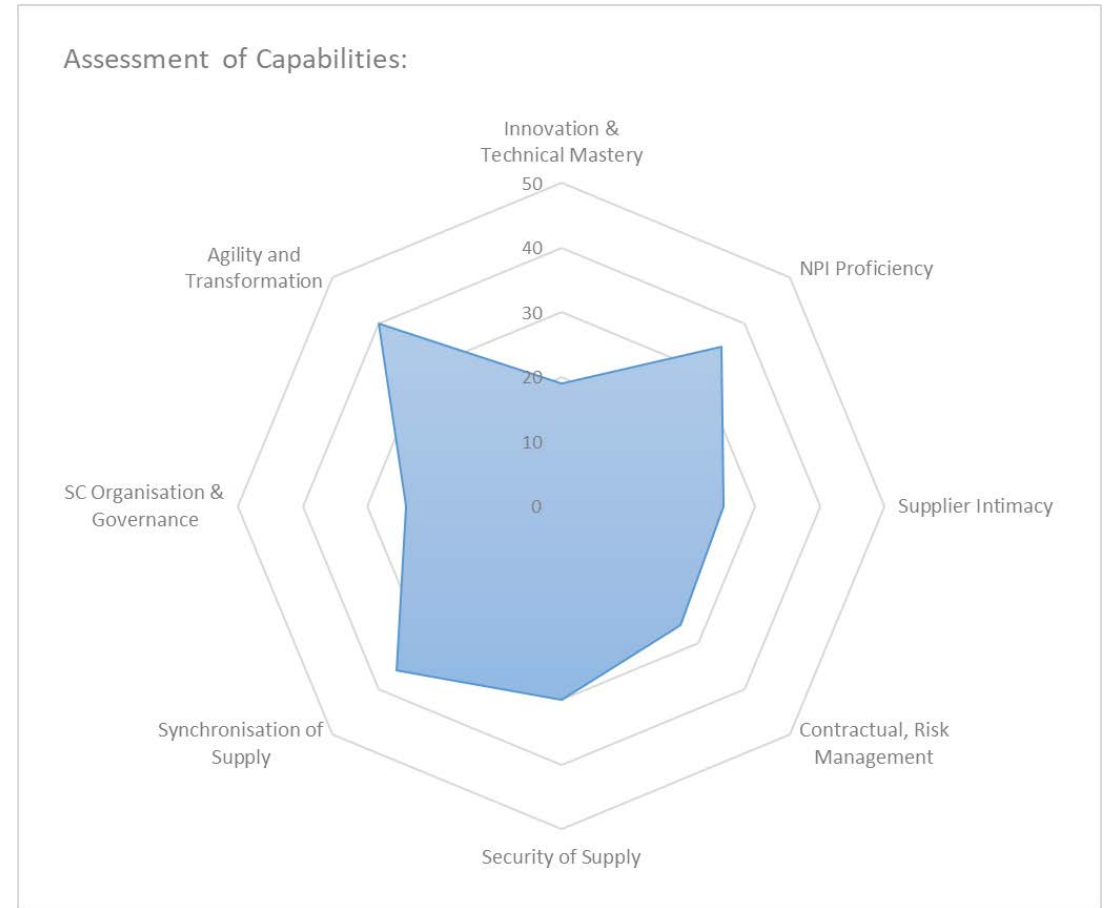
Supplier #2

Rail Industry

- Customer Sectors: Mostly Rail
- Special Processes & Services:
- Capacity, Utilisation:
- Main Suppliers:
- Other comments: Small company focused on pads but recent expansion into machines parts

Resilience Quotient: **57%**

Resilience - Low /Robustness – Medium





Q&A

Please submit your questions using the Q&A function at the bottom of your screens.



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Advice for social distancing in your factory, protecting your people and utilising technology.

30th June 2020

Robotics and automation: Practical and affordable steps

De-risking investment in automating your factory.

Thank you for your time
Any Questions for the road ahead?

Together we impact society.
The **RIGHT** Way

If you are an
SME you can
request a
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assessment of
your business
using the SCRL
tool free of
charge

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