

BEYOND DEMAND

THE LEADERSHIP AND INDUSTRIAL READINESS CHALLENGE FACING AEROSPACE & DEFENCE

What confidential senior industry perspectives tell us
about converting strong demand into sustainable
delivery.



Executive Summary

Demand is strong.

Readiness is the constraint.

Aerospace & Defence is not short of demand. Across commercial aerospace, defence, advanced manufacturing and emerging defence technology, customers want more output, faster delivery and greater responsiveness. The difficult part increasingly starts after the order is won.

Across perspectives behind this paper, the same pattern kept appearing in different forms. A supplier several tiers down can stop a programme. A design decision made years ago can block a sale today. A factory can have people and equipment available but still lose productive time while it waits for an engineering or customer decision. New technology can move faster than the procurement, certification and operating models around it.

That is why we use the term industrial readiness. It is broader than manufacturing throughput. It is the ability of an organisation and its wider ecosystem to absorb demand, make decisions, adapt products, mobilise suppliers, retain and transfer knowledge, and deliver repeatedly without creating unsustainable pressure somewhere else.

Four things stood out

01

Orders are not output

Strong backlog can hide execution risk if the industrial system cannot convert it reliably.

02

Capacity is broader than plant and labour

Supplier capability, technical knowledge and decision speed all affect what can actually be delivered.

03

Technology is moving on a different clock

The organisations that learn, adapt and industrialise quickly will have an advantage over those that simply have the best technology on paper.

04

Leadership is the connecting issue

The hardest problems increasingly sit between functions, organisations and time horizons rather than neatly inside one discipline.

RESEARCH APPROACH

Senior perspectives. One connected challenge.

This paper draws on confidential senior industry perspectives gathered through structured interviews, in-person discussions and written contributions. Contributors brought current and former senior leadership experience across commercial aerospace, defence technology, complex manufacturing, engineering, operations and supply chain. The research is qualitative rather than statistically representative. Examples have been anonymised and, where appropriate, generalised to protect contributors; numerical examples reflect individual experience rather than sector-wide statistics.



CONFIDENTIAL

One-to-one discussions with senior executives

QUALITATIVE

Structured interviews and contributions

ANONYMISED

Examples protected and generalised

Demand is not the constraint. Industrial readiness is.

The clearest message was simple: winning work and delivering it are different things. One contributor described customers wanting an integrated defence solution within months while export licensing alone could take three months or more. Specialist hardware could take longer still. In commercial aerospace, the same gap can appear differently: a customer is ready to buy, but a legacy engineering issue or a lower-tier supplier constraint prevents the order becoming revenue.

Backlog is therefore both an opportunity and an execution commitment. Every additional order brings future requirements for people, inventory, working capital, supplier capacity, engineering support, qualification and customer coordination. In a constrained system, a growing order book can increase risk as quickly as it increases confidence.

Industrialisation also needs to start earlier. A product is not truly ready just because the design is functional. Tooling, quality, test, data, labour, supplier qualification, working capital and production engineering all have to support repeatable delivery at the required rate and economics.

Capacity itself needs a wider definition. Several conversations pointed to decision speed as a practical constraint. A factory can have people and machines available while production waits for an engineering decision, commercial approval, supplier qualification or customer clarification. The assets are there, but productive capacity is not.



WHAT THIS MEANS

Decision speed is a form of capacity. Boards should ask not only how much demand can be won, but how much can be converted within the real constraints of the industrial system.

The industrial system is under strain.

Delivery extends well beyond the legal boundary of the company. Aircraft, defence platforms and advanced industrial products depend on specialist manufacturers, materials providers, software businesses and engineering partners. As output expectations rise, the readiness of that wider ecosystem increasingly determines the readiness of the prime or OEM.

One aerospace perspective described visibility being pushed down towards Tier 4 and Tier 5. The important point was not the tier number itself, but what it revealed: apparently diversified Tier 1 suppliers can still depend on the same specialist process, machine, material source or small provider further down the chain. A supplier scorecard can look healthy while the underlying industrial risk remains concentrated.



That changes the job of supply chain leadership. Contributors described a need for people who can understand a supplier's operating constraints, work with partners to remove bottlenecks and build resilience, rather than simply manage transactions. This becomes even more important as manufacturing activity is distributed across external partners and in-house capacity reduces.

Digital maturity matters too. An OEM cannot create a truly end-to-end digital way of working if critical suppliers cannot operate in compatible methods or data environments. Supplier development therefore becomes part of industrial capability, not an optional relationship exercise.

Resilience also needs nuance. The most local source is not automatically the safest, and a globally diversified network may still hide a single lower-tier dependency. Inventory, spare capacity and alternative sourcing can look inefficient in a short-term model while being valuable insurance in a stressed one.

WHAT THIS MEANS

The question is not simply whether suppliers are performing. It is whether the business knows where capacity and single points of failure actually sit and whether it has leaders who can help strengthen them.

Yesterday's architecture is slowing tomorrow's delivery.

Some of the most tangible constraints raised in the research sit inside products designed years or decades ago. Long product lives are a strength of Aerospace & Defence, but they also leave businesses carrying architectures, software and certification assumptions created for a different era.

One conversation highlighted more than £1 million of potential sales being blocked by a design issue that was almost two decades old. Demand existed. The customer was there. A historic engineering decision stood between the opportunity and the revenue. Technical debt had become commercial debt.

The problem becomes harder when the reasoning behind those designs has left with the people who created them. Drawings can capture what was done without explaining why. Organisations can end up reverse-engineering their own history, using scarce engineering capacity to recover context that once lived informally in the workforce.

Knowledge therefore needs to be treated as part of the industrial system. One contributor estimated that it can take around four years for a newly joining engineer to become sufficiently experienced in a complex aerospace environment. Recruitment can fill a vacancy quickly; it cannot instantly recreate judgement built over years.

The same principle applies to architecture. Organisations do not need to own every component or technology, but they do need to know what they must always understand and control. As more capability sits with partners, architectural mastery becomes more important, not less.

Legacy Design

£1m+

Potential sales blocked by one legacy design issue



Knowledge Recreation

~4 years

Estimated time for a newly joining engineer to build deep technical knowledge



Experts Retire

Critical knowledge is lost.



Documentation Gaps

Incomplete or missing records.



Reverse Engineering

Time-consuming and costly.



Knowledge Rebuilt

Takes years and significant cost.

Build Knowledge Resilience

Capture, transfer and digitise critical knowledge before it becomes a bottleneck.

WHAT THIS MEANS

Technical debt can become commercial debt, and knowledge can become a single point of failure. Succession, knowledge transfer and architecture need to be managed as industrial risks, not just engineering concerns.

Technology is moving faster than the system around it.



Technology and the systems built to procure, certify and industrialise it are increasingly running on different clocks. Software, AI, autonomy and sensors can change through rapid iteration, while major platforms and formal approval pathways move much more slowly.

One defence technology perspective contrasted conventional validation pathways that can take one or two years with operational environments where capability may be needed immediately. The answer is not to remove safety, security or accountability. It is to shorten the loop between requirement, field evidence and usable capability without losing the controls that matter.

That makes learning speed a competitive capability. Direct exposure to operational environments can show teams how systems are actually being used, where threats are changing and what needs to be modified. The cycle becomes deploy, observe, learn, change and redeploy. The fastest organisation may not be the one that manufactures fastest; it may be the one that learns fastest.

The economics are moving too. Contributors described the asymmetry between very low-cost uncrewed systems and defensive systems costing hundreds of millions. Demand is also broadening towards systems priced from the low thousands into the low hundreds of thousands. For businesses built around a smaller number of high-value legacy platforms, that is not simply a technology change. It is a business-model challenge affecting margins, capital allocation, working capital, manufacturing philosophy and shareholder expectations.

Commercial aerospace faces a related issue through digital transformation. Installing tools is not transformation. A digital thread creates value only when engineering, manufacturing, services and suppliers change how they work together and use common information.

WHAT THIS MEANS

Technology advantage increasingly depends on how quickly an organisation can learn, integrate and industrialise, not simply on how advanced the underlying technology is.

The operating model must change.

Many of the persistent bottlenecks described in the conversations sit between functions. A design issue becomes a commercial problem. A supplier constraint becomes a programme problem. A customer change becomes an engineering problem. A digital initiative becomes a manufacturing and culture problem.

One contributor described a business trying to increase its exposure to defence rapidly by redeploying engineers from an adjacent industry. The commercial ambition was clear, but the domain knowledge and operating rhythm still had to catch up. Moving people does not instantly move capability.

Aerospace & Defence organisations have strong vertical disciplines for good reason. Engineering, manufacturing, quality, supply chain, commercial, programmes and finance all optimise for different outcomes. The problem comes when those local priorities create enterprise gridlock. Faster delivery depends on clear decision rights and leaders who can resolve trade-offs at programme speed.

The customer is also part of the delivery system. One experienced defence perspective argued that schedule and cost problems can be driven as much by changing customer requirements as by supplier or prime performance. Pushing more contractual risk down the chain does not remove that underlying dependency; it can simply move pressure onto organisations least able to absorb it.

Governance remains essential in this sector. The challenge is distinguishing necessary assurance from accumulated process. Several conversations pointed towards a dual approach: protected, multidisciplinary environments where teams can test and learn quickly, followed by disciplined routes into certification and industrialisation.

The same applies to M&A and external technology. Capability can be acquired quickly. Integration takes longer. Different cultures, development rhythms and ways of working do not disappear when ownership changes.



WHAT THIS MEANS

The operating model has to help people make good cross-functional decisions quickly. More resource will not solve a system that is slow at resolving trade-offs, integrating new capability or managing customer change.

Leadership has to connect the system.

Every issue in this paper eventually reaches leadership. Industrial readiness requires investment choices. Supplier resilience requires different relationships. Architecture requires technical trade-offs. Digital transformation requires organisational change. Knowledge transfer requires long-term planning. Faster execution requires accountability across functions.

Technical credibility still matters, but depth cannot become a silo. Strong engineering leaders increasingly need to understand industrialisation and commercial consequence. Operations leaders need enough understanding of product architecture and technology to make better trade-offs. Supply-chain leaders need operational credibility as well as negotiating skill.

The conversations also made leadership sound more practical than a list of competencies. Leaders need to get out of the building, close to customers, suppliers, technology and the wider market - because the environment is changing too quickly to understand entirely through internal reporting.



Selection matters too. One contributor described a significant improvement in senior-hire outcomes after moving away from an over-reliance on previous experience and placing much more weight on behaviour, attitude and response under pressure. Experience is important, but a career history tells us what someone has done, not necessarily how they will behave when conditions deteriorate, priorities collide or a plan fails.

Succession therefore needs to look beyond job titles. Which leaders can work across engineering, manufacturing, supply chain and customers? Where is critical judgement concentrated in one person? Which capabilities take years to build? Where does the business have deep functional talent but too little enterprise breadth?

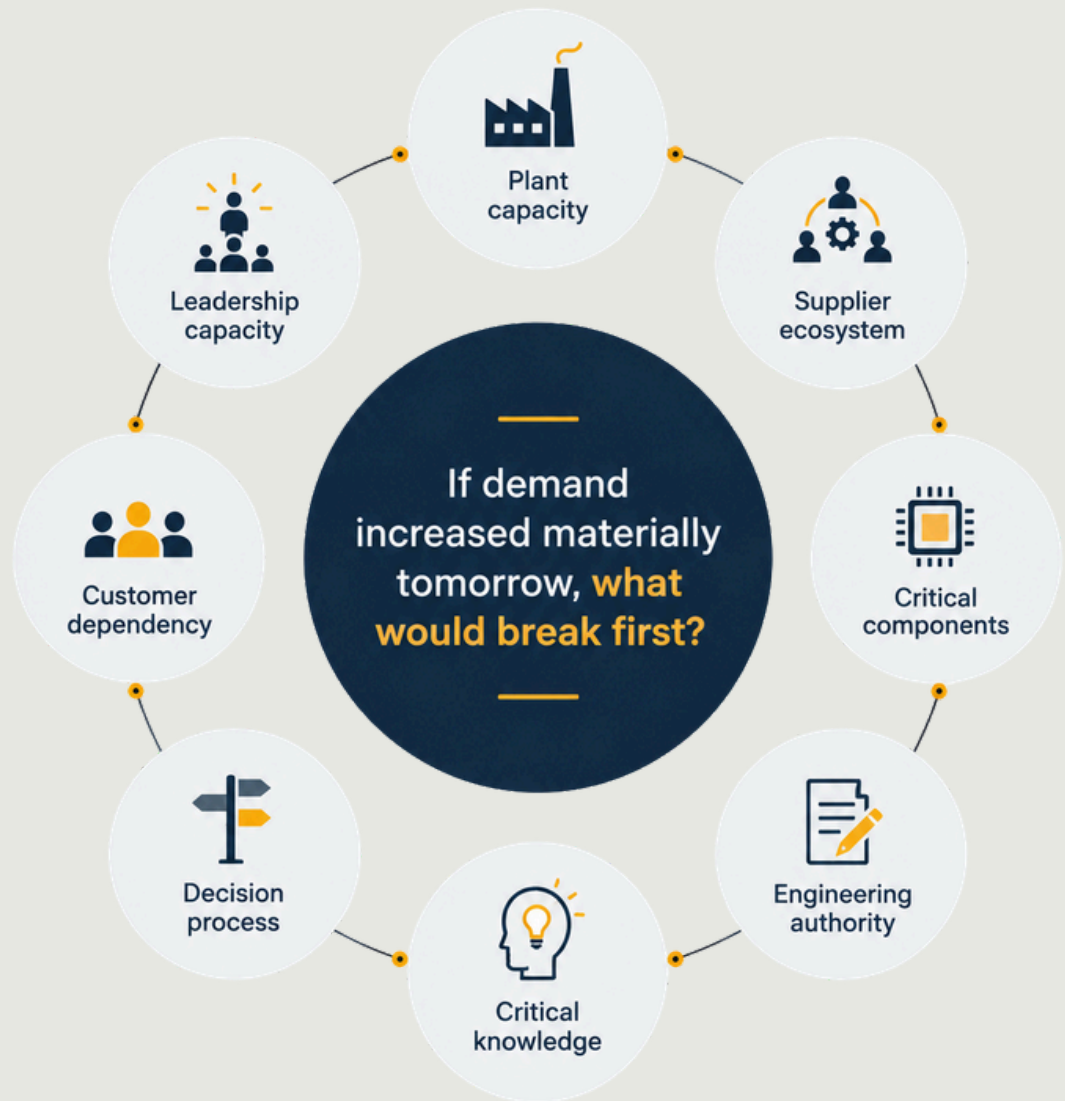
Defence also competes for people whose skills are highly transferable into software, AI, autonomy and the wider technology market. A credible mission helps, but so does an environment where talented people can see that ideas move, decisions get made and intelligent experimentation is supported.

WHAT THIS MEANS

The leadership question is not simply who has the closest experience. It is who can join the dots, make trade-offs under pressure, work across boundaries and keep learning as the system changes.

What would break first?

The six themes point to a simple diagnostic. If demand increased materially tomorrow, what would break first? The answer often reveals more about readiness than the order book alone.



1 Plant, tooling or test capacity

2 A lower-tier supplier, process or material

3 A critical component or engineering authority

4 Technical knowledge held by too few people

5 A decision process or unclear accountability

6 Customer dependency or unstable requirements

7 Architecture or digital integration

8 Leadership capacity or succession

Five questions for the boardroom

01	If demand increased materially tomorrow, what would break first, and what would the impact be on revenue, margin and customer commitments?
02	Where is our biggest hidden industrial dependency, and do we have a credible alternative if it fails?
03	Which legacy product, architecture or technical decision is creating the greatest drag on margin, engineering capacity or delivery, and have we made a deliberate decision to fix, replace or live with it?
04	Which parts of our approval, decision and operating model are slowing the adoption and industrialisation of new technology, and who has the authority to remove that friction?
05	Where are critical knowledge and judgement concentrated in too few people, and are we building leadership depth fast enough to reduce that risk?

The important point is that these questions are connected. Weak architecture creates extra engineering demand. Scarce expertise slows decisions. Slow decisions affect production. Production pressure increases strain on suppliers. Programme pressure leaves less room for transformation. The system can compound its own weaknesses, so the response has to connect them too.

Beyond demand

Aerospace & Defence has no shortage of opportunity. The challenge is turning that opportunity into dependable delivery while the technology, industrial base and operating environment are all changing at once.

The organisations best placed for the next cycle will do more than add capacity. They will understand their supply chains beyond Tier 1, design products for adaptation, protect engineering knowledge before it disappears, create faster decision loops, build practical routes from experimentation into industrial delivery and become more comfortable integrating external technology while retaining control of the architecture that matters.

Above all, they will need leaders who can connect engineering and manufacturing, prime and supplier, hardware and software, experience and new skills, innovation and assurance, customer requirement and industrial reality.

**Demand creates the opportunity.
Readiness determines who converts it.**

CONTINUING THE CONVERSATION

We are continuing these confidential conversations with leaders across aerospace and defence. If any of these issues resonate, we would be interested in comparing perspectives.



About Holmes Noble

Holmes Noble is a talent and leadership consultancy helping organisations transform, grow and build the leadership capability they need for the future. Going beyond traditional executive recruitment, we provide Executive Search, Executive Interim, Assessment, Coaching & Leadership Development, Consulting and Transformation Talent Programmes. Our approach begins with a deep understanding of each organisation, its strategy, culture, ambitions and challenges, enabling us to identify not simply the talent required today, but the people, behaviours and capabilities that will support long-term success. Combining specialist market insight, rigorous research and assessment, and creative thinking, we identify and engage exceptional talent capable of making a meaningful and lasting impact.

Operating internationally across complex and changing markets, Holmes Noble partners with organisations throughout the UK and globally, with particular expertise across Industrial, Aerospace & Defence, Transport, Infrastructure, Energy, Supply Chain & Logistics and Private Equity. Our support extends beyond the appointment itself, working in partnership with clients to strengthen leadership, develop capability and deliver sustainable transformation. By bringing together executive talent, leadership development and organisational insight, we help businesses navigate change, unlock potential and achieve their ambitions. Our purpose is simple: to advance businesses through people.



Katie-Ann Poxon

**Partner - Global Industrials &
Head of Assessment**



Ross White

Consultant - Global Industrials



Executive search and leadership insight for organisations navigating growth, transformation and complex industrial change.

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