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THE TALENT CONUNDRUM: PART 3

Succession as a Strategy: Why Succession Planning Is a Competitive Advantage in Composites & Advanced Engineering

Executive Summary

In composites and advanced engineering, skills are scarce, learning curves are long, and critical knowledge is often held by a small number of highly experienced individuals. Despite this, succession planning remains underdeveloped across much of the sector - particularly in SMEs and high-growth businesses.

This paper argues that succession planning is no longer a discretionary leadership activity or a "nice to have" reserved for large corporations. In talent-scarce, specialist industries, succession planning is **a core risk-management and growth strategy**.

The cost of losing key technical or leadership talent in composites is disproportionately high. Time-to-competence for many specialist roles can range from 12 to 36 months. In the absence of structured succession planning, organisations face increased operational risk, delayed programmes, loss of tacit knowledge, weakened customer confidence, and reduced attractiveness to investors and future talent.

At the same time, succession planning delivers significant upside. It strengthens retention, accelerates internal mobility, preserves institutional knowledge, builds leadership depth, and signals long-term intent to employees, customers, and stakeholders.

This paper explores:

- Why succession planning matters more in composites than in many other industries.
- The specific risks of not planning for succession in advanced engineering.
- How succession planning supports retention, resilience, and growth.
- What effective succession planning looks like in practice.
- How organisations can move from reactive replacement to proactive capability building.

The conclusion is clear:

In composites and advanced engineering, succession planning is not about replacing people – it is about protecting capability and securing the future of the business.

The Context: Why Succession Is Different in Composites

Composites and advanced engineering occupy a unique position within the industrial landscape. The sector underpins critical industries - aerospace, defence, EVs, hydrogen, renewables, marine, and infrastructure - yet relies on highly specialised skills that take years to develop.

Key characteristics include:

- Long learning curves for technical and process roles.
- Heavy reliance on tacit, experience-based knowledge.
- Specialist equipment, processes, and certifications.
- An ageing workforce in many sub-sectors.
- Limited external talent pools.

In this context, the sudden loss of a single individual can create a disproportionate impact. Succession planning is therefore not about hierarchy - it is about **continuity of capability**.

The Hidden Risk of "Key Person Dependency"

Many composites businesses depend on a small number of critical individuals:

- Master laminators and composite technicians.
- Process and manufacturing engineers.
- Tooling specialists.
- Quality, inspection, and NDT experts.
- Programme and technical leaders.

Often, these individuals are:

- Deeply embedded in daily operations.
- Informal holders of undocumented knowledge.
- Customer-facing or approval-critical.
- Difficult to replace externally.

When such individuals leave - through retirement, illness, burnout, or recruitment by competitors - the consequences can include:

- Production delays.
- Quality and audit risk.
- Loss of customer confidence.
- Increased rework and waste.
- Missed tenders or programme milestones.

Succession planning reduces single-point-of-failure risk by ensuring that capability is shared, documented, and developed across multiple individuals.

Time-to-Competence: The Succession Reality

In many composites and advanced engineering roles, recruitment does not equal readiness.

Typical time-to-competence can include:

- 12-18 months for skilled shop-floor roles.
- 18-36 months for complex process or engineering roles.
- Longer still where specialist equipment, standards, or customer approvals apply.

Without succession planning, organisations are forced into a reactive cycle:

1. A key individual leaves.
2. A replacement is hired.
3. Productivity drops.
4. Existing teams are stretched.

5. Knowledge gaps emerge.
6. Risk increases.

Succession planning shortens this cycle by:

- Identifying future capability early.
- Allowing shadowing and mentoring.
- Building confidence before transitions occur.
- Reducing the "cold start" effect.

Succession Planning as a Retention Tool

In talent-scarce markets, people often leave not just because of pay, but because they cannot see a future.

Succession planning improves retention by:

- Creating visible progression pathways.
- Signalling long-term investment in individuals.
- Providing development opportunities for high-potential employees.
- Reducing frustration and stagnation.

For younger or mid-career professionals entering the composites industry, clarity matters. When people can see how they might progress - technically or into leadership - they are more likely to stay and commit to the long learning curves the industry demands.

Succession planning sends a powerful message:

"You are part of our future, not just our current workload."

Knowledge Transfer: Protecting the Unwritten Advantage

Much of the competitive advantage in composites is undocumented:

- Process "feel" and judgment.

- Material behaviour nuances.
- Workarounds and lessons learned.
- Customer expectations and relationships.
- Quality and inspection instincts.

This tacit knowledge is rarely captured in procedures or manuals.

Succession planning forces organisations to:

- Identify where critical knowledge sits.
- Create opportunities for mentoring and shadowing.
- Document processes and decision logic.
- Build multi-skilled teams.

Without this, knowledge leaves with people - often permanently.

Succession Planning and Leadership Resilience

Succession planning is not limited to shopfloor or technical roles. Leadership continuity matters as much.

Investors, customers, and regulators increasingly look for:

- Leadership depth.
- Continuity of decision-making.
- Reduced dependency on founders or single leaders.
- Evidence of long-term organisational resilience.

In growing composites businesses, succession planning:

- Strengthens governance.
- Supports scale-up.
- Increases investor confidence.
- Reduces disruption during growth or transition.

Succession planning becomes a **strategic differentiator** rather than an administrative exercise.

What Effective Succession Planning Looks Like in Practice

Effective succession planning in composites and advanced engineering typically includes:

- Identification of critical roles (not just senior titles).
- Skills and capability mapping.
- Early identification of potential successors.
- Structured development plans.
- Mentoring and shadowing.
- Knowledge capture and documentation.
- Regular review as the business evolves.

It does **not** require:

- Guaranteed promotions.
- Rigid hierarchies.
- Large HR teams.

Instead, it requires intent, visibility, and consistency.

From Replacement Thinking to Capability Thinking

Traditional succession planning often focuses on replacing individuals.

In composites, a more effective approach is **capability-based succession**, which asks:

- What skills are critical to our future?
- Where are we exposed today?
- How do we build redundancy in capability, not just headcount?

This shift supports:

- Multi-skilling.
- Internal mobility.
- Faster response to programme volatility.
- Greater organisational resilience.

Conclusion

In composites and advanced engineering, succession planning is not just about preparing for retirement.

It is about:

- Protecting capability.
- Reducing risk.
- Retaining talent.
- Preserving knowledge.
- Enabling growth.

In an industry where people take years to develop and minutes to lose, succession planning is one of the most powerful - and underused - strategic tools available.

Those organisations that plan for succession will not only survive talent scarcity, but also outcompete those that do not.