

**Beyond the Resume: a strategic approach
to recruiting specialized talent in
safety-critical industries**

*"Enabling drones
to populate our skies"*



EMBENTION

Pioneers in autopilots and critical avionics systems for autonomous vehicles.

1 *Introduction*

In technology-driven industries, recruiting is never just an administrative process. In sectors such as aerospace, autonomous vehicles, robotics, and advanced electronics, hiring decisions directly influence how organizations build, scale, and deliver complex systems such as avionics platforms, embedded software, electronic hardware, flight control solutions, and mission-critical components.

In safety-critical environments, the importance of recruiting becomes even more evident. Reliability, quality, and performance are essential, and the people joining these organizations do not simply fill roles; they contribute to projects where precision, accountability, and long-term thinking matter from the very beginning.

For HR and recruiting teams, this context creates a specific challenge. It is not enough to publish job openings, review resumes, or coordinate interviews. Recruiting specialized talent requires understanding the nature of the project, what each team needs, which role-specific skills are truly relevant, and what kind of person can grow in a demanding and innovative environment.

This whitepaper presents a practical view of how to approach recruiting in highly specialized sectors. Drawing on experience from technology-driven environments such as Embention, it focuses on principles that can be applied broadly across organizations working with advanced engineering, safety-critical systems, and high-performance technology.

Recruiting in this context means understanding profiles, but also understanding tasks. It requires asking the right questions, learning from engineering and project teams, diving into the real responsibilities behind each role, and translating those needs into clear, human, and effective selection processes.

It also means identifying talent across highly specialized areas such as aerospace engineering, electronics, robotics, mechanical engineering, computer science, software development, systems engineering, and many other disciplines. But beyond knowledge and experience, it means recognizing initiative, humility, commitment, the ability to learn, communication skills, ownership, and genuine motivation to contribute to a meaningful project.

Behind every selection process there is more than an open position. There is a team that needs to keep moving forward, a project that requires excellence, and a person who may find an opportunity to contribute, learn, and grow.

2 *Recruiting in a safety-critical industry*

Recruiting for aerospace and autonomous vehicle sectors requires a different mindset. The systems developed in these fields are rarely isolated pieces of engineering; they are part of broader architectures where reliability, safety, performance, traceability, and long-term maintainability all matter.

Identifying the right talent is not only about matching a candidate's background with a job description. It is about understanding the level of responsibility behind each role and the impact that each team member can have on the final product or system.

In mission-critical systems, technical excellence is only one part of the equation. However, excellence is not only reflected in what a person knows today, but also in how they approach problems, how they learn, how they communicate, and how they respond when facing complexity.

For this reason, recruiting should look at each profile from a broader perspective. Academic background, specialized knowledge, hands-on experience, and project exposure are important, but they are only part of the picture. Motivation, curiosity, accountability, adaptability, and alignment with the organization's mission are equally relevant when identifying people who can contribute to long-term technological growth.

Personal values also play a key role. Building high-performing multidisciplinary teams is not only about bringing together strong individual profiles; it is also about creating a positive, collaborative, and healthy work environment. Humility, commitment, teamwork, flexibility, and adaptability are essential traits in organizations that need to innovate while maintaining high standards of quality and responsibility.

Being part of a dynamic and innovative setting often requires stepping beyond the limits of a fixed job description. Team members need to be willing to collaborate, support others, adapt to changing priorities, and contribute wherever their skills and attitude can add value.

The goal is not to find a perfect candidate on paper, but to identify profiles with the right combination of specialized potential, attitude, values, and commitment.



3 *Understanding the role before searching for the candidate*

One of the most important parts of specialized recruiting happens before the search even begins.

In highly technical environments, understanding the job title is not enough. A role name can provide a general idea of what the position involves, but it does not fully explain the real responsibilities, the challenges, the tools used, the level of autonomy required, or the way that position interacts with other teams.

For instance, similar job titles can represent very different day-to-day responsibilities. A systems engineering role may require understanding interfaces between hardware, software, communications, and mechanical constraints, while an electronics role may involve PCB design, testing, troubleshooting, or production support. A software role may require embedded development, verification, simulation tools, or automation. Understanding these distinctions before starting the search prevents the process from becoming keyword-based and improves the quality of the match.

Recruiting should therefore start with listening, asking questions, and learning from engineering and project teams. Before contacting candidates, it is essential to understand what the team really needs, what problems they are trying to solve, what type of background could bring value, and what kind of person could adapt well to the team's way of working.

A job description should be treated as a starting point, not as the full picture. Recruiters need to learn about the daily tasks behind each position, understand the difference between similar profiles, identify which skills are essential and which ones can be developed, and clarify what level of experience or academic background is truly relevant.

This approach allows the recruiting process to be more accurate, more transparent, and more human. Candidates receive clearer information about the opportunity, teams meet profiles that are better aligned with their needs, and HR becomes a bridge between people, engineering challenges, and long-term development..

Ultimately, understanding the role before searching for the candidate helps ensure that each selection process is not only focused on filling a position, but on finding a person who can truly contribute, grow, and succeed within the organization.



4 *Looking beyond the resume*

A resume is an important starting point in any selection process. It helps recruiters understand a candidate's academic background, professional experience, practical exposure, and the projects they have been involved in. However, a resume never tells the full story.

In highly specialized and fast-growing organizations, talent cannot be assessed only through job titles, keywords, or years of experience. Two candidates may have similar academic backgrounds or specialized knowledge, but very different ways of thinking, learning, collaborating, and facing challenges.

That is why effective recruiting means looking beyond the resume.

Recruiters should pay close attention to what candidates have done, but also to how they have done it. It is useful to understand the decisions they made during a project, the problems they had to solve, the tools they used, the level of responsibility they assumed, and what they learned from the experience.

A personal drone project, a robotics competition, a university electronics prototype, or a GitHub repository can sometimes reveal more about a candidate's curiosity and problem-solving mindset than a list of generic responsibilities.

This is especially important when evaluating young talent or profiles at an early stage of their professional career. These candidates may not have extensive professional experience yet, but they can show potential through a strong academic record, including a solid GPA, relevant university projects, hands-on experience, curiosity, motivation, and a clear willingness to learn. While academic performance can reflect consistency, discipline, and effort, it should always be considered alongside personal initiatives, hobbies, technical curiosity, and the candidate's motivation to keep learning and growing.

Potential is not an abstract concept. It can be seen in the way a candidate explains a project, how deeply they understand what they have worked on, how they respond to technical questions, and how they reflect on challenges, mistakes, and learning opportunities.

A strong candidate is not necessarily the one who knows everything from the beginning. Sometimes, the strongest profiles are those who demonstrate solid foundations, intellectual curiosity, genuine passion, resilience, and the right attitude to keep learning in a demanding and innovative environment.

Looking beyond the resume allows recruiting teams to identify people who may not only be able to perform a specific role, but also grow within that environment, adapt to new challenges, collaborate with different teams, and contribute positively to the workplace culture and long-term mission.

5 *The importance of soft skills in high-performing teams*

In highly specialized settings, soft skills are sometimes perceived as secondary. In reality, they are an essential part of performance, collaboration, and long-term growth.

Specialized knowledge allows team members to contribute to complex projects, but the way they communicate, collaborate, organize their work, and respond to challenges has a direct impact on the success of the team. In aerospace and safety-critical environments, where projects require precision, coordination, and accountability, soft skills become especially important.

A strong candidate needs to explain ideas clearly, ask precise questions, document decisions, listen to feedback, and work across disciplines. In complex projects, communication is not only about being clear; it is about preventing misunderstandings that can affect quality, timing, or system performance.

In a multidisciplinary project, a strong profile may need to explain a technical limitation to a non-specialist, document a decision clearly, or coordinate with quality, production, and engineering teams to solve an issue without losing focus on deadlines.

Ownership and responsibility are also key. This means being able to take initiative, follow through on commitments, identify problems, and contribute to solutions. In a fast-moving environment, waiting passively for instructions is rarely enough. Organizations need people who are proactive, reliable, and willing to take responsibility for their work.

Adaptability is another essential soft skill. Priorities can evolve, projects can change, and new challenges can appear quickly. For this reason, organizations benefit from people who are flexible, open to learning, and able to adjust while maintaining focus and quality.

Soft skills also influence the work environment. A team made up of talented people will only reach its full potential if those people are able to collaborate with humility, respect, and commitment. The way team members support each other, share knowledge, and contribute to a positive atmosphere is part of what allows organizations to grow sustainably.

For this reason, recruiting should not separate specialized skills from human skills. Both are necessary. The goal is to identify people who can bring knowledge, but also attitude; people who can contribute to projects, but also to teams; people who are ready to learn, adapt, collaborate, and grow with the organization.



6 *Candidate experience: a human approach to specialized recruiting*

A selection process is often one of the first direct interactions a person has with an organization. For this reason, recruiting is not only about evaluating candidates; it is also about representing the organization's culture and values from the very first contact.

A demanding and highly specialized process can also be human, clear, and respectful. Candidates should understand the nature of the business or project, what the role involves, what the process will look like, and what kind of environment they may become part of.

A clear explanation of the role, the project context, the interview stages, and the expected timeline can make a demanding process feel structured rather than intimidating.

This is especially important when recruiting for highly specialized positions. Many candidates may be familiar with engineering, electronics, software, or aerospace concepts, but they may not yet know the products, mission, or specific challenges behind the role. Part of the recruiter's role is to communicate this context in a clear and engaging way, helping candidates connect their background, interests, and ambitions with the opportunities available.

Candidate experience also means creating space for dialogue. Interviews are not only a moment for the organization to assess the candidate; they are also an opportunity for the candidate to understand the project, ask questions, and evaluate whether the organization is the right place for their professional growth.

Clarity and transparency are essential throughout the process. From the first message to the final decision, candidates should feel that their time is respected and that they are being treated with professionalism. Even when a process does not move forward, the way the decision is communicated matters.

A positive candidate experience helps build trust, strengthens the employer brand, and reflects the way teams are expected to work internally: with professionalism, approachability, respect, and commitment.

Ultimately, candidate experience is about creating meaningful connections: between people and teams, between specialized skills and real challenges, and between individual aspirations and the organization's long-term mission.

7 *Recruiting as a strategic partner for growth*

As engineering-driven organizations scale, recruiting plays a key role in building future capability. Building strong teams is essential to scaling operations, developing new capabilities, and responding to the needs of a fast-moving industry.

In this context, recruiting is not only about responding to current hiring needs. It is also about understanding the direction of the business, anticipating future talent requirements, and helping build the teams that will make that growth possible.

This requires close collaboration with team leaders, managers, and team members across different areas. By understanding organizational priorities, ongoing projects, and long-term goals, HR can better identify the type of talent needed not only for today, but also for the challenges ahead.

This becomes especially relevant when growth is connected to highly specialized knowledge, international expansion, and the development of complex, safety-critical systems. Recruiting must therefore combine a people-centered approach with a strong understanding of the business, the roles, and the market.

A strategic recruiting process also helps ensure alignment between candidates and the workplace culture. Hiring decisions influence not only individual performance, but also team dynamics, collaboration, and the way an organization continues to grow.

For this reason, every selection process is an opportunity to strengthen the team structure. Each new team member can bring knowledge, energy, perspective, and potential. When recruiting is done with care, role understanding, and cultural awareness, it becomes a driver of sustainable growth.

In highly specialized sectors, recruiting is ultimately about helping build the teams that will continue pushing innovation forward, supporting the organization's mission, and contributing to the future of aerospace, autonomous systems, and advanced engineering.

8 Conclusion

Recruiting in safety-critical and technology-driven industries goes far beyond filling open positions. It is about understanding the mission, the systems being developed, the teams being built, and the people who can help move everything forward.

In sectors where innovation, reliability, and safety are essential, every hiring decision matters. Each new team member contributes not only with professional expertise, but also with attitude, values, curiosity, and the ability to grow within a demanding and collaborative environment.

This is why recruiting requires both a strong understanding of each role and a human approach. It means looking beyond the resume, learning from teams, identifying potential, creating meaningful connections, and ensuring that each selection process supports long-term goals.

At its core, recruiting is about people: those who design, build, test, support, improve, and challenge complex systems every day. It is about individuals who bring ideas, energy, commitment, and the willingness to be part of something bigger than an individual role.

By attracting and selecting talent with care, intention, and purpose, HR helps build the teams that will continue driving innovation and contributing to the future of autonomous aviation and advanced engineering.

Because behind every great technology, there is always a great team.



9 About Embention

Embention is a leading provider of avionics and safety-critical components for unmanned systems, enabling advanced autonomous operations across various sectors. Since 2007, Embention's solutions have been deployed in more than 70 countries and integrated into different platforms including UAVs, eVTOLs and high-altitude drones.

Veronte Autopilot is at the core of this ecosystem, offering certifiable flight control with support for DO-178C and DO-254, along with flexible I/O and mission-configurable logic.

All Embention processes follow ISO 9001, EN 9100 and ISO 27001 standards, ensuring quality, safety and cybersecurity. The company is also certified as APDOA and POA, reinforcing its role as a strategic enabler for certified UAS operations in the European market and beyond.

Certifiable flight control

DO-178C & DO-254

ADOA & POA Certified



APDOA



POA



9001



27001



9100

