



Enterprise Development Grant - Automation

AI-Powered Recruitment Automation System for Enhanced Sourcing and Business Development

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Introduction

Calibr:e Pte Ltd, a specialist recruitment agency, seeks to implement a proprietary **AI-Powered Recruitment Automation System** to transform its core process of Candidate Sourcing.

Currently, these processes are resource-intensive, slow, and limit scalability. By automating the identification of hiring employers and the mass-but-personalized screening of top-tier candidates, Calibr:e projects a **3-5x increase in output** and a **20-40% increase in operational efficiency**, positioning the firm to deliver superior "white glove service" with greater speed and quality, and securing its competitive edge in the commodities, maritime, and technology sectors.



About the Company

1. Year of incorporation

The company was incorporated in 2023,

2. How Has The Company Progressed Over The Years? What Are Some Significant Milestones That The Company Has Achieved

Our unique value proposition lies in effectively bridging the gap between exceptional talent and leading companies, igniting transformative careers and propelling businesses to greater heights. What sets us apart is the genuine confidence we inspire in teams and organisations through high-calibre searches, always conducted with utmost discretion and confidentiality.

We take pride in going beyond mere transactions, and believe in the power of warm, genuine interactions. You'll find in us trusted advisors, passionate about your best interests. Your aspirations and growth matter to us deeply.

At calibr:e, we embody the spirit of true partnership, where professionalism meets genuine care. With us, you're not just another candidate or client; you're an essential part of our circle, our trusted network; our ever growing community.

3. Key Business Activities And Products/Services

As a "specialist recruitment agency," our main business is acting as an intermediary to fill job roles for clients. This involves providing "**white glove service**" to both employers and candidates, effectively shortening the hiring cycle.

The key activities in this area include:

- **Talent Acquisition and Matching:** The central task of finding, screening, and qualifying potential employees to match them with specific job requirements from employers.
- **Executive Search and Contingent Recruitment:** The search results indicate they likely perform both high-level **Executive Search** (for C-suite and senior management) and **Contingent Recruitment** (for specific, hard-to-fill roles).



- **Industry Specialization:** They focus intensely on a few high-value, niche sectors: **Commodities, Shipping & Maritime, Offshore Services & Start-ups,** and **Technology & Gaming.** This specialization is a core part of their service value.

4. Key Customer Segments/ Markets And Overseas Presence(If Any)

We focus on **executive search, contingent recruitment, and RPO solutions** (Recruitment Process Outsourcing) across several specialized industries:

- **Commodities & Renewables**
- **Shipping & Maritime**
- **Offshore Services & Start-ups**
- **Technology & Gaming**

We have also expanded our search to countries like Dubai, China, and Japan. However we currently do not have a fixed office in those countries.

5. Growth Plans And/Or Target For Internationalisation

Growth Plans, we are currently at a headcount of 4 with plans to increase our headcount by 2. We are also planning to expand to Indonesia for the near future, and future plans will be to expand to Switzerland as well.



About The Project (Process Re-design / Automation)

6. Describe the current state of your business operations or processes.

Calibr:e operates within a highly competitive recruitment landscape, where success depends on a unique balance of speed (to fill roles quickly) and quality (to secure the 'good-fit' candidate).

The current manual processes face several critical challenges:

Area	Current Challenge (The Pain Point)	Impact on Business
Candidate Sourcing & Qualification	The process is lengthy and extremely tiresome. Manually scraping information, filtering, conducting research, and matching CVs to Job Descriptions (JDs) is resource-intensive.	Leads to less-than-ideal candidates being presented to 'save face,' resulting in poor placement outcomes and potential reputational damage.
Efficiency & Cost	Manual execution requires significant headcount and time investment for repetitive tasks like scraping, basic filtering, and outreach personalization.	High operational cost and low output per recruiter, limiting the firm's ability to scale quickly.

7. Describe challenges or opportunities. Use figures where possible.

Calibr:e will implement an AI-powered, end-to-end recruitment platform, focusing on main automation modules: **AI Candidate Sourcing & Matching**.

AI Candidate Sourcing and Matching Automation

This module rapidly expands the candidate pool and uses AI to qualify and match candidates with unprecedented precision.

Step	Automation Activity	Technology Used
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1. Candidate Scrape & Filter	Scrape information of candidates online and filter by key criteria (industry, years in company, job titles, etc.).	Web Scrapers, Structured Data Filters
2. Personalized Outreach	Generate deep personalization for email subject lines and content. Automate multi-channel outreach (email + LinkedIn touchpoints/connects).	Generative AI / LLMs for Content Creation, CRM Integration
3. Database Enrichment	Automatically add anyone who is "open" or responds into the existing database. Automatically tag candidates for easy reference (e.g., Coding: Python, JSON, CFA, etc.).	CRM/Database Integration, LLM-based Categorization
4. JD-CV Matching & Screening	Use AI to perform a quantitative and qualitative JD-CV match using conditional mapping rubrics. Automatically screen the highest quality candidates based on preset criteria.	AI Matching Algorithms (Similarity Scoring), Conditional Rubrics Logic

8. Challenges:

1. Key Challenges and Risks

The primary challenges for this project will revolve around maintaining the human element—the "white glove service"—while scaling the output through automation.

Category	Challenge/Risk	Implication for Calibr:e
Data & Compliance	Legality of Data Scraping: Mass scraping of candidate information and automated outreach risks violating platform terms of service (like LinkedIn) or data privacy regulations (eg. PDPA).	Potential legal fines, account bans, and reputational damage.



Quality Control	JD-CV Matching Accuracy: The core of the quality assurance relies on the AI's "conditional mapping rubrics" . If the algorithm is poorly trained or misses subtle qualitative factors, it will generate more poor candidates, wasting recruiter time.	Damaged reputation with employers and a breakdown of the "white glove service."
Candidate Experience	Lack of Deep Personalization: If the "deep personalization" feels robotic, candidates will ignore the outreach or feel treated impersonally. Candidates are described as "impatient and demanding" and want to feel "taken care of."	Poor conversion rates, a low response pool, and candidates opting out of the database.
Technical & Maintenance	System Integration and Downtime: Implementing and maintaining a complex, bespoke system across various platforms (scraping, email, LinkedIn, internal database) requires ongoing technical expertise. A system failure halts the entire high-volume workflow.	Unexpected costs for repairs, reliance on external developers (nano AI), and loss of efficiency gains.

9. Opportunities

The opportunities are directly tied to the project's ability to achieve its efficiency and scalability goals, giving Calibr:e a powerful competitive edge.

Category	Opportunity/Benefit	Description and Value
Scalability & Cost Efficiency	3-5x Output at 1/3 Cost: This is the most significant financial opportunity. It allows Calibr:e to handle a much larger volume of searches and clients without proportional increases in human headcount or traditional costs (ads/networking).	Massive increase in revenue potential and profit margins compared to competitors.



Competitive Differentiation	Proprietary Technology Advantage: Moving from traditional sourcing (ads/networking) to a "proprietary, technology-driven workflow" creates a strong Unique Selling Proposition (USP). They can position themselves as the "future of specialized recruitment."	Attracting premium clients who value speed and efficiency, leading to market share gain in niche sectors.
Database Asset Creation	Building a Tagged Talent Pool : The automated process of identifying and tagging candidates (e.g., "Coding (Python, JSON, etc), CFA, etc") creates an invaluable, constantly updating talent database.	Future searches become instantaneous and cost-free, making the company exponentially more efficient over time.
Service Speed & Quality	Effective Shortening of Reward Cycle: By generating quantity rapidly, the agency can deliver a qualified shortlist to the employer faster, thus solving the client problem of being "impatient for roles to be filled."	Higher client satisfaction, repeat business, and a stronger brand reputation for fast, quality placements.

AI Automation Project Goal: Breaking the Quality-Speed Trade-Off

This project aims to solve the unique problem in specialist recruitment where **Quality** (finding the right fit) traditionally conflicts with **Speed** (filling the role quickly).

The Solution: Injecting Quantity

The AI workflow's primary mechanism to achieve both quality and speed is through a massive increase in **Quantity**—the size of the talent pool reviewed.

Traditional Recruitment: Speed ↓ $\iff$ Quality ↑

Calibr:e's AI Automation: AI Quantity + AI Screening $\implies$ Speed ↑ $\wedge$ Quality ↑

- Quantity: 3-5x the output of candidates sourced and employers targeted.



- AI Screening: The Conditional Mapping Rubrics (JD-CV Match) is the critical AI step that filters this high volume to preserve Quality.

How will the project address the above challenges/ opportunities?

Challenges

Addressing Challenges: Mitigation and Safeguards

The project minimizes risk by embedding quality control and personalization directly into the automated process, allowing the human recruiters to focus on the high-touch, **"white glove service"** that the AI cannot replicate.

Challenge	Mitigation Strategy in the Workflow
Data & Compliance	Smart Scraping & Database Control: While scraping risks are real, the mitigation is to focus on public data sources, and only capture data for those who respond to the outreach ("Anyone that is open, add them into your database"). This shifts compliance risk from mass storage to controlled engagement.
Quality Control	Conditional Mapping Rubrics: This is the most crucial quality safeguard. The JD-CV match must use detailed, human-validated rules (the "conditional mapping rubrics") to drastically filter the high volume of scraped candidates. Human recruiters only screen the AI's top-tier output.
Candidate Experience	Deep Personalization & Human Hand-Off: To prevent outreach from feeling robotic, the process mandates deep personalization via AI to ensure relevance. More importantly, only the "highest quality ones" are passed to the human recruiter, guaranteeing the final stages are handled with the desired "white glove service."
Technical & Maintenance	Bespoke System Reliance: The project is delivered by nano AI, suggesting the maintenance burden is outsourced to the provider who built the system. This mitigates the risk of the agency needing to develop deep in-house technical support for the complex integrations.



Strategies to Overcome Challenges:

Opportunity	Execution and Value Realization
Scalability & Cost Efficiency	Realization: By automating the most tiresome and time-consuming tasks (sourcing, filtering, outreach) , the agency expects to achieve the 3-5x output at less than a third of the cost goal, shifting resources from administrative searching to high-value client/candidate engagement.
Database Asset Creation	Realization: The process of adding only open candidates and meticulously tagging them for easy reference (Through Coding (Python, JSON, etc), CFA, etc) means Calibr:e builds a permanently curated, high-value talent pool. Future searches become instant queries against their own proprietary data, maximizing efficiency.
Competitive Differentiation	Realization: The use of proprietary technology for mass, deep research and an advanced JD-CV matching system moves the agency beyond traditional methods (ads or networking). This technological edge becomes the main Unique Selling Proposition (USP) to attract top clients.



Service Speed & Quality	Realization: By using AI to screen and qualify, the time-to-shortlist is drastically reduced. The recruiters no longer sift through hundreds of CVs; they immediately begin working with the "highest quality ones". This shortens the employer's "reward cycle" , leading to high satisfaction.
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The project is structured so that the AI handles the **quantity** and **filtering**, enabling the human recruiters to focus their energy entirely on the **quality** of client and candidate relationships, which is where the **speed** of placement truly accelerates.

What productivity improvements do you expect to derive from the project? (please illustrate with before and after productivity indicators)

The project's central premise is that AI can handle the "tire-some" and high-volume tasks (sourcing, filtering, initial outreach), freeing up human recruiters to focus solely on high-value, quality-driven engagement (the final screening and placement).

Productivity Indicator	Before Implementation (Traditional Manual Process)	After Implementation (AI Automated Workflow)	Improvement % / Multiplier
Candidate/Employer Output (Volume of Profiles Sourced)	1x (Output of a single recruiter/manual process)	3x to 5x	+200% to +400%
Process Efficiency (Time saved on screening, outreach, filtering)	100% (Manual screening, copy-paste outreach, physical filtering)	20% to 40% more efficient (Time dedicated to high-value screening only)	+20% to +40%



Cost per Output Unit (Relative Cost vs. Headcount)	1x (Full salary and overhead for an additional recruiter)	Less than a third (33%) of the cost of an additional headcount	-67% (Cost Reduction)
Database Asset Value (Proprietary Data Pool)	Low (Dependent on job applications and ad-hoc networking)	High (Continuously tagged and qualified pool of "open" candidates)	Invaluable (Creates a long-term strategic asset)

Describe the reasons for your choice of consultant and/ or solution provider (if applicable).

3NMP PTE. LTD. Is chosen as our AI consultant primarily because their journey demonstrates a **practical, results-driven, and validated approach** to integration, setting them apart from purely theoretical firms. Their initial success providing media production for established institutions like **NUS and NIE** proves their ability to meet high professional standards. This foundation in content and successful expansion into **digital advertising for SMEs** means they understand core business needs, marketing strategy, and the necessity of high-quality output—insights crucial for effectively implementing Generative AI.

Most importantly, 3NMP's evolution into AI automation was not abstract; they have **internally validated their systems** by successfully deploying AI-driven workflows for **cold email outreach and business development** to acquire new clients. This practical experience ensures their consulting is not based on unproven concepts but on **real-world, successful deployments** that directly impact a company's bottom line by streamlining operations, improving efficiency, and reducing manual workload. Therefore, Calibr:e chooses 3NMP for their unique blend of creative understanding, professional reliability, and **demonstrated capacity to build and use AI tools effectively** to achieve tangible business results.



Project Milestones

The project will be executed over an estimated 6-9 month period.

Phase	Duration	Key Activities & Deliverables
Phase 1: Planning & Setup	1 Month	Finalize technical specifications, acquire necessary software licenses, set up core cloud infrastructure, and establish data security protocols.
Phase 2: AI Business Development Module Development	2-3 Months	Develop and deploy web scraping tools (Job Listings), integrate LLMs for contact/company research, and build the personalized outreach content generation tool.
Phase 3: AI Candidate Sourcing Module Development	2-3 Months	Develop and deploy candidate scraping tools, build the database enrichment and tagging logic, and train the JD-CV matching algorithm with conditional rubrics.
Phase 4: Integration, Testing & Training	1 Month	Integrate the two modules with Calibr:e's existing systems (CRM/database). Thorough system testing and UAT (User Acceptance Testing). Comprehensive training for all recruitment consultants.