

CURRICULUM VITAE

Boris DUPOUX

boris.dupoux@centrale-marseille.fr | +596 696 809 008 | linkedin.com/in/boris-dupoux-63274b38

1. PERSONAL INFORMATION

Name: Boris Dupoux

Date of birth: June, 16th 1986

Nationality: French

Current position: Director & Co-Founder, Capture (Process Mapping & Automation)

Languages: French (native), English (fluent), Mandarin (basic), German (basic)

2. EDUCATION

2006–2009 **Diplôme d'Ingénieur (M.Eng. equivalent)**

École Centrale Marseille, France

- Specialization: Project Management & Industrial Engineering
- Entrepreneurship & Business Management track
- Top-tier French engineering school (Grandes Écoles system, highly selective CPGE entry)

2003–2006 **Classe Préparatoire aux Grandes Écoles (CPGE PC*)**

Lycée Carnot, Dijon, France

- Intensive 3-year programme in mathematics, physics, and chemistry preparing for national competitive exams

3. RESEARCH INTERESTS & EXPERTISE

My work sits at the intersection of industrial engineering, applied AI, and operational process design.

Over 14+ years I have developed deep practical expertise in:

- Process mapping, analysis, and optimization in complex multi-site environments
- Computer vision for industrial inspection: crack detection in civil structures, vegetation health analysis, network identification from aerial imagery
- Remote sensing and predictive modelling: satellite-based algae detection and stranding prediction, drone-based multispectral crop assessment, airborne pollutant detection (gas/hydrocarbons, day/night)
- 3D vision and geopositioning: monocular depth estimation and object localisation from single-camera drone scenes
- Document automation and intelligent data processing (OCR, NLP, cross-document reconciliation)
- ERP integration, lifecycle data management, and digital transformation of legacy workflows
- Change management and technology adoption in large organisations
- Product development and industrialisation (design-to-production, international supply chains)

I am particularly interested in applied research that bridges the gap between AI/automation technologies and real-world industrial operations — translating laboratory methods into deployable, measurable solutions.

4. PROFESSIONAL EXPERIENCE

Industry & Entrepreneurship

2024–present **Director & Co-Founder**

Capture | Martinique

- Founded and lead a process mapping and document automation company serving 15 client groups (50% recurring)

- Design and deploy AI-powered automation: OCR extraction, document reconciliation, form filling, ERP alerting
- Developed proprietary AI tools (Python, LLM integration) that halved project delivery time
- Deliver x2–x10 measured ROI per engagement across transit, wholesale, retail, and accounting sectors
- Full-cycle consulting: field observation, process documentation, solution design, deployment, training, adoption monitoring

2024–present **Co-Founder**

[Carige](#) | [Martinique](#)

- Drone and satellite-based technical data acquisition and processing for agriculture, environment, and infrastructure
- Developed computer vision algorithms: vegetation detection and plant counting in banana plantations, millimetre-precision crack detection in civil structures, network identification from aerial imagery
- Built satellite imagery analysis pipeline for Sargassum algae detection and stranding prediction (Caribbean coastlines)
- Researched monocular depth estimation methods for 3D object distance computation and geopositioning from single-camera drone scenes
- Developed drone-based pollutant detection system (gas and hydrocarbons) for day and night operations, targeting mobile sources (vessels, machinery) in maritime and industrial zones
- GIS data processing pipeline for utility clients (EDF): line scanning, pole inspection, helicopter data processing

2024 **After-Sales Director (49 reports)**

[Groupe Citadelle](#) | [Martinique](#) • 5 territories

- €300M automotive group, 800+ employees, 15 brands across French overseas territories + Iceland
- Redesigned workshop processes: +15% throughput, +5pts customer retention, +10–25pts call answer rates
- Deployed planning/scheduling tools and coordinated change management across multiple sites
- Implemented KPI dashboards for continuous monitoring and data-driven decisions

2022–2024 **Customer Experience Director (27 reports)**

[Groupe Citadelle](#) | [Martinique](#)

- Built CX function from scratch: call centre, CRM deployment, omnichannel marketing, e-commerce UX/UI redesign
- Created performance dashboards to track adoption and surface gaps across all customer channels

2021–2022 **Head of Business & Technology Development**

[Groupe Citadelle](#) | [Martinique](#)

- Led innovation scouting and cross-functional technology adoption projects

2022 **Chief Financial Officer**

[Smartbiotic \(biotech startup\)](#) | [Martinique](#)

- Financial strategy for a startup addressing antibiotic resistance in developing countries

2018–2021 **Business Advisor – Innovation & Startups**

[CCI Martinique](#) | [Fort-de-France](#)

- Coached 21 startups + 15 SMEs via the “Village by CA” accelerator (24 months, daily coaching)
- Brokered 15 corporate–startup partnerships; built the regional innovation ecosystem
- Facilitated workshops on digital transformation, strategy, and entrepreneurship

2013–2017 **Founder & CEO**

Vibe – Lighting Manufacture | Martinique

- Designed, manufactured, and commercialised decorative lighting fixtures
- Awarded French Tech Innovation Grant (BPI France, 2016)

2012–2013 **Technical & Industrial Manager**

Bergès (lighting manufacturer, 20 staff, €1.6M) | France

- Industrial turnaround: new production processes, key accounts (Roche-Bobois, Ligne Roset, Brussels Airport)

2009–2012 **Product Manager – R&D & International Sales**

Smart & Green (wireless LED startup, €3.5M) | France & China

- Built product line from zero; industrialisation in China; sales to hospitality sector in 13 countries
- Co-invented 2 European patents (wireless device pairing, modular LED architecture)
- Managed cross-cultural R&D team (French designers, Chinese manufacturing engineers)

5. TEACHING EXPERIENCE

2021–2022 **Lecturer (6 months)**

ICEA Catholic Institute | Fort-de-France, Martinique

- Courses taught: Human Resource Management, Strategy & Leadership, Digital Culture
- Audience: undergraduate and continuing education business students

2018–2021 **Workshop Facilitator & Coach**

CCI Martinique – Village by CA

- Facilitated innovation workshops, design thinking sessions, and strategy seminars for entrepreneurs
- Daily individual coaching of company founders on business model, digital strategy, and team management

2021–2022 **Community Lead**

French Tech Martinique

- Organised technology community events, meetups, and startup showcases

Ongoing **Tutor**

Internat de la Réussite

- Academic mentoring for underserved students

6. PATENTS

1. EU Patent WO2014016503 – “Wireless Device Pairing Method” (2014)

Method for pairing wireless devices with a control module in a lighting control network.

2. EU Patent EP2532944 – “Modular LED Lighting Module and Luminaire” (2012)

Architecture for modular, low-consumption lighting modules with standardised electrical connections.

7. APPLIED RESEARCH & DEVELOPMENT PROJECTS

The following projects were conducted within Capture and Carige, combining field data acquisition, algorithm development, and deployment in real-world operational contexts.

Precision Agriculture — Vegetation Detection & Plant Health Analysis

Drone-based multispectral imaging pipeline for banana plantations. Developed vegetation detection and individual plant counting algorithms, combined with spectral analysis (NDVI and custom indices) to assess plant health status, identify stress patterns, and support agronomic decision-making.

Marine Environment — Satellite-Based Sargassum Detection & Stranding Prediction

Satellite imagery analysis system for detecting Sargassum algae rafts at sea. Developed predictive models to anticipate stranding locations and quantities along Caribbean coastlines, enabling municipal and environmental authorities to plan cleanup operations in advance.

Civil Engineering — Sub-Millimetre Crack Detection in Structures

High-resolution drone inspection system for civil engineering structures (bridges, buildings, infrastructure). Developed computer vision algorithms for millimetre-precision crack detection in concrete and masonry materials, enabling non-destructive structural health monitoring.

3D Vision — Monocular Depth Estimation & Object Geopositioning

Research and development of monocular depth estimation methods to compute 3D distances of objects from a single camera scene. Integrated GPS/IMU metadata for automated geopositioning of detected objects without stereoscopic equipment, applicable to infrastructure surveys and mapping.

Infrastructure Mapping — Network Identification from Aerial Imagery

Detection and segmentation of linear networks (power lines, roads, pipelines, waterways) from drone imagery. Developed image processing and deep learning pipelines to automatically identify and map network topology for utility and infrastructure management.

Environmental Monitoring — Pollutant Detection by Drone (Day & Night)

Drone-based detection system for gas and hydrocarbon pollutants, operational in both daytime and nighttime conditions. Designed for monitoring mobile pollution sources in maritime and industrial zones: fuel leaks from vessels, machinery spills, and hydrocarbon discharge in port areas and coastal waters. Combines thermal/infrared imaging with visible-spectrum analysis to detect and localise pollutant traces on moving targets.

8. AWARDS & GRANTS

– French Tech Innovation Grant (BPI France, 2016) – Awarded for the creation of Vibe lighting manufacture

9. TECHNICAL SKILLS & TOOLS

Programming & AI: Python, OCR pipelines (Tesseract, custom models), LLM integration (OpenAI, Ollama/local), computer vision (OpenCV, YOLO), TTS/voice cloning (XTTS v2), depth estimation, spectral analysis

Data & Systems: SQL, Google Apps Script, ERP integration, CSV/data pipeline automation, GIS processing (Agisoft Metashape, QGIS), satellite imagery analysis

Infrastructure: Linux/Windows server administration, VMware/ESXi virtualisation, GPU computing (RTX 3090), Docker

Process & Management: Process mapping, BPM, KPI design, CRM deployment, change management, Lean/continuous improvement

Hardware: Drone operations (multispectral, thermal/infrared, LiDAR, high-resolution RGB), photogrammetry, industrial prototyping

10. INTERNATIONAL EXPERIENCE

My career has been shaped by sustained international exposure:

- 3 years based in China (Shenzhen/Guangzhou) managing product industrialisation and R&D collaboration
- Commercial operations across 13 countries in Europe, Middle East, and Asia-Pacific (hospitality sector)
- Multi-territory management: 5 French overseas departments + Iceland (Groupe Citadelle)
- Professional collaborations with Scandinavian companies and designers (Georg Jensen, Danish design studios)
- Extensive travel across Europe, Asia, and the Americas

11. MOTIVATION FOR ACADEMIC / RESEARCH CAREER

After 14 years building, optimising, and transforming operations across industries and continents, I am seeking to contribute to applied research and education in a university or research institution environment. My motivation is threefold: (1) to formalise and share the practical knowledge I have accumulated at the intersection of process engineering, AI, and organisational change; (2) to conduct rigorous applied research on how computer vision, remote sensing, and AI can be effectively deployed in real-world settings — from precision agriculture and environmental monitoring to structural inspection and industrial process automation; and (3) to mentor the next generation of engineers and entrepreneurs, drawing on both successes and failures from my own journey. Finland appeals to me deeply — both for the quality of its research ecosystem and for a personal affinity with Nordic values of transparency, precision, trust, and work-life balance. I have collaborated professionally with Scandinavian companies, and I see Finland as the ideal environment to pursue this next chapter.