1. **Team identification**
2. **Partners**
3. **Strategic Alliances:**

* Industrial Safety Integrators – companies that already install safety systems (e.g., light curtains, PLCs) and can offer SmartVision as an add-on

They already have access to factory floors and trusted relationships with safety managers. This reduces our sales effort and speeds up deployments.

* Edge AI Ecosystem Players (e.g., NVIDIA Metropolis) – collaborations for access to hardware discounts, software updates, and early access to new tech

Provides access to early hardware releases, discounted Jetson boards, optimised SDKs (DeepStream), and co-marketing opportunities.

1. **Joint Ventures:**

* Innovation Hubs or Industrial Accelerators – collaborate on testing, scaling, or certifications (e.g., EIT Manufacturing, PRODUTECH)

Ideal for pilot testing, real-environment validation, and certification support (e.g., ISO 13849, CE marking). Also connects to large industrial clients through demonstration programmes.

* Universities and Research Labs

Enhances credibility and may open public funding channels (e.g., Horizon Europe)

1. **Suppliers:**

* Hardwate Providers:
  + NVIDIA distributors (Jetson Orin NX boards)
  + Industrial Camera Vendors (Basler, Dahua, Arducam)
  + Power Supply and Encluser Suppliers (IP65, DIN-rail)

Modular procurement from trusted OEMs enables custom installations and better support across varied factory setups.

* Software/ML Tools:
  + Core detection models like **YOLOv8**, **YOLO-Pose**, **MediaPipe**, **RTM-Pose** enable pose estimation, object detection, and real-time inference.
  + Tools for **synthetic data generation** (e.g., Synthetik, Unity Perception Toolkit) can help improve model robustness in rare or dangerous scenarios (e.g., falls, PPE violations).

These tools speed up development and reduce time-to-market without large internal ML teams.

1. **Key resources**
2. **Physical Assets:**

* Jetson Orion NX (16GB) edge computing units – core of the SmartVision processing module, enabling real-time AI inference.
* Industrial-Grade Cameras – USB3 or PoE cameras, selected for robustness and compatibility with pose estimation models.
* Mounting Systems & Enclosures – custom brackets, ceiling mounts, and optional IP65-rated protective cases for industrial environments.

1. **Patents:**

Currently, no registered patents. However, potential for future protection exists in areas like adaptive zone learning and factory-specific pose modeling.

1. **Trademarks:**

* **“NAME”** brand name under evaluation for trademark registration (national and EUIPO)
* Logo and visual identity created; formal registration planned before market launch

1. **Human Resources:**

* Embedded systems & edge computing developers - develop and maintain the on-device AI pipelines and edge infrastructure.
* UX/UI designer for dashboard and configuration tools - responsible for a user-friendly interface, allowing intuitive dashboard usage and zone configuration.
* Business development and industrial sales lead - focused on industrial sales, partnerships, and enterprise onboarding.
* Field technician(s) for pilot deployment and client support – manage installation, calibration, and customer support during pilots and rollouts.

1. **Financial Resources:**

* Initial funding sourced via university innovation grants or national R&D programmes.
* Bootstrapping early development through low-cost prototyping and open-source tools (YOLOv8, DeepStream, etc.).
* Plans to seek angel investors or industrial partners for pilot expansion and production scaling.
* A SaaS-based recurring revenue model ensures lean but scalable growth after initial deployments.

1. **Key activities**
2. **Production Processes:**

* **Modular Assembly** – Combine Jetson Orin NX boards, industrial cameras, and IP-rated enclosures into a plug-and-play unit.
* **AI Pre-configuration** – Pre-load and test pose estimation, zone violation, and PPE detection models before shipping.
* **On-site Calibration** – Adapt SmartVision to each factory’s layout during installation (camera angles, restricted zones, lighting conditions).
* **Performance Validation** – Quality assurance testing of detection speed and accuracy before go-live.
* **Edge Device Maintenance** – Develop remote diagnostics, software update routines, and thermal management protocols for longevity.

1. **Marketing Strategies:**

* **Direct Outreach** – Targeted B2B LinkedIn campaigns to safety and innovation decision-makers in factories.
* **Trade Shows** – Participation in key events such as **EMAF (Portugal)**, **Hannover Messe (Germany)**, and **Smart Manufacturing Week**.
* **Channel Partnerships** – Co-branded offers with safety integrators who already operate in target factories.
* **Thought Leadership** – Publish real-world use cases, ROI results, and safety insights to build brand authority.

1. **Research & Development:**

* **Algorithm Optimization** – Improve AI models for real-time pose detection, fall detection, and PPE classification under factory conditions.
* **Privacy-by-Design AI** – Use abstracted pose data instead of image storage, complying with GDPR and building worker trust.
* **Industrial Integration** – Develop robust interfacing with factory PLCs and protocols like **Modbus TCP**, **OPC-UA**, and **MQTT**.
* **UX/UI Innovation** – Simplify zone configuration with intuitive drawing tools, and refine analytics for safety teams.
* **Use Case Expansion** – Explore new applications such as ergonomic risk detection, crowd safety monitoring, or anomaly prediction.

1. **Supply chain management:**

* **Component Sourcing** – Secure vetted suppliers for Jetson boards, industrial cameras, mounts, and IP65 enclosures.
* **Inventory Control** – Track modular units and pre-assembled kits to enable responsive shipping and pilot deployment.
* **Deployment Logistics** – Coordinate delivery, field installation, and training aligned with client production schedules.
* **Scalable Distribution** – Prepare for international rollout with logistics partners for EU compliance and shipping.

1. **Customer Service:**

* **Proactive Reporting** – Deliver monthly insights and safety KPIs via SmartVision’s dashboard.
* **Dedicated Account Management** – Offer enterprise clients a named contact for relationship and success tracking.
* **User Feedback Loop** – Collect frontline insights to shape feature roadmap and UI improvements.

1. **Cost structure**

|  |  |
| --- | --- |
| **Fixed Costs** | **Variable Costs** |
| Salaries (engineering, sales, support) | Hardware cost per module (Jetson, cameras, mounts) |
| Office rent or coworking space | Installation labor and travel (per client site) |
| Software development and model maintenance | Replacement parts and maintenance (based on field use) |
| Marketing tools/platforms (e.g., LinkedIn Ads, CRM subscriptions) | Shipping and logistics (for each module delivered) |

1. **Data from the Business Model Search Tool**
2. Hypothesis:

* …

1. Experiments:

* …

1. **Interview stakeholders**
2. Who did we interview?

* …

1. **Insights from the stakeholders' interviews**

* …

1. **Q&A**