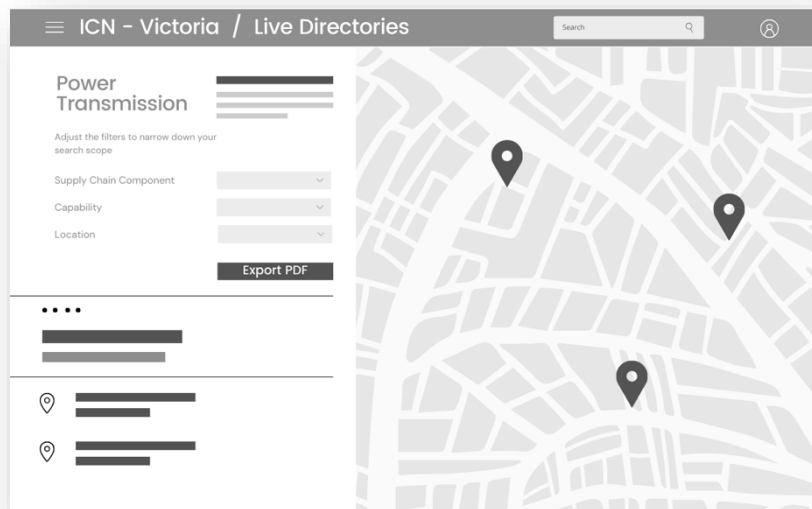


# Requirements Document – “ICN Navigator”

## 1.1. High Level Business Requirements

Classically, directories at ICN have been produced as PDF catalogues of capability data for each sector, where company capabilities are mapped against them.

An online dynamic directories platform would eliminate the need for time-bound snapshots of data and integrate with ICN databases to fetch and display up-to-date capability data for each sector in real time. This ensures the latest, most accurate records of capability are always to be displayed on an easy-to-use digital platform.



This would be a filtered view of capability featured on a comprehensive map-based visualisation of companies, showcasing their locations and detailed profiles, including key capabilities. This functionality simplifies the discovery of relevant businesses and enhances visibility.

## 1.2. High Level Technical Requirements

The ICN Navigator platform should be built using modern, widely supported technologies that are easy to learn, flexible, and suitable for deployment on both web and mobile devices. Key technical requirements include:

- **Cross-Platform Development**
  - The platform should work on web browsers and mobile devices (iOS and Android) without building separate apps from scratch.
  - A modern JavaScript framework such as **Vue.js** (possibly combined with tools like **ionic** or **Capacitor**) or **React** (with **React Native**) is recommended for cross-platform compatibility.
- **Interactive Map Integration**

- The platform should include map functionality to display company locations and capabilities.
- Open-source libraries like **Leaflet** or **Mapbox GL JS** can be used for adding maps to the web interface.
- **API Connectivity**
  - The frontend should connect to backend services through simple APIs (e.g. REST).
  - Existing data from ICN directories should be accessible via these APIs.
- **Modern UI & Responsive Design**
  - The user interface should be clean, easy to use, and adapt well to different screen sizes (desktop, tablet, mobile).
- **Simple Security Measures**
  - Basic user authentication should be implemented if the system stores sensitive information.
  - All communication should happen over secure connections (HTTPS).
- **Ease of Deployment**
  - The system should be deployable to common hosting platforms like Vercel, Netlify, or simple cloud servers.
  - It should not rely on complex enterprise infrastructure.
- **Maintainability & Collaboration**
  - Code should be written clearly and organized in modules or components.
  - Version control (e.g. Git) should be used for collaboration.

The overall goal is a lightweight, modern application that's easy to develop, maintain, and extend in future student projects or professional builds.

## 1.3. Project Phases

Item	Scope
1. <b>Discovery (for scope)</b>	Define foundation and validate feasibility: <ul style="list-style-type: none"> <li>- Requirement workshops, roadmap development</li> <li>- Lightweight prototype development with real-time data integration and mapping.</li> </ul>
2. <b>MVP Development (Agile)</b>	Core platform functionalities: <ul style="list-style-type: none"> <li>- MVP features - data integration, directories, mapping.</li> <li>- Incremental delivery of enhanced required functionalities.</li> </ul>
3. <b>Testing</b>	Ensure reliability and deliver the live platform:

	<ul style="list-style-type: none"> <li>- Testing (unit, integration, UAT),</li> <li>- Performance assessment,</li> <li>- Staged deployment.</li> </ul>
	Documentation and support setup (service facilities) preparation.
	The live platform's launch with: <ul style="list-style-type: none"> <li>- Staged deployment to production,</li> <li>- Stakeholder validation</li> </ul>
<b>4. Deployment</b>	Basic support setup (documentation, customer service) launch.

Existing directory capability data will be securely migrated and integrated into the new platform, ensuring continuity and data integrity. A user-friendly interface will provide a seamless access to this centralised resource, streamlining the experience for all users.