BAC HA SOFTWARE

A BRICK TO BUILD YOUR GOALS

Top Software Company In Vietnam

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ABOUT BHSOFT

TOP 5

GPS, Navigation and GIS Companies in Vietnam

350+
Successful projects delivered

100%
Tailored solutions to client needs

60+
Clients world-wide

25%
Annual revenue growth

ISO/IEC 27001:2013

ISO 9001:2015

CESIUM CERTIFIED DEVELOPER

10+

Years of excellence

BHSOFT

95%

Clients satisfied with the quality of service and support

OUR LOCATIONS

Ha Noi

Nghe An

100+

Engineers

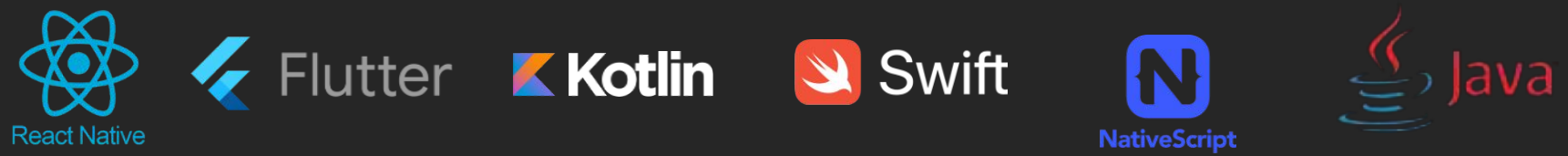
- Experts/SA: 8%
- Mid level: 42%
- Senior: 25%
- Junior: 25%

OUR CLIENTS

OUR TECHNOLOGIES

OUR TECHNOLOGIES

Competences



OUR TECHNOLOGIES

3D Geospatial/GIS/BIM Expertise

BHSoft leads the way in Vietnam's 3D geospatial/GIS/BIM services, utilizing advanced technology to enhance efficiency, sustainability, and profitability in diverse industries. We provide precise, high-resolution mapping services, thoughtfully crafted to save time and resources.

Our capabilities include:

- 2D & 3D digital mapping services
- 3D models & visualizations
- Web map app development
- 3D floor plan solutions
- BIM & GIS integration services
- Autodesk Forge

Development Platforms

Cesium

OpenLayers

Mapbox

Leaflet

OpenStreetMap

Google Maps

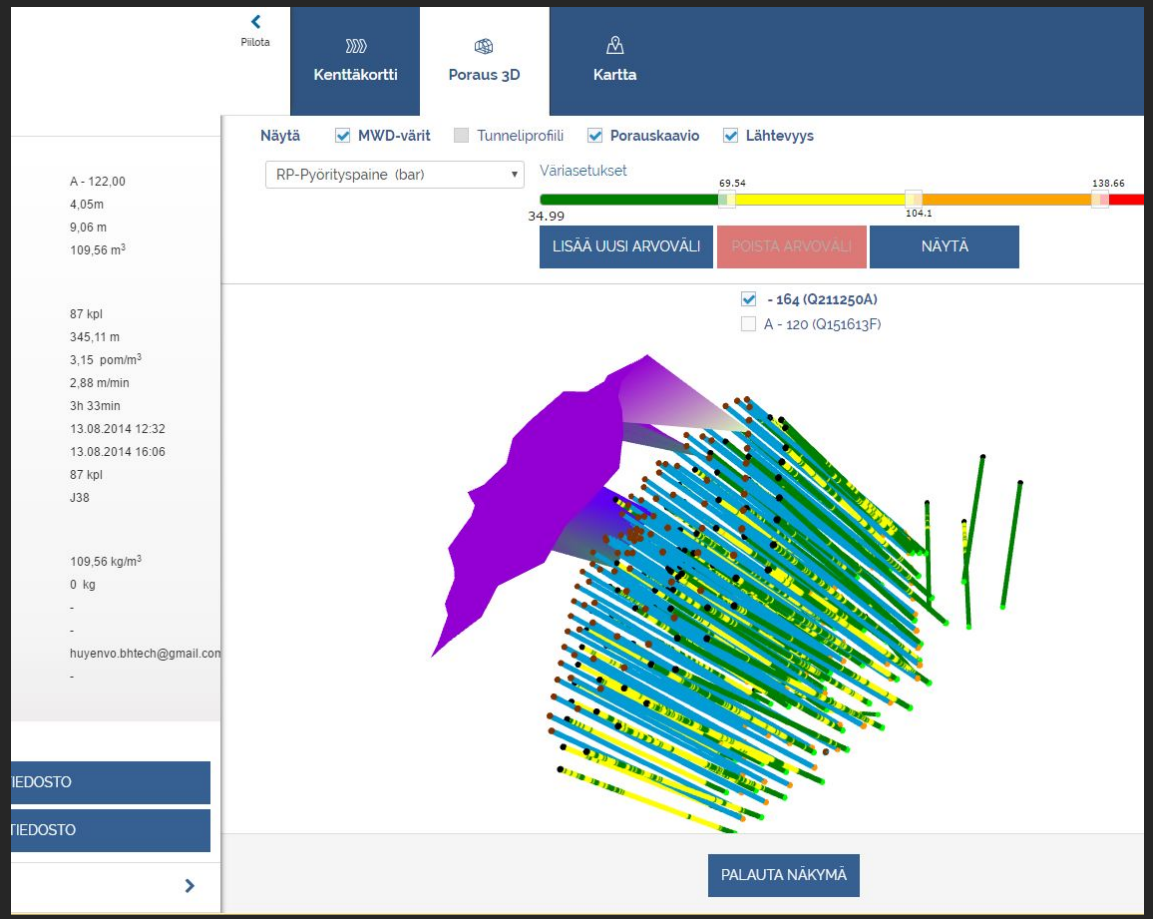
GeoServer

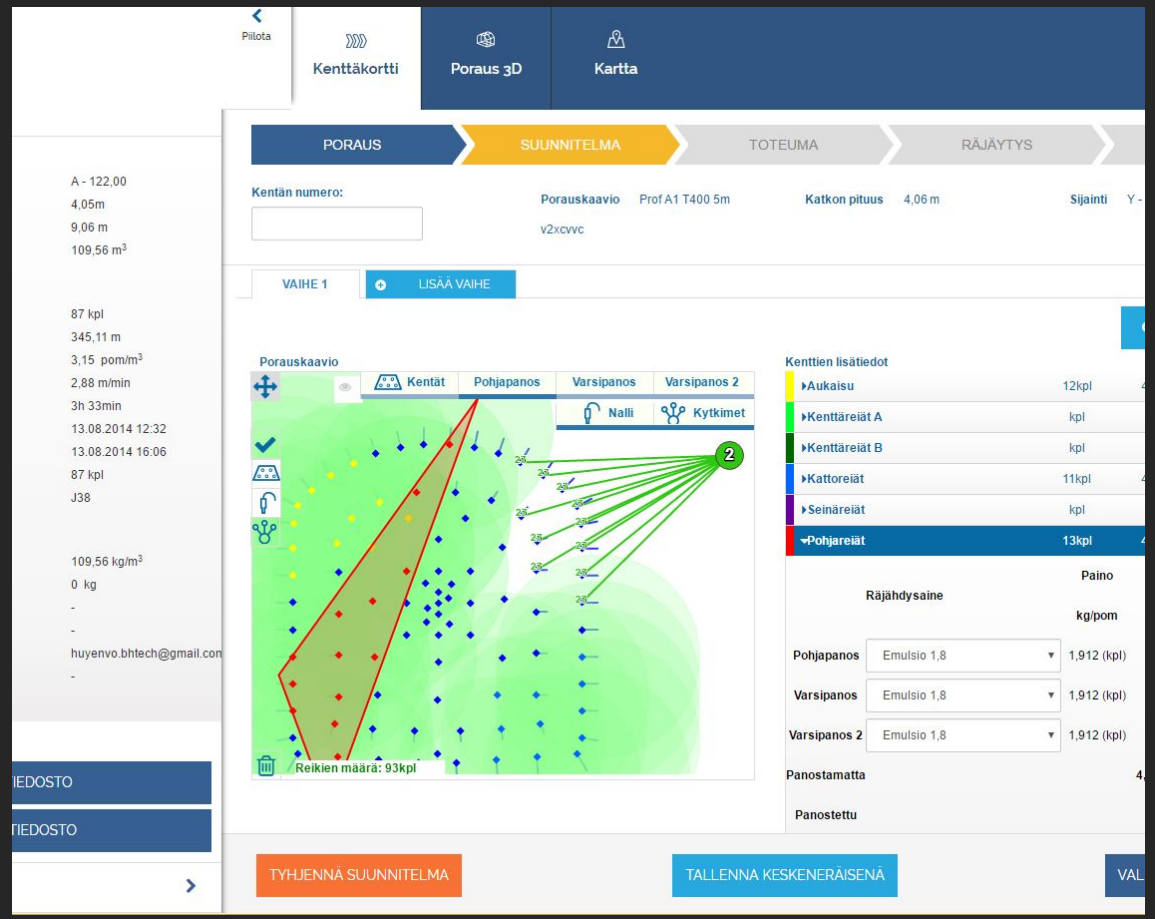
QGIS

BIM & 3D GEOSPATIAL, GIS, WEB MAP PROJECTS

GIS, GEO, WEB MAP PROJECTS

Tunnel Construction Management System





GIS, GEO, WEB MAP PROJECTS

Tunnel Construction Management System

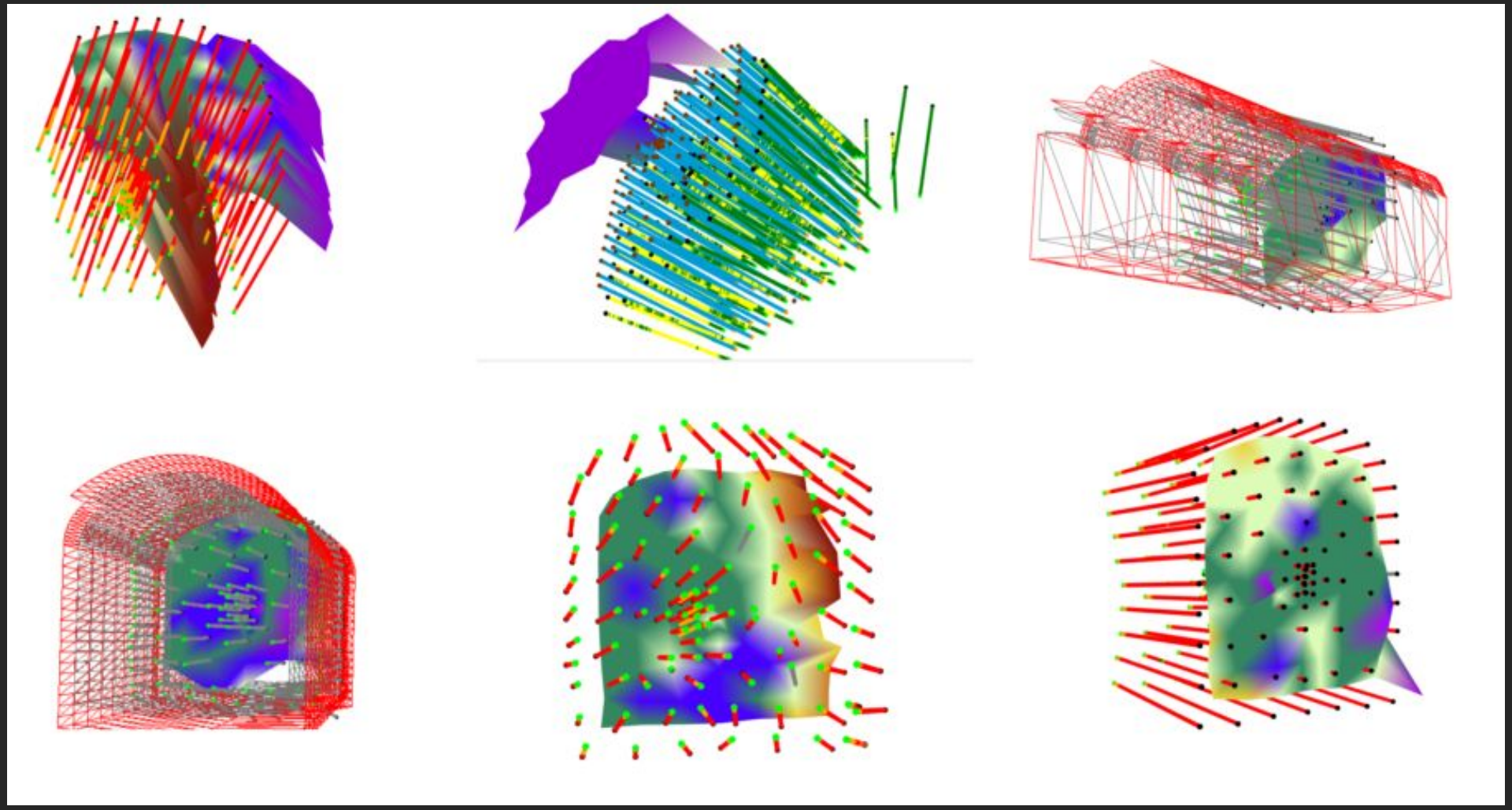
- **Client**: Finland
- **Time**: 5 years. Complete in 2018
- **Communication channels**: Trello
- **Description**:
  - Aid workers and supervisors in overseeing task progress, planning, and oversight.
  - Manage machine data, schedules, locations, and statuses within the tunnel.
  - Utilize 3D visualization to assess tunnel holes and implement bolting before and after exploration, enabling comparative analysis. 3D model allows for detailed inspection, rotation, zooming, and integration with other systems.
  - Enable users to locate working areas on map.

Technologies used:

- Back-end: ASP.NET Web Forms, C#, GeoServer, OpenLayers 3, Tomcat, OpenStreetMap, IIS
- Front-end: JavaScript, Bootstrap 3, 3D&2D simulation, WebGL, Three.js, jQuery
- Databases: Oracle 11, PostgreSQL, PostGIS

BIM & 3D GEOSPATIAL SOFTWARE PROJECTS

3D Visualization Viewer of Drills



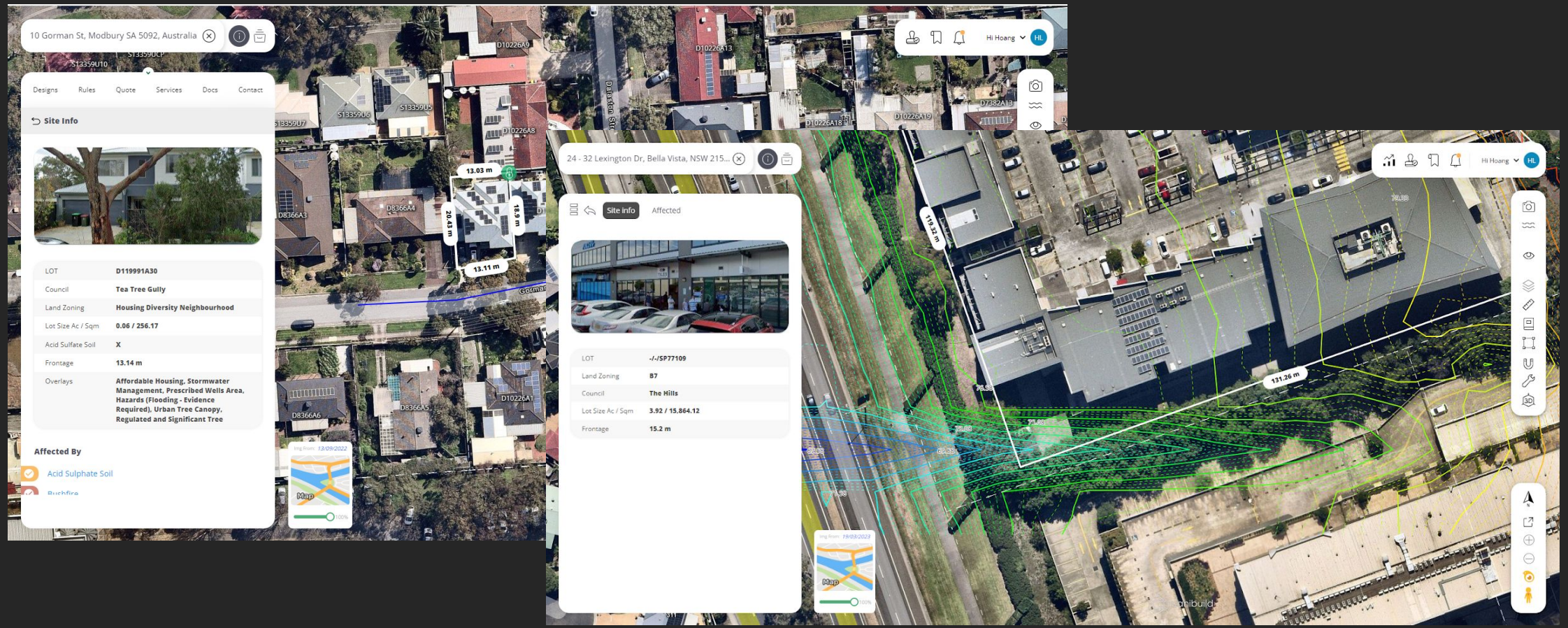
BIM & 3D GEOSPATIAL SOFTWARE PROJECTS

3D Visualization Viewer of Drills

- **Client**: Finland
- **Description**: Utilized Three.JS (also SVG, WebGL and Canvas/ HTML5/CSS are applied) to visualize large number of drills underground.
  - Developed whole management system with module to show the border of the hole and how drills work.
  - Reformed the surface of the hole before and after drills work.
  - The module can provide various user-friendly functions to interact with the 3D models. User can zoom in/out, pan, rotate, select/pick… in models.
- **Technologies used:**
  - Back-end: ASP.NET, NodeJS, Express
  - Front-end and UI: Autodesk Forge, JavaScript, Three.js

GIS, GEO, WEB MAP PROJECTS

Drawing Application for Builders



GIS, GEO, WEB MAP PROJECTS

Drawing Application for Builders

- **Client**: Australia
- **Time**: 01/2021 - present
- **Man-month**: 60+
- **Communication channels**: Slack, Trello
- **Description**: BHSOFT helped the client to build the drawing tool using the Leaflet library because most of the data we had to deal with was GeoJSON data. We built a drawing tool inside the map that allows users to:
  - Create polygons with measurements & display area information.
  - Edit, rotate & drag the polygon around a map.
  - Control and edit the color, weight, and line type (dashed, solid, etc).
  - Create guidelines to 90 degrees, nearby objects to suggest finishing the shape, and snap to lines/corners.
  - Draw objects with curved lines. Draw/edit shapes on the map .
- **Technologies used: ReactJS, Leaflet, Node.js, glTF, GeoJSON**

BIM & 3D GEOSPATIAL SOFTWARE PROJECTS

3D Scanning House Interior Application

BIM & 3D GEOSPATIAL SOFTWARE PROJECTS

3D Scanning House Interior Application

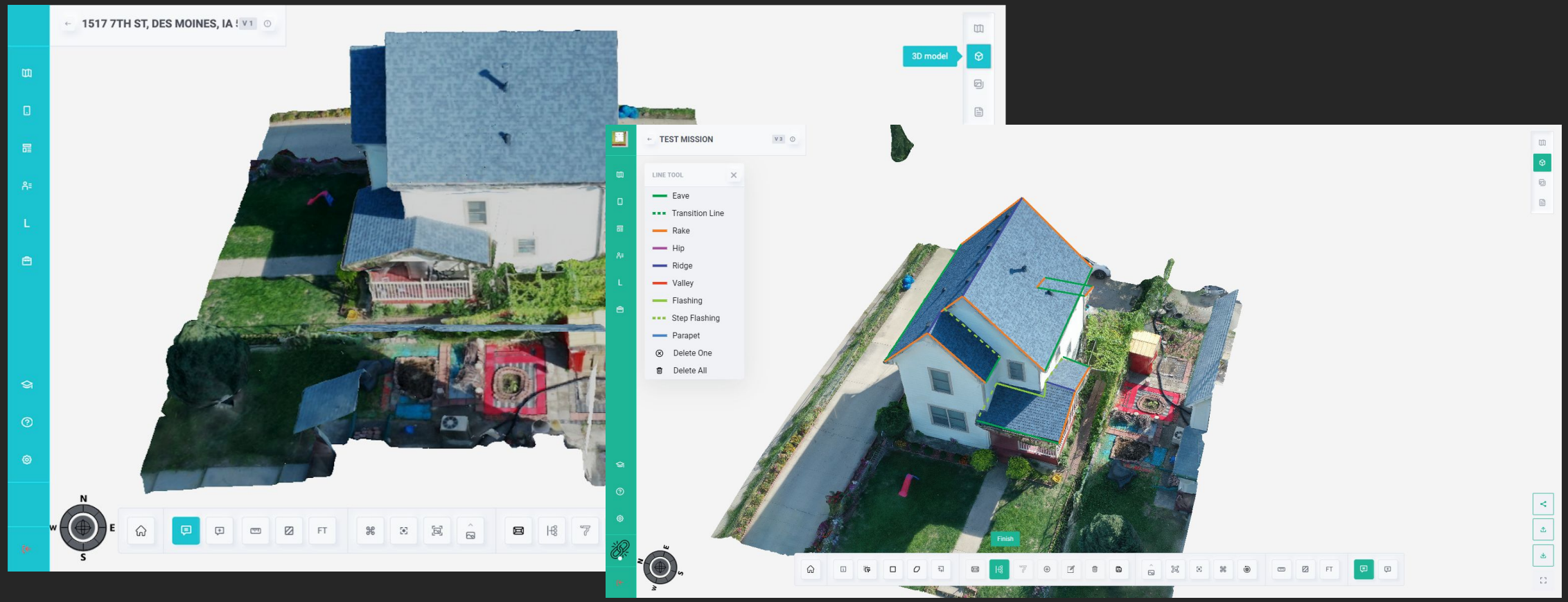
- **Client**: America
- **Time**: 12/2021 - present
- **Man-month**: 30+
- **Communication channels**: Telegram, Trello
- **Description**: Developed a 3D scanning application allowing users to use Lidar on their phones to scan house interiors and display in 3D models in combination with Machine Learning to detect and label objects and user path.

Technologies used:

- Back-end: NodeJS, .NET, Sentry, Google Maps API
- Front-end: React, Leaflet, Cesium, Three.js
- Mobile: React Native, iOS Lidar scan
- Database: MongoDB

BIM & 3D GEOSPATIAL SOFTWARE PROJECTS

3D Structural Analysis Of House Exteriors



BIM & 3D GEOSPATIAL SOFTWARE PROJECTS

3D Structural Analysis Of House Exteriors

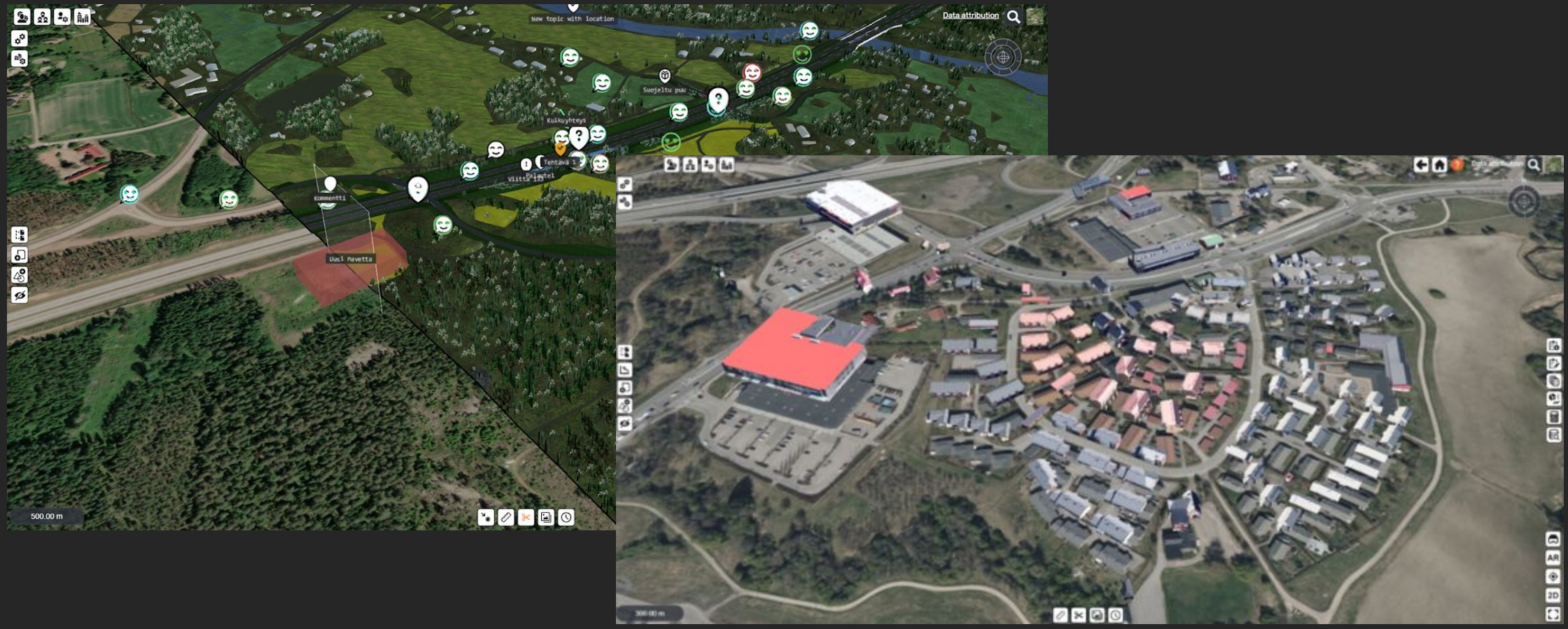
- **Client**: America
- **Time**: 11/2021 - present
- **Man-month**: 30+
- **Communication channels**: Telegram,
- **Description**: Develops a 3D web application using Drone to flight and capture images of buildings. This initiative aims to produce high-resolution maps and 3D models, provide analysis and annotation capabilities. Enabling informed decision-making, and precise metric determinations during property inspections.

Technologies used:

- NodeJS
- MongoDB
- Sentry
- React
- Google Maps API
- Leaflet
- Cesium
- React Native
- DJI Drone SDK

BIM & 3D GEOSPATIAL SOFTWARE PROJECTS

Presentation Tool for BIM Project



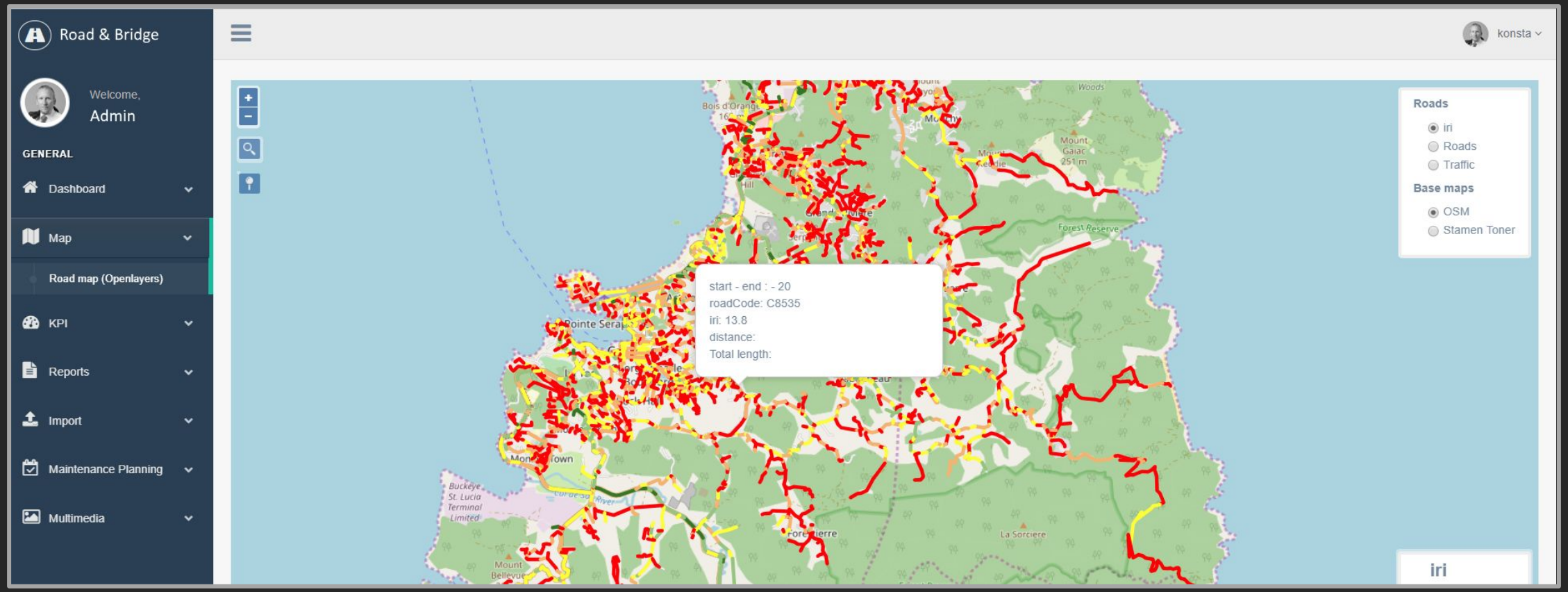
BIM & 3D GEOSPATIAL SOFTWARE PROJECTS

Presentation Tool for BIM Project

- **Client**: Finland
- **Time**: 07/2019 - present
- **Man-month**: 100+
- **Communication channels**: Slack, Jira
- **Description**: Builds a virtual playground to manage urban development and construction projects, and combine designs with surveys, drones, as-built data, etc.
  - For city planning, users can manage and collaborate city plans with citizens with a 4D digital twin of a city and feedback tools.
  - In architecture, users can manage architecture in their real-world location and integrate it into city models. Compare architecture competition alternatives with VR and AR.
- **Technologies used**:
  - NodeJS, Python/Odoo, C++, React, Cesium
- **Open standards:**
  - 3DTiles, gITF, IFC, LandXML, CityGML, GML, GeoJSON, CityJSON, AR/VR & Unreal Engine

GIS, GEO, WEB MAP PROJECTS

Road & Bridge Management System



GIS, GEO, WEB MAP PROJECTS

Road & Bridge Management System

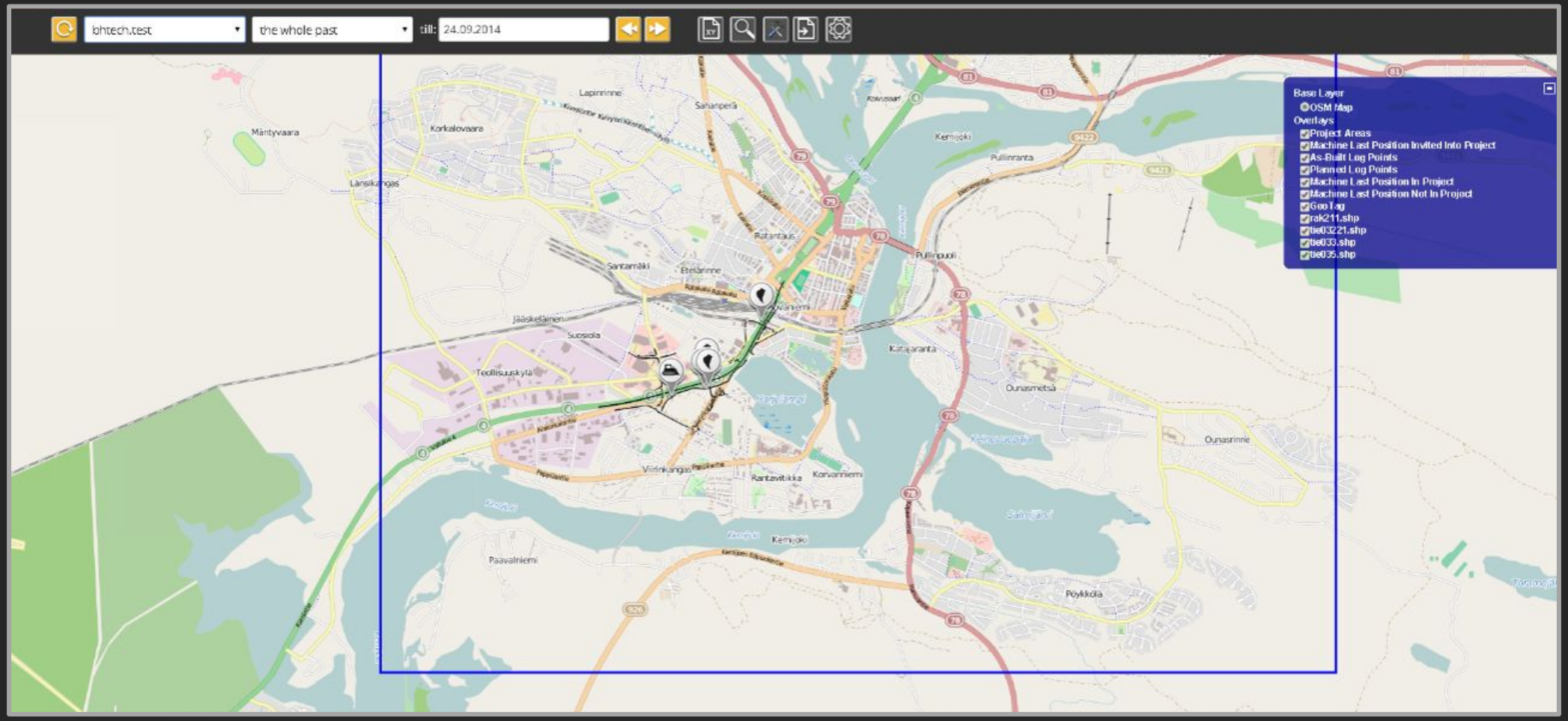
- **Client**: Finland
- **Time**: 5 years. Complete in 2018
- **Communication channels**: Trello
- **Description**:
  - Road & Bridge Management System supports the island staffs of St Lucia to survey/store the road and bridge data. Based on that, they are able to develop maintenance plan according to locations and reports.
  - Web app allows admins to view roads, bridge information, measure lines, and related statistics, data.
  - Mobile apps helps to do field surveys and collect data.

Technologies used:

- Python
- GeoServer
- JavaScript
- Angular 6
- Bootstrap 3/LeafLet for map view
- D3.JS for charts view
- React Native
- PostgreSQL
- PostGIS

GIS, GEO, WEB MAP PROJECTS

Project Machine Management



GIS, GEO, WEB MAP PROJECTS

Project Machine Management

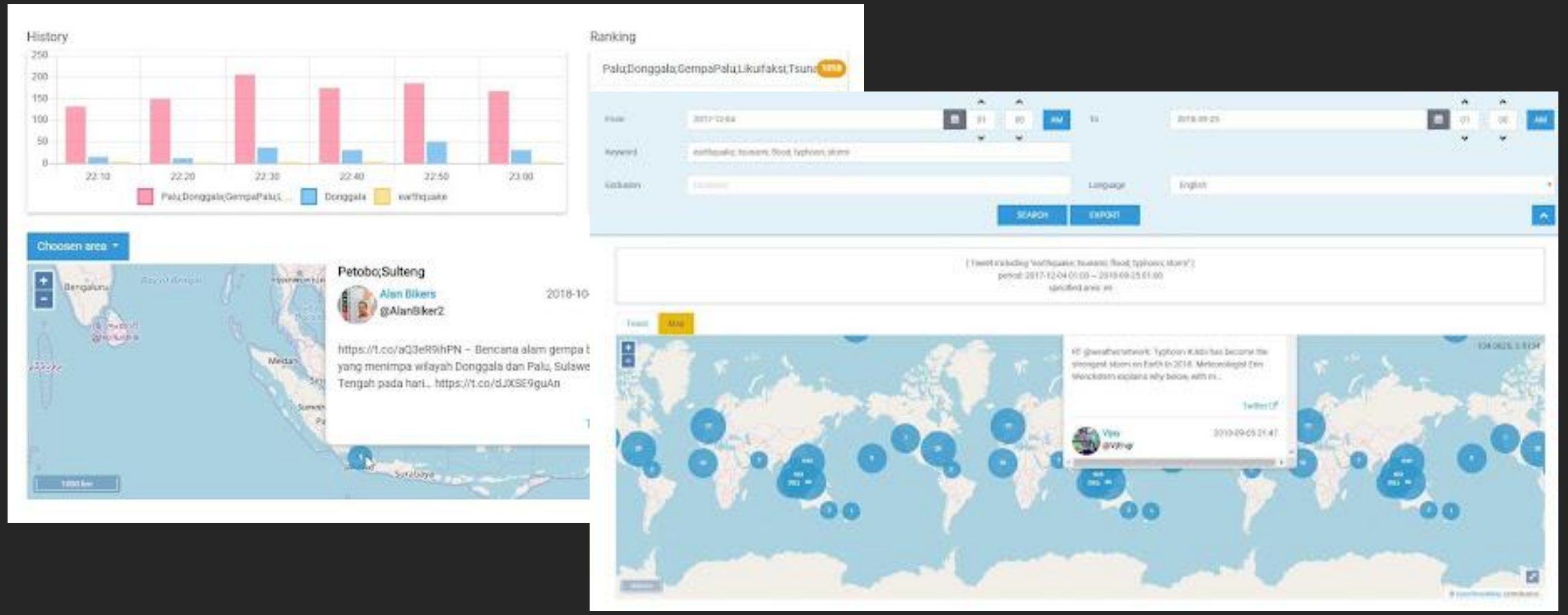
- **Client**: Finland
- **Time**: 4 years
- **Communication channels**: Trello
- **Description**: Developed a platform with front-end and back-end functionalities for informed decision-making, brand risk reduction, and consumer protection, featuring asset management, temperature monitoring, analytics, and inspections.

Technologies used:

- Back-end: ASP.NET Web Forms, C#, IIS, GeoServer, OpenLayers 3, OpenStreetMap, Tomcat
- Front-end: JavaScript, jQuery, Bootstrap 3
- Databases: PostgreSQL, PostGIS

GIS, GEO, WEB MAP PROJECTS

SNS Data Analysis System



GIS, GEO, WEB MAP PROJECTS

SNS Data Analysis System

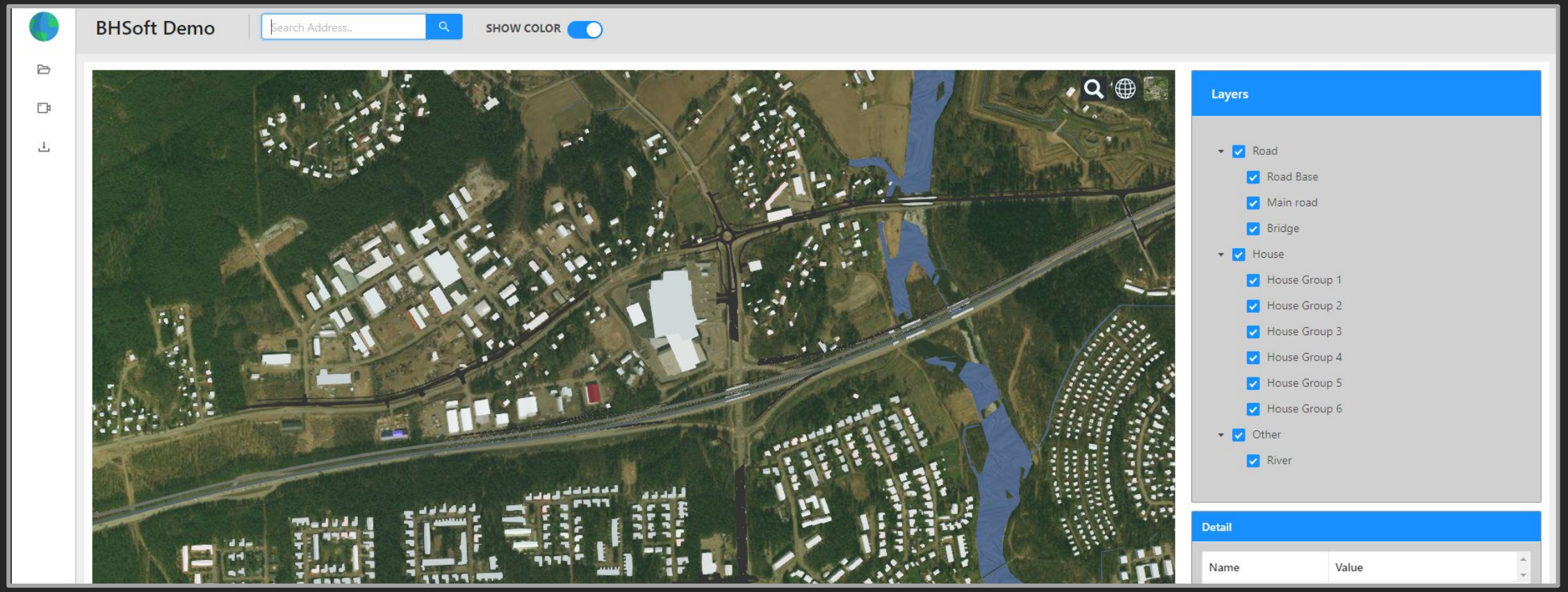
- **Client**: Japan
- **Time**: 7/2019 - 9/2019
- **Communication channels**: Skype
- **Description**: Develop a social network service (SNS) data analysis system designed to predict, prepare for, and provide early warnings of potential natural disasters using data from social media channels. Twitter has been chosen as the primary source for this analysis. BHSoft members going on-site at partner company.

Technologies used:

- Back-end: NodeJS, Nginx, OpenLayers, OpenStreetMap
- Front-end: Angular 8
- Databases: MariaDB, MongoDB

BIM & 3D GEOSPATIAL SOFTWARE PROJECTS

Cesium Integration & Development



BIM & 3D GEOSPATIAL SOFTWARE PROJECTS

Cesium Integration & Development

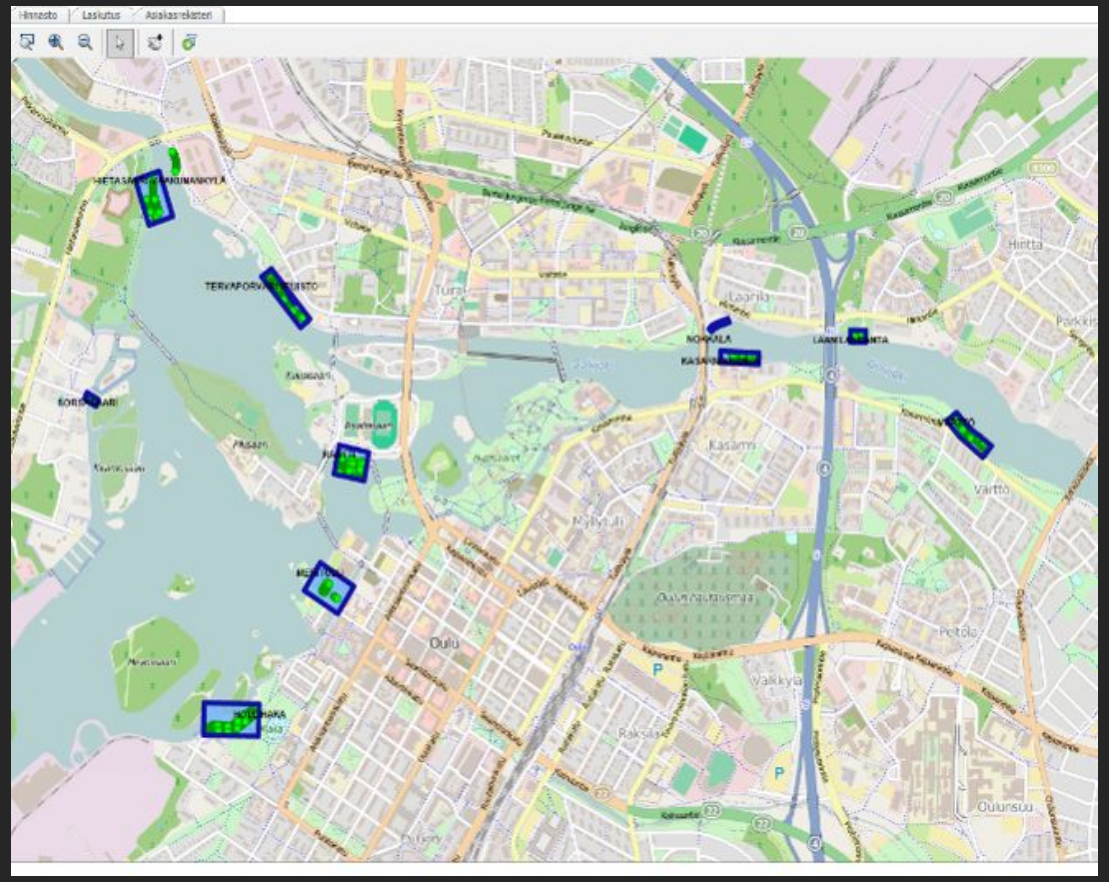
- **Client**: Finland
- **Man-month**: 15+
- **Communication channels**: Skype
- **Description**: Build Proof of Concept demo for locating and displaying 3D data of the city at right position on the 3D map in web platform.
- Technologies used:
  - Front-end: React, Cesium
  - Back-end: NodeJS
  - Cloud: AWS

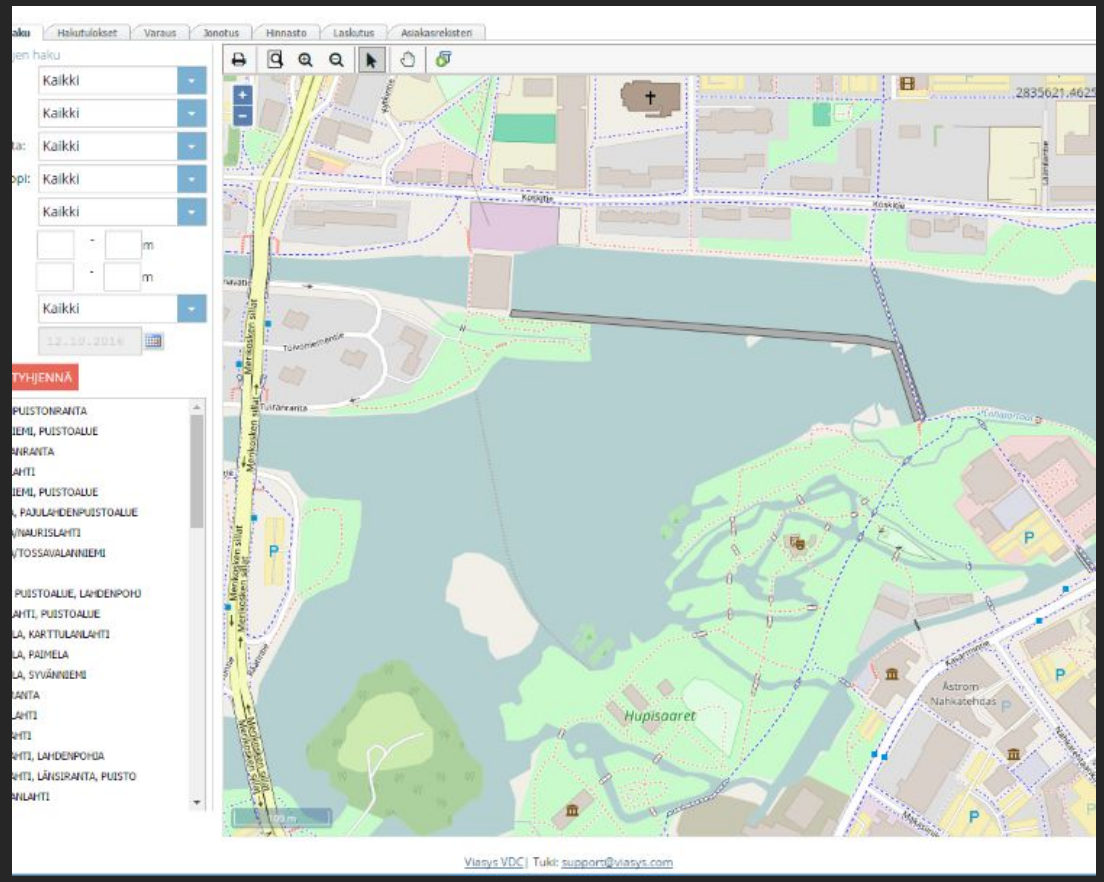
Key points for fruitful cooperation:

- The project started with two engineers in charge of development and managing the work.
- As the project evolved, there was a request from the customer to expand the team to include up to 10 developers.
- BHSoft was fully prepared to meet this need, offering the best talent from our exceptional teams to our valued customer.

GIS, GEO, WEB MAP PROJECTS

City’s Facilities





GIS, GEO, WEB MAP PROJECTS

City's Facilities

- **Client**: Finland
- **Time**: 5 years. Complete in 2018
- **Communication channels**: Trello
- **Description**: Developed a full set of management features for public infrastructure & facility (Street trees, pipes, lines, parks, cars/ boats parking place, …) in certain areas of the city.
  - Admin users can import, input, edit all items in the area, and cut/draw a new land area. Admin users can also access a variety of statistic reports.
  - End users can easily search, view and experience real-time navigation in the map. Users can view detailed information of objects.

Technologies used:

- Back-end: ASP.NET WinForms & Web Forms, C#, IIS, MapInfo MapXtreme, MapGuide/AIMS, Crystal Reports, REST API, GeoServer.
- Front-end: JavaScript, jQuery, Angular, Bootstrap 3, HTML5, 3D & 2D simulation, OpenLayers 3, OpenStreetMap
- Databases: Oracle 11, PostgreSQL, PostGIS

LET’S COLLABORATE!

Collaborating with **Bac Ha Software** brings together advanced tech and custom solutions. We dive into your goals, connecting innovation with impact, and prioritizing your success. Let's shape the future together!

SCAN TO PARTNER WITH US TODAY!