SOFTWARE, BIM AND AI

Engineering software and digital services

Developed tools, BIM delivery and database-specific agents



CONCEPT ILLUSTRATION

TDAC develops engineering software and information systems shaped by specialist domain knowledge. Developed geotechnical tools complement BIM services and new data-processing and AI workflows.

02 / DEVELOPED SOFTWARE

Specialist software already developed

Geotechnical information and assessment modules for defined workflows.

Software / module	Status	Engineering purpose
Geotechnical data management	Developed	Management of geotechnical records and interpreted information.
Geotechnical design modules	Developed	Specialist calculation and engineering assessment workflows.
Spudcan penetration analysis	Developed module	Penetration assessment for offshore geotechnical applications.
Pile drivability analysis	Developed tool	Engineering assessment of pile installation and driving.
CPT interpretation	Developed module	Processing and interpretation of cone penetration test data.

BIM and project information

BIM modelling, coordination and detailing, construction data management and connections between engineering records, models and reporting workflows.

Project-specific delivery

Define the module, inputs, outputs, deployment and integration arrangements, including any additional development required for the client workflow.

03 / DEVELOPMENT AND INTEGRATION

New tools for industry data workflows

A development pipeline linked to engineering and information needs.

Point-cloud processing

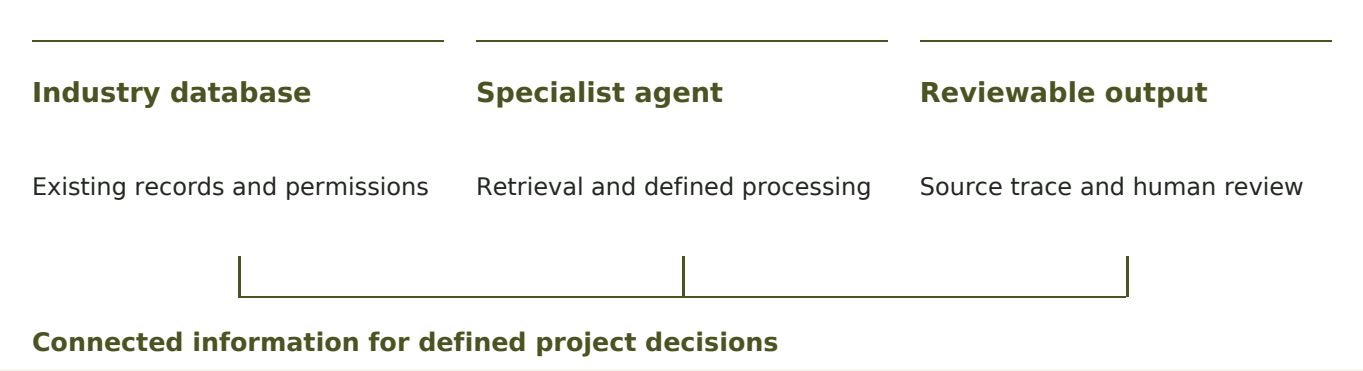
In development: processing workflows for survey and spatial datasets.

Drafting solutions

In development: tools to support drawing production and drafting workflows.

Database-specific AI agents

In development: specialist agents to retrieve and work with authorised industry databases.



ILLUSTRATIVE SERVICE RELATIONSHIP

Digital twin integration

Connect asset models, records, inspections and monitoring data for a defined use case. Agree source systems, ownership, access, validation and update arrangements.

Engineers and developers agree output review and handover documentation. Real-time feeds and predictive functions require a defined development package.

04 / LEADING FROM THE FRONT

Leading from the front

Experienced leadership across TDAC's collaborating disciplines.

Name	Role	Experience
Jayakrishnan Menon	Chief Engineer	19 years
Komal H Davra	Environmental Engineer	19 years
Niya Merin Zachariah	Lead Geotechnical Engineer	10 years
Peter Chacko	Structural Lead	17 years
Ar. Anoopa Alex	Chief Architect	18 years
Karthik Raj	Project Management and Compliance	17 years
Gokul G	Chief Software Architect	18 years

Ar. Anoopa Alex is registered with the Council of Architecture, India.

Working as one team

Software architects and developers collaborate with engineering, environmental and project specialists to connect domain knowledge, data processing and reviewable outputs.

TDAC in India and the United Kingdom

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