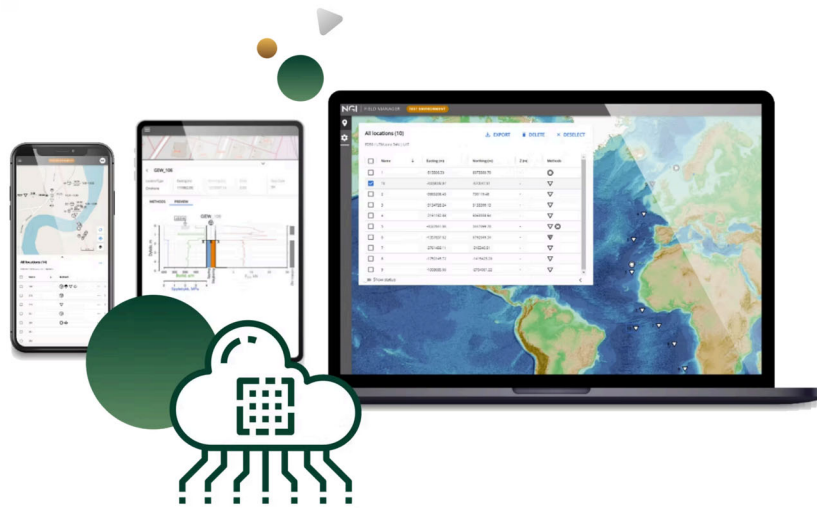


NGI's Field Manager:

The digital standard for complex ground investigations

Field Manager is a cloud platform that brings all data from a ground investigation into one place, making it visible and available to everyone on the project at the same time.



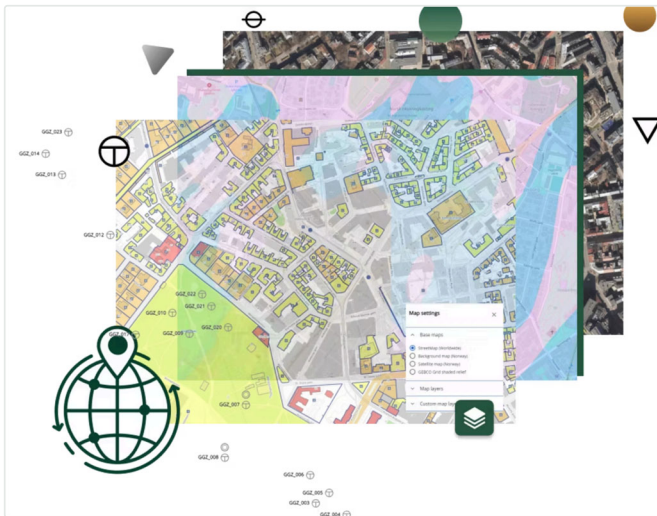
One shared workspace, no installation and no licence: the borehole plan, the field data and the interpretation live in the same place – on a phone in the field, a rig PC, a tablet or an office computer.

Think about the last time you needed a borehole log from a project that finished eight years ago. How long did it take to find? Who did you have to email? And when you found it, could you be sure it was the final version?

That search is where Field Manager starts. A project begins on a map. Within the Field Manager interface, on a desktop computer or on a handheld device, the geotechnical engineer places the boreholes directly on the map, and the plan is immediately visible to everyone involved

in the project who has access, across companies. In the field, the driller uploads data directly. The engineer sees the result within seconds and can order supplementary boreholes while the rig is still on site.

If a planned borehole turns out to sit on a steep slope or behind impassable forest, the field crew moves the point and everyone sees the new position at once. Clients, engineers and contractors work in the same view. They do not install software, and they do not wait for a PDF.



THE PLAN LIVES ON THE MAP

Boreholes and investigation methods are placed and edited directly in an interactive map, with satellite imagery, 1 m terrain contours, public map services and the project's own layers. Historical data from neighbouring projects can be pulled into the same view.

For the parties involved, that shared view changes how a project is discussed. “Everyone has access to the same data. If someone changes a planned method or an interpretation, that change appears for everyone,” says Henning Først Tyvold, who plays a key role in the development and implementation of digital solutions for geotechnics at Norconsult, a long-term Field Manager customer and Norway’s largest engineering consultant.

“If someone changes a planned method or an interpretation, that change appears for everyone.”

HENNING FØRST TYVOLD, NORCONSULT

Built on lessons learned

On 30 December 2020, a quick clay landslide destroyed part of the village of Gjerdrum outside Oslo and killed ten people. There was no shortage of ground investigation data for the area. The problem was that nobody knew where it was stored. The emergency response began with engineers searching project archives, copying files and sending them by email, with no reliable way to tell which version was the most up-to-date information.

During the site investigation campaign after the landslide, the same challenges re-emerged. With several companies involved in assessing and planning stabilization measures, both planning and data sharing required significant manual effort. This highlighted the need for more efficient and integrated workflows to reduce the risk of errors, inconsistencies, and information gaps.

“Field Manager is in many ways a product of lessons learned at Gjerdrum,” says Magnus Rømoen, Product Owner of Field Manager at NGI.

Behind that lesson sits a fact every geotechnical engineer knows and most data systems ignore: ground conditions do not go out of date. A borehole drilled in 1975 still describes the same soil. The value of a data platform is therefore measured by how quickly it can produce what already exists, not only by how well it handles what is being collected today.

Any region that builds on sensitive clays — such as the Champlain Sea clay found in eastern Canada — relies on decades of investigations whose value depends entirely on whether they can be found when they are needed.

A different story

Nearly five years after Gjerdrum, on 30 August 2025, a quick clay landslide at Nesvatnet in Levanger destroyed both the railway line and the E6, one of Norway's main north-south routes. Four people were caught in the landslide, and one died. The slide scar was roughly 110 meters wide and 175 meters long.

This time, the response looked different. While the first engineer was still driving to the site, a colleague at the office opened a shared project in Field Manager and pulled in what already existed: earlier ground investigations, laboratory results, orthophotos, terrain maps, and Quaternary geological maps.

"The engineer who arrived on site could stand there with a tablet and see everything we had. He drew the evacuation zone directly on the map, exported the coordinates and sent them to the police," says Truls Martens, Head of Digital Products at NGI.

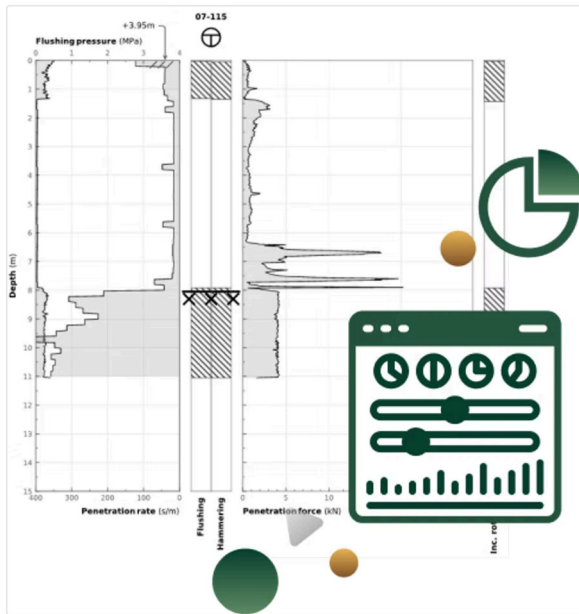
"He drew the evacuation zone directly on the map, exported the coordinates and sent them to the police."

TRULS MARTENS, HEAD OF DIGITAL PRODUCTS, NGI

NVE, the Norwegian water resources and energy directorate, and the other companies involved were given access to the same workspace. From the same map, the team planned the next round of drilling and immediately sent it back to the office. As new boreholes and observations came in, the shared site model was updated, which kept the organizations involved from working on parallel interpretations of incomplete data.

"The case illustrates the difference between data existing and data being ready to use," says Jean-Sébastien L'Heureux, Head of Section Natural Hazards at NGI, who presents a paper on the Nesvatnet response at GeoQuébec 2026.

The wider lesson from both events is that the benefit is largest when the platform is already part of daily work before a crisis. Engineers who use it every week know the interface and the data structure, so emergency response becomes an extension of established practice rather than an improvised data exercise. Preparedness, in other words, is something you can buy long before you need it.



PLOTTED ON UPLOAD

Data is validated against well-defined data models and plotted the moment it is uploaded, so quality assurance and reporting run alongside the fieldwork instead of after it. Sounding plots and pore pressure measurements are exported straight into the data report.

Data you can build on

Field Manager is not a closed system, and for the most digitally ambitious firms this is where it gets interesting. Customers can retrieve their own data with code and process it further in their own tools, including with AI, without going through the web interface at all.

Norconsult has taken this furthest. Rather than developing every specialist tool from scratch, the company builds its own applications on top of Field Manager, covering needs the platform itself does not address while leaving the underlying data where it is. The result is a company that gets custom tooling at a fraction of the cost of building and maintaining its own data infrastructure.

“All the data sits in Field Manager. That is the source of truth. What we miss when it comes to interpretations, design and compilation of results and plots, we build ourselves, but we still pull the data from the same place,” says Frst Tyvold in Norconsult.

Field Manager runs in the cloud, and data is stored in the region where the work is done. European projects run on servers in Western Europe, and potential Canadian projects will run on servers in Canada. Data residency is among the first questions NGI now receives from prospective customers, and the answer is already built in. Field Manager also takes security seriously and follows best practices on the matter, using well-known third-party tools and services for security handling.



Every party works in the same platform, whether they are in the field or at the office: clients, sub-contractors and partners are invited into the project with per-project access control — and the data stays where the work is done, on servers in the region of the project.

Usability decides adoption

Asking Henning Fürst Tyvold what the biggest advantage of Field Manager is, and the answer comes fast:

“The biggest benefit for those of us in the office is usability. It is very easy to learn, a new person needs very little time to get to grips with what it does,” he says.

That sounds modest until you consider who it lets in. Ground investigation data used to belong to geotechnical engineers, because the tools did. Now engineering geologists and hydrogeologists work from the same source, and clients follow an investigation while it happens.

“We add the client to the project, and they can go in and check the status of the investigation and look at the results themselves,” says Fürst Tyvold.

Adoption in Norway is now close to complete: every major geotechnical consultancy in the country works in the same platform.

Users also shape what gets built. NGI runs Field Manager with a permanent team of developers, designers and geotechnical specialists, and customer suggestions feed straight into the development backlog.

For Truls Martens, that is ultimately the point of the platform. “Data itself is not the real value of Field Manager. The value appears when the data gets shared and used. Society has an enormous amount to gain from that data being available, so that others can build innovation on top of it. Field Manager is the platform that enables that potential,” Truls Martens concludes.

“Society has an enormous amount to gain from that data being available, so that others can build innovation on top of it.”

TRULS MARTENS, HEAD OF DIGITAL PRODUCTS, NGI

Meet the NGI team at **booth 55** to see a live demo of Field Manager, and/or join Jean-Sébastien L’Heureux’s session on the Nesvatnet response, Monday between 15.45 and 17.15.

Facts about Field Manager

WHAT IT IS

An open, cloud-based platform for geotechnical ground investigation data. It supports the collection, processing, storage, quality assurance and availability of geotechnical data, covering the full chain from borehole planning, execution and quality assurance through to progress monitoring and data delivery.

LAUNCHED

Publicly launched in March 2023, after NGI had used the platform internally on its own projects and run pilots with industry partners. Norconsult was among the first paying customers, and was closely involved in developing the solution.

TECHNOLOGY

Built from scratch in the cloud on modular cloud architecture, running on Microsoft Azure in Norway. The platform is API-based, built on open standards and data formats, and uses a wide range of open source components.

DEVELOPED BY

NGI. Field Manager was built by NGI Digital, the Norwegian Geotechnical Institute's digital innovation department, where developers, designers, product developers, geotechnical engineers and cloud specialists work together in interdisciplinary teams.

TEAM

A dedicated team of around twelve people at NGI Digital works on Field Manager, spanning developers, UX design, product management, geotechnical domain expertise and laboratory expertise. Led by Truls Martens, head of Digital Products, with Magnus Rømoen as product owner.

ACCESS

Runs in a web browser with no installation required, on mobile devices in the field, PCs on drilling rigs, tablets or office computers.

USERS

NGI

Norconsult

Rambøll

Aker BP

COWI

NVE

Geo Norway

Trondheim municipality

Akershus Grunnboring