



**GIS**  
**SOFTWARE**  
**BUYER'S GUIDE**

**EVERYTHING YOU NEED TO CONSIDER  
WHEN SELECTING A GIS SOFTWARE  
SOLUTION PARTNER IN 2021**



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# Introduction

## Current Industry Landscape

With industrial companies of all kinds pursuing digital transformation strategies, location services are becoming one of the most essential technologies. In particular, tools that cater to a wide range of businesses with the power of geographic information systems, also known as GIS.

GIS used to be a tool only used by a select number of engineers and that is changing. Now, industries of all kinds are finding new ways that GIS information can improve the way they serve their clients. Some services can be GIS-enhanced to perform necessary tasks more efficiently, some are able to deliver value to customers precisely, time and location-wise, while some might be able to track the delivery of sensitive data on multiple platforms.

There is no doubt that with GIS being in demand within a range of multiple professional spheres, there is also growth in the market of location-based software development. Specifically location visualization, which is capable of bringing visibility and simplicity to a complex set of tasks, depending on a geospatial data component.

Understanding the importance of a mapping component within various fields, many engineering, construction, field services and environmental leaders are not debating whether GIS software is needed for **minimizing operations risks while maximizing ROI**. The question at this point is – in which form, at what speed, and what integration cost of GIS software should be implemented to improve their business processes.

“It’s time to shift mindsets and embrace behaviors and metrics that quantify success based on outcomes, which is often defined by the software’s end users.”

- Deloitte for WSJ, 2019

Based on several research findings, we have devised a model for the optimal decision-making process of choosing the right GIS software for your company and its users set. According to **geospatial software developers**, the most important factors in choosing a map-based app for teams are the following:

- Cost (initial, training, maintenance, support),
- Usability (ease of use, customization and integration),
- Provider’s support (provider’s reputation, training and problem-solving capabilities),
- Functionality (cross-platform operation, data storage source, data import capacity).

A simple and functional user experience **upon completion of the platform development project** would be definitely one of the most important goals for web-developers to achieve. Developing a cross-platform, sector-agnostic application, with a sound combination of all of the factors above cannot be underestimated to keep delivering exceptional value to customers and subscribers of the service.

“Tracking activities and budgets provides a false sense of security that may become apparent only when the software product hits the market.”

- Deloitte for WSJ, 2019

More and more businesses are starting to utilize location services and platforms in particular for project management, which can benefit from integration of location visualization. The latest trends in environmental services, for example, proved that GIS is incredibly helpful for environmental **data analysis and planning**.

Environmental agencies have to deal with large arrays of data of different nature. For each project, there would be a set of teams working on various tasks, bringing in information from the field, labs, government offices and other sources.



At times, data can be sensitive and greatly depend on the time of delivery. In cases of delay, the company will have to carry all costs, as well as push deadlines and completion estimations. And on top of it all, hundreds of permits, forms, spreadsheets and maps are being used by all members of the team.

A paper-based approach in project management is never an ideal strategy. However, for some reason, there are companies that resist the change towards software-based project management. But for those businesses that dare to shift operations, pleasant changes are taking place.

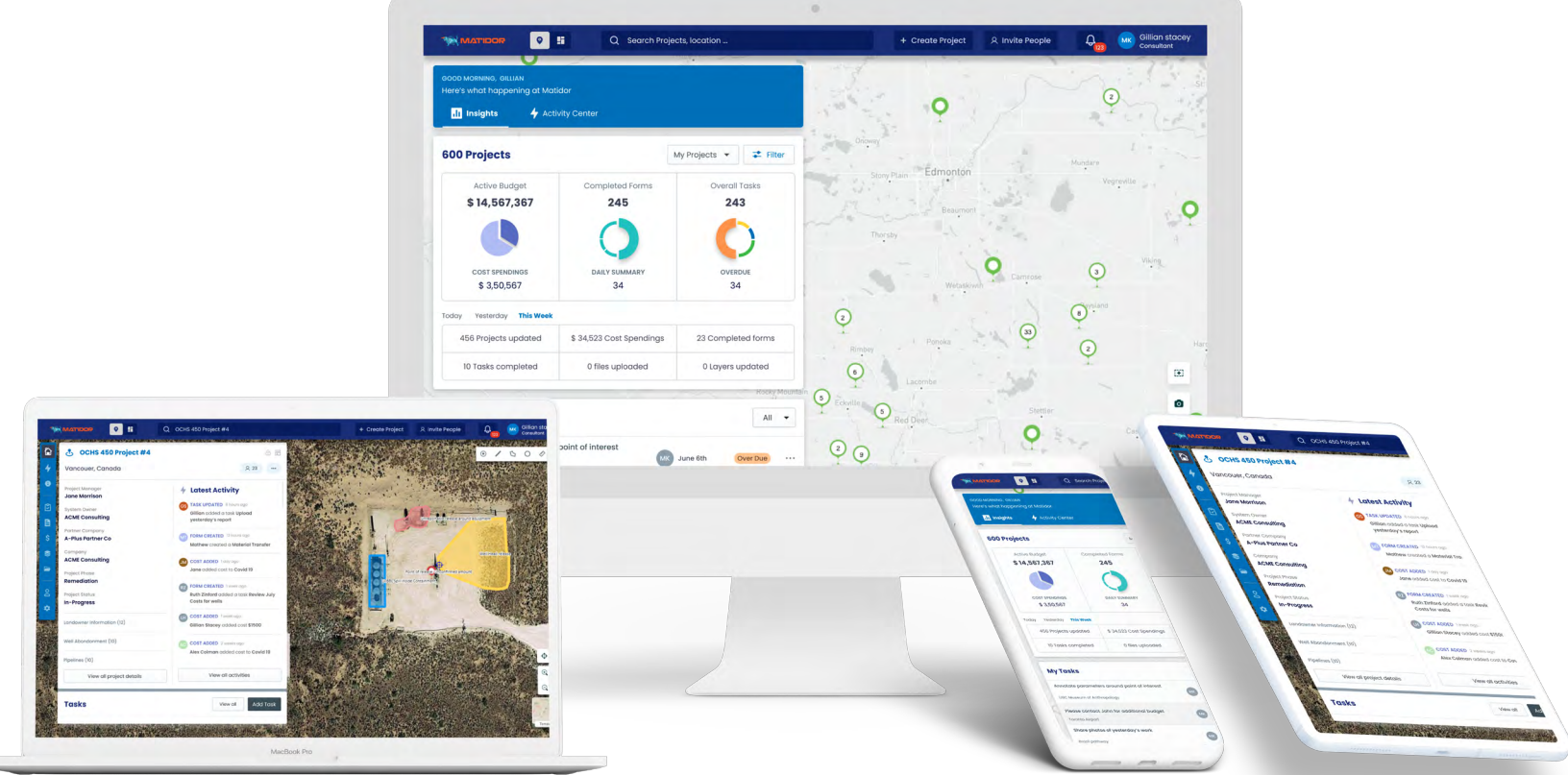
Increased productivity and efficiency, greater project capacity and faster ROI are some of the few benefits of using a proper project management tool that really fits an organization. Specifically for field and consulting services, map-based solutions **can facilitate multiple processes at once:**

- better data storage organisation,
- visualization of the locations and objects,
- accessible support from the developer,
- instant access to any sort of information from anywhere in the world,
- better collaboration within remote teams.

“... many teams have embedded in their DNA a certain way of working, often measuring activities—having meetings, completing tasks, and creating deliverables—rather than placing enough emphasis on outcomes”

**- Deloitte for WSJ, 2019**





## COVID-19 Related Changes

The business landscape has shifted since early spring of 2020. “ **When COVID-19 struck, the whole world seemed to go into a remote mode** ”. It became more than obvious that remote project collaboration and location visualization within particular industries are crucial and need to be securely established.

Mobile apps and cloud-based platforms became the answer for many professionals who were suddenly deprived of the opportunity to travel to locations or even to the offices to work together in teams. While both businesses and governments are doing the best they can to stop the spread of the novel coronavirus, construction, oil and gas production, environmental clean-ups and more services deemed to be essential had to carry on. Professionals still had to deliver results during these unprecedented circumstances.

GIS platforms supporting project management have experienced growth in demand and a spike in development. As it became evident that one would not fit all, different spheres of business have specific needs to be covered and supported by geospatial data. Therefore the market for map-based platforms is expanding greatly these days and finding a perfect GIS project management platform match is not a simple task.





# 1. What is GIS Software

“Location is associated with everything we do. From Transportation to Health Care, Telecoms to Government, the fact is, everything is somewhere.”  
- Deloitte, 2014

Maintaining multiple assets, projects or even teams is never an easy task for a project manager. Being pressured by stakeholders, budget, deadlines and constantly changing external environment often creates obstacles and delays for a successful completion of tasks. In the case of field services, environmental monitoring or any other operations that are dealing with visualising and understanding data through a map, geospatial technologies have become an essential part of operations.

It's important not to underestimate how much data can be extracted through application of geospatial technologies such as remote sensing and GIS platforms. Various layers that can be added and integrated into the platform with the use of advanced mapping, geo-locating and engineering technologies **that are not limited to a two-dimensional projection** (e.g. LiDAR). The possibilities for advanced planning and analysis are becoming truly limitless, since information gathered by specialists remotely, or in some cases by drones, becomes a basis for further business tasks and procedures within minutes from being uploaded into a shared cloud storage, to which all teams are connected.

Overall, benefits from GIS software can include the **following**:

- Saved costs, as a result of improved efficiency.
- GIS-enhances decision making.
- Instant and improved team communication/ collaboration.
- Better geographic information recordkeeping (cloud server).
- Remote management of geographically tagged assets.

That said, a company is able to have all the resources for better project management in one spot. Collaborating parties can swiftly exchange updates, tag each other to specific points on the map and practice visual location-based data management.

Sounds more like a dream project management practice with cutting-edge technology that can fit in a pocket? Well, it is now our GIS-enhanced reality and it's time to be a part of it.





## 2. Benefits Of GIS Software

There is no doubt that the integration of a new technological element cannot happen overnight and it brings a lot of change to every level of the business. With all its complexity, however, among multiple undeniably beneficial solutions that GIS technology delivers, it is possible to highlight three major challenges that are often becoming obstacles for decision-makers.

### 1- Scale And Speed of Deployment

The single biggest change to the technology landscape for any company is the speed of deployment. GIS systems, especially the ones that are integrated with a company-wide project management tools, have a reputation for taking months, even years to deploy and train teams to properly utilise platforms to the max.

However, is that really necessary to connect every employer in the organization to the software right away? The answer to the question is most frequently no, as there are better approaches that have proven efficiency.

Successful implementation would have to take into consideration five factors. Major ones are project parameters that the company is dealing with most frequently and the current technology, which business may or may not continue to use.

“True transformation comes when your [integration] advisor has deep understanding of the other three [factors] – your business, industry, and cultural dynamics”

- Deloitte, 2019

The existing devices (smartphones) of management and field workers can be called into service to give every team member instant connectivity. A connected worker solution that is unique to the needs of field service companies is possible, in less time and for less cost than most companies would expect.

If the SaaS development company offers its support through the digital transformation process, one department at a time, it can drastically change the pace and quality of implementation. Prioritization of the integration is also a great strategy. The departments that need access to the platform the most could enjoy increased efficiency of the new tool almost immediately, while stakeholders of higher levels (top-managers with less involvement in daily operations) can be added during the phase of full and successful deployment.

## 2 – Mobile Platform (side) Optimization

A very common issue that has revealed itself in the past year due to COVID-19 is the fact that operating mostly in office spaces is not feasible any longer to get the job done. Companies have to rely on remote workforce and mobile side of operations more than ever now. Exactly for that reason, while the deployment of a new software platform is carried out, exploring the optimization for the mobile devices is becoming of crucial importance. The best application, no matter how complex it is with all the features, is the one that can be accessed from a variety of devices rather than from a desk computer only. It is definitely an obvious and simple game-changer for such industries as field and environmental services.

Collaborating with remote teams is the “new normal”. Using mobile responsive platforms with options to connect with specific teammates at specific locations, you can allocate tasks with various levels of urgency to those working on a geographically tagged site or upload reports for instant review to different levels of stakeholders. What used to exist only in huge project binders now does not even require a laptop.

“Moreover, in the context of the COVID-19 pandemic, the fact that the SaaS model is not distributed physically rather deployed almost instantly is sure to make it a preferred choice among customers who are now urgently forced to consider technologically evolved business solutions for both their business needs, as well as their increasingly remote work models.”

**- Deloitte, 2020**

It is true that going mobile does require customization during the app development process and some SaaS businesses are making this feature quite costly. However, it has to be done after a thorough organizational needs assessment. It’s a good idea to look at a number of service providers and make the right choice by opting for platforms with more accessible integration policies and payment options.





## 3 – Complete Online Project Data Management

(Project data management – real time communication)

We know for a fact, most mapping solutions within industrial companies are still dependent on paper-based sources of data. To avoid losing important pieces of information while working remotely in a field office, project managers have to get creative with ways of transportation of various essential permits, legal documents, notices and other regulatory papers. All of this would not be necessary if a digital version of the document can be placed into a customized mapping solution that supports visualization of not only the assets teams manage, but also provides access to executive operational tools and dashboards (such as legal documents and permits).

Maintaining as much of a paper-free business environment also saves time and adds to the reputation of the company. A simple error like one misspelled word or name or an incomplete form causes delays and in the end turns into a costly procedure. Service providers would have to go back to government officials or clients and re-request documents and/or information, submit forms over and over. Not only is this rework a waste of resources and time, it frustrates stakeholders and inevitably leads to reputational damage ( Deloitte, 2012). But, with a real time communication platform connected to mapping info and geo-tagging – such issues can be easily avoided.

Many of those products offer the potential not just to move your data and processes to the cloud, but also to positively, relentlessly transform your way of doing business.

**- Deloitte, 2019**

Bottom line is that an inefficient operating model like the one described above should be abandoned. Technologically advanced platforms are here to serve industries, save employees' time and money and enhance operations for better project management.





## 3. Key Considerations

### - Budget

The cost of a technology adoption is definitely a number one factor in the process of choosing the right GIS software for a company. here has been a **growth of subscription-based services** within the SaaS development field. The previous solutions of location visualization on the market can be categorized as follows:

- generic & free (e.g. Google Maps),
- technical & expensive (e.g. ESRI ArcGIS).

In both cases companies have an idea of what they are getting, they clearly understand the working framework of the platform, its scale and capabilities. Developers of both categories have already established a reputation on the market, are praised by many clients and are known to be experts in providing location/ mapping services.

Recently several SaaS startups in mapping and project management have come up with a new offer, the third category of platforms in the field – **a turn-key GIS solution for non-technical professionals**. They represent a mix of subscription (pay-per-user/ or project) options and extensive support along the integration stages. This option is a perfect middle-ground for SMEs that realize their potential and are willing to implement innovative project management tools integrated with mapping elements.



## - Data Protection

Privacy of each user on the platform is one of the primary goals of any app developer. Priority to this key consideration is given at all times as the majority of SaaS companies migrate their operations to the cloud, and GIS softwares are not an exception. Cloud storage allows businesses to **enhance collaboration, agility, scaling and availability while providing them with some exceptional levers for cost reduction through optimized and efficient computing** from almost anywhere in the world.

“There is a need to further develop national (central and distributed) solutions for the storage and management of geospatial information, such as solutions that support work with impact assessments, licence applications and other processes that the public sector initiates. Such processes may also involve private actors.”

**- Report no. 27 to the Storting (2015–2016), Digital Agenda for Norway**

Apart from technical possibilities of cloud data protection (public vs private vs hybrid) and available **encryption services (Identity and Access management, API keys and OAuth tokens)**, some map-based platforms are adding data-collaboration features, such as management of the user access level to various types of information. That way, master-users or admins are able to assign and arrange users in stakeholder groups, making sure that each party and each team is able to browse only the information that is relevant to them.

## - Scalability, Flexibility And Customization

Scalability can be described as an operation within a different number of client/ project capacities. For example, if a team of environmental consultants is working on 15 projects in total within the platform, would the workflow be as smooth and efficient if the company gets to 50 projects? GIS platforms are created to help with better project management while increasing the capacity for more projects and higher ROI.

Flexibility, on the other hand, is the aptitude of the app to adjust to different standards or internal/external business environments. For example, operating the same GIS platform in Europe and in North America might not be possible, as during the development stage operational standards within industries might be programmed deeply within the data processing features of the app (e.g. creating a certain kind of an invoice or a work order).



As offerings become more software and data-driven, companies may have to set up entirely new channels and partnerships to take them to market.

- Deloitte, 2020

Additionally some platforms offer map-based solutions as-is, meaning that little or no customization is offered. It is all directly related to cost, since the more sophisticated software is – the more flexibility and add-ons it is likely to have. The map-based SaaS market is allowing new industries to develop and serve related geolocation services. There are map-layers and application add-on/ plug-in features that can be purchased separately from various developers and integrated into one's location visualization platform.

## - UX

User Experience (or UX) is another key point to consider while choosing an effective location visualization tool. The rule of thumb is that the interface a user will interact with every day should not overload one with information, be clean and straightforward. It should have high usability, which can be defined as **the effectiveness, efficiency and satisfaction with which specified users can achieve specific goals in particular environments.**

## - Integrations

Optimization of all operations and processes for all stakeholders while implementing innovative tools, such as GIS software is of high importance. While giving up all previous business practices might not be an option, it is essential to make sure integration of old and new platforms is an option. Some software platforms can integrate easier than others.

## - Implementation, Training and Support

Some of the most essential consideration points upon making a final decision to opt for a new technology would be the level of support from a developer, speed of platform implementation and training roadmap.

SaaS apps are emphasizing their 24/7 support availability rather than suggesting months-long implementation and training process. The offer here is based on a “story”, step by step adoption process: starting with the introduction of the technology to the teams, implementation of the features and then feedback gathering **in order to provide detailed insight and objective guidance.**



# Conclusion

Any location-based intelligence existing within a project management platform is an incredible solution for many service, manufacturing and technical industries. It is truly an incredible and effective answer to planning and operations tasks of all sorts. Various assets of the company, geographically specific objects that are required to be analyzed, remotely located parts of infrastructure, agricultural resources and so many more elements of project portfolios can be visualized and managed from mobile applications.

The collaboration part of the technology enhances business exploration and development activities and increases ROI while saving costs and boosting efficiency. The most cost-effective way to achieve this is with a turn-key GIS solution for non-technical professionals. A platform that was developed by GIS and project management professionals for all types of teams, is sector agnostic and with high integration capability. The one that brings much-needed simplicity and visibility to a complex business world.

“If you start with the wrong product, you may wind up spending more time and money customizing and deploying it than you would have spent building it from scratch.”

**- Deloitte, 2019**

It is of utmost importance to have improved communication among stakeholders for better and faster decision making, as well as smart budget allocation. It's a perfect time to evaluate alternative options on the GIS software/project management market. Trust your location visualization and project collaboration to Matidor.





# About Matidor

Matidor is an all-encompassing software suite that provides managers with access to all documents, data and teams in one place.

Its desktop and mobile app help users to visualize their scope of work (in a map view) and make it accessible to stakeholders at any time. The platform allows team members to stay on top of the activity stream, report and track project progress anytime and anywhere. These features have already tremendously helped Matidor's environmental services clients. Their success stories are based on the introduction of digital solutions and better visibility, instead of a paper-driven work process.

Our clients report increased productivity levels thanks to enhanced management experience, improved data transfer, elimination of paperwork redundancies and administrative overhauls. Delays and associated costs are avoided thanks to the ability to track the progress of physically remote projects with Matidor. Meanwhile, stakeholders gained access to a new level of real time reporting. Lost time is often eliminated, and where it still exists, it becomes visible and trackable so consultants can address the operational bottlenecks.

Additionally, tech support is available for clients at all times. If new business software will have to be introduced to the organization, Matidor can deliver on a custom integration to optimize processes.

Technological breakthroughs can increase trust—but careless deployment and negligence can quickly erode it.

**- Deloitte Techtrends, 2020**

Matidor's intuitive platform can be in the hands of field teams in a matter of weeks and roll out iteratively, addressing the biggest opportunities first and adding sophistication over time.

The services provided are offered on a per-project basis rather than charging per user. That strategy allows different stakeholders working on projects to dig into the platform step by step, while having our support.

Trust the experts — we are here to help. Book a demo to see how Matidor can be seamlessly added to your existing tools and processes and help bring your entire project team together no matter how remote.

**Book a Demo Now**

