Globeteam A/S
AI & ML Driven Diversity Intelligence

https://globeteam.com/business-consulting/datastrategi-ml-ai/

GLOBETEAM

Primary customer challenge

Many companies, both private and public, know that they want to transform their business with the help of data and machine learning or artificial intelligence, but what they do not know is how to go about doing it.

That is where Globeteam comes in.
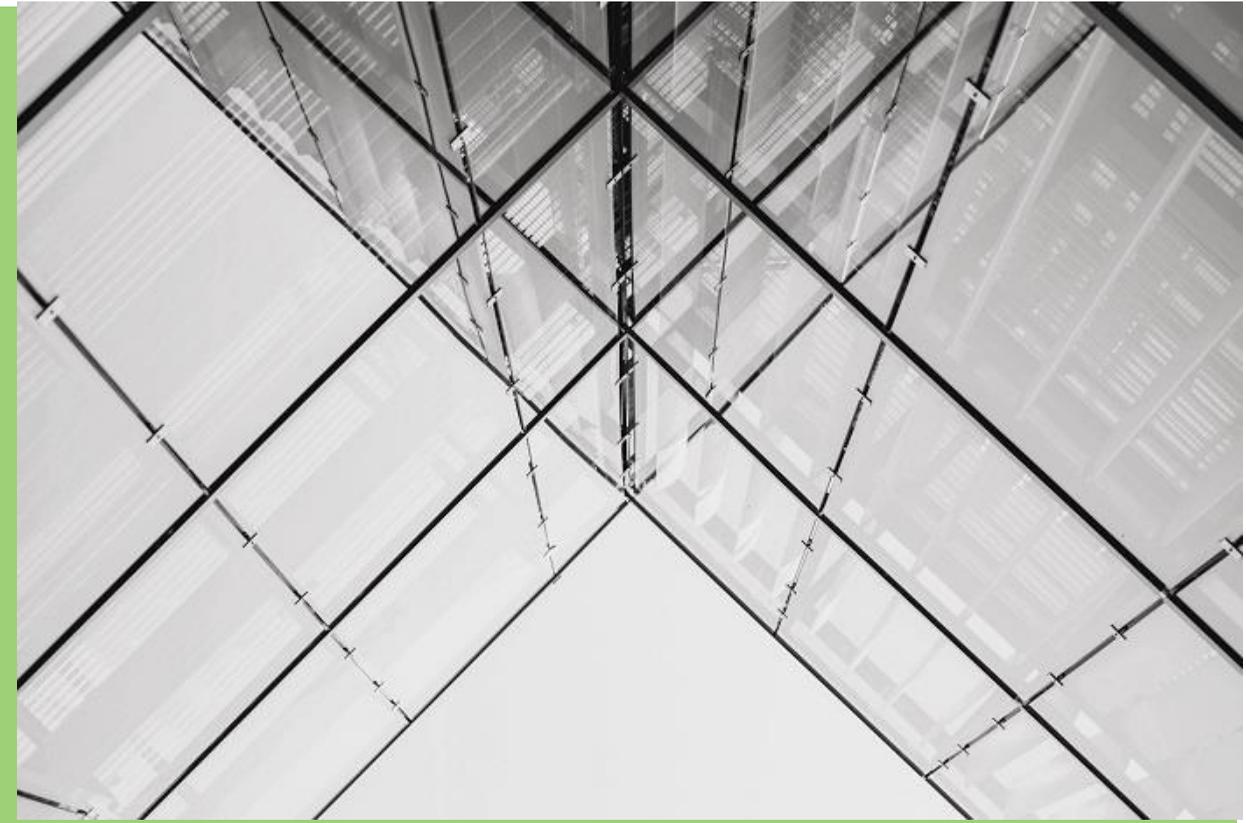
CHALLENGES

There are ML and AI tools included within Microsoft Azure. However, if these tools are to deliver value to a company, they need to be set up to support specific business goals. The data management needs to make sense and it must have a focus.

At the core of Globeteam's methodology is the following approach:

Mapping and implementing a solution that brings the technological components together, all within a structure that is adjusted to the company's unique business area. This is how the solution creates value.

IDEAL SOLUTION

Globeteam has developed a standardised approach; creating concrete business value in data projects, whatever the company's level of digital maturity.

Their approach is based on three simple questions that a company should be able to answer and account for on a strategic level:

- Why do you want to carry out this specific data project?
- How will you make sure that the project delivers the desired value?
- Which technological tools are needed, and how will they be brought together?

GOVERNANCE AND COMPLIANCE

Business data has many interesting and attractive components to it, but utilising these can also open up a company to new and complex risk factors if not managed correctly.

Security, governance and compliance are therefore an integrated part of Globeteam's approach to data projects.

Globeteam's method for data projects

Globeteam's ML and AI data model

Globeteam's ML and AI data model consists of four levels:

- At the **Native Data Sources level** data sources are identified that will contribute to reaching the business goal. Data can be gathered from existing data sources, but it is also necessary to set up and connect new data sources to the solution design.

- At the **API Gateway level** communication is facilitated between data sources so that the data exchange follows the organisation's security policies

- At the **Data Lake level** unstructured, semi-structured and structured data are all stored. The flexibility makes it possible to collect data from a mixture of data sources and streamline them, so that they can be used for interdisciplinary analyses

- At the **Data Presentation layer** the data are presented to the users, or they are made available to other systems via integrations, where data are used for further processing.

Data Presentation

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Data Lake

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API Gateway

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Native Data Sources
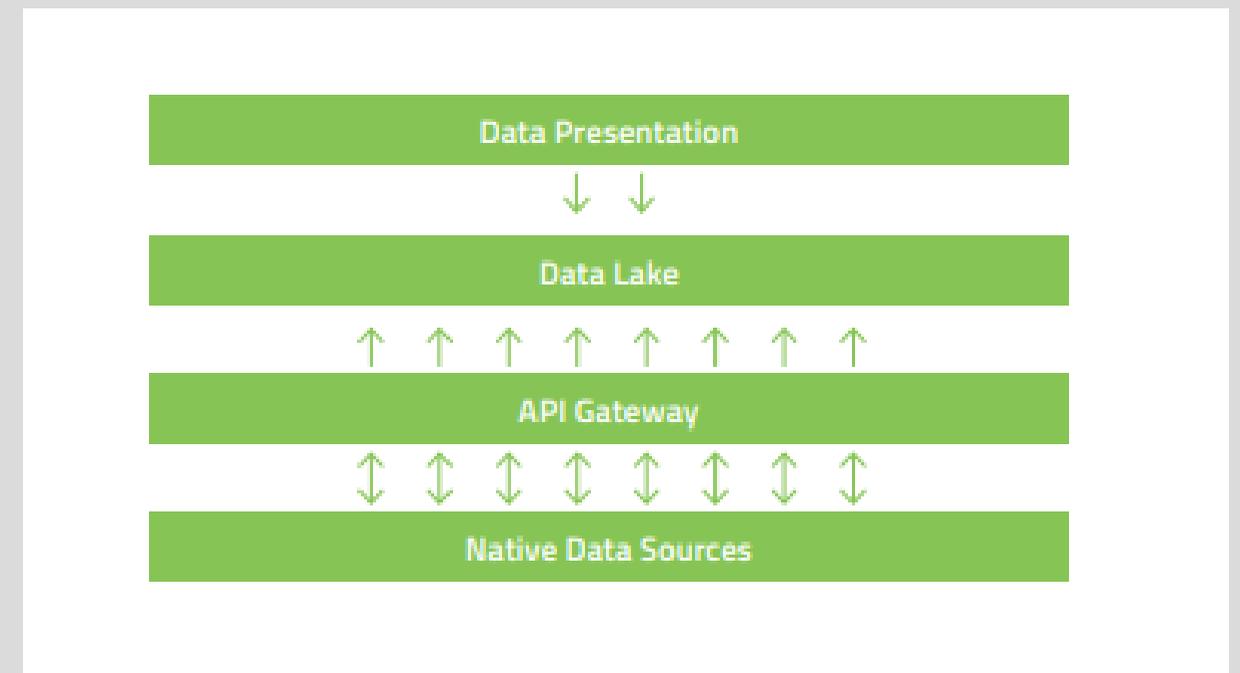
Benefits of Globeteam's method for data projects

Structured method, governance, transparency and security

- Globeteam's structured method ensures that data projects add both value and business anchoring.

- The method works with data projects based on those governance requirements that the company is subject to.

- The method ensures transparency throughout the organisation by visualising clear milestones, as well as technical, organisational and security-oriented dependencies.

- The method draws on use cases, so that the company's values can be taken into account, thereby ensuring the project delivers a specific value contribution.

- The method works with technologies that are based on a needs-oriented perspective. This means that it includes technologies that fit with the use case and the company strategy, possibly with Cloud as the framework.

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SOLUTION: Digital Diversity Intelligence
Watch the VIDEO, which shows the solution
within the retail business
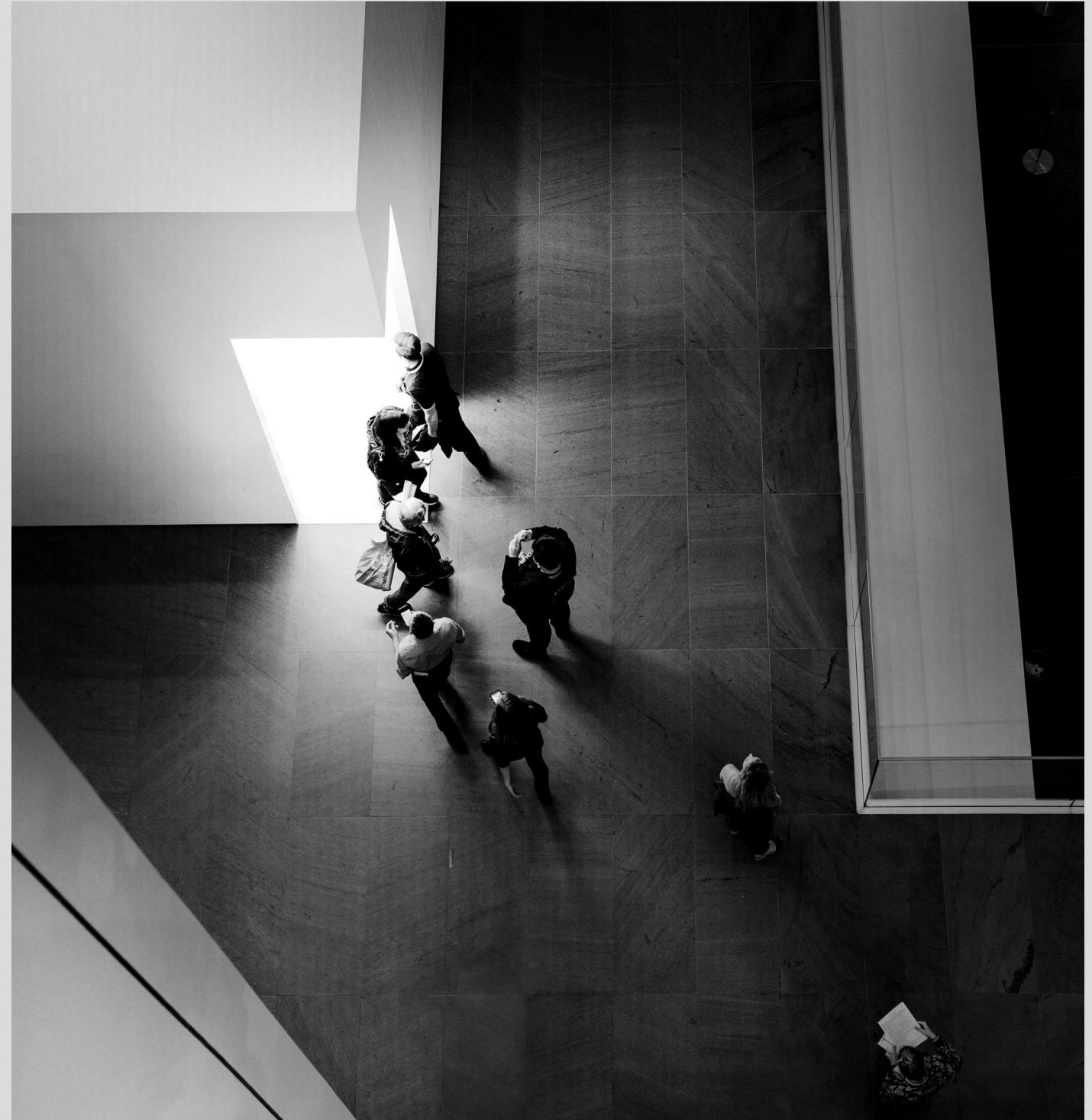
CASE: Digital Facility Intelligence
Consultancy companies want to use data to minimise food waste and optimise the use of buildings

Sustainability is high on the agenda for many companies. We all have to really think about what we can do to save resources in our day-to-day lives. A Copenhagen-based consultancy company wants to use data to reach some of their sustainability goals. This is where Globeteam comes in. We help companies use the existing digital infrastructure within their buildings, and retrieve data through geolocation and mapping technology. In this way, we help our customers to reach their green economy goals.

Minimising food waste

Levels of food waste increase when an office canteen caters for an expected number of diners, which doesn't match the real number of people in the building. Through the use of historical data, statistics and by training a machine learning model, you can fairly precisely predict how many people will be eating lunch in the canteen, based on the number of employees and guests in the building. Food waste can then be reduced, as the kitchen can adjust purchases and cooking accordingly.

Better utilisation of buildings

Data measurements can be used to better understand how the hot-desking concept works. For example, if the buildings' overall capacity is used well enough, or if there are areas with free seating that should be expanded. Management has a feeling for how the hot-desking concept works at the moment. They would like to back that feeling up with data, so that they can bring in targeted initiatives to fine-tune the concept.

Optimisation of meeting room capacity

Location data from employees' phones is used to optimise the use of meeting rooms. The company would like to know more about issues such as: how much meeting rooms are being used; if meeting rooms are booked without being used; and if meeting room capacity is generally higher than necessary.

CASE: Digital Diversity Intelligence
Enriched data from the physical flow will optimise the level of service and customer experience in shopping centres

Retail stores need to be transformed if they are to continue attracting customers. Internet trade has been putting pressure on retailers for years and will continue to do so. A joint venture company, which handles operations, administration and the development of shopping centres in Denmark has initiated a project with Globeteam to tackle this issue. The goal is to start a data project that will lead to a deeper understanding of how customers prefer to shop.

Software is able to read the customers' gender, age, and information such as time spent in the centre.

The data project uses both existing and new data points in shopping centres to gain further insight into the real needs of their customers. It will address questions such as: Where do they spend their time? Where do men spend the most time? Where do women spend most time? What is the relation between the different floors of the shopping centre? How many customers are returning customers?

Artificial intelligence is used to gain a unique insight into customers' location and the mix of shops

Once the retail company has built a better understanding of customer behaviour in the shopping centre, they can then lease out individual stores in the centre in a more targeted way. And individual store owners can, in turn, also attract their preferred customer segment and design a consumer-focused customer experience which cannot be found when shopping online.

Architecture and technical approach

The retail company's solution was designed by Globeteam and consists of an enterprise data platform based on standard Microsoft Azure components. The anonymised data, on the other hand, are retrieved from sources such as WIFI BLE and camera sensors that were installed in the shopping centre. Artificial intelligence and machine learning make it possible to collect very valuable data.

CASE: A corona solution:

A solution that helps the company manage physical distance in times of COVID-19

Many companies, public offices and ministries are currently faced with the important task of ensuring that their workplace is COVID-secure; and that they are comprehensively complying with all relevant safety regulations. But how does a company actually ensure that there are not more employees or guests present in each building than is deemed safe at any given time, for example? Globeteam has helped Danish consultancy companies create an IT solution that makes it easier for them to comply with requirements on physical distancing.
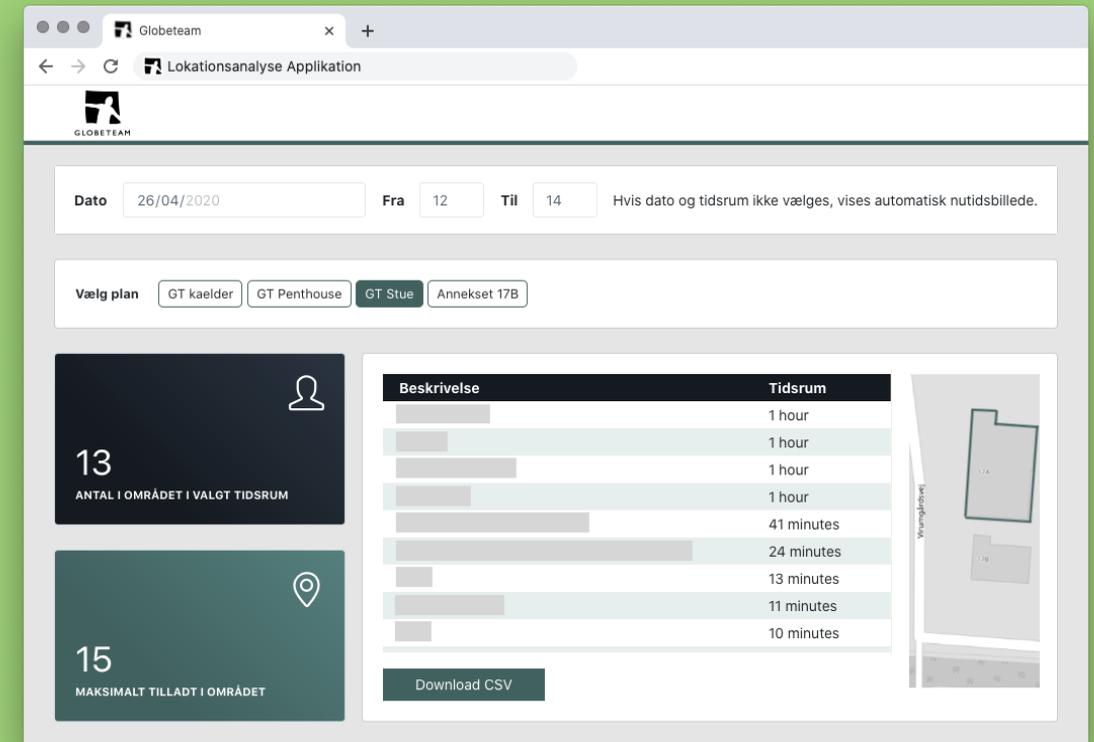
The company complies with requirements on physical distancing

The solution allows all company employees to see how many people are at work and which rooms have the highest concentration of people. This means that an employee can see when there is space in the canteen, or if there are already too many people present in a meeting room or common area.

Dashboard and anonymised data

A simple dashboard provides employees with a graphic representation of observations by building or by floor. If necessary, the solution can be expanded to indicate the number of observations by room, to an estimated precision of within 3.5 metres.
All data are completely anonymised.

The solution is based on existing infrastructure

Our solution supports the company's need to be COVID-secure and to comply with regulations on physical distancing. Through the use of different Microsoft technologies, algorithms can process enormous amounts of data that has been collected from the underlying Cisco infrastructure.

Contact Globeteam

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Ask a question via email: Jacob Elkjær; jae@globeteam.com

Learn more: https://globeteam.com/business-consulting/datastrategi-ml-ai/

Download e-book med interviews af tre ledere om brugen og værdien af berigede data indenfor sundhed, retail og ejendomsbranchen

Download e-book: Få mere ud af jeres forretningsdata – en praktisk tilgang til ML/AI-projekter

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