BI in a Cloud

Data. Analytics. Ease of Use.

Less Time.

Save Ressources.

Reduce risks.

Want to get our Enterprise Data Warehouse up and running quickly, easily and safely? Do you want to save precious human resources, time and money? Do you want to mitigate risk and do more with your data?
Then talk to us.

Daniel Olsberg - Sales Director

📞 **+49 151 15 98 47 75**
✉ **daniel.olsberg@areto.de**

Our world is analytics.
We create value added from your data, turning information into insights.

aquire   integrate   transform   analyse

Cloud BI - Your all in one solution.

How?

The steps are surprisingly easy. We analyse your needs and use proven methods to ingest, structure and organize your data according to your requirements. We create individual reports and visualizations according to your needs. And all that with use of the latest and greatest in artificial intelligence and data science.

We build robust systems that are modular, additive, easy to use and deliver insight according to your needs.

Build what you need, when you need it.

We use a simple unified tool stack to fit your needs. We use Apache Kafka to tap into sql databases and streams to connect to your data sources and then use the areto Data Chef to automatically ingest information and structure them in a Data Vault 2.0 scheme on the snowflake database in the cloud. There you can use Tableau to visualize your data, or hook with your standard BI tool for reporting. There you can use Tableau to visualize your data, or hook with your standard BI tool for reporting.

What does this mean for your needs? Simple data ingestion regardless of source. Super organisation and structuring. Fast and easy querying, data blending, structured, unstruct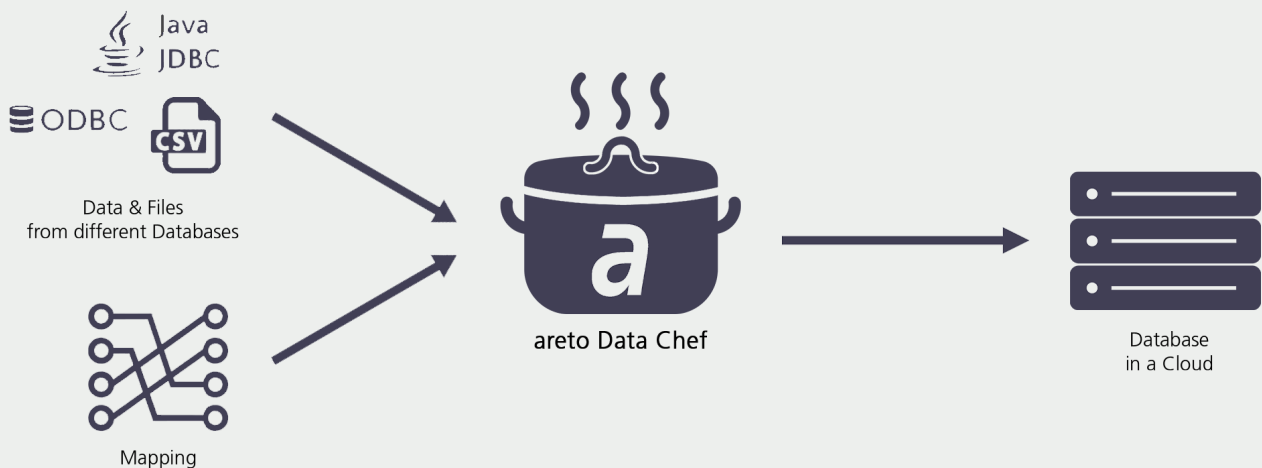ured, big, small, whatever…. Data sharing – build once and use anywhere. Secure data – your data, your encryption, your control. Your reporting and visualisation – the information in your hands. Data science as an integral part of the package. Use your data to create your insights and build them back into your applications.

areto Data Chef

The areto Data Chef integrates data effortlessly. The areto Data Chef is a Data Warehouse Automation (DWA) tool that automates the essential steps for data integration. By just using the interface and mapping files the data models, integration processes, access layer and process control are generated automatically. There are two major benefits here. Firstly, this process saves at least 50% of the implementation effort. By not only reducing implementation time it also increases the data quality by reducing manual errors and makes adding new data simple and easy. It also stores the leaves the data in a full Data Vault 2.0 schema. Data Vault is ideally suited for agile projects where new and divergent data sources are easily integrated without complicated interface work.

The areto Data Chef preps, sorts and stores data from files and relational databases.

The use of Data Vault Methodology and an agile implementation method balances the

areto Data Chef - ease of integration.

need for IT governance with users' needs for easy for data integration and blending. Additionally, the areto Data Chef repository contains all metadata and information on the executed processes and can be queried via SQL and integrated into monitoring solutions.

Apache Kafka for IoT and SQL

We use Apache Kafka, a distributed streaming platform, to ingest data from SQL data sources and to process streams of records as they occur. We use triggers to perform an export from the data source and to load them using the areto Data Chef to ingest them into the Data Vault schema on the snowflake database.

Furthermore, Kafka is used to upload IoT data into the snowflake database, making BI in a Cloud idea for hybrid solutions – combining semi and structured data. We do not believe that there such a thing as unstructured data!

The centre of it all the database in a cloud: Snowflake

There are many providers of databases around – both on premise and on cloud. What factors did we look at when choosing to work with snowflake as our preferred cloud solution? We looked at factors like price, speed, ease of use and fun. Snowflake offers breathtaking performance. It separates compute from storage, so users can scale compute up and down, and on the fly, without delay or disruption and

get the performance you need exactly when they need it. It uses a fully columnar database with vectorized execution, making it capable of crunching demanding analytic workloads. Furthermore, its adaptive optimization makes sure that queries automatically get the best performance possible – no indexes, distribution keys, sort keys, or tuning parameters to manage making Snowflake both easy and fun to use!
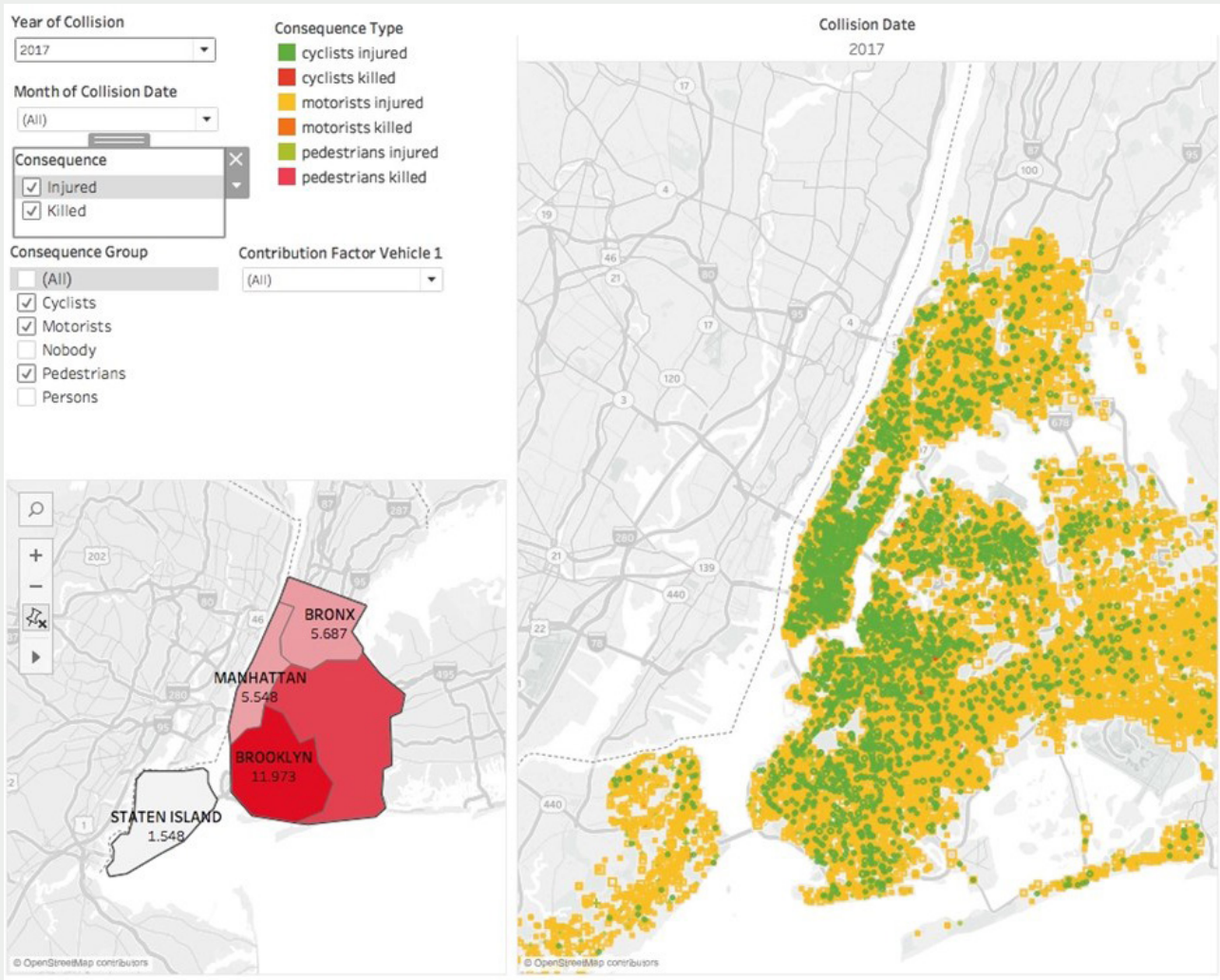

Addition points that convinced us are unlimited concurrency allows multiple compute clusters to operate simultaneously on the same data without performance contention. Snowflake offers simplicity. Users can concentrate on solving business problems rather than managing the database because Snowflake automates tuning making it a zero-management data warehouse as a service. There's no software or hardware to deploy and configure, and Snowflake automatically scales to support any amount of data and concurrency with consistently great performance.

Powerful analytics and visualizations: Tableau

Seeing is believing. After having your data ingested, collated, sorted and stored, we favour using Tableau software to analyse. Tableau

lets you, the user, securely share interactive dashboards, keep abreast of developments and use storytelling to share insights clearly. Tableau empowers the user to ask and answer questions interactively, as well as use advanced analytics, calculations, and statistics all topped with our award-winning visual interface. Tableau partners well with dedicated statistic languages like R and Python to show the data and the meanings and brings its own advanced analytic functions like segmentation and cohort analysis, scenario and what-if analysis, time-series and predictive analysis, as well as sophisticated calculations and statistical functions like nesting basic aggregations to statistical calculations such as standard deviation, mode, kurtosis, skewness, correlation, and covariance.

Example for visualization with Tableau.

Making sense of it all with Data Science
Data Scientists can use open source tools like Jupyter Notebook Server for a multiuser experience governed with a single point of truth. They broaden their analytic scope by using all the data that has been ingested. They are further able, by using the managed self service capability to input new data by themselves. Furthermore, they can run algorithms directly in the database, creating the basis for next best actions for a wider user community.

areto your all in one partner. Process, Methodology, Competence, Infrastructure, Expertise.
areto consulting gmbh is a consultancy specialized in Business Intelligence (BI), Data Warehouse (DWH) and Data Science. areto is a niche provider concentrating on analytics, exploration and storage of data. areto lives and breathes analytics. We understand Business Intelligence to covers all aspects, methods and processes around data storage and repor-

ting; starting from the selection of the right database / cloud solution, its architecture, the design of the ETL and data ingestion, as well as the development of standard and ad hoc reporting with the appropriate use of information design and visualization and continuing to with Data Science and Data Governance. In short, we only do BI!

We have built solutions since 2007, at first with a concentration on traditional technologies. However, with time, we have focused more and more of designing solutions that are agile and innovative. We now always use a Data Vault 2.0 schema and require a flexible database with dynamic storage and the right amount of processing power when we need it.

We firmly believe in the right technology matching to the right requirements. We value giving independent advice and are active in Germany, Austria and Switzerland. We have written many research papers, studies, white papers and presentations based upon our projects and experience that can be viewed and downloaded from our website. Should you require further information, please just get in touch!

Visit us at our Branches:

COLOGNE

areto consulting gmbh
Carlswerk
Gebäude „Labor 3.09"
Schanzenstraße 6-20
51063 Köln
Telefon: +49 221 66 95 75-0
Telefax: +49 221 66 95 75-99
E-Mail: koeln@areto.de

HAMBURG

areto consulting gmbh
Rothenbaumchaussee 27
20148 Hamburg
Telefon: +49 40 22 86 53 20
Telefax: +49 40 22 86 53 23
E-Mail: hamburg@areto.de

NÜRNBERG

areto consulting gmbh
Königstorgraben 11
90402 Nürnberg
Telefon: +49 9 11 14 88 66 77
Telefax: +49 9 11 14 88 66 79
E-Mail: nuernberg@areto.de

BERLIN

areto consulting gmbh
Weichselstraße 34a
10247 Berlin
Telefon: +49 30 54 90 87 51
Telefax: +49 30 54 90 87 52
E-Mail: berlin@areto.de